



## Sustainability and Environmental Statement 2017–2020

Eckes-Granini Deutschland GmbH



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

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Subject area:  
**Sustainability**

Subject area:  
**Environmental Statement**

**ECKES** **granini**  
the best of fruit







## Responsible conduct as a firm component of our corporate strategy

### Dear Reader,

Ecological and social considerations have always played a role in the company history of Eckes-Granini. But sustainable conduct has really begun to develop into a particularly important social issue in the past few years. This increasing importance has thus prompted us to anchor the issue of sustainability into our company-wide agenda. This means that sustainability is a firm component of our corporate strategy, that it is being continuously developed, and that our progress must be traced and reported.

With EMAS and ISO 14001 certification as well as the GRI reporting standards, we are in a position to comprehensively and systematically recognise which environmental issues are relevant for us, how we can exert our influence over them and how we would like to face the challenges that lie ahead.

We have initiated and pursued many different measures in the past three years. In the process, the focus has always been placed on our three core corporate pillars: products, value chain and people.

Against the backdrop of the ongoing sugar debate, we have placed the nutritional profile of our drinks on our internal agenda. For example, with regard to the added sugar in our products, we would like to reduce this amount by 10% across the entire company by 2020.

Thanks to our investments in innovative Plasmax technology, our use of recycled PET and an optimised use of materials when it comes to our caps and bottles, we have also become more sustainable in the field of packaging.

We get 100% of our electricity from renewable energy sources and have been able to reduce our CO<sub>2</sub> emissions at all of our locations.

We have also been able to obtain further transparency with regard to the individual components of our value chain and work together with our suppliers to guarantee sustainable further development – something that is a particularly important factor for continuing international cooperation.

By offering care packages and health services, we have assumed responsibility for our employees and thus made sure that they are the driving force behind our company.

However, we also look beyond our own horizons and have managed to further extend our social commitment – both in our region as well as around the globe.

Together with our employees, suppliers and customers, it has been and remains our daily incentive to become a little bit better each and every day and take the right steps for our future.

And our endeavours have once again paid off. In the CSR Performance Monitoring Study carried out by the EcoVadis Institute in April 2017, Eckes-Granini Deutschland achieved its best result with 70 points (compared to 63 in 2015) and was thus in the top 1% of companies included in the study.

Thinking and acting sustainably provides the motivation and inspiration for us all. We live by sustainability, because we are convinced that we should do the right thing – and because sustainable thinking and acting will pay off for the success of the company in the long term.

With this sustainability and environmental statement, which is geared towards GRI standards, we hope to provide a more detailed insight into what we have achieved thus far, what we are working on and what plans we have for the future.

We hope that all of our readers find it to be an interesting and informative read.

Dr. Kay Fischer  
Managing Director  
Eckes-Granini Deutschland GmbH

Editorial/scope of validity

The following sustainability and environmental statement relates to the organisation Eckes-Granini Deutschland GmbH with its sites in Nieder-Olm, Bröl and Bad Fallingb. bostel.

# Sustainability at Eckes-Granini

*Entirely sustainable in all areas*

- **EcoVadis supplier and partner audits**  
Social issues, quality, environment
- **ZNU (CSC) partners**  
Centre for Sustainable Corporate Management
- **Top-quality packaging**  
Our PET bottles packed full of vitamins
- **Best raw ingredients**  
Only the best of fruit
- **Innovative products**  
With specific health benefits

- **World Vision Partners**  
Ethiopia project
- **Eckes family donations**  
Three projects per year
- **Local commitment**  
Supporting local organisations
- **Employee donations**  
Several local projects
- **Bike rides**  
Donations for children suffering from cancer





– an overview



#### Reducing water and energy consumption

Continuous improvements at our sites

#### Lean & Green

20 % less CO<sub>2</sub> from logistics in five years

#### Packaging

Using fewer materials, more recycling

#### Environmental statement

Audited in line with EMAS

#### Electricity

100 % from renewable energies

#### Reducing accidents

Minus 10 % per year

#### Job and family

Sustainable work-life balance

#### Fair company

For continuous improvements with regard to the workplace and training

#### Health management/HR excellence

Preventive health measures (consultancy and care)

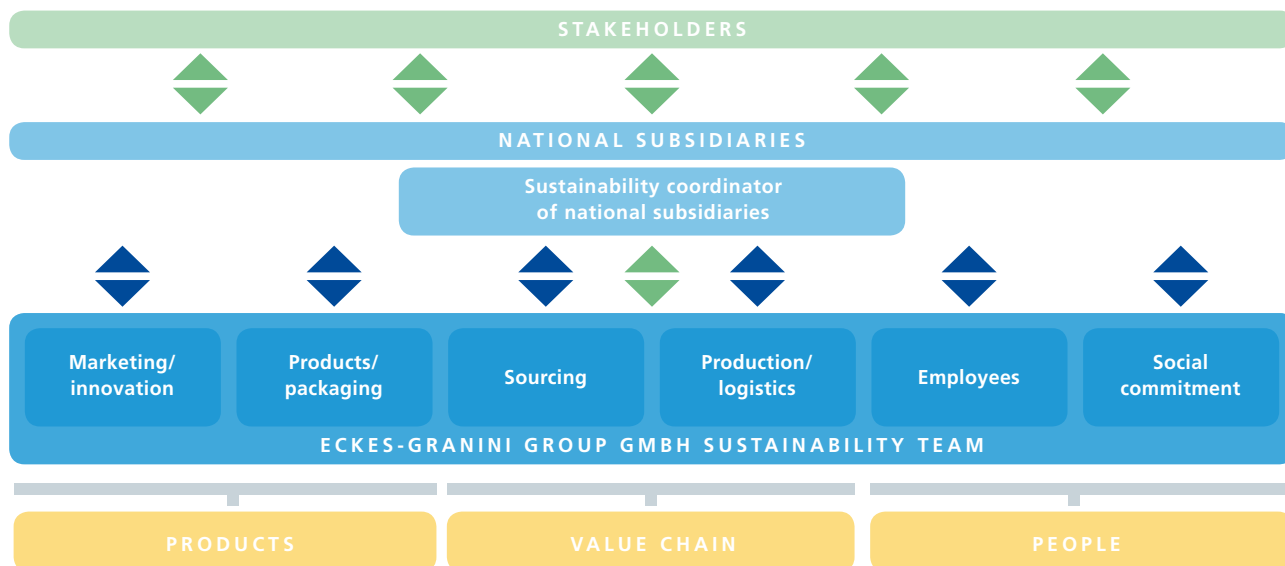
#### Monitoring/EGYM

Drawing upon international standards, transparency and training

# Our sustainability strategy

*We make life more fruitful*

Along with pooling individual initiatives, one of the main responsibilities of the sustainability team is to ensure that Eckes-Granini pursues a coordinated, focused and systematic approach across all countries and functional divisions. As the first step, the team members have established a strategic framework for all measures and projects.



## STATEMENT



We have taken further steps to ensure that we can continue to strategically pursue and constantly expand our present endeavours and measures relating to sustainable business operations in the coming years.

Thomas Hinderer, Chairman of the Management Board of Eckes-Granini Group GmbH

## Corporate management

Eckes-Granini Deutschland is a family company which is structured as a private limited company (GmbH). Managing Director, Dr. Kay Michael Fischer, and the members of the Management Board are responsible for the management of the company.

The most powerful regulatory body of the company is the Supervisory Board with its total of six members. Two of the members are elected by the employees who are entitled to vote in line with the German One-Third Participation Act (Drittelbeteiligungsgesetz); the other four members of the Supervisory Board are selected at a shareholders' meeting. In order to guarantee the autonomy of the Supervisory Board, its chairman must not be an employee of Eckes-Granini Deutschland GmbH.

It is the responsibility of the Supervisory Board to review the annual accounts and the management report of the company as well as the proposal regarding the appropriation of annual profits.

In order to complete this task successfully, the Board receives comprehensive information relating to the corporate strategy and the business processes and is actively involved in corporate decisions.

The Code of Conduct serves as an important guide to the Supervisory Board when making its decisions.

The Code of Conduct outlines the values and principles of the company. This Code of Conduct also serves as an obligatory guide in all areas of everyday work.

# Living by sustainability

## Continuing to develop the approach of the family company

Entrepreneurial responsibility and sustainable manners of working have always been two fundamental cornerstones of our business activities as a family company with a history going back over 160 years. And that is why we at Eckes-Granini have been promoting diverse initiatives that allow us to deliver on our promise to assume responsibility for the products, for the value chain from the fruit right to the glass as well as for the people – our employees as well as people who need support – for many decades.

Our company-wide sustainability strategy, which we put together with great care and which

we are always developing, pays particular attention to our roots as a family company – our innate convictions and strengths, per se.

On top of that comes our commitment to traditional values such as credibility and reliability as well as authenticity, respect, openness and camaraderie, but also flexibility and pragmatism when making decisions and acting. Far-sighted thinking and the desire to pass our business on to future generations are anchored in our genes, so to speak.

### Commitment to sustainable business operations anchored in our purpose

Our commitment to sustainable business operations is also a central aspect of the purpose developed by us (Eckes-Granini guiding principle) in line with which we are able to balance the social, economic and ecological implications of our business activities. Furthermore, we have also outlined in our Code of Conduct that the company as well as its employees must always act in a sustainable and socially responsible manner.

### Aiming for continued sustainable progress

With our strategic approach, we are able to focus on the three key areas – products, the value chain and people – in which we aim to achieve continued sustainable progress. For this reason, we lay down extremely stringent standards and are always looking to set ourselves new goals.

Our approach also incorporates the three aspects that are of great importance to our company:

the quality of the fruit, the values of the family company and the local ties. These factors are then consistently reflected in the initiatives and measures that we pursue and implement in the interest of sustainability.

#### OUR PURPOSE

#### Eckes-Granini guiding principle

*We bring people the best of fruit for a healthy and enjoyable life – that is the guiding principle of Eckes-Granini. This principle is based on our common convictions, our spirit that “we can push boundaries together” as well as the character of the company and its employees. All of our employees are characterised by their courage, their entrepreneurial thinking and their passion, amongst many other things.*





# Living by sustainability

## Partners with expertise to develop a sustainability framework

For us, sustainability is more than just a word; it is an integral component of our company. This means that sustainable manners of acting and thinking must be systematically anchored in the company and continuously developed. Along with our own internal resources and potentials, we also draw upon the support and expertise of external partners to help us to successfully master this challenge.

One of these partners is the Zentrum für Nachhaltige Unternehmensführung (CSC – Centre for Sustainable Corporate Management) at the private University of Witten/Herdecke. The Centre encompasses a partner network of manufacturers, retailers and academics who work together closely on the topic of "Sustainable & Successful Corporate Management" in the food industry. The CSC represents the approach of sustainable corporate management as a dynamic learning process – a view that we also share here at Eckes-Granini Deutschland.

Since 2013, we have been one of the roughly 30 well-known brand-name manufacturers of the CSC and have been able to benefit from this close and trusting cooperation in many different ways.

The CSC sustainability check which we had to carry out at the beginning of our partnership was an important tool in order to take stock of, analyse and further develop our numerous activities in a targeted manner – particularly with regard to our stakeholders and their various interests.

Since then, colleagues from various departments as well as the Management Board have regularly been taking part in CSC working groups and events. The cross-sectoral exchanging of experiences and knowledge with other companies provides us with inspiration and suggestions which we can take forward to make continuous improvements when it comes to sustainability.

In September 2016, we, Eckes-Granini Deutschland, even hosted our own CSC working group on raw materials and we presented the EcoVadis programme as best practice in the field of sustainable raw material procurement.



**Zentrum für Nachhaltige  
Unternehmensführung**  
Universität Witten/Herdecke









# Living by sustainability

## International Brands and EMAS locations



### International brand diversity – with sustainable values

since 1958	<b>hohes C</b>	"hohes C stands for health and care." Healthy supplier of vitamin C for the whole family.
1993	<b>SIÓ</b>	The tradition-rich, delicious fruit juice from Balaton.
1994	<b>granini</b>	<i>granini</i> offers an unprecedented range of varieties, quality and popularity.
1994	<b>YO Sirup</b>	Only the fruitiest of fruits go into the popular Austrian fruit syrup.
2000	<b>Marli</b>	For anyone who prefers to drink beverages made from the best fruit.
2000	<b>Mehukatti</b>	Fruity refreshment for young and old.
2002	<b>Joker</b>	Joker is one of the leading brands on the French fruit juice market and the third biggest brand of the international Eckes-Granini Group.
2006	<b>Elmenhorster</b>	Elmenhorster: guaranteed healthy fruit juice enjoyment.
2007	<b>Brämhults</b>	Freshness, quality and best flavour from Sweden. Freshly-squeezed juices from Brämhults.
2012	<b>Pago</b>	Pago fruit juices: an intense flavour experience.
2016	<b>Rynkeby</b>	Naturally colourful juice diversity. Rynkeby stands for natural juices, a rich variety of flavours and healthy enjoyment.
2016	<b>God Morgon</b>	A complete range of fruit juices for starting your day in the perfect way.





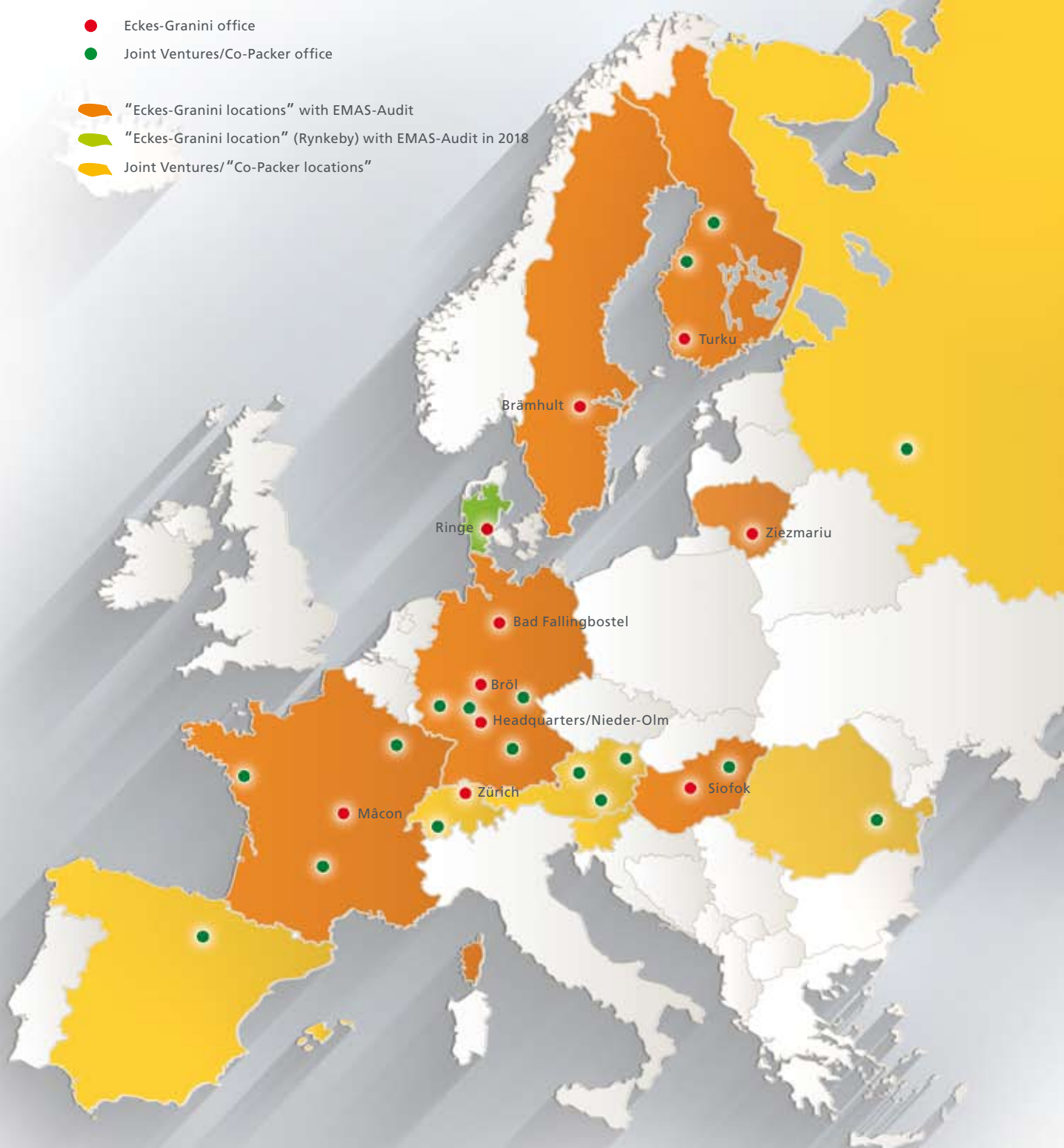
● Eckes-Granini office

● Joint Ventures/Co-Packer office

■ "Eckes-Granini locations" with EMAS-Audit

■ "Eckes-Granini location" (Rynkeby) with EMAS-Audit in 2018

■ Joint Ventures/"Co-Packer locations"



# SCHMECKST DU DAS DIE?





# Products and brands

## Visions with roots

The aspiration that we set for ourselves is as follows:  
 "We want to offer each and every consumer the best of fruit day in, day out for a healthy and enjoyable life." This guiding principle not only runs through various areas of our company - from first-class raw ingredients, through responsible use of resources, to environmentally-friendly technologies - but we also live it out with regard to our brands.

In the age of digitalisation, social media and mobile end devices, customers have an enormous influence on the decision-making processes of companies.

We would like to be aware of the "Consumer Journey",

interact with our consumers as equals and impress them with our brands.

Our brands must offer consumers real added value and, in an ideal world, become an integral part of their lives.

We do everything that we can to engage them with fresh ideas and inspire them with our brands.

This includes coming up with innovative product concepts which are geared towards consumer demand and current trends.

In the process, quality forms the foundations for our healthy and at the same time delicious products.

We ensure that not all of the fruit makes it into the bottle; rather, only selected raw products find their way to the consumer. That is one of the reasons why we only work with suppliers whom we trust and who can guarantee us the best fruit quality. Wherever possible, we try to keep transportation routes short and the environmental impact of all of our processes as small as possible.

All of this allows us to make a valuable contribution to ensuring that our consumers can have a healthy and sustainable lifestyle. After all, we not only want to keep the environmental impact as small as possible, but we also want to convince subsequent generations of the benefits of our products. The same also holds true for our partners in both trade and the gastronomy sector as well as our suppliers who value us as a fair and reliable partner.





### *hoch2 by hohes C* Eckes-Granini stirring up the chilled section

We have been the market leader in the fruit beverage segment and an expert on healthy, 100% fruit juices rich in natural vitamin C for many decades thanks to our brand *hohes C*. But we have also been conquering the chilled section with our expertise since October 2016: under the umbrella of the new brand *hoch2* by *hohes C*, we have been able to offer chilled smoothies and fresh juices with specific health benefits and made from purely natural ingredients for the first time. With this market entry, we have made an investment in the further development and expansion of the important and promising “chilled fruit beverages” category.

Studies show that the topic of health, paired with naturalness, is currently the most rapidly-growing nutritional trend and is driving the market forward. Consumers know that a healthy and balanced diet has a direct influence on their general health. That is why specific fruits and vegetables were chosen for the smoothies and fresh juices, which, along with natural vitamins and minerals, also contain valuable secondary plant compounds, such as chlorella algae, green coffee, cocoa puree, blueberries, açai and avocado.

Thanks to the special combination and careful processing of the ingredients, optimal bioavailability of the vitamins and other healthy substances contained in the fruit has been achieved for the body. We comprehensively tested the recipes for our fresh juices and smoothies beforehand and allowed consumers to evaluate them. The results demonstrated that the unique, delicious recipes of *hoch2* went down rather well not only thanks to their clear health benefits, but also thanks to the way they tasted.

With our unerring sense for consumer needs and current trends, it is now our aim to develop this market and continue to drive it forward with our determination to venture into new territories.







### hohes C PLUS

#### Vitamin D and antioxidants for daily well-being

We also want to support our consumers in their aspirations for a healthy lifestyle with our *hohes C PLUS* range.

Since 2013, *hohes C PLUS* has been making a further contribution to ensuring the daily well-being of our consumers – the popularity of the range has been demonstrated by the pure sales volumes which have made us the market leader in the PLUS juice segment.



In addition to the popular calcium, fibre, magnesium + B vitamins as well as iron varieties, we were able to add two new varieties to our range in 2016:

Vitamin D + B vitamins and antioxidants. Unique in flavour and with an extra portion of the 'sun' vitamin D or indeed antioxidants, *hohes C* has thus once again been able to provide fruity reinforcement which tastes good and which at the same time supports the health of its consumers.

Like the rest of the *hohes C* range, the new varieties also contain 100% juice and impress with their high natural vitamin C content and their well-balanced flavour.



### *hohes C Mild*

#### Full-fruit flavour with less acidity

Naturally mild, with pleasant sweetness and a full-fruit flavour – that is the secret recipe of the milder varieties of *hohes C* which have turned us into the market leader in the “mild” branded fruit juice segment.

With the *hohes C Mild* range, we have been able to respond to the wish of many consumers who like to drink juice with lower levels of acidity, but who do not want to do without the full-fruit flavour.

Mild juices are much in-demand and many consumers are resorting exclusively to low-acid alternatives. Furthermore, our milder varieties are particularly attractive for families with children, because mild juices are especially popular amongst children. Along with the health benefits, the taste really counts. Milde Grapefruit, Mildes Frühstück, Milde Orange, Milder Multivitamin and Milder Apfel as well as the two new varieties Milde Orange mit Fruchtfleisch (containing pulp) and Milder Roter Multivitamin taste particularly mild, but at the same time aromatic and fruity.

With *hohes C Milder Roter Multivitamin*, we have managed to offer a variety that had never before been seen in the mild fruit juice segment. The mild red multi-vitamin juice impresses with its health benefits and its flavour: fewer acids and eight vitamins in an aromatic fruit combination from which the fruity-sweet flavour of strawberries comes to the fore.





## *granini*

### Unmistakable fruit enjoyment for more than 50 years

The *granini* brand has been a unique icon in the market for fruit beverages for many decades.

An unmistakable visual appearance, extraordinary flavour and careful selection of the fruits are what makes the fruit juices and nectars of *granini* so special. It is also thanks to these features that our fruity *granini* range reaches consumers in more than 50 countries around the world on a daily basis.

The brand's success story began back in 1965. Inspired by fruit juices in Italy, *granini Trinkfrucht* was introduced to the market in Germany.

Since then, *granini* has continued to grow successfully. Today, our *granini Trinkgenuss* product portfolio impresses with more than 20 different varieties and comprises both classics such as orange or banana as well as current trend varieties such as our "Fruit of the Year", the blackcurrant variety.

With the *granini Frucht Prickler*, we are also able to offer a refreshing thirst quencher with a full-fruit flavour and natural carbonated mineral water.



From *Trinkgenuss*, through *Frucht Prickler*, to *Die Limo* – *granini* offers exactly the right beverage for each and every taste and is also the number one in the gastronomy sector.







### *Die Limo by granini*

#### **A natural boost in black**

*Die Schwarze Limo* by granini is everything but a normal lemonade: the fourth delicious *Die Limo* innovation guarantees a natural boost with its natural caffeine and a splash of guarana.

The caffeinated refreshment made from tart and sweet blackberries (with 12% fruit) has expanded the successful *Die Limo* portfolio with a further extraordinary variety.

*Die Limo by granini* has been creating a furore since 2013 and has appealed to consumers with its refreshingly different flavour. We have thus been able to bring a "grown-up" lemonade to the market which has re-sparked the desire of adults to drink lemonade.

With a real fruit flavour and tart yet sweet hints, the new variety has completely renewed the segment of added-value lemonades. Since it is completely produced without artificial additives, such as aromas, colourants and preservatives, and is sweetened with cane sugar, *Die Limo* is naturally fresh and not too sweet – a flavour that grown-up consumers particularly value.



Our company has always stood for modern product concepts, something that we have once more been able to demonstrate with *Die Schwarze Limo* and other varieties: with *Die Limo by granini*, we have managed to establish a new premium segment within the lemonade market which has set the entire market back on a path towards growth.







**Simple handling:**  
**Die Limo by granini in reusable crates**

Convenient and sustainable container concepts that make consumers' lives easier are an important part of the DNA of Eckes-Granini. The reusable crates for *Die Limo by granini* impress with their simple handling: for uncomplicated transportation, the crate has side handles and a stable central carrier. The six 1-litre PET bottles can be mixed depending on personal taste and then simply transported.

The robust reusable crate can predominantly be found in traditional beverage stores. Almost half of all lemonade sales in the refillable segment take place in these stores; it is thus a logical and correct step for us to enter this market with the reusable crate.



Ultimately, Eckes-Granini would like to provide "crate lovers" with their normal handling concept with regard to storage and return for *Die Limo* bottles, too.



## ***granini little BIC* (BAG-IN-COOLER)** **Functionality meets design**

In the gastronomy sector, we have been offering delicious *granini* varieties not only in returnable glass bottles, but also in dispenser systems for breakfast and lunch buffets for many years now.

Along with the traditional 2 x 10 litre system, we have also been providing our clients from the gastronomy sector with the smaller *little BIC juice* dispenser since 2014 – currently in three colour varieties. The system has come in useful particularly for smaller gastronomic establishments with fewer guests and smaller flow rates.

**granini®**



Restaurateurs now have the choice between the triple-layered special finish with a sparkling Champagne appearance or a subtler anthracite matt look and a stainless-steel version produced by our cooperation partner Frilich.

With the *little BIC juice* dispenser, guests can easily help themselves to their favourite juice without any waiting times. The service team can register the amount of juice left at a glance and quickly and hygienically refill the dispenser when necessary. There is a choice between *granini* Pink Grapefruit, *granini* Apple, *granini* Orange and *granini* Multi-vitamin – the most popular juice varieties for breakfast or brunch at the current time.

The *little BIC* provides restaurateurs with an intuitive system with a sophisticated design which has already been used over 4,000 times in hotels, restaurants and catering since its market entry. Guests praise the design language and the delicious choice of *granini* varieties and restaurateurs are impressed with the simple operation and high levels of flexibility.

## **SUSTAINABILITY – THE RIGHT MIX MATTERS: BAG-IN-COOLER**

The existing post-mix and pre-mix range has been extended to include a *Bag-in-Cooler* system with 5-litre bags for smaller gastronomic establishments and hotels.







### FruchtTiger

#### Healthy nutrition for children with no artificial additives

Children have a right to a healthy diet. And the less they get accustomed to overly sweet, artificial food and drink products, the better. It is for that reason that *FruchtTiger* comprises 100% natural ingredients – and provides pure flavour which goes down really well with children.

Ultimately, it is our goal to get children accustomed to a natural fruit taste without artificial

flavourings from the very start. The recipes of *FruchtTiger* were thus consciously developed in such a way that they meet the needs of adults and children. Our *FruchtTiger* contains no artificial additives, colourants or preservatives as well as no added sugar. Pure juice and still water come together in several varieties to create a health symbiosis which tastes good, too.

## consumer questions

### Why does juice contain sugar? Is the sugar added to the juices?

All 100% fruit juices in our range contain no added sugars. They only contain the sugar that is already naturally in the fruit.

However, 100% fruit juices cannot be produced from all varieties of fruit, because some fruits are not suitable to be drunk as pure fruit juice due to the high fruit flesh content or the high acid content.

The fruits banana, mango and peach, for example, cannot produce 100% juice due to their natural consistency. Rhubarb, currants, passion fruit and cranberries are also not suitable at all or only to a limited extent due to their high acid content. In order to be able to nonetheless produce delicious and enjoyable beverages from these fruits, they are mixed with water and then sweetened.

That is why these fruit varieties are often produced and provided as fruit nectars.

### Are your juices vegan?

More and more consumers are either vegan or vegetarian. And that means that nowadays we are asked on a more frequent basis than a few years ago whether our products are suitable for a vegan diet.

And we are delighted to say that yes, they are. All of our products are produced without the use of animal products and are suitable for a vegan diet. To ensure that our consumers can recognise this even quicker in the future, we will have our range certified with the "V" label of the Vegetarian Association (VEBU) in the near future. This stamp guarantees that the products have been produced without any animal-based ingredients.

**ECKES granini**  
the best of fruit

IN DIALOGUE







**ECKES** granini

the best of fruit



# Quality management

*The best - for certain!*

**Foundations  
of the Eckes-Granini quality policy**

**Only from  
something good  
can more good result**

## **Quality of materials:**

High-quality products  
can only be  
produced from  
good raw materials.

## **Development:**

We place  
great importance  
on the  
development and use  
of safe recipes,  
processes and  
packaging materials  
that assure  
high quality.

## **High-quality and high-performance equipment:**

Quality-preserving  
and safe production  
methods are  
only possible  
when using  
high-quality  
and high-performance  
process equipment.

## **Mastering the production and logistics processes:**

High-quality products  
originate from production  
and logistics processes  
and not through  
post-controls;  
the greatest possible  
attention must thus  
be paid to  
Pre- and In-Process  
Controls (IPC).

## **Integration of the human factor:**

All efforts are worthless if the staff are not integrated  
into the organisation and if the organisation does not  
aim for high quality.  
All employees in the workplace are responsible for  
quality and performance.





## Quality assurance

Comprehensive quality assurance measures are present in all departments of Eckes-Granini Deutschland GmbH and are continuously being adapted to the current requirements. They actually surpass the existing legal provisions in many regards.



## Suppliers (raw products)

■ We choose our suppliers with the utmost care and continuously check their quality status through regular audits.

■ The specification is the fundamental document for raw products. It is extremely comprehensive, defines all regulations (legal, process, quality) and is part of the contract with our suppliers.

■ This document also outlines the exclusion of genetically modified organisms and allergens in the raw ingredients. These preventive measures are supported by comprehensive inspections on receipt of the goods.





■ We attach great importance to the fact that all of our suppliers of raw ingredients are members of the Voluntary Control System (VCS) of the SGF, an association for industrial self-control within the fruit juice industry.

All suppliers are thus subjected to additional quality inspections and they also confirm their commitment to environmental and social aspects by means of a signed Code of Business Conduct (which was developed and adopted by the European Fruit Juice Association – AIJN).

■ Since 2015, we have also been systematically assessing the sustainability commitment of all of our suppliers and are working towards continuous improvements in this area.



## SGF FKS membership

### MINIMUM REQUIREMENTS FOR THE FRUIT JUICE INDUSTRY AGREED

The SGF is an international association for industrial self-control in the fruit juice industry. It promotes the safety and quality of the inspected products and fights against unfair competition. It also offers raw ingredient producers, traders and bottlers the opportunity to participate in the Voluntary Control System (VCS).

In order to receive this certificate, the company is inspected on an annual basis by an independent SGF auditor who assesses the hygiene conditions, takes samples, carries out traceability tests and also checks compliance with other SGF regulations and provisions such as the Code of Business Conduct and the Code of Labelling. The samples are analysed by approved laboratories according to the parameters selected for the risk analysis. Only if all of the conditions are fulfilled will the company pass the audit.

The system is intended to provide the participants with greater certainty when it comes to purchasing semi-finished goods and protects the industrial sector as a whole against dishonest and unfair competition.







## Processing (dilution/bottling)

■ We are constantly updating our HACCP concept (Hazard Analysis and Critical Control Point), something that guarantees maximum food safety by thoroughly analysing all potentially critical aspects of the production process.

■ We support the entire production process with an extensively automated in-process control system. All quality-relevant process parameters can thus be monitored on a permanent basis. A product may have to pass up to 50 tests throughout the entire production process.

■ We implement a comprehensive hygiene concept for cleaning and disinfecting the production facilities and the production environment and for the hygiene of our staff. Microbiological checks in our own laboratories guarantee a flawless and safe hygiene status.

■ Our aseptic filling of juices and fruit beverages in PET bottles is guaranteed by an ultra-modern, automated microbiological control system.

■ An international, cross-functional team of experts is involved in the continuous improvement of all aseptic-relevant issues. This ensures that we can minimise the risk of production errors, something that makes a contribution to reducing the amount of waste and error costs.





## Quality management

■ We continuously train and motivate our employees towards committed quality assurance in the framework of comprehensive training sessions which are redefined on an annual basis.

■ We also plan new projects which result in further quality improvements on an annual basis. We do this in close cooperation with our colleagues from the European Eckes-Granini network.

■ We perform both internal and external audits based around international standards in order to discover any weak points and to support our continuous improvement process.

■ We pursue a two-part audit strategy based around international standards. In addition to regular internal audits conducted by the Eckes-Granini Group GmbH, we have our high quality standards verified by external IFS certifications, which have regularly produced a "first-class" result.

■ Thanks to our established computer-assisted systems, we are able to guarantee complete batch traceability and to ensure that every Eckes-Granini product that leaves our sites in Germany can be traced back to the individual raw ingredients and packaging.

We can also precisely track the products right until they reach the customer thanks to a barcode system on the finished goods (in line with the international EAN128 standard).

■ A hazard management system with a crisis committee and regular team meetings has been developed specifically to ensure that any potential crisis situation can be identified and avoided in advance and/or crises can be professionally managed and any damage can be limited.

■ We actively participate in technical and quality assurance working groups organised by national and international industry associations.



## Consumer questions

### Why does it say "rich in natural vitamin C" on the *hohes C* bottle?

We place great importance on having a high natural vitamin C content in our *hohes C* juices. All *hohes C* juices are rich in natural vitamin C which mainly comes from the oranges and the acerola fruit. Just one glass (0.25 l) will meet your daily requirement of vitamin C.

### How does Eckes-Granini manage to guarantee the stated amount of natural vitamin C in a *hohes C* bottle?

We offer our "Vitamin C Guarantee" for all varieties of *hohes C*. For this purpose, we have agreed corresponding specifications with our raw ingredient suppliers who guarantee us a specific amount of vitamin C in the oranges and in other fruits (e.g. acerola). In order to check that this is the case, we carry out many tests and also look, for example, at how we can optimise transportation and storage to ensure that the quality is maintained. We bottle the juice carefully with the latest technology and only use high-quality packaging that optimally protects the juice and its valuable ingredients and nutrients.

**ECKES granini**  
the best of fruit

IN DIALOGUE





# Research and development

## Shaping our future today

Getting the best out of fruit each and every day for a healthy and enjoyable life – that is what we, at Eckes-Granini, would like to offer to consumers with our juices, nectars and fruit beverages.

In order to fulfil this high demand, we work in many fields with great commitment – no matter whether with regard to new product concepts and recipes, to product safety and quality or to saving and optimising packaging materials.

Eckes-Granini is already well on the way to achieving its ambitious goals when it comes to the systematic saving of packaging materials, to the use of recycled and bio-based materials as well as to the reduction of the final packaging weight.

By introducing new packaging technologies such as “Plasmax”, we want to continue to improve the way in which we pack and protect our high-quality juices in the future. Of course, all of our drink bottles contain no plasticisers.

Eckes-Granini gets its fruit from all over the world – and always from the places where the fruits naturally grow best and thus have the best quality.

However, we only work with certified and regularly audited suppliers with whom we generally enjoy long-standing business relations, which are optimised on a continuous basis. In Bröl, Eckes-Granini even operates its own pressing plant with extremely short transportation routes for apples from the region.

The health benefits of our recipes and product concepts are playing an ever-greater role for the consumer. With innovative market launches, such as *hoch2* and *hohes C PLUS*, Eckes-Granini has been able to prove its trend leadership in the field of fruit beverages for health-conscious nutrition.

In this context, we have also set ourselves clear goals for the reduction of added sugar in our nectars and soft drinks.





# Our fruit beverages

## Recipes for health-conscious nutrition



With *hohes C*, Eckes-Granini has been the market leader in the segment of fruit beverages and experts in healthy, 100% fruit juices rich in natural vitamin C for many decades. Study after study has shown that the trend is very much towards a healthy and natural diet for consumers.

Most consumers are now aware of the direct impact of a well-balanced diet on their health. That is why we would like to support our customers in their aspiration to pursue a healthy lifestyle with our constantly developing product concepts.

Eckes-Granini has thus set itself the goal of reducing the added sugar in its nectars and soft drinks by 10% on average by the year 2020. In all of our product categories, we are also paying particular attention to the health benefits and attempting to reduce the calorie content.

We are on the right track here, as our innovative products demonstrate. A good example is our new brand *hoch2*.

The chilled smoothies and fresh juices provide very specific health benefits and are produced from purely natural ingredients.





Along with natural vitamins and minerals, the carefully selected fruit and vegetables in *hoch2* also contain secondary plant compounds. Thanks to the special combination and careful processing of the ingredients, an optimal bioavailability of the vitamins and other healthy substances contained in the fruit has been achieved for the body.

Since 2013, *hohes C PLUS* has also been contributing to guaranteeing the daily well-being of our consumers. The recipe for success:

100% juice and a well-balanced flavour with specific health benefits. The varieties range from calcium, through fibre, magnesium + B vitamins as well as iron, to 'sun' vitamin D + B vitamins and antioxidants. Thanks to this impressive product concept, Eckes-Granini is now the market leader in the PLUS juice segment.

Eckes-Granini has also secured its position as market leader in the trend segment of mild fruit juices. Many consumers now prefer to opt for juices with a reduced acid content. With the *hohes C Mild* varieties, we have managed to achieve a full-fruit flavour across the whole range whilst reducing the acid content.

With our unerring sense for consumer needs and current trends, it will continue to be our aim in the future to successfully establish health-conscious and innovative new product concepts on the market.

The campaign initiated by the European Fruit Juice Association (AIJN) in 2016, "Fruit Juice Matters", also provides valuable information regarding the contribution of fruit juices to a healthy diet.

An international committee of renowned scientists serves as a consultancy body on important issues around nutrition and health with regard to the consumption of fruit juices.





# Sustainability

## our packaging: light, innovative, environmentally friendly

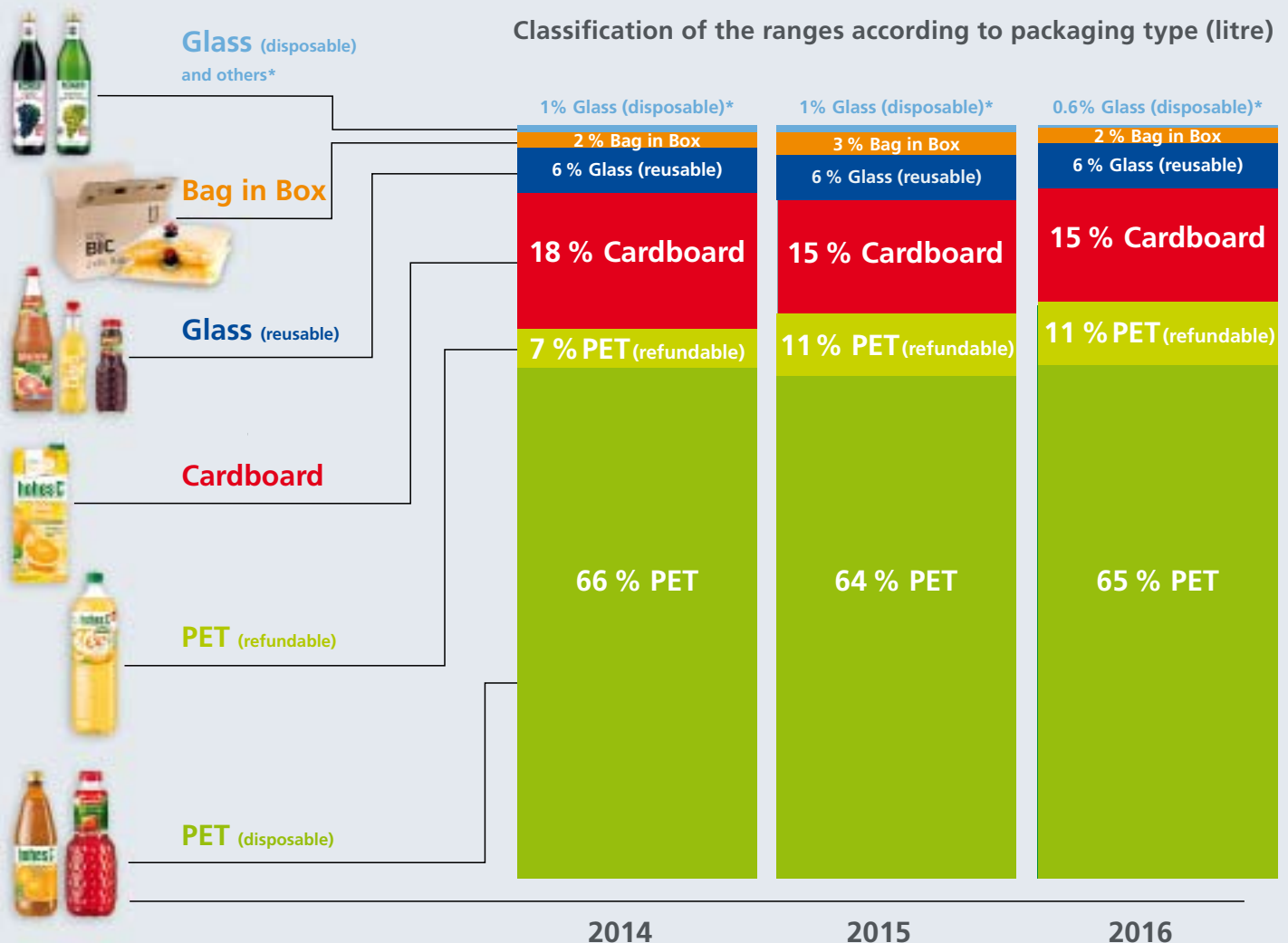
Of course, the content matters – but it is not the only thing. At Eckes-Granini, we are always thinking about how we can package our high-quality juices in an optimal manner. And in such a way that the environment and resources are protected as far as possible. In the process, we focus particularly on the systematic saving of packaging materials, the use of recycled and bio-based materials as well as the reduction of the final packaging weight.

By introducing new packaging technologies, we want to continue to improve the way in which we pack and protect our high-quality juices in the future.

By 2020, the Eckes-Granini Group is striving to reduce the weight of caps by 20% and the weight of PET bottles by 10%. Moreover, we intend to increase the proportion of recycled PET (rPET) used to a total of 25%. Half of this goal can be achieved with the use of rPET for the 1-litre *hohes C* bottles.

In order to fully achieve the goal, all other PET bottles by Eckes-Granini will also have to be manufactured with rPET in the future.

Classification of the ranges according to packaging type (litre)





Eckes-Granini will also introduce bio-based caps for the cardboard packaging by Tetra Pak in the year 2018. We have already made significant progress in all of these projects and are on the right track. As far as the use of innovative packaging technologies is concerned, Eckes-Granini is taking a pioneering role. For example, we were the first European company to introduce the new Plasmax technology for juices, which combines all of the advantages of PET and the glass bottle (see pages 32/33).

In order to guarantee the maximum possible safety of all of the plastic and cardboard packaging used by Eckes-Granini, we have been working closely together with the renowned Fraunhofer Institute for Packaging in Freising for 15 years, where our products are thoroughly and continuously tested and analysed with regard to any potential risks. Furthermore, Eckes-Granini has established its own analysis method in the field of applied research with which the safety of PET packaging can be assessed.

For this purpose, we use our ultra-modern analytics system – gas chromatography with mass spectrometers.



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



<span style="color: yellow;">■</span>	Polyethylene	21 %
<span style="color: blue;">■</span>	Aluminium	4 %
<span style="color: red;">■</span>	Cardboard	75 %

For our packaging solutions, we are pursuing the goal around the world of only using cardboard from responsibly managed sources. We are able to guarantee this by means of the certification of all Tetra Pak® locations in line with the standards of the Forest Stewardship Council® (FSC®).

This ensures that we are able to support Eckes-Granini Deutschland in the realisation of its sustainability goals and make this commitment visible with the FSC® stamp on our cardboard packaging for the high-quality products manufactured by Eckes-Granini.

Caroline Babendererde  
Manager Environment  
Tetra Pak GmbH & Co KG



S T A T E M E N T



# Innovative PET bottles packed full of vitamins

*As light as PET - as good as glass!*

*The innovative Plasmax coating procedure combines all of the advantages of both PET and glass bottles:*

*easy handling, optimal protection of vitamins, fresh flavour - and it is 100% recyclable.*

*Eckes-Granini is the first European company to have introduced this new Plasmax technology for juices..*

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## WHAT IS IT?

The KHS Plasmax coating procedure is what lies behind the technology. The inside of the PET bottle is finished with a wafer-thin, pure layer of glass which not only reliably protects the contents, but also looks attractive to the eye.

Thanks to the unique Plasmax procedure, it can be guaranteed that the layer of glass is always firmly attached to the PET under all circumstances and that it stays exactly where it belongs – on the inside of the bottle.

The thin, highly resilient layer of glass guarantees that the vitamins and flavour can be protected in the best possible manner. This ensures that the contents remain fresh and packed full of vitamins for longer. Thanks to the protective layer, no oxygen or other substances can get into the PET bottle and no valuable ingredients can escape.

The handling of the bottle remains the same – it is still light and break-proof.



1.

### VACUUM STAGE

The bottles blown from the raw materials are directed to a vacuum chamber.



2.

### INSERTION STAGE

The Plasmax layer is inserted into the inside of the bottle in a gaseous state.



3.

### ATTACHMENT STAGE

The coating is attached by means of microwaves. The bottles are then ready for filling.

## 100 % sustainable

We have two Plasmax coating systems at our sites in Hennef/Bröl and in Bad Fallingbostel. It is our goal to coat as many as possible of the bottles that are filled at these two sites with the innovative Plasmax technology.

The system was put into operation in Bröl in 2010, whereas the system in Bad Fallingbostel came later, in 2016. The innovative systems help us to conserve resources; for example, in the future, we will be able to use 25% recycled PET (rPET).



# The first 100% recyclable bottle packed full of vitamins!

100 %  
recyclable

The PET bottles with  
Plasmax coating are  
100% recyclable.

This allows sustainable production  
without having a negative impact  
on the recycling circuit.

Top-quality  
PET bottles  
with crystal  
clear advantages:

- Optimal  
product protection
- Freshness  
and long shelf life
- Protection of vitamins
- Low weight
- High degree  
of break resistance
- 100 % recyclable
- Clear visual appearance



## Who is behind this technology?



Three questions to  
Bernd-Thomas Kempa,  
Managing Director of KHS Plasmax GmbH

### Mr Kempa, what were the reasons behind developing the procedure?

The development of the coating  
procedure was originally started  
for highly sensitive products in the  
field of medicine in order to protect  
the particularly sensitive substances  
contained within the products.

Since then, we have continued to  
develop it as the Plasmax procedure  
for the food and beverage industry  
under the generic term of FreshSafe-  
PET®.

The product, bottled in such a  
coated container, offers greater  
freshness and flavour over longer  
periods of time and is thus subject  
to increased product protection.

### But why does a PET bottle actually need this kind of coating?

Put simply, the procedure combines  
the advantages of a PET bottle with  
those of a glass bottle.  
Nothing can get into the bottle  
and nothing can escape.

The wafer-thin and highly resilient  
layer of glass on the inside of  
the bottle guarantees long-lasting  
freshness, a great flavour and  
optimal protection of vitamins.

### Is the bottle still recyclable with such a coating?

Yes, absolutely. And it actually  
has a major advantage.

As the technology does not require  
the use of any additives, the  
recyclability of a Plasmax-coated  
bottle is 100% guaranteed.

The procedure has thus already won  
many sustainability and packaging  
awards, something which we are  
of course delighted about.

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# PET bottles

## Questions and answers

Eckes-Granini only buys its packaging materials from approved suppliers with whom it enjoys long-standing business relations. After all, as a producer of branded items, we are not only concerned that the contents are of the highest quality, but the materials used for our beverage packaging must be, too. As far as drink bottles are concerned, the majority of them are made out of the plastic polyethylene terephthalate, better known as PET. Time and again, we receive questions from consumers about our PET bottles. Here are some of the most important answers.



## Consumer questions

### Do your PET bottles contain plasticisers?

The PET bottles used by Eckes-Granini contain absolutely no plasticisers. However, many consumers think of plasticisers when they think of the plastic PET due to the “phthalate” at the end of its name. These are actually a permanent

subject of public discussions, mainly because some of them are alleged to act in a similar manner to hormones. However, no plasticisers (phthalates) are used in the production of our PET bottles.

### Do PET bottles contain bisphenol A?

No, the Eckes-Granini PET bottles contain no bisphenol A. Nevertheless, the substance can be contained in objects made out of plastic, even in those that come into contact with food and drink products. Examples of this include drinking cups, plastic dinnerware or even the inner

coating of cans and tins. The substance belongs to a particular group of substances that can act similarly to hormones (oestrogen) and predominantly serves as a raw material in the manufacturing of plastics.

### Why do you not offer juices in glass bottles?

There are many different factors behind this, some of which also relate to the bottling technology. However, an essential point for us is that glass bottles require more energy when it comes to manufacturing and logistics than the lighter cardboard packaging and PET bottles. The empty glass bottles must be transported to the bottling plant, the filled bottles to retailers, etc. This requires a not insignificant amount of fuel and energy due to the high weight and transport volume.

Various assessments have shown that (reusable) glass bottles are only actually environmentally friendly if they are manufactured and purchased regionally and if the transport routes can thus be minimised. However, we do offer a reusable glass system for the gastronomy sector, for example, since this sector has different habits of use. We always attempt to find the best solution for each and every situation.







## How are PET bottles recycled?

The beverage packaging of Eckes-Granini can join the recycling circuit by means of the yellow bag and yellow bin, as well as deposit machines. The recycled PET granulate (rPET) yielded by the process is an extremely sought-after commodity for many different industries.

At Eckes-Granini, we also use up to 50% recycled PET for our drink bottles and want to continue to increase the proportion of rPET. This will ensure that we can make a significant contribution to the sustainable use of our resources.

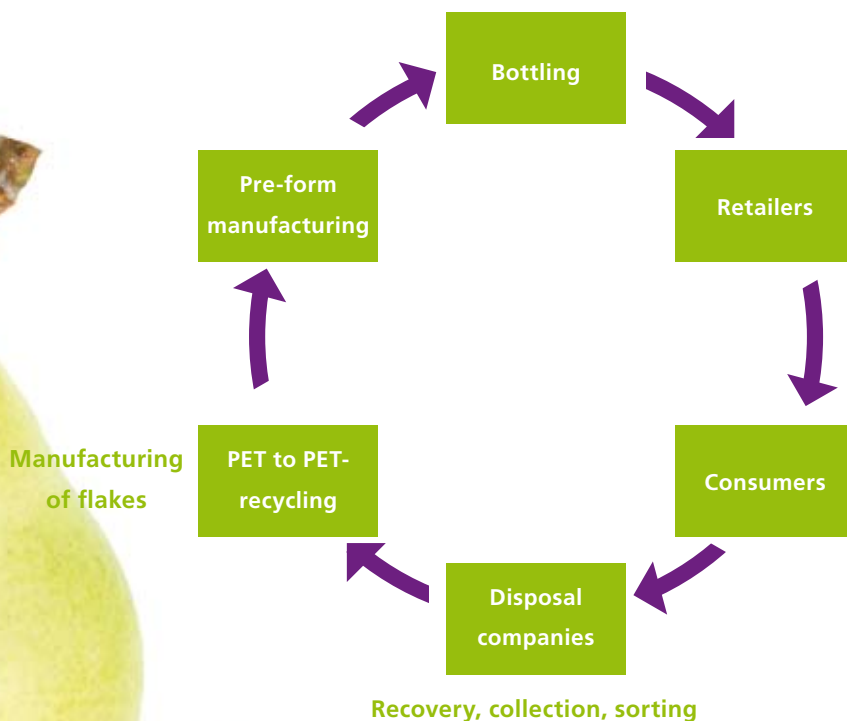
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the best of fruit

IN DIALOGUE



## Life cycle of an rPET bottle

### Manufacturing of the bottle



Recovery, collection, sorting

## Value chain

### Domestic pressing - how the apple reaches the bottle

#### If the apple tastes good, then the juice will also taste good!

That is why the quality of the raw ingredients takes top priority for *hohes C* apple acerola and *granini Trinkgenuss* naturally cloudy apple. In order to guarantee maximum freshness as well as this quality, we use various regional apple varieties and orchard fruits. This ensures that the fruit only has to be transported over very short distances to our pressing plant in Bröl – good for the environment and for the quality of the apples.

#### But how are the apples processed?

After the fruit has arrived at our site, they immediately pass into the hands of our experienced employees. The apples are inspected before they are unloaded, then washed, chopped and finally freshly pressed. The resultant juice is then further processed into a naturally cloudy semi-concentrate and stored in our in-house cooling tanks.

#### The advantages of this gentle production process

Nutrients and active substances are preserved in the juice and we are also able to guarantee that the consumer gets consistently high quality beyond the harvesting period.

Incidentally: 100% of our apples are used. The juice yield is around 80%. The pressed mash from peels, pips and remaining fruit flesh is the so-called pomace. We pass this on to regional farmers for use as animal feed.

This ensures that the use of apples for apple juice production is the perfect example of a modern closed-loop economy.

#### Best raw ingredients from selected partners

Since our own capacities and resources cannot cover our requirement for apple juice the whole year around, we also turn to long-standing, reliable partners who we know will supply us with the best quality. One of these partners is VOG in South Tyrol.



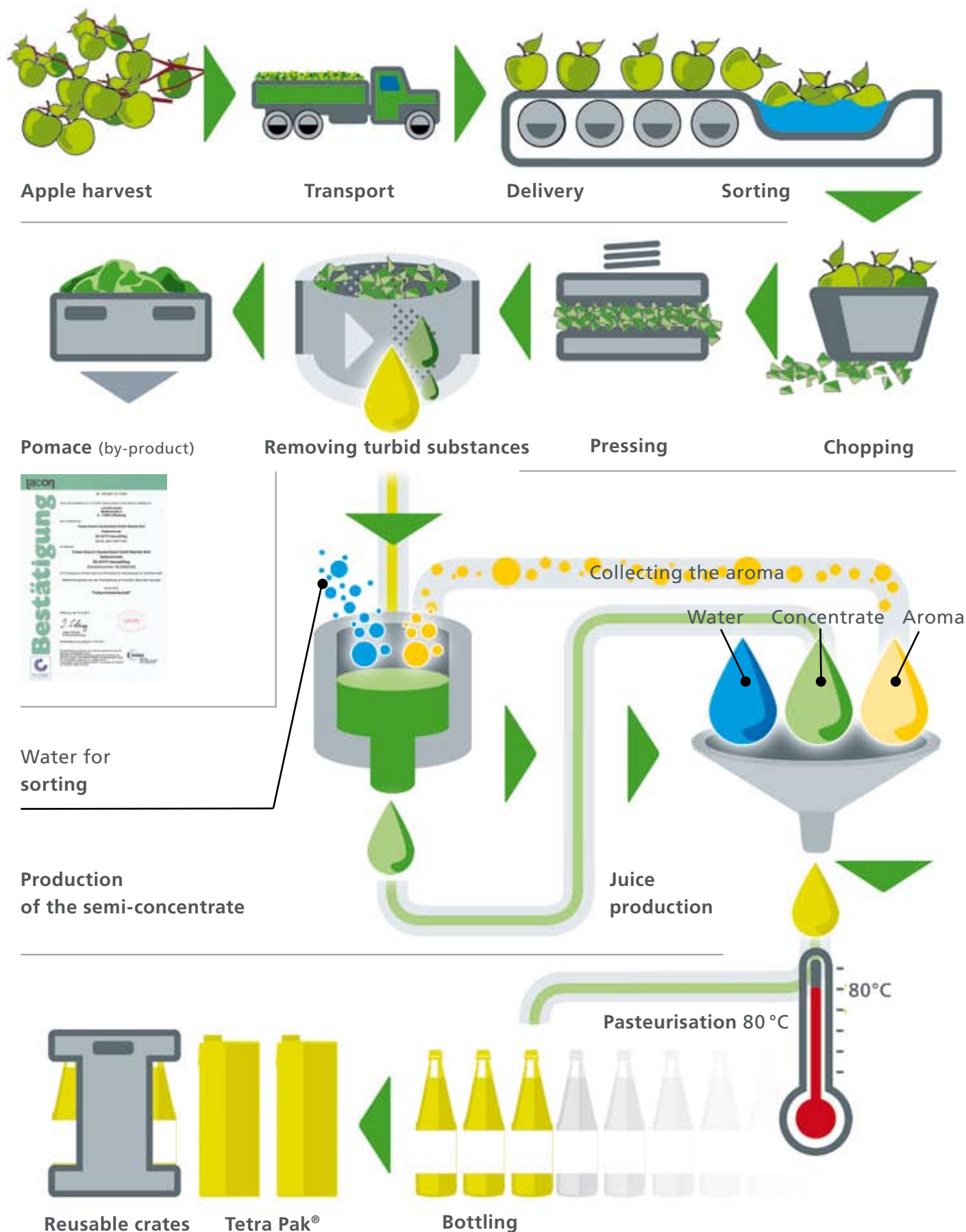
South Tyrol is the land of apples and indulgence. Thanks to our direct contact with more than 12,000 farmers and their families, we are able to guarantee an environmentally friendly and efficient production of apple juice with short transportation distances from the harvest to delivery. We are thus able to ensure that, along with their top quality, the fantastic Eckes-Granini products are sustainably produced and can be completely traced right the way back to the farmer.

Franz Varesco, Chairman VOG PRODUCTS



# Fruit juice production

## Fruit juice from fruit juice concentrate



# Orange juice from Brazil

## From the tree to the bottle

Orange juice is one of our most popular juices. We guarantee the high quality of our orange juice by setting high standards in the selection of the fruit and its processing. In this section, we will show you how orange juice is produced from orange juice concentrate. The process is a good example of a sustainable production procedure.



### Orange harvest


The journey begins in Brazil where particularly aromatic varieties grow, such as Pera Natal and Pera Valencia. We find it important that the fruit has a high vitamin C content along with a full-fruit flavour. In regular dialogue with our long-standing partners in Brazil, we also place great importance on sustainable cultivation and on compliance with ecological and social standards.



### Retailers and consumers

The journey comes to an end and the juice has reached its destination.

The bottles are now supplied to supermarkets and will soon reach our customers.



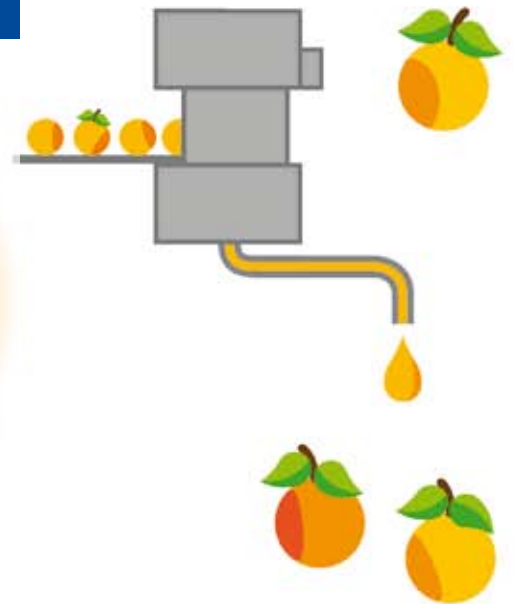


## Pressing the oranges

The oranges are picked and transported to the nearby processing facility.

They are first washed and then individually pressed in a special procedure in which the juice does not come into contact with the peel. The fruit flesh is separated and stored in the process.

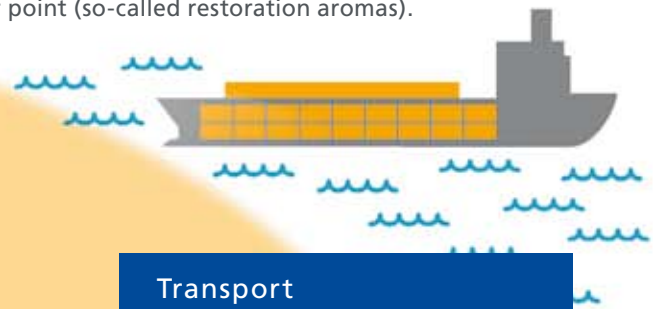
The orange peels left behind are chopped and pressed into pellets which are used as animal feed.



## Production of the juice concentrate

Water is carefully removed from the pressed orange juice under a vacuum and at low temperatures. This water is reused. In the first step, it is used to wash the oranges and then subsequently for watering the orange plantations.

Once the water is removed, you are left with the fruit juice concentrate, i.e. the pure fruit extract, which is reduced to approximately one sixth of the previous juice volume. In this process, the natural orange aromas are also captured, which are then added back to the juice at a later point (so-called restoration aromas).



## Juice production

At the bottling plant, the restoration aromas and specially prepared drinking water (the same amount as was removed beforehand) are added back to the concentrate.

This gives rise to a 100% fruit juice. The fruit flesh may also be added – depending on the juice. The juice is then gently filled into cardboard packaging and into PET bottles at low temperatures. This ensures that the valuable ingredients, the vitamin C content and the aromatic flavour can be preserved.



## Transport

The fruit juice concentrate, the fruit flesh and the orange aromas are now refrigerated and transported to the bottling plant.



# Value chain



## Consumer questions about fruit cultivation

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IN DIALOGUE



### How sustainable is your fruit cultivation?

Sustainable action is important to us in many respects. That is why we only work with approved suppliers with whom we have generally enjoyed long-standing business relations. All of our suppliers are members of the SGF (sure – global – fair), an independent controlling system in the fruit juice industry which conducts annual audits. Furthermore, the independent EcoVadis

institute assesses and audits our suppliers and logistics partners from an environmental and social point of view on behalf of Eckes-Granini. In addition to that, we conduct a Green Check on all transportation companies on an annual basis. It is our overarching goal to guarantee a continuous improvement process.

### Where do the fruits for our juices come from?

We get our raw fruit ingredients from all over the world and always from the place where they naturally grow best to ensure that we can provide the best quality. Where the fruit comes from can vary from harvest to harvest; in general, we get our raw ingredients from the following countries:

We get the majority of our oranges – and our acerola – from the main cultivation area of Brazil. Passion fruits generally come from Ecuador, lemons from Argentina and Spain. Bananas and pineapples primarily come from Costa Rica, mangos from Peru and India.

We get our chokeberries, elderberries and blackberries mainly from Poland. The grapes come from Italy, Spain and France. We get our apples mainly from Germany, Belgium and the Netherlands. The pears and nectarines that we use come from Italy, whilst the carrots come from Germany.

Regardless of where the fruit comes from, only if a raw ingredient has passed all of our strict tests with regard to flavour, substances and microbiological factors will it be used in our juices.

consumer questions





# Sustainability for orange cultivation

*In close cooperation with our suppliers*



Photo with group of people: Susanne Schmelzle, who leads our raw material inspection department and the quality laboratory, and Dr. Karl Neuhäuser, Director of Quality & Sustainability, visit suppliers at an orange plantation in Sao Paolo.

Most of the oranges for our juices grow under the warm sun in Brazil where optimal conditions prevail the entire year round, guaranteeing a fully ripe and fruity flavour of the oranges!

However, the oranges must not only taste good; they must also provide the best possible qualities and be produced sustainably. In order to ensure that these criteria are fulfilled, we always speak personally with our suppliers and visit orange plantations over in Brazil.

The organisation at the plantations – from the cultivation to the production of the orange juice concentrate – is precisely coordinated. The needs of the local workers are also taken into consideration. This starts with intensive staff training and also comprises guaranteed minimum wages, protective clothing and flawless equipment.

No matter whether the social conditions in the businesses are good and meet international standards, there is always room for improvement: in some cases, purchases of third-party suppliers are necessary. These generally small and medium-sized farmers are not yet able to meet the standards. In order to address their weaknesses, the sustainability initiative of the European Fruit Juice Association (AIJN) and the Corporate Social Responsibility (CSR) platform has been working with Brazilian suppliers, European bottlers and food retailers since 2013. It is their goal to develop a sustainability concept which also provides operators of small businesses with resources and assistance in order to drive forward positive development. Eckes-Granini is also a member of this initiative.







# Value chain

## Always a step ahead with innovative production technologies

The cold-aseptic PET filling line put into operation in 2016 has had an extremely positive impact on the sustainability balance sheet of the Bad Fallingbostal site and thus of Eckes-Granini Deutschland in general. The savings of approximately 50% of water and energy alone speak for themselves!

After two years of planning, installation and validation, the Bad Fallingbostal location now has one of the most modern systems for the production and cold-aseptic filling of PET bottles – including the innovative Plasmax coating procedure (see pages 32/33) – in the world.

More than 50 lorries supplied materials which were processed by a large number of technicians over hundreds of working hours. However, the effort was certainly worth it: with an impressive capacity of 30,000 bottles per hour and highly variable palletisation for the different containers (six bottle shapes and sizes!), this investment – amounting to a total of approximately 16 million euros – forms a perfect combination of efficiency and flexibility.

In fact, the new system for the beverages and syrups of the *hohes C*, *granini* and *YO* brands is a real all-rounder; it can bottle both still and carbonated beverages – with or without fruit pulp – and even syrup, too.

The system has proven to be equally flexible for the caps; after all, the lids of the *hohes C* bottles vary massively in diameter to the lids of the *granini* bottles, not to mention the practical sports caps. The bottling of sensitive beverages is something of a balancing act. On the one hand, it is important to provide the consumer with absolute safety. On the other hand, many fruit juices and thirst quenchers react extremely sensitively if they come into contact with preservatives or are subject to thermal stress. Aseptic bottling achieves a balance between the two, provided that you have the right amount of microbiological expertise and field-tested technology.

The company Krones, which has developed practically everything in-house – from fillers, through dry sterilisation, to palletisation – has once again proven itself to be the perfect supply partner.



KRONES PET-Asept-D, the KRONES dry aseptic technology, stands out with its maximum sterilisation performance and low media consumption and is thus precisely the right aseptic solution for a quality-conscious and environmentally friendly client such as Eckes-Granini with regard to sustainability, conservation of resources and efficiency."

Michael Gschwendner  
Head of Aseptic Technology



# Value chain

## Suppliers as important partners in the purchasing of raw and packaging materials



### EcoVadis

The assessment of all relevant suppliers from a sustainability point of view, conducted by the independent organisation EcoVadis, has once again yielded extremely positive results. The individually defined improvements pursued by our suppliers were confirmed in the second round of reviews which took place in 2016.



EcoVadis's self-defined target is to promote environmental and social practices of

companies within the supply chain by means of CSR\* Performance Monitoring and to support companies in achieving improvements with regard to sustainability.

By offering this service, the organisation is also an important partner with regard to the purchases of Eckes-Granini Deutschland; after all, EcoVadis covers 150 purchasing categories, 110 countries and 21 CSR indicators. The company relies on internal Corporate Social Responsibility (CSR\*) standards, such as the Global Reporting Initiative (GRI\*\*), Global Compact of the United Nations and ISO 26000.

The first examination of the suppliers of Eckes-Granini Deutschland took place in 2014, and the second in 2016. In the process, more than 100 suppliers have been audited and evaluated with points using a score card; the highest score that a company can achieve is 100 points.

In the most recent round of reviews, all of the companies with which we work were able to achieve at least 25 points. But our suppliers are still subjected to a continuous improvement process which we would like to outline here:

If we achieve our goals, all of our suppliers will achieve 35 or more points in 2018; in the year 2020, 80% of the companies are expected to achieve at least 45 points.

Incidentally, Eckes-Granini Deutschland itself was also audited by EcoVadis and came out with the gold recognition level.



CSR\* = Corporate Social Responsibility.

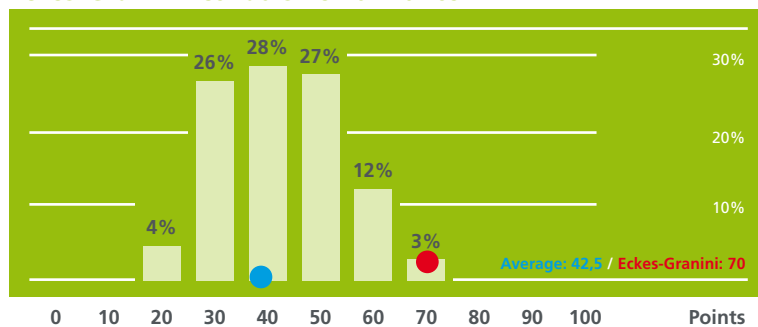
GRI\*\* = Global Reporting Initiative.





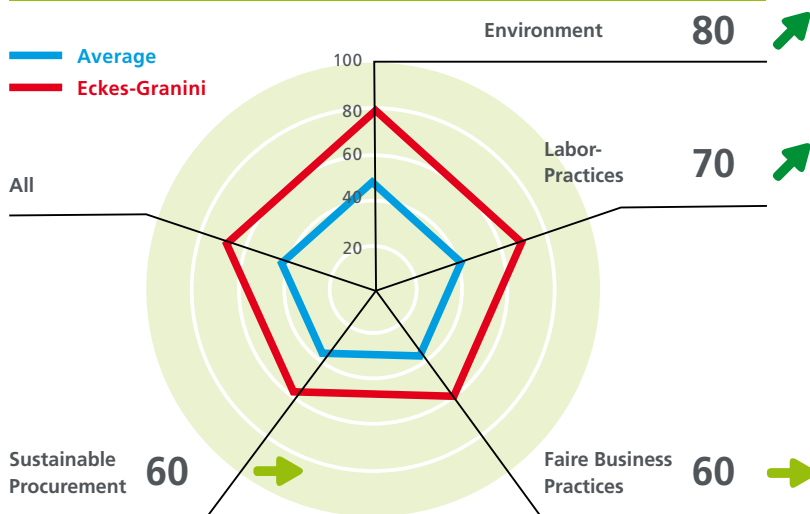
Eckes-Granini Deutschland GmbH  
compared to all suppliers assessed by EcoVadis

#### Eckes-Granini EcoVadis Performance



The average is 42.5 points; Eckes-Granini achieved 70 points.

Eckes-Granini Deutschland GmbH  
is amongst the top 1% of companies assessed by EcoVadis.



The figure shows the position of Eckes-Granini Deutschland GmbH compared to the average number of points of all of the assessed companies in the same industrial sector.



The services of EcoVadis, which Eckes-Granini requested that we use, clearly showed us where we currently stand as a company and how we can go about our sustainability strategy, CSR policy and their implementation. EcoVadis is not only a survey for self-assessment; the company actually examines progress based around facts and evidence. Although we achieved a relatively good amount of points in the first year of our participation, we used the results and feedback from EcoVadis in order to continue to develop and improve our CSR strategy. We are extremely proud that we are in the top 2% of all companies assessed by EcoVadis in 2016!

Jobien Laurijssen Sustainability Manager  
SVZ International B.V.

# Value chain

## Logistics: Lean & Green

The linking of resource efficiency with lean management approaches offers enormous potential for savings. The members of the Europe-wide initiative "Lean & Green" have dedicated themselves to this guiding principle – and Eckes-Granini, as co-founder of the German offshoot, was one of the first companies to join the project. The "Lean & Green" initiative was originally founded in the Netherlands by Connekt (an initiative which is committed to having an ecological sense of responsibility and a desire to act sustainably towards the environment);

"Lean & Green" has been certified and presented with awards by GS1 Germany in the Federal Republic.

It is the aim of "Lean & Green" to demonstrably reduce the emissions of CO<sub>2</sub> produced by logistics by 20% in five years. Achieving this goal is only possible with an ambitious plan of action: this is accounted for by the current status of the CO<sub>2</sub> balance sheet within logistics and describes the exact measures that ought to give rise to a reduction in the fields of storage and transportation. Examples include communication with service providers by means of electronic platforms and training sessions for fuel-efficient driving.

The plan of action is developed on the basis of the criteria predetermined by "Lean & Green". It is expected that TÜV NORD will carry out an assessment on Eckes-Granini Deutschland in the first half of 2017 on behalf of GS1 Germany in order to determine whether the climate protection targets which we set in line with the initiative are actually being achieved. If a plan of action successfully passes this examination, the company receives the coveted "Lean & Green" award and may use the logo and marketing materials of "Lean & Green" in the future. This ensures that a comparable assessment may be guaranteed.







Together with the Logistics Akademie Janz, Eckes-Granini Deutschland will have all of its shipping companies tested with regard to their respective CO<sub>2</sub> balance sheets in a joint Green Check. The aim of this investigation is to determine the current status and to define and implement measures for reducing the amount of CO<sub>2</sub> (empty journeys, fill rates, communication) together with the shipping companies. In this way, we will attempt to achieve the Lean & Green target within five years.

In order to also keep the emissions of pollutants as low as possible in the future, the lorries that Eckes-Granini Deutschland operates in its own vehicle fleet have been gradually converted to the Euro 6/EEV1 pollutant class. This has allowed us to ensure that we can reduce the particle emissions of the diesel vehicles in particular by up to 80%. Regular driver training sessions also take place under the motto "Eco-Drive"; we also evaluate how high the proportion of eco modules, neutral gears and power-off mode is when vehicles are being operated. After all, diesel consumption is a component of the individual target agreement of each and every lorry driver!

Between 2012 and 2016, this allowed us to reduce the average consumption of our lorry fleet, measured at our Bröl site, from

32.36 l/100 km to  
29.72 l/100 km

(this is equal to a reduction of a good 8%),

whilst in Bad Fallingbostal, the consumption was already significantly less back in 2012, namely 29.22 l/100 km.

The results of the Eckes-Granini fleet were evaluated in line with the draft of the Federal Office for Goods Transport (BAG); the result is a positive outcome which is under the national German average.\*

\*The national German average is 31.26 l/100 km.



# People – employees

## We make the difference

Passion and commitment, respectful conduct towards one another, openness, willingness to change and bravery to make decisions – the culture of the family company Eckes-Granini is based on these pillars.

A crucial sentence from our Code of Conduct acts as a guiding principle and shapes our company's HR work:

"At Eckes-Granini, people make the difference and are absolutely crucial for the success of the company."

It is our goal to employ the best and most creative employees and to continue to develop ourselves together with them. In order to find them and ensure that they remain committed to the company in the long term, we make significant investments in personnel development and offer modern working conditions.



### 1. We support our employees in reconciling their day-to-day work with family life.

Nowadays, every one of us plays many roles in our lives – we assume responsibility for our children as parents, we may care for our own parents, are involved in voluntary projects or simply wish we could have flexible working hours for other reasons.

That is why, at Eckes-Granini, we offer various alternatives for structuring work and working hours: a flexi-time system enables flexible comings and goings. We also offer numerous part-time models. The path is also open for older employees to take partial retirement.

Furthermore, we are all for mobile working where the working environment allows for this and provide departmental laptops for home office use for this purpose.

In consultation with the pme family service group, we also support our employees in particular (crisis) situations, for example with the organisation of care services or with finding appropriate childcare. And the following applies to all parents:

If all else fails and no childcare is available, you can simply bring your children to work and use our parent-child offices.







## 2. We place great importance on youth development.

Different jobs require different entry levels.

That is why we offer various entry options – from apprentice to trainee. IHK-recognised occupations, such as industrial clerk, specialist for fruit juice technology, specialist for warehouse logistics, agent for shipping and logistics services or mechatronics engineers, form a solid foundation for a subsequent career path.

For university graduates, our trainee programme with a focus on marketing and sales is the optimal foundation for subsequent entry into the jobs market as a young professional.

Thanks to this targeted concept for youth development, along with the accompanying recruitment strategy, we can guarantee the performance of teams and processes and at the same time assume our social responsibility as a family company.

Moreover, Eckes-Granini Deutschland GmbH is a member of the Fair Company initiative, the most well-known employer initiative in Germany with a thematic focus on interns, working students, young professionals and trainees.

We are thus committed to recognised quality standards and verifiable regulations for internships and traineeships.







### 3. We ensure that good performance pays off for everybody.

Commitment and motivation pay off at our company, for both men and women. Remuneration reflects our evaluation of the role – not of the person – for all of our pay-classified positions.

For all so-called AT roles – positions not included in the pay classification – the salary is agreed individually, but the experience and qualification of the person serves as the basis here, too. Along with their regular remuneration, our employees also receive various additional bonuses and payments as well as a company pension.

A transparent, regular performance review and career planning are given at our company: a so-called “FümiZi” interview (“Leading by Goals”) takes place with every employee on an annual basis.

This ensures that every individual receives feedback on their performance and their personal contribution to the achievement of the company’s goals. At the same time, the development opportunities and desires of every employee can be discussed.

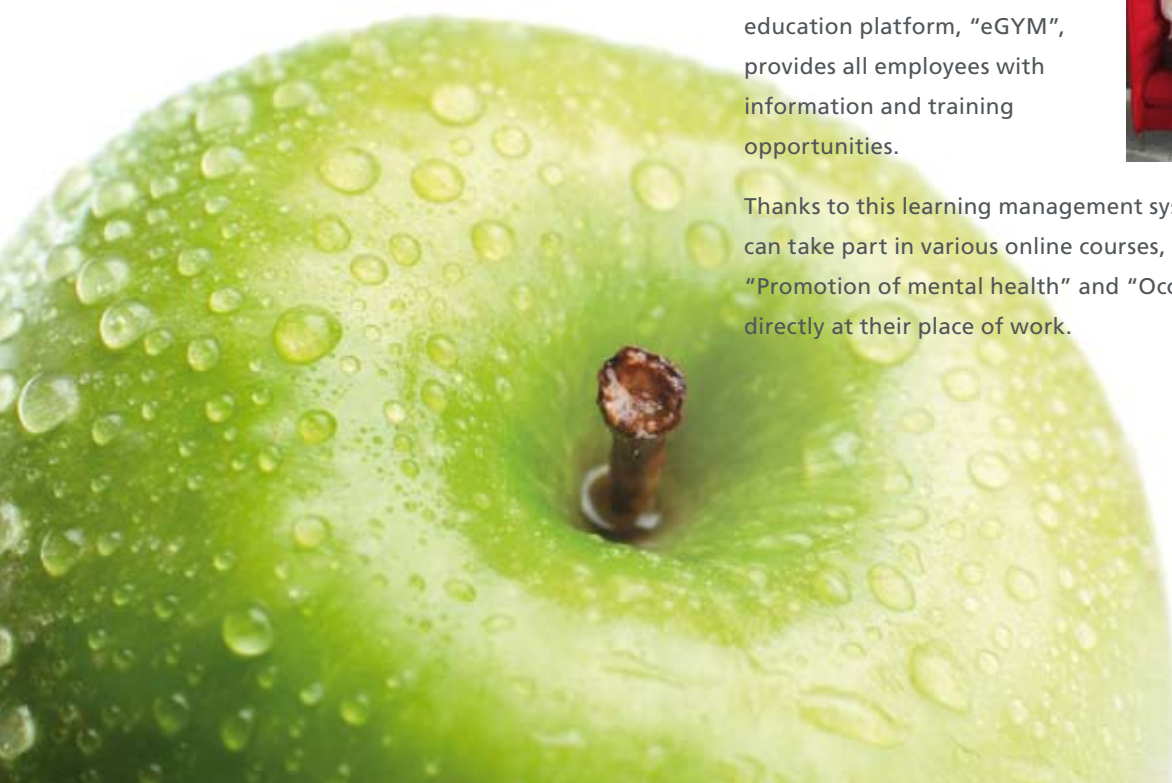


### 4. We attach great importance to health and occupational safety.

From the well-balanced menu in our canteen, through free fruit, water and natural juices, partnerships with the local sports club as well as fitness studios and masseurs, and renting e-bikes for extensive tours, to “health days” with topics such as back health, heart coach or resilience, we will always work flat out to guarantee the well-being of our employees. Our goal is to increase their motivation, to do more for their health and to give them new incentives in order to integrate this successfully into everyday working life.

Furthermore, our digital information and further education platform, “eGYM”, provides all employees with information and training opportunities.

Thanks to this learning management system, the employees can take part in various online courses, such as “Fit in the office”, “Promotion of mental health” and “Occupational safety”, directly at their place of work.





## 5. We are exploring new horizons in the structuring of work.

As is the case for our range of products, we also put our weight behind innovations when it comes to teamwork and cooperation:

For example, the cross-functional “Out of the bottle” office at our “Die Limo” head office, where colleagues from various departments work together in a cosily furnished open-plan office with a corner sofa and glass facade.

The advantages:

Short decision-making paths and uncomplicated communication with one another. Looking beyond your own department and working with a neighbour from a different department enables everyone to develop new competences and leads to a better

understanding of one another as well as a tighter bond in the team and the organisation. It was not for no reason that we received the “HR Excellence Award” from the “Human Resources Manager” magazine in the “Talent Management” category for our concept in 2015.

Always on the lookout for inspiring ideas, we encourage cross-departmental projects as well as creative sessions and we use modern concepts in order to integrate our employees into innovation and organisation processes. After all, we are well aware that they are the motors that drive us forward.

### Information & facts from the HR department for the year 2016 (derived from GRI)

Total number of employees	586
Of which apprentices and trainees	29
Average length of employment in years	16.16 years
Total number of newly employed staff	15 (6.22 %)
Staff turnover	23 (9.54 %)
Rate of return from parental leave	87.5 %
Rate of part-time work	11 %
Information flows within the organisation	Intranet, regular “Meet & Eat” information meetings on current issues and developments, monthly webcast “Kay’s Snapshot” by our Managing Director Kay Fischer, monthly meeting between the works council and the HR department
Employee committees	Works council, occupational safety committee
Days of absence per full-time equivalent	17.3 days
1000-man quota (relative frequency of accidents per 1,000 full-time employees)	24





## 6. We offer the best starting conditions for new employees.

“Onboarding” refers to the process of inclusion and integration into the company, i.e. the active “taking on board” of new employees. We aim to provide targeted support to new employees in three stages:

Before their first day at work, we settle all contractual issues and introduce the new colleague to the company.

The first day at the company has particularly great importance for us. The way in which we receive and welcome the new employee will give him or her a first impression of the esteem in which we hold him or her – starting with the friendly greeting that they receive and the organisation of their workplace.

It is crucial that the “newbie” goes home with a positive feeling at the end of their first day. And, ultimately, our management teams are encouraged to give the new team member task clarity for the first 100 days, to integrate him/her into the team and to improve his/her self-efficacy in the new role.

All of our offerings and measures when it comes to HR work have the goal of promoting independent, flexible and creative manners of working. In the process, we look at the person as a whole, not just as an employee. We are extremely proud that our employees bring such passion and intellect to their team and the company as a whole and work constructively towards achieving our mutual goals. As an employer, we are committed to continually expanding these activities and to working towards providing the best possible working environment for our employees in the future.







# People and social commitment

## Joint assistance bears fruit

"To be a man is, precisely, to be responsible". We, as a company, have also taken the sentiment of the French writer Antoine de Saint-Exupéry to heart and are working every day towards assuming our social responsibility to others.

### Helping in the local area

The close relationship between the company / the Eckes family and the people in the region may be seen in the various "local" social and charitable activities. For example, the Eckes family foundations, which first and foremost make financial contributions and support local and regional activities that aim to improve the living conditions of families, as well as international projects.

All of the projects are close to the hearts of the Eckes-Granini employees, since every initiative that the Eckes family foundations support is precisely suggested by the employees.

### Doing good hand in hand

Unbureaucratic, uncomplicated and direct: we want to continue to fulfil our social responsibility and to support regional projects that require our help in the future, too. The regular product donations to charitable organisations, for example "Die Tafel", are just one part of our commitment. Together with World Vision as an external partner, we have been able to continually develop our activities as a socially committed company and have been supporting an agricultural and nutritional project in Ethiopia since 2015 in order to promote food safety in the region in the long term.



### Open day at Eckes-Granini Bad Fallingbösel site

"Visit your juice store!" It was under this motto that Eckes-Granini opened the doors to its Bad Fallingbösel site in September 2016, thus allowing anyone interested to have a glimpse behind the scenes of the juice producer. Visitors enjoyed an exciting programme for the entire family:

Eckes-Granini Deutschland was able to clearly show in various tours of the site and at information stands what goes into its juices and how they arrive in the bottle.

The neighbouring town was also supported in the process: we donated all income from the sales of barbecued food, cakes and ice cream to the team of volunteers at the outpatient hospice service in Walsrode.



The 34 voluntary helpers at the Walsrode hospice service accompany people through the final stages of their life and provide their relatives with the necessary support.

The offering of the Walsrode hospice service is free and people of all faiths and nationalities are welcome – a project that we are absolutely delighted to support.





## Agricultural and nutritional project in Ethiopia

International fundraising campaign together with the World Vision aid organisation

Health and food safety is one of the most pressing problems in Ethiopia. In order to make a small contribution to improving the living and working conditions over there, the Eckes-Granini Group has been supporting a long-established project run by the international aid organisation World Vision since May 2015; the organisation focuses its efforts exactly where help is urgently needed.

People in the Ambassel region, an area approx. 460 km to the north-east of the Ethiopian capital Addis Ababa, are being supported. In order to promote agriculture, to improve the food situation and support continuing education, World Vision plans and coordinates small and bigger projects in the kebeles (individual villages) of the region

with our financial support. With the renovation of a school and the acquisition of dairy cattle, which are an important source of nutrition for many people, we have already been able to make a significant contribution to improving the living situation together with the aid organisation. Other projects include, for example, allotments with irrigation systems, training sessions in fruit and vegetable cultivation for the village inhabitants and various offerings particularly for the women and mothers of the villages. This means that we have been able to provide immediate assistance to 15,000 people in seven places in the hope that they will be able to help themselves in the long term.

More information here: <https://www.worldvision.de/fuer-unternehmen/nachhaltigkeit-in-der-lieferkette/1#canvas=/eckes-granini>



## Local commitment:

Christmas market for Nieder-Olm citizens; Proceeds go to integrative "Selzlinge" day care centre for children

Having fun and doing good at the same time – these two things need not represent a complete contradiction: echoing this sentiment, all proceeds raised from the 2016 Christmas market on the company premises for the citizens of Nieder-Olm went to the promotion of a social project in our immediate vicinity. We were able to support the Nieder-Olm "Selzlinge" integrative day care centre for children. The establishment has its own therapy and Snoezelen room, opened in August 2015, and is directly affiliated with the sheltered workshop of in.betrieb gGmbH. This provides various opportunities for exchange and experience – acceptance of the diversity of each and every person is reinforced through encounters, internships, joint campaigns and projects between the children as well as young people and adults from the workshop.



## Strahlemännchen-project

Support for children suffering from cancer

Together with our co-packer Hochwald-Sprudel, our employees organise a bike ride between Nieder-Olm and Schwollen in the Birkenfeld district on an annual basis. After the 110 km outward journey with several demanding slopes, several particularly ambitious cyclists also do the journey back to Nieder-Olm.

The company donates a contribution per kilometre ridden to Strahlemännchen e.V., which is then able to make the dreams of children suffering from cancer come true.







### A declaration of love to the city of Mainz

Ludwig Eckes  
donates Fastnachtsbrunnen

Strong local attachment and the targeted promotion of art and culture have a long tradition at Eckes-Granini.

For example, the famous Mainz Fastnachtsbrunnen, a fountain on Schillerplatz, was able to be constructed 50 years ago thanks to the generosity of Ludwig Eckes.

He apparently donated the money for the fountain "out of love for Mainz", the entrepreneur revealed to an SWR journalist in an interview published in 1967.

More than 200 bronze figures, symbolising the city of Mainz and its way of life, adorn the 9-metre-tall work of art.



### Donate your cents

Project for donating from wages

Our employees also make a difference when it comes to social commitment. Many of them are active in a wide variety of areas.

We initiate social projects ourselves or provide a framework for initiatives from the circle of employees.

To this end, they voluntarily donate the residual cent amounts from their wages. The monthly amount is doubled by the employer and then goes to numerous charitable projects in the region.

From migration assistance and the promotion of reading, through supporting projects for critically ill children, to donations to animal welfare associations, Eckes-Granini likes to make its contribution.



# Global Reporting Initiative-(GRI-)index

*We align ourselves with the highest standards*

## Everything at a glance

This report contains standard disclosures in line with the GRI G4 guidelines with regard to sustainability reporting and is not checked. The following index refers to the relevant sections in the 2017 sustainability report, the 2017 environmental statement, the current Code of Conduct and the 2016 annual report.

SR = Sustainability report / ES = Environmental statement / CoC = Code of conduct / AR = Annual report

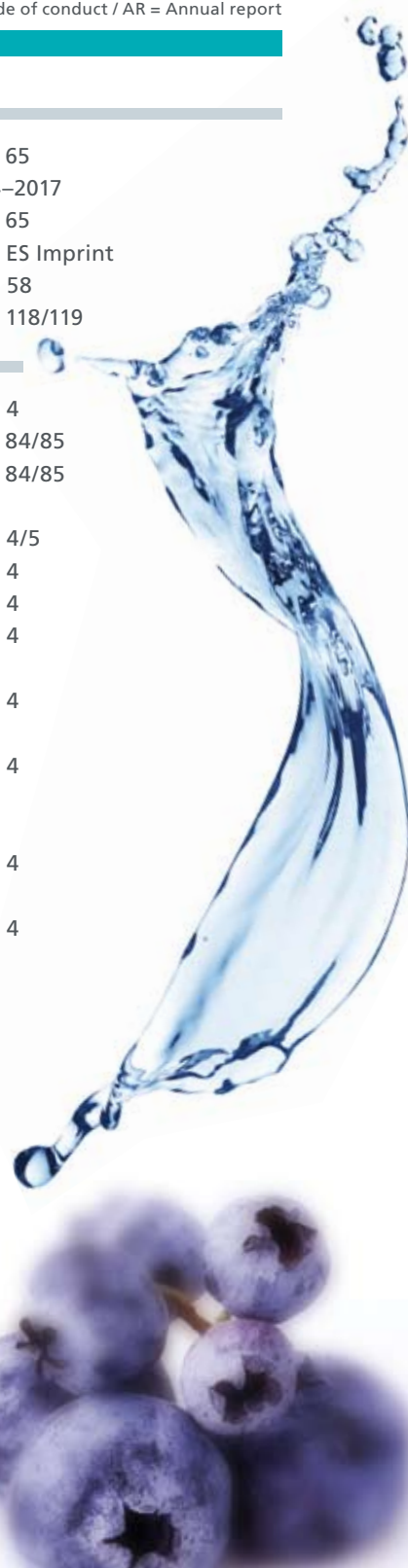
Aspect	Indicator / Short description of the indicator	Page
<b>GENERAL STANDARD DISCLOSURES</b>		
<b>Strategy and analysis</b>		
G4-1	Statement from the most senior decision-maker	SR P. 1
G4-2	Main impacts, opportunities and risks	ES P. 98/99, 108/109, 116/117
<b>Organisational profile</b>		
G4-3	Name of the organisation	SR P. 5
G4-4	Brands, products and services	SR P. 10–19, AR P. 32–51
G4-5	Organisation's headquarters	ES P. 90–92
G4-6	Countries in which the organisation operates	SR P. 9, AR P. 32/33
G4-7	Nature of ownership and legal form	SR P. 4
G4-8	Markets served	AR P. 32–51,
G4-9	Scale of the organisation	AR P. 8, 33, ES P. 92, 102, 112
G4-10	Number of employees by employment contract, gender and region	SR P. 52, ES P. 92, 102, 112
G4-11	Percentage of employees covered by collective bargaining agreements	SR P. 51
G4-12	Description of the supply chain	SR P. 36–47
G4-13	Significant changes during the reporting period	none
G4-14	Implementation of the precautionary principle	N/A
G4-15	Support of external charters, principles and initiatives	SR P. 6, 9, 23, 44/45, 46/47 ES P. 70
G4-16	Memberships of associations and advocacy organisations	SR P. 6, 9, 25, 44/45, 46/47 ES P. 70
<b>Identified material aspects and boundaries</b>		
G4-17	List of consolidated companies	AR P. 32/33
G4-18	Process for defining the report content	SR P. 58–64
G4-19	Listing of all material aspects	SR P. 1
G4-20	Material aspects within the organisation	SR P. 1
G4-21	Material aspects outside the organisation	ES P. 83
G4-22	Effect of any restatements of information provided in previous reports	none
G4-23	Significant changes from previous reporting periods in the scope and aspect boundaries	none
<b>Stakeholder engagement</b>		
G4-24	List of stakeholder groups engaged by the organisation	ES P. 83
G4-25	Identification and selection of stakeholders	ES P. 70
G4-26	Organisation's approach to stakeholder engagement	ES P. 83
G4-27	Key topics and concerns raised through stakeholder engagement	ES P. 83





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Aspect	Indicator / Short description of the indicator	Page
<b>Report profile</b>		
G4-28	Reporting period	ES P. 65
G4-29	Date of most recent previous report	2014–2017
G4-30	Reporting cycle	ES P. 65
G4-31	Contact point for questions regarding the report	SR & ES Imprint
G4-32	GRI index and chosen 'in accordance' option	SR P. 58
G4-33	External auditing of the report	ES P. 118/119
<b>Governance</b>		
G4-34	Governance structure of the organisation incl. highest governance body	SR P. 4
G4-35	Delegating authority for economic, environmental and social topics	ES P. 84/85
G4-36	Responsibility for economic, environmental and social topics	ES P. 84/85
G4-37	Processes for consultation between stakeholders and the highest governance body	SR P. 4/5
G4-38	Composition and committees of the highest governance body	SR P. 4
G4-39	Independence of the Chair of the highest governance body	SR P. 4
G4-40	Nomination and selection processes for the highest governance body	SR P. 4
G4-41	Processes for avoiding conflicts of interest	N/A
G4-42	Highest governance body's role in setting purpose, values, and strategy	SR P. 4
G4-43	Measures taken to develop the highest governance body's sustainability knowledge	SR P. 4
G4-44	Evaluation of the highest governance body's performance with respect to sustainability	N/A
G4-45	Highest governance body's role in risk and opportunity management	SR P. 4
G4-46	Highest governance body's role in reviewing the effectiveness of the risk management	SR P. 4
G4-47	Frequency of the highest governance body's review of sustainability risks and opportunities	N/A
G4-48	Review and approval of sustainability report	N/A
G4-49	Process for communicating critical concerns to the highest governance body	N/A
G4-50	Critical concerns that were communicated to the highest governance body	N/A
G4-51	Remuneration policies for the highest governance body and senior executives	N/A
G4-52	Process for determining remuneration	N/A
G4-53	Stakeholders' views regarding remuneration	N/A
G4-54	Ratio of annual remuneration for the highest-paid individual to the median annual remuneration for all employees	N/A
G4-55	Percentage increase in annual remuneration for the highest-paid individual	N/A
<b>Ethics and integrity</b>		
G4-56	Values, principles, standards and norms of behaviour	CoC
G4-57	Mechanisms for seeking advice on ethical and lawful behaviour	CoC
G4-58	Mechanisms for reporting concerns about unethical or unlawful behaviour	CoC



# Global Reporting Initiative-(GRI-)index

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Aspect	Indicator / Short description of the indicator	Page
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## SPECIFIC STANDARD DISCLOSURES

### Disclosures on Management Approach (DMA)

G4-DMA	Disclosures on management approach	SR P. 1
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## CATEGORY: ECONOMIC – economic performance indicators

### Economic performance

G4-EC1	Direct economic value generated and distributed	AR P. 8/9, 52
G4-EC2	Implications for the organisation's activities due to climate change	SR P. 2/3, ES P. 98/99, 108/109, 116/117
G4-EC3	Coverage of the organisation's obligations from the performance-oriented pension plan	SR P. 51
G4-EC4	Financial assistance received from governments	N/A

### Market presence

G4-EC5	Ratio of standard entry level wage compared to local minimum wage	N/A
G4-EC6	Proportion of senior management hired from the local community	N/A

### Indirect economic impacts

G4-EC7	Infrastructure-related investments and impacts	ES P. 98/99, 108/109, 116/117
G4-EC8	Indirect economic impacts	ES P. 98/99, 108/109, 116/117

### Procurement practices

G4-EC9	Proportion of spending on local suppliers	N/A
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## CATEGORY: ENVIRONMENTAL – environmental performance indicators

### Materials

G4-EN1	Materials used by weight or volume	ES P. 103–107, 113–115
G4-EN2	Percentage of materials used that are recycled input materials	ES P. 103–107, 113–115

### Energy

G4-EN3	Energy consumption within the organisation	ES P. 95, 104, 105, 114
G4-EN4	Energy consumption outside of the organisation	N/A
G4-EN5	Energy intensity	SR P. 32/33
G4-EN6	Reduction of energy consumption	ES P. 95, 98/99, 104, 108/109, 114, 116/117
G4-EN7	Reductions in energy requirements of products and services	SR P. 43, 46/47 ES P. 98/99

### Water

G4-EN8	Total water withdrawal by source	ES P. 95, 105, 114
G4-EN9	Water sources significantly affected by withdrawal of water	ES P. 78
G4-EN10	Total volume of water recycled and reused	ES P. 78, 95, 105, 114

### Biodiversity

G4-EN11	Sites in or adjacent to protected areas	ES P. 102/103, 112/113
G4-EN12	Impacts of business activities on biodiversity in protected areas	ES P. 102/103, 112/113
G4-EN13	Habitats protected or restored	N/A
G4-EN14	Endangered species in areas affected by business activities	N/A



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Aspect	Indicator / Short description of the indicator	Page
<b>Emissions</b>		
G4-EN15	Direct greenhouse gas emissions (scope 1)	ES P. 104, 114
G4-EN16	Energy indirect greenhouse gas emissions (scope 2)	ES P. 81
G4-EN17	Other indirect greenhouse gas emissions (scope 3)	ES P. 94
G4-EN18	Intensity of greenhouse gas emissions	N/A
G4-EN19	Reduction of greenhouse gas emissions	ES P. 98/99, 104, 108/109, 114, 116/117
G4-EN20	Emissions of ozone-depleting substances	N/A
G4-EN21	Other significant emissions	N/A
<b>Effluents and waste</b>		
G4-EN22	Total volume of water discharges	ES P. 95, 105, 114
G4-EN23	Total weight of waste	ES P. 96/97, 106/107, 115
G4-EN24	Total number and volume of significant spills	ES P. 103, 113
G4-EN25	Weight of transported waste	ES P. 96/97, 106/107, 115
G4-EN26	Water bodies significantly affected by water discharges	ES P. 78, 82
<b>Products and services</b>		
G4-EN27	Measures for reducing the environmental impacts of products and services	ES P. 98/99, 108/109, 116/117
G4-EN28	Reclaimed sold products and packaging materials	SR P. 30
<b>Compliance</b>		
G4-EN29	Fines and sanctions for non-compliance with environmental laws and regulations	ES P. 88
<b>Transport</b>		
G4-EN30	Impacts of transportation	SR P. 46/47 ES P. 78
<b>Overall</b>		
G4-EN31	Total environmental protection expenditures and investments by type	N/A
<b>Supplier environmental assessment</b>		
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	SR P. 44/45
G4-EN33	Negative environmental impacts in the supply chain	N/A
<b>Environmental grievance mechanisms</b>		
G4-EN34	Number of grievances about environmental impacts filed	ES P. 88

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Aspect	Indicator / Short description of the indicator	Page
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## CATEGORY: SOCIAL – social performance indicators

### LABOUR PRACTICES AND DECENT WORK

#### Employment

G4-LA1	Employee turnover	SR P. 52
G4-LA2	Standard benefits for full-time employees	SR P. 48–53
G4-LA3	Return to work after parental leave	SR P. 52

#### Labour/management relations

G4-LA4	Notice periods regarding operational changes	SR P. 52
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#### Occupational health and safety

G4-LA5	Formal employee committees/percentage of the total workforce represented in health and safety committees	SR P. 52
G4-LA6	Injuries, occupational diseases, lost days and fatalities	SR P. 52
G4-LA7	Workers with high incidence or high risk of diseases	SR P. 52
G4-LA8	Health and safety topics covered in formal agreements with trade unions	N/A

#### Training and education

G4-LA9	Average number of hours for training and education	N/A
G4-LA10	Programmes for skills management and lifelong learning that support continued employability of employees	SR P. 51
G4-LA11	Percentage of employees receiving regular performance and career development reviews	SR P. 51

#### Diversity and equal opportunities

G4-LA12	Composition of governance bodies and breakdown of employees according to indicators of diversity	N/A
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#### Equal remuneration for women and men

G4-LA13	Ratio of basic salary and remuneration of women to men	N/A
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#### Supplier assessment for labour practices

G4-LA14	Percentage of new suppliers that were screened using labour practices criteria	SR P. 44/45
G4-LA15	Significant impacts for labour practices in the supply chain	CoC

#### Labour practices grievance mechanisms

G4-LA16	Formal grievances regarding impacts on labour practices	N/A
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## HUMAN RIGHTS

#### Investment

G4-HR1	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	N/A
G4-HR2	Employee training on human rights	CoC

#### Non-discrimination

G4-HR3	Incidents of discrimination and corrective actions taken	none
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#### Freedom of association and right to collective bargain

G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association may be violated or at risk and measures taken to support these rights	none
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Aspect	Indicator / Short description of the indicator	Page
<b>Child labour</b>		
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labour and measures taken	none
<b>Forced or compulsory labour</b>		
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour and measures taken	none
<b>Security practices</b>		
G4-HR7	Percentage of security personnel trained in human rights	CoC
<b>Indigenous rights</b>		
G4-HR8	Number of incidents of violations involving rights of indigenous peoples and actions taken	none
<b>Assessment</b>		
G4-HR9	Operations that have been subject to human rights reviews	SR P. 41
<b>Supplier human rights assessment</b>		
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	SR P. 44/45, CoC
G4-HR11	Significant impacts on human rights in the supply chain	SR P. 44/45, CoC
<b>Human rights grievance mechanisms</b>		
G4-HR12	Total number of grievances about violations of human rights which were filed through formal grievance mechanisms during the reporting period	none
<b>SOCIETY</b>		
<b>Local communities</b>		
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments and development programmes	SR P. 54–57
G4-SO2	Operations which may have negative impacts on local communities	none
<b>Anti-corruption</b>		
G4-SO3	Percentage of operations assessed for risks related to corruption and the risks identified	none
G4-SO4	Communication and training on anti-corruption	CoC
G4-SO5	Confirmed incidents of corruption and actions taken	none
<b>Public policy</b>		
G4-SO6	Total value of political contributions	none
<b>Anti-competitive behaviour</b>		
G4-SO7	Legal actions for anti-competitive behaviour and monopoly practices	none
<b>Compliance</b>		
G4-SO8	Fines and sanctions for non-compliance with laws and regulations	none
<b>Supplier assessment for impacts on society</b>		
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	SR P. 44/45
G4-SO10	Negative impacts on society in the supply chain and actions taken	none

# Global Reporting Initiative-(GRI-)index

SR = Sustainability report / ES = Environmental statement / CoC = Code of conduct / AR = Annual report

Aspect	Indicator / Short description of the indicator	Page
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## Grievance mechanisms for impacts on society

G4-SO11	Formal grievances regarding impacts on society filed	none
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## PRODUCT RESPONSIBILITY

### Customer health and safety

G4-PR1	Percentage of significant product and service categories for which health and safety impacts have been assessed	SR P. 20–25, ES P. 88
G4-PR2	Number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services	none

### Product and service labelling

G4-PR3	Principles and procedures for product labelling as well as percentage of products and service categories covered by these procedures	SR P. 20–25 ES P. 88
G4-PR4	Number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling	none
G4-PR5	Results of surveys measuring customer satisfaction	none

### Marketing communications

G4-PR6	Sale of banned or disputed products	none
G4-PR7	Number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications	none

### Customer privacy

G4-PR8	Number of substantiated complaints regarding breaches of customer privacy	none
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### Compliance

G4-PR9	Significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	none
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# Environmental Statement 2017–2020

Eckes-Granini Deutschland GmbH



**EMAS**

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

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Subject area:  
Sustainability

Subject area:  
Environmental Statement





## A responsible approach to the environment: A little bit better each and every day

### Dear Readers,

At Eckes-Granini, we are absolutely convinced: holistic, sustainable thinking and acting is an elementary component of our corporate responsibility and the prerequisite for long-term, value-adding growth. Nowadays, the simultaneous assessment of the economic and ecological aspects has thus become part and parcel of our daily work.

And this way of thinking does not end with the use of 100% renewable energies – something that is an absolute given for us in the current age.

Whereas not so long ago, the focus of the topic of sustainability was very much on the production process and its associated energy consumption, our perspective is now much broader. The subjects of packaging, agricultural cultivation and logistics, in particular, have quite rightly come to the fore.

And we are able to achieve success, as our investment in Plasmax coating, for example, is currently demonstrating: a wafer-thin, firmly attached layer of glass on the inside of the PET bottle is able to guarantee maximum protection of the flavour and ingredients. Thanks to the Plasmax barrier, we are now able to use 50% recycled PET for the manufacturing of our bottles – maintaining top quality, whilst allowing us to improve our use of resources. We would like to gradually convert all of our products to this innovative technology.

Ever since our first endeavours with regard to environmental management, we have achieved enormous improvements in all fields: for example, the treatment plant at our Bröl site with its anaerobic treatment technology has brought about an annual reduction in the quantity of sewage sludge by almost 1,000 t. Other examples include the considerable weight reduction of our PET bottles whilst maintaining the same quality, the amount of diesel saved in our lorry fleet and the optimisation of machinery and processes, which has allowed us to reduce the consumption of electricity, water and gas.

Once again, we have set ourselves ambitious targets for the coming three years. Of course, we do not yet have the precise answers to all of the questions and issues on which we are working in Nieder-Olm, Bad Fallingbostel and Bröl. But we do have the most important thing – the commitment of both our employees and our suppliers to work each and every day with passion, inventiveness and perseverance in order to achieve our highly ambitious targets and desired improvements.

Dr. Kay Fischer  
Managing Director  
Eckes-Granini Deutschland GmbH

Editorial/scope of validity

The following sustainability and environmental statement relates to the organisation Eckes-Granini Deutschland GmbH with its sites in Nieder-Olm, Bröl and Bad Fallingbostel.







# The environmental management system

## Actively taking responsibility



Eckes-Granini Deutschland is facing up to its ecological responsibility. It is absolutely clear to us:

What is good for the environment will also drive the company further forward. Striving for sustainability, taking a responsible approach to resources, in a nutshell:

Modern environmental protection has been an integral element of the corporate philosophy of Eckes-Granini Deutschland GmbH for many years now.

The company has set itself ambitious targets with regard to environmental protection. In order to achieve these, a comprehensive set of measures which fulfil the legal requirements and aim for continued improvements have been developed for all areas of the company. It is important for a brand manufacturer to also meet its customers' ecological needs.

Moreover, making an active, sustainable contribution to environmental protection is a crucial part of the company's success.

It is for that reason that our fruit juice experts are always working on improvements to the products, packaging and operational processes.

The responsible departments prepare the foundations upon which we can achieve the best possible results when it comes to savings and reductions, thus allowing us to guarantee sustainability and attain our environmental targets in our product portfolio.

As a family company, Eckes-Granini quite naturally has one eye on future generations at the same time. In order to leave the world to them in a good condition, Eckes-Granini is actively committed to modern environmental protection.





Eckes-Granini Deutschland GmbH launched its environmental management system at a relatively early stage. This system has been gradually developed at the headquarters in Nieder-Olm since 1991 on the basis of the DIN EN ISO 14001 standard.

The senior leadership team established the organisation's environmental policy and ensures that it is appropriate with regard to the kind, extent and impacts of the organisation's activities, products and services, that it contains a commitment to the continuous improvement and prevention of environmental pollution, that it contains a commitment to comply with the relevant laws and regulations as well as with other requirements to which the company has committed itself, and finally that it provides, documents, implements, maintains and makes all employees aware of the framework for the establishment and evaluation of the concrete objectives and individual targets. Only information relating to the environment may be accessed by the public.

In order to ensure that our environmental protection activities may be monitored and verified by external parties, Eckes-Granini Deutschland GmbH has been working in line with the internationally acknowledged environmental management system EMAS since 1996.

EMAS stands for "Eco-Management and Audit Scheme" and is a system which provides organisations with uniform foundations for continuously improving their environmental management system and environmental performance – no matter which industry they come from.

As a modern ecopolitical tool, EMAS – also referred to as the "eco-audit" – relies on the voluntary environmental commitment of organisations and, with this in mind, goes way beyond the binding obligations with which companies must comply.

EMAS participation involves the organisation reviewing its activities, products and services with regard to their impacts on the environment and putting this into a structured framework.



## ENVIRONMENTAL STATEMENT WITH EMAS VALIDATION

Eckes-Granini Deutschland GmbH was first validated in line with EMAS standards back in 1996. All of the companies with their own production facilities in the Eckes-Granini Group were once again validated in line with EMAS standards in 2016.





# Environmental policy



The environmental policy and the environmental programme with its concrete targets for the continuous improvement of the company's environmental performance must be regularly disclosed in an environmental statement – and with a comprehensive numerical presentation and evaluation of the environmental impacts and the improvements that have already been achieved where possible. Every environmental statement is then reviewed (audited) by an independent environmental auditor and validated if it meets the strict conditions of the audit regulations.

By providing the present environmental statement, Eckes-Granini Deutschland GmbH is participating in this demanding procedure. In the following sections, we will not only set out all of the information and facts that are relevant for the environmental management system in line with EMAS standards; we also intend to present in detail our environmental understanding, our guiding principles and the factors that guide our environmental activities in the widest possible sense.





## Principles

Unlike what the term 'management' may well suggest, operating a modern environmental management system does not mean that only a few decision-makers at the head of the company engage with the issue.

Quite the opposite, actually: it is our company's goal to practise corporate environmental protection and quality management as a continuous process of improvement by including all of our employees.



Our fundamental principle is thus as follows: "Every one of us is an environmental protection officer and a quality management representative."

This means:

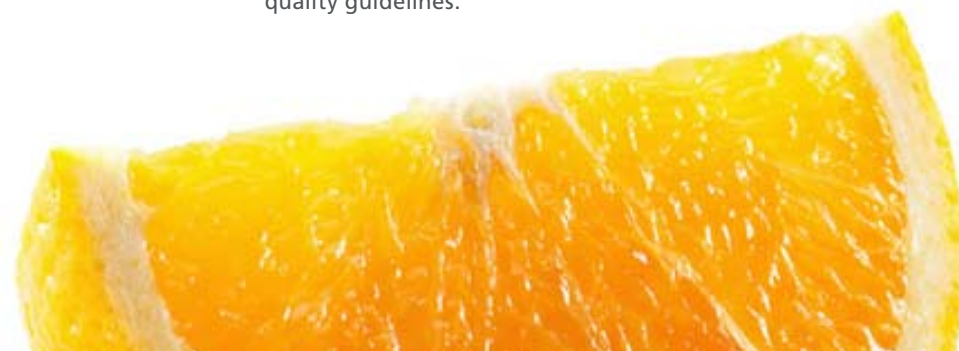
■ The commitment to maintain an intact environment and high quality is about far more than just complying with laws, for Eckes-Granini Deutschland.

■ We want real commitment that goes way beyond the prescribed measures. Every employee who works for us is able to identify with the issue and acts both dutifully and with plenty of initiative in the workplace to ensure that they comply with our environmental and quality guidelines.

The success of our environmental management system clearly demonstrates that our approach is not just 'hot air':

■ We have been able to achieve ever-greater conditions for soil, air and water, as well as achieving a reduction in and an avoidance of risks in line with legal requirements for many years now.

■ In the process, the economic efficiency of the company has undoubtedly improved as well. Our successes across the entire company and at our various sites have been recognised by external, independent bodies on more than one occasion. (See "Milestones for environmental protection", p. 89).







## The most important aspects of communicating with and training employees with regard to environmental issues at Eckes-Granini Deutschland

The Company Representatives for Environmental Protection, as well as employees in environment-related fields, have the duty and the right to attend education and training sessions with regard to compliance with legal and operational framework conditions.

The time schedule of all environment-related education and training measures is determined and organised in coordination with the HR departments on the basis of training plans.

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

Once recruited, new employees receive information relating to the environmental guidelines of Eckes-Granini Deutschland GmbH, as well as fundamental materials about environment-related issues that affect the company.

Current information is made available to employees and the public by means of the employee magazine, works meetings, notices, committees, reports by company representatives, the intranet, the internet and via press releases by the executive board, amongst other things.

All requirements in accordance with the Works Constitution Act § 89 on Working and Operational Environmental Protection and with EMAS Annex II Part B B.4 on Employee Participation are fulfilled.

Where possible, employees are included in discussions about objectives and team meetings with regard to the continuous improvement process (CIP) of the environmental performance and of the organisation in general. The so-called "New Hire Day" – a day on which new employees are reminded of all of the important issues by the executive board – and the Committee for Occupational Safety and Environmental Protection (CSP) are used for this purpose.





## Environmental protection means . . .

### ... responsibility

We take the requirements of health and environmental protection as well as safety at the workplace into consideration during the planning phase of procedures and products as well as during the purchasing phase.

We want to recognise risks for people and the environment at an early stage so that we can completely avoid accidents and operational mishaps.

### ... sustainability

We use all resources sparingly and work in an extremely careful manner to ensure that we can keep the amounts of waste and pollution of the air, water and soil to a minimum, thus protecting the environment.

We thoroughly examine the economically justifiable use of the best technology available.

### ... continuous improvement

Environmental protection is not a measure as such, but rather a process of sustainable improvement which we want to continue to develop in open dialogue with our employees, suppliers, customers, consumers and all other parties concerned.

We consider objective criticism to be a valuable driving force in this process. We work closely with the responsible authorities. We regard the environmental regulations that apply to our business activities, products and services to be the bare minimum targets.

### ... networking

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

We ensure that major contractors, subcontractors and suppliers accept the environmental guidelines of Eckes-Granini Deutschland GmbH during the execution of all of our orders.





# Environmental guidelines



## ... transparency

We organise environmental protection in such a way that responsibility, roles and processes are transparent. We gauge the impacts of our activities on the environment in order to be able to objectively assess our policy.

This ensures that we can gain a clear understanding of where we are with regard to our targets and can detect and correct any deviations from those targets in good time.

## ... employee involvement

One of the tasks of each and every employee is to promote and 'live out' a sense of responsibility for the environment at all levels. We expect everyone to incorporate environmental protection into their daily activities.

## ... trust

We put our trust in the initiative and individual responsibility of all of our employees in the implementation of our environmental policy.

## ... communication

It is important to us that we are able to communicate openly and sincerely with our employees, business partners and the public.



## Direct environmental factors

Daily operational environmental protection – a process influenced by many different factors.

The following description outlines which direct and indirect environmental factors play a role for Eckes-Granini Deutschland GmbH and how the workforce deals with them. You can find key figures and explanations on the subsequent pages for each of our locations.



### Hazardous substances/water-polluting substances

According to the Water Resources Act, the Industrial Safety Regulation, the Chemicals Act and the Ordinance on Hazardous Substances, numerous auxiliary and operating materials are considered to be hazardous substances due to their properties.

**Hazardous substances are currently classified into three water-polluting categories:**

WPC I	slightly hazardous to water
WPC II	hazardous to water
WPC III	severely hazardous to water

Almost all of the hazardous substances and water-polluting substances that we have mentioned in this environmental statement are classified into the water-polluting categories (WPC) I and II. The majority of these belong to WPC I.

A significant environmental impact and challenge is posed by the use of large amounts of peracetic acid in the two PET systems at our site in Bröl.

A new PET system in which the peracetic acid was substituted with hydrogen peroxide was put into operation in Bad Fallingb. in 2016. Hydrogen peroxide disintegrates into pure water and oxygen; it is classified as a non-water-polluting substance. Flavourings/essences, laboratory chemicals, cleaning and disinfection agents, oils, fats and glues are the major hazardous substances used in the production process.

All hazardous substances are recorded in land registers (cadastres). The safety data sheets and operating instructions are available in accordance with §14 Ordinance on Hazardous Substances. Employees who come into contact with hazardous substances attend both internal and external training sessions on an annual basis. The way in which we handle and store hazardous substances and water-polluting substances is in compliance with the statutory requirements.







## Recyclable materials

Waste is collected separately in different waste categories at all of our sites. These categories include PET, soft packaging, used glass, cardboard, used paper, films, oil and grease separators, resources containing oil or grease, electronic and metal scrap, as well as rubble and wood, amongst other things.

The amounts are recorded and evaluated by our Waste Officers. There are collection systems for the separate collection of the different types of waste.

Compliance with laws is documented in the verification folders, which also contain waste disposal agreements, applications and certificates.

From the purchase right through to the processing of auxiliary and operating materials, we are always looking for ways in which waste can be avoided and/or recycled.

Our Waste Officers incorporate the disposal channels from the producer to the disposal company into our regular reviews. The main principle for all of our activities is as follows: "Recycling before disposing!"

## Energy

Electrical power and gas are obtained from the public network at all of our sites.

Steam and hot water is generated by means of our own boiler systems – mainly running on natural gas.

Light oil is only partially used for small-scale devices (e.g. emergency generators, small compressors) in individual buildings and for test running the boiler systems during emergency operation as a result of gas supply shortages.

The furnaces at our sites do not require a permit.

However, we do have the required authorisation to operate them. The proper functioning of the boiler systems is guaranteed by in-house boiler operators and regular maintenance by specialist companies. Emission Protection Officers are employed internally at all production sites.





## Direct environmental factors

### Water/waste water

The site in Nieder-Olm gets its water exclusively from the local supplier.

The sites in Bad Fallingbostal and Bröl also obtain water from their own well systems.

The drinking water goes into the products as treated water (ion exchanger and reverse osmosis) pro rata. The well water is predominantly used as service water and cooling water for circular flows and reutilisation. Furthermore, the well water is also used together with the amniotic fluid arising from the pressing process (in Bröl) as supply water in the subsequent pressing process.

If it has the quality of drinking and mineral water, the well water in Bad Fallingbostal is also used for product manufacturing. All of the waste water from the sites in Bad Fallingbostal and Nieder-Olm is fed into the public sewage system as domestic waste water. At the site in Bröl, all of the waste water is cleaned with upstream anaerobic waste water treatment at the in-house waste water treatment plant.

Waste water samples are taken in line with waste water regulations in order to guarantee the purity of the water. The resulting sewage sludge is dewatered and subsequently composted.

### Exhaust fumes

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

### Radiation sources

There is an inspection machine in the glass system at our site in Bröl which scans the filled glass bottles for foreign objects. This system works with X-rays. Our work with X-ray sources is carried out in strict compliance with the German X-Ray Regulation. The X-rays do not affect the packaging nor the product.







## Noise

At all of our sites, we comply with the standard values outlined by technical guidelines with regard to protection against noise. Noise emissions during production are predominantly down to the bottling process. Regular measurements are taken; the results are documented in the noise log.

There are no workplaces at any of our sites in which the level of noise is permanently beyond the legally permissible thresholds.

Ear protection is available to all employees and is consistently worn. The few extremely noisy areas are clearly identified.

## Emissions (from the combustion of natural gas)

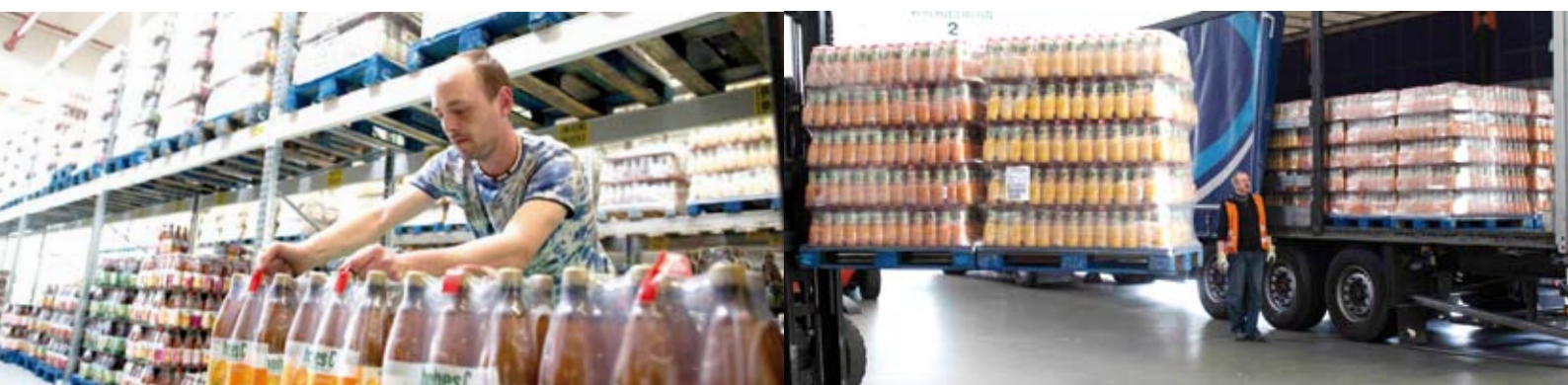
All measurements have shown that we fall below the legally prescribed standard values with regard to the combustion of natural gas.

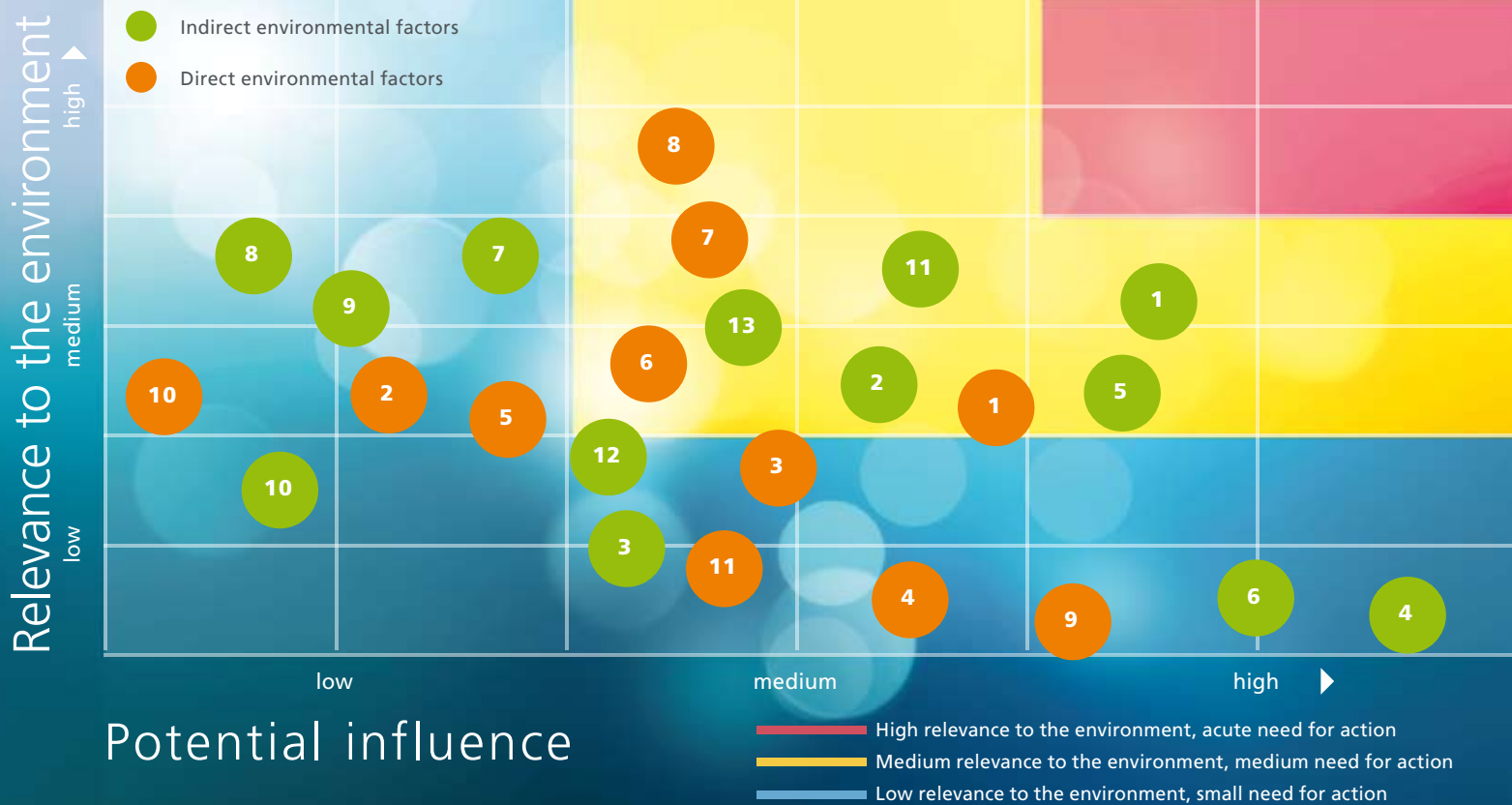
The amounts were calculated from our energy consumption taking the advice of the burner manufacturer into consideration. The details provided by the burner manufacturer and gas suppliers are used as the basis for assessment.

## Coolants

We only acquire new cooling systems if they use state-of-the-art technology. These systems are only operated with ozone-friendly coolants.

As a rule, we work particularly carefully when dealing with coolants. The systems are regularly inspected and maintained.

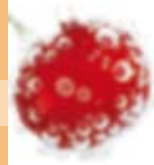




### Direct environmental impacts

### Direct environmental impacts

	Direct factors	Environmental impacts
1	Waste water	Feeding polluted water into bodies of water and groundwater
2	(Air pollutant) emissions	Noise, greenhouse effect
3	Waste	Soil contamination, pollution of air, soil and water when used, land consumption, destruction of natural habitats
4	Noise	Noise pollution caused by production, transport
5	Soil pollution	Groundwater pollution, endangering flora and fauna
6	Dealing with hazardous substances/ water-polluting substances (peracetic acid), coolants	Contamination of soil, human toxicity, ecotoxicity, groundwater pollution, loss of biodiversity
7	Water consumption	Water withdrawal, drying up of water sources, feeding water into the Brölbach, groundwater pollution, water pollution control
8	Energy	Resource consumption, greenhouse effect
9	Visual impairments (high-bay warehouses)	Land consumption
10	Accidents, emergencies, damage	Aquatic ecotoxicity, contamination of soil, air and water, loss of biodiversity
11	X-rays	Health risks posed by increased levels of radiation





# Environmental factors –

*and how they give rise to an overall picture*

## Indirect environmental impacts

Indirect factors	Environmental impacts
1 Product-related impacts (design, development, packaging, transport, use and recycling/ disposal of waste)	Greenhouse effect, resource consumption
2 Environmental performance and environmental behaviour of contractors, subcontractors, service providers and suppliers	Greenhouse effect, resource consumption
3 Capital investments, granting of credit and insurance services	Efficiency measures for resources and energy
4 Administrative and planning decisions	Efficiency measures for resources and energy
5 Marketing and sales	Use of traffic areas, noise emissions, emissions, emissions of pollutants and use of resources, greenhouse effect
6 Range of products offered	Resource consumption
7 Energy production	Use of resources
8 Water supply	Use of groundwater, spring water and surface water
9 Waste water disposal	Feeding waste water into bodies of water, emissions of pollutants caused by incineration of sewage sludge
10 Waste disposal	Land consumption of landfill sites, emissions of pollutants caused by incineration
11 Upstream and downstream manufacturing	Emissions of pollutants, land consumption, use of resources as well as use of groundwater, spring water and surface water, waste water disposal, other environmental impacts
12 Heavy rain	Flooding, high water
13 Hillside location	Landslide

# Environmental factors/definitions

## Direct environmental impacts

- 1 **Waste water:** At both production sites in Bröl and Bad Fallingbostel, there is a risk that polluted water may be fed into neighbouring bodies of water and into groundwater. The employees are well aware of how they should handle water-polluting substances.
- 6 **Dealing with hazardous substances:** Since we use hazardous substances and water-polluting substances at our production sites, there is a risk of soil contamination and groundwater pollution. The use of hazardous substances can also become a health risk for the employees.  
  
In order to counteract this risk, Hazardous Substance Officers are employed at the production sites. There are also people responsible for the land register at each site. All employees attend regular training sessions regarding how to deal with hazardous substances. Furthermore, the substances in question are only stored in a closed area intended for this very purpose. Appropriate safety guidelines have also been drawn up and can be found on the intranet.
- 7 **Water consumption:** It is absolutely not possible for the bodies of water to dry up due to water extraction from the wells which are located on the company premises of the production sites. The water extraction has been approved by the authorities and restricted to a specified amount per year.  
  
Furthermore, purified water is fed back into the Brölbach from our site in Bröl. The employees are well aware of how they should deal with water consumption.
- 8 **Energy:** Our energy consumption is being continuously reduced; this is one of the company's defined environmental targets. In order to achieve this target, we are implementing various energy efficiency measures.

## Indirect environmental impacts

- 1 **Product-related impacts:** Eckes-Granini Deutschland GmbH has defined reducing the weight of its beverage packaging as an environmental target. By reducing the packaging weight, resources can be conserved and the volume of waste can be reduced.
- 2 **Environmental performance and environmental behaviour of contractors, subcontractors, service providers and suppliers:** Suppliers must comply with the environmental guidelines of Eckes-Granini Deutschland GmbH. Certification is carried out by an external third party.
- 5 **Marketing and sales:** We use lorries to transport the goods. In order to keep the lorries' emissions of pollutants to a minimum, all of the company's lorries comply with the Euro 6 emission standard. Furthermore, the lorry drivers are made aware of environmental issues in an "Eco-Drive" training session.
- 11 **Upstream and downstream manufacturing:** The cultivation of the raw materials gives rise to various impacts on the environment. The suppliers are certified by an external third party. The environmental guidelines of Eckes-Granini Deutschland GmbH are always borne in mind.
- 12 **High water/flooding:** At our site in Bröl, heavy rain and long-lasting precipitation can result in the Brölbach tributary flooding. The water is fed back into the tributary by means of a drainage basin. The drainage basin is higher above sea-level than the Brölbach; this means that the hydrostatic pressure is enough to guarantee waste water drainage even in the event of flooding. Therefore, there is no risk of high water/flooding on the company premises
- 13 **Hillside location:** Due to the hillside location of the forest that is situated on the company premises in Bröl, there could be a landslide caused by heavy rain, amongst other things. Trees could well be transported onto the company premises in such a way that escape routes become blocked. This particularly affects the areas around the hazardous materials warehouse as well as the area behind the shipping loading hall.  
  
Reforestation is regularly carried out in order to solidify the ground. This ensures that the risk of a landslide and of soil erosion can be counteracted.



## 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 conditions, 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 multifaceted structure with various interfaces – a network of responsibility, so to speak, which guarantees communication and control.

The Managing Director, Dr. Kay Fischer, assumes primary responsibility for environmental management at Eckes-Granini Deutschland GmbH. Reiner Pfuhl, the Supply Chain Manager, is a member of the executive board. It is also down to him to ensure that the annual internal audit is conducted in full in Nieder-Olm, Bröl and Bad Fallingbostel.

The annual management review for the two production locations and the entire organisation can then be drawn up on the basis of the internal audit. The Manager of Safety, Environmental Protection and Facility Management, Lutz Hofmann, acts as the Environmental Management Representative of Eckes-Granini Deutschland GmbH.





**Lutz Hofmann**

Manager of Safety, Environmental Protection and Facility Management  
Environmental Management Representative of Eckes-Granini Deutschland GmbH

**Rupert Ebenbeck**

Eckes-Granini Group GmbH  
Director  
Corporate Communication

**Sites**

- Site Manager
- Operational Representative
- Company Physician
- Manager of Safety, Environmental Protection and Facility Management
- Works Council
- Safety Officer
- Employee Representatives
- Occupational Safety Specialist
- Site Management

**International Communication****Nieder-Olm**

- International Sustainability Team

Dr. Karl Neuhäuser, Manager of Central Quality Management, as the coordinator for risk management with regard to all potential internal and external risks and dangers, as well as the Site Managers in the various locations, are also incorporated into the organisational structure for environmental protection at Eckes-Granini Deutschland GmbH.

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.



# Life cycle of beverage packaging

## The whole range of packaging types at a glance

Life cycle phase		Description		Life cycle phase		Description	
Manufacturing	GLASS	<b>Raw material extraction:</b> quartz sand, sodium carbonate, lime, dolomite and recycled glass	<p>Glass consists of the natural raw materials (quartz) sand, sodium carbonate, lime and dolomite.</p> <p>An average proportion of 60% recycled glass is used during production. Green glass achieves a recycling rate of 90%.</p>	<b>Raw material extraction:</b> oil	PET	<p>The basic products of PET – ethylene glycol and terephthalate compounds – are extracted from crude oil or natural gas.</p> <p>During the production of PET, these substances are combined to make long chain molecules.</p> <p>As the process continues, you get a viscous molten mass which is pressed into thin strips (extruded), cooled and cut into pellets.</p> <p>In order to achieve the desired product properties, particularly the resistance and strength, the pellets are then subjected to an additional refining step.</p>	
		<b>Glass production:</b> energy	<p>By using recycled glass, the energy consumption can be reduced throughout the production process, as less melting energy is required.</p> <p>Moreover, natural raw materials are conserved and there is less waste.</p>	<b>Production of bottles</b>		<p>A pre-form is produced from the pellets which already contains the required screw cap.</p> <p>The pre-forms are then delivered to the bottlers.</p>	
Use phase		<b>Bottlers</b>	The bottles are filled.	<b>Bottlers</b>		The pre-forms are heated and blown up, a process that gives the bottle its typical shape. They are then inspected with regard to cleanliness, shape and impermeability. Now the bottles can be filled with the beverages.	
		<b>Retailers</b>	Storage and sales	<b>Retailers</b>		Storage and sales	
Recycling/disposal phase		<b>Consumers</b>	After first use, the bottles are either reused in their present form or recycled by the consumer.	<b>Consumers</b>		After use, the bottles are returned to the retailers or recycled by the consumer.	
		<b>Disposal companies</b>	<p>The disposal companies collect the recycled glass. It is cleaned, crushed and melted down.</p> <p>This process ensures that the glass quality is completely maintained.</p>	<b>Disposal companies</b>		<p>The disposal companies use high-tech sorting procedures. They sort the fragments of shredded PET bottles, which also contain other synthetic materials (foil layer in the wall, lid) along with the main PET component, into pure varieties for reuse with the quality required for foodstuffs.</p>	
		<b>Processing of recycled glass</b>	The glass is cleaned, sorted by colour and can be recycled without compromising on quality.	<b>Processing of recycled material</b>		PET is 100% recyclable. However, the material can often not be used an unlimited amount of times, because a certain degree of quality degradation cannot be avoided.	

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

(Source: PLASTIPAK Deutschland GmbH)



Tip: see pages 36-39 for extract on juice production



## Manufacturing

## Use phase

## Recycling/disposal phase

## rPET

## COMPOSITE

Life cycle phase	Description
<b>Raw material extraction: (oil), recycled PET bottles</b>	<p>To ensure that PET bottles can be recycled as rPET, the bottles are initially sorted and washed.</p> <p>In the next step, the bottles undergo a visual inspection; any undesirable parts can be removed by hand here.</p> <p>The bottles and caps are then ground. This gives rise to so-called flakes.</p>
<b>Production of bottles</b>	<p>The flakes are cleaned, rinsed and sorted. The goal is to separate the PET flakes from the cap flakes. This separation is done with the help of 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>In order to remove any impurities, the flakes are sorted and washed several times.</p> <p>During the extrusion process, they are heated up and melted in order to yield pellets. Now the material can be processed into pre-forms. These are a mixture of new, traditional PET material and the recycled material.</p>
<b>Bottlers</b>	Bottles are blown from the pre-forms. Then they are filled.
<b>Retailers</b>	Storage and sales
<b>Consumers</b>	The rPET bottles are treated like disposable PET by the consumer and either returned to the retailer or recycled.
<b>Disposal companies</b>	Collection, processing and sorting
<b>Processing of recycled material</b>	rPET can often not be used an unlimited amount of times, because the quality of the material is gradually lost.

Life cycle phase	Description
<b>Raw material extraction: wood, polyethylene, bauxite</b>	<p>Beverage cartons predominantly consist of the renewable raw material wood. Another key element of the composite packaging is polyethylene (PE) which is an organic material made from carbon and hydrogen. PE arises as a by-product from crude oil refinery. The polyethylene used for beverage cartons does not contain any environmentally-damaging or hazardous additives, i.e. no heavy-metal compounds with cadmium or lead. It also contains no plasticisers.</p> <p>Aluminium serves to protect the beverage from light and oxygen in the compound packaging. Direct contact between the foodstuff and the aluminium is prevented by double-sided coating with the plastic polyethylene; there is thus no risk to health posed by the aluminium.</p>
<b>Production of the carton</b>	A beverage carton consists of various different materials. These are combined to form a compound: the carton made of wood guarantees sustainability, the plastic polyethylene (PE) guarantees the impermeability, and the aluminium prevents light and oxygen from affecting the beverage.
<b>Filling</b>	The aseptic UHT procedure guarantees that the vitamins and the flavour are retained: juices, soups and milk can be stored in beverage cartons for six months and longer without the need for refrigeration. For this purpose, the product is heated to high temperatures in an ultra-short time scale, immediately cooled back down again and only then filled into the sterilised packaging. Vitamins and nutrients are only subjected to thermal stress for short periods of time. The aroma and flavour can thus be retained.
<b>Retailers</b>	Storage and sales
<b>Consumers</b>	The consumer disposes of the deposit-free packaging after use.
<b>Disposal companies</b>	Collection, processing and sorting
<b>Processing of recycled material</b>	Composite packaging is disposed of by means of the dual system and can generally be recycled without any problems. The beverage cartons are first crushed and then put into a so-called pulper. The water causes the paper fibres to swell up and they can then be separated from the plastic and aluminium layers. The pulp is used for paper production. The remaining compound is used either to manufacture replacement fuels, or the aluminium is completely separated from the plastic in highly-specialised systems.

(Source: PLASTIPAK Deutschland GmbH)

(Source: FKN [Association of Carton Packaging for Liquid Foodstuffs])

# The environmental management system

## Acting with the future in mind



1991

1992

1993

1994

1994

1996

1996/97

1997

1998

1998/99

1999

2000

2001

2003

2005

2008

2011

2014

2017

**We are well aware:** sustainability is an ongoing process, and not an absolute state that can be achieved. But we are more than happy to take up the challenge. We consider sustainability management to be a continuous learning process. We deal with sustainability issues intensively and systematically and are always striving for further improvements. As a family company, Eckes-Granini Deutschland GmbH takes its responsibility towards its customers, products and the environment extremely seriously.

Compliance with legal regulations by the company and its employees is absolutely essential in the process. In our Code of Conduct, we oblige each and every individual to comply with both external and internal guidelines. We make it absolutely clear that any infringements will have serious consequences.

**And with success:** there were no complaints relating to infringements by the organisation in the previous year.

Of course, all of our products also leave our premises in compliance with legal requirements, such as the food labelling regulations and the product safety directive.

All of our juices, nectars and fruit juice beverages must pass several quality inspections and are only delivered to retailers after they have proceeded through our electronic approval process. We are also IFS certified and, in the interest of the health of the consumers, are constantly working towards reducing the amount of sugar in the recipes of our fruit nectars and fruit juice beverages.

In order to fully assume our responsibility throughout the entire value chain, we regularly carry out audits on our suppliers. Much like our employees, our suppliers must also comply with the Code of Conduct of Eckes-Granini Deutschland GmbH.

2016 was thus another year in which we at Eckes-Granini Deutschland GmbH honoured our product responsibility in all respects.

Eckes-Granini Deutschland GmbH has demonstrated great commitment in the field of environmental protection for many years now. Proof of this is provided by the regular successful (re)validation of the environmental management system in line with EMAS standards, amongst other things. Furthermore, this also ensures that the environmental protection measures at Eckes-Granini are subjected to a continuous improvement process.

**And this pays off:** the company also faced no complaints, fines or sanctions due to infringements of environmental regulations in 2016.

But sustainability is about much more than just product responsibility and environmental protection. The 'human' aspect also plays an important role, be it internally in the form of our employees or externally in the sense of our social commitment. Particularly during this age of internationalisation and the growing multiculturalism of our society, we find it to be of utmost importance that the diversity of our society is also reflected in our organisation. That is why we are planning to become even more active in this area in the coming years.





# Milestones for environmental protection

*What are we already able to look back on*

Introduction of an environmental management system based on ISO 14001 at the headquarters of Eckes-Granini GmbH in Nieder-Olm.

Expansion of environmental management system to all sites.

Alignment of environmental management system with EMAS.

Publication of first environmental handbook in line with EMAS for site in Bröl.

Praise for the site in Bröl for its particular commitment to environmental protection by the Rhein-Sieg-Kreis district.

The site in Bröl becomes the first facility in the European fruit juice industry to meet the extensive requirements of EMAS I.

The German Association of Independent Business Executives e.V. (ASU) acknowledges the exemplary initiatives of ECKES AG with an award for environmentally-conscious corporate management.

Registration of the site at Bad Fallingbostel in line with EMAS I.

ECKES AG receives the environmental award from the state of Rhineland-Palatinate in the category "The Environmentally-Friendly Company".

The activities of ECKES AG are once more acknowledged with the environmental award from the ASU.

Revalidation of the site in Bröl in line with EMAS I.

Revalidation of the site in Bad Fallingbostel in line with EMAS I.

Registration of the entire ECKES AG group in line with EMAS II, the first organisation in the industry to do so.

Decision about continuation of EMAS standards implemented by ECKES AG for the national Germany subsidiary, Eckes-Granini Deutschland GmbH; continuation of EMAS certification.

Revalidation of Eckes-Granini Deutschland GmbH in line with EMAS II including recertification in accordance with the DIN EN ISO 14001 standard relating to environmental management systems.

Revalidation of Eckes-Granini Deutschland GmbH in line with EMAS II including recertification in accordance with the DIN EN ISO 14001 standard relating to environmental management systems.

Revalidation of Eckes-Granini Deutschland GmbH in line with EMAS III including recertification in accordance with the DIN EN ISO 14001 standard relating to environmental management systems.

Revalidation of ECKES-Granini Deutschland GmbH in line with EMAS III including recertification in accordance with the DIN EN ISO 14001 standard relating to environmental management systems.

Revalidation of Eckes-Granini Deutschland GmbH in line with EMAS III including recertification in accordance with the DIN EN ISO 14001 standard relating to environmental management systems.



Bad Fallingb.



Bröl



Nieder-Olm



# Our locations

## Fit for the future

Eckes-Granini Deutschland GmbH is represented in Germany at a total of three locations. The headquarters of the company with the main administrative and research and development departments are located in Nieder-Olm (Rhineland-Palatinate). Production takes place at our sites in Bröl (North Rhine-Westphalia) and Bad Fallingbostal (Lower Saxony).

All three sites have ultra-modern equipment and are more than “fit for the future” in their entire organisation as well as thanks to their environmental protection management systems, which are operated in line with the highest standards. The individual sites as well as their different fields of business and individual performances with regard to environmental protection are presented on the pages that follow.

### LOCATIONS



**Nieder-Olm** is a town in the Mainz-Bingen district in Rhineland-Palatinate and is located approximately 10 km to the south of the city of Mainz at the heart of Rhinehessen.

**Bad Fallingbostal** is the district town of the Heidekreis. The town has had a state-recognised Kneipp

district in Lower Saxony. spa since 1976.

**Bröl** is a district in the town of Hennef (Sieg) named, like many of the districts in the

in North Rhine-Westphalia and was area, after the nearby Brölbach tributary.



## Nieder-Olm –

### Home of the company



Reiner Pfuhl  
Supply Chain Manager  
of Eckes-Granini Deutschland GmbH  
Environmental Management Representative  
Location: Nieder-Olm

As the people in these parts say, the town of Nieder-Olm is situated "at the heart of Rhinehessen", just 14 km to the south of Mainz in the largely unwooded, but intensively farmed Selz valley, named after the Selz river.

In October 2016, the Eckes-Granini Group GmbH reacquired the buildings and area that had previously been rented out to the company W.R. Real Estate GmbH. This meant that the entire management of the Eckes-Granini properties was once again back in the hands of the company; these amount to approx. 13,000 m<sup>2</sup>.

The A63 motorway which passes by Nieder-Olm has connections with the A60 in the direction of Frankfurt am Main/Bingen to the north and connections with the A61 in the direction of Coblenz/Ludwigshafen to the south.

Nieder-Olm has good train and bus connections to Mainz and Alzey. The distance to Frankfurt am Main is approx. 50 km and to the Rhein-Main airport approx. 40 km.

Around 300 members of staff are employed in Nieder-Olm either by Eckes-Granini Deutschland GmbH or by the Eckes-Granini Group GmbH (90 people by the latter).

We will be taking on the responsibility for waste disposal as well as the supply of heat and water as of 2017. Electricity is purchased centrally for all of our locations.

The environmental management system guarantees that Eckes-Granini Deutschland GmbH complies with its binding obligations.

The Manager of Safety, Environmental Protection and Facility Management at Eckes-Granini Deutschland GmbH is a member of the Committee for Occupational Safety and Environmental Protection (CSP) of Eckes-Granini Deutschland GmbH. He is also present at all CSP meetings at our various sites.





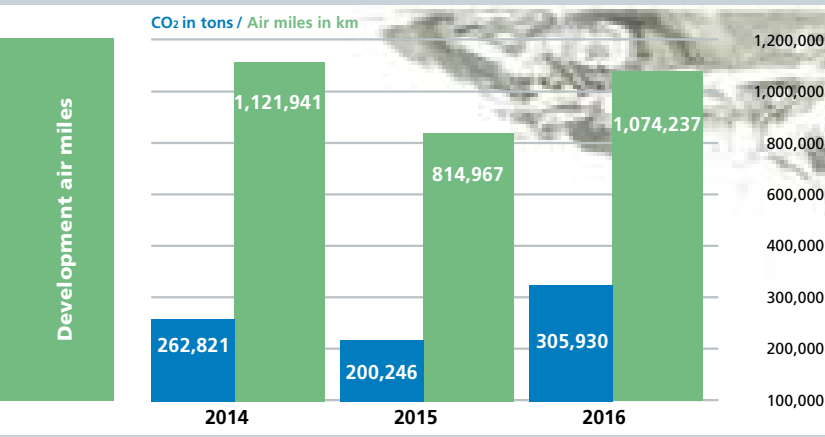


# Nieder-Olm

## Emissions from air miles 2014–2016

### Development air miles 2014–2016

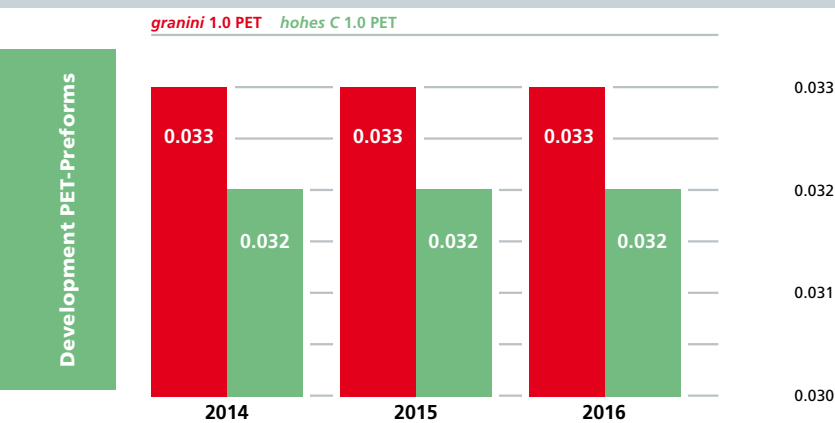
Figures for CO<sub>2</sub>/Air miles



The company has covered more air miles due to the acquisition of the company Rynkeby Foods in Denmark. Unfortunately, there are more aeroplanes on these routes with increased CO<sub>2</sub> emissions.

### PET-Preforms 2014–2016

Specific material efficiency Mass flow/1,000 l of juice



In the last couple of years, it has not been possible to further reduce the weight in any pertinent manner.

Predictions by Eckes-Granini Deutschland GmbH relating to material efficiency can be made on the basis of the development of the PET packaging for *granini* and *hohes C*, which makes up a proportion of 75 % of all bottling volumes.

This ensures that we have the opportunity to document the mass flow.



## Developments in energy consumption and amounts of water/waste water – 2014–2016

### Energy

Energy consumption has decreased sharply compared to the previous year (2015).

In general, it should be noted that the energy consumption is greatly dependent on the number of tests and trials in the technology centre of the research and development department; as a consequence of the reduced number of test series, the energy consumption could be significantly reduced. Furthermore, energy-saving lighting has been installed during renovation and new building projects. This measure also had an impact on the reduction in energy consumption.

The reduced gas consumption was a result of the mild winter and the associated shortened heating periods.

As of 2017, all energy sources will now be purchased centrally by us. Water will continue to be obtained regionally.

The corresponding renovation of buildings 61/71 is planned for 2017 and 2018.

### Water

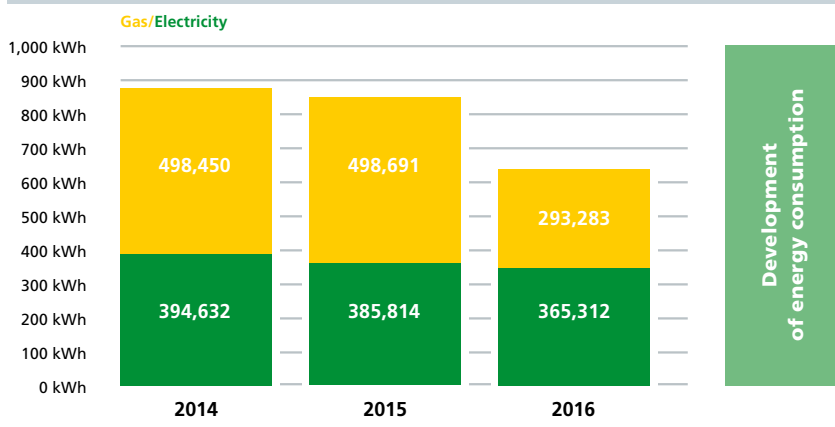
Water consumption is also greatly dependent on the number of tests and trials in the technology centre of the research and development department. The volume of waste water, which has remained more or less constant compared to the volume of water, is attributable to the basis for calculation of the discharge agreement valid as of 2005 regarding volumes of water.

All remaining waste water from tests and trials is fed into the sewage treatment plant. All packaging is sent to the biogas facility.

Water consumption has once again been reduced compared to the previous year (2015). Further conversion/renovation works will take place in buildings 61/71 in 2017 and 2018.

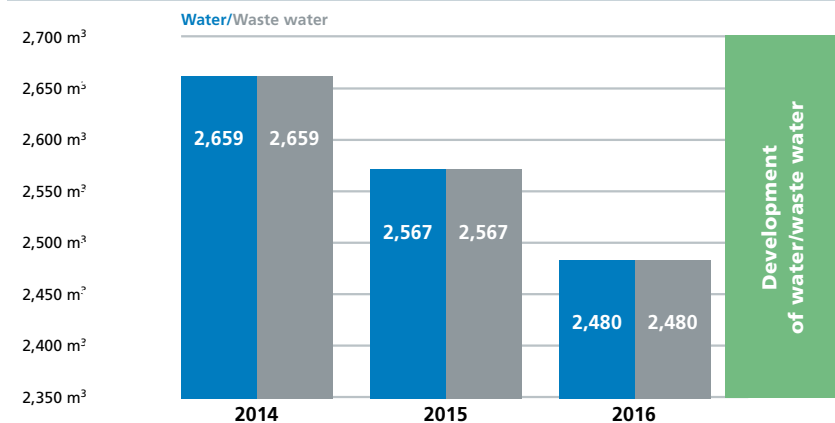
### Development of energy consumption 2014–2016

Development of energy consumption/kWh x 1,000



### Development of water and waste water 2014–2016

Development of water and waste water in m<sup>3</sup>



# Nieder-Olm

## Developments in the amount of waste – 2016 waste

The company Meinhardt Städtereinigung GmbH & Co. KG works for us as a waste disposal company.

Our waste disposal companies process our waste as follows:

- Processing for reutilisation
- Recycling
- Other use, in particular energetic utilisation and backfilling
- Disposal

### Waste includes:

- Chemicals
- Waste for reutilisation
- Films (yellow bin)
- PET bottles
- Glass bottles
- Wood
- Metal
- Confidential documents
- Data carriers
- Other waste (for example, bulky waste)



We work with the company GRS-Batterien to ensure that all common button cells and batteries are properly disposed of.

“Meike – der Sammeldrache”, an institution of the Alba Group, is responsible for the disposal of our empty printer cartridges and mobile devices.

We receive rewards points for the collected printer cartridges and mobile devices. We donate these to a day care centre for children which can in turn redeem the points for non-cash prizes, such as computer accessories, books and sports equipment, etc.

The containers left over from quality assurance (retention samples, specimens, etc.) and from tests and trials in the technical centre are disposed of by the waste disposal company Huhn, as are non-sellable goods from the staff shop (expired use-by date) and food waste from the company restaurant.

More materials were fed to the biogas plant thanks to the additional disposal of the retention samples.







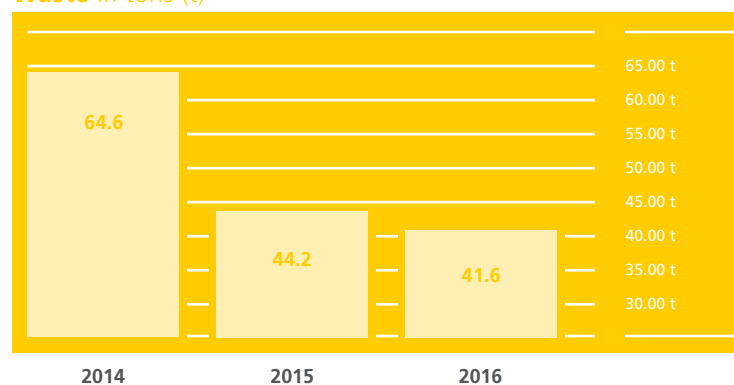
Electronic waste is recycled by the waste disposal company E&O Recycling GmbH.

A specialist electronics company deals with the disposal of light bulbs, fluorescent tubes and LED lights.

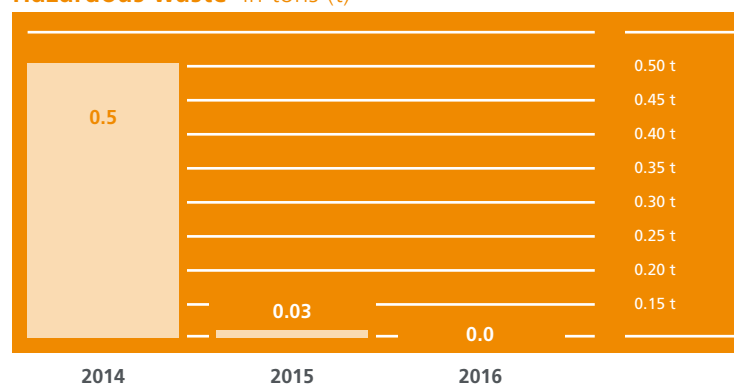
The companies that currently work with Eckes-Granini Deutschland GmbH are qualified waste disposal companies; these companies are audited at irregular intervals.

They all currently have confirmation that they are recognised waste disposal companies. The contractual conditions have remained the same for the current year.

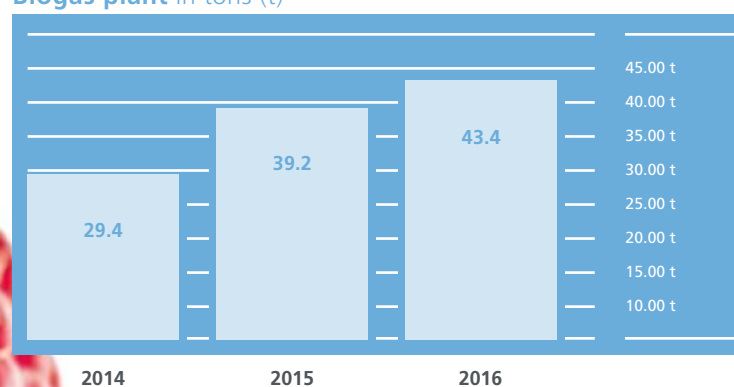
#### Waste in tons (t)



#### Hazardous waste in tons (t)



#### Biogas plant in tons (t)



# ENVIRONMENTAL TARGETS – 2014–2017 PROGRAMS

## Target

## Measures

1. Improved quality management	<ol style="list-style-type: none"> <li>1. The aseptic and hygiene status of the PET fillings is constantly being developed thanks to the cross-functional cooperation (Project I-ACT) of all sites with aseptic filling processes.</li> <li>2. The effectiveness of the risk management system is being further developed with professionally managed crisis situation exercises</li> <li>3. The inefficiencies of the processes in the QM module arising from the SAP/HiScore project are being analysed and improved in the framework of Release 5.</li> </ol>
2. Sustainability	The 2020 Sustainable Goals – adopted across the company – are being regularly reviewed to check their degree of achievement.
3. Corporate Responsibility (CR) – Außendarstellung	Supporting ZIRP
4. 20 % reduction in CO <sub>2</sub> -emissions from logistics in five years	TÜV Nord audit, Logistics Akademie Janz – basic calculation
5. Reduction in multi-layer PET packaging	Plasmax installation in Bad Fallingbostel
6. Savings in primary energy	Cogeneration plant at site in Bröl
7. Reduction in complexity and amount of secondary packaging materials	Analysis of all secondary packaging materials
8. Less freight calculated in km	Central logistics – transition
9. Prepare internal environmental audit	Environmental statement updated on an annual basis and validated by auditor.
10. Inform employees about environmental protection within the company	Periodic reporting on environmental status in works meetings, department meetings, publication of environmental statement on the intranet, expanding information on the intranet, regular articles in the employee magazine
11. External communication regarding environmental protection	Publication of environmental statement following successful EMAS registration.

# ENVIRONMENTAL TARGETS – 2017–2020 PROGRAMS

## Target

## Measures

1. Enhanced quality management	<ol style="list-style-type: none"> <li>1. The aseptic and hygiene status of the PET fillings is constantly being developed thanks to the cross-functional cooperation (Project I-ACT) of all locations with aseptic filling processes.</li> <li>2. The effectiveness of the risk management system is being further developed with professionally managed crisis situation exercises.</li> </ol>
2. Sustainability	<ul style="list-style-type: none"> <li>• ZNU partnership</li> <li>• Eckes-Granini-Group targets</li> <li>• Tracking</li> <li>• EcoVadis</li> </ul>
3. EMAS support	Auditing of Rynkeby Denmark
4. Lean & Green logistics, 20% reduction in CO <sub>2</sub> -emissions in five years	TÜV Nord audit, Logistics Akademie Janz – basic calculation
5. Reduction in multi-layer PET packaging	Increase use of Plasmax coating for PET bottles
6. Savings in primary energy	<ul style="list-style-type: none"> <li>• Energy register</li> <li>• Monitoring, software</li> <li>• CIP</li> </ul>
7. Prepare internal environmental audit	Environmental statement updated on an annual basis and validated by auditor
8. Inform employees about environmental protection within the company	Periodic reporting on environmental status in works meetings, department meetings, publication of environmental statement on the intranet, expanding information on the intranet, regular articles in the employee magazine
9. External communication regarding environmental protection	Publication of environmental statement following successful EMAS registration.
10. Health and safety	<ul style="list-style-type: none"> <li>• Health management</li> <li>• Safety</li> <li>• Nutrition</li> </ul>



## 2016 TRANSITION PROCESS

## NIEDER-OLM

Responsible person	Measured parameter	Dates	Degree of achievement
Central Quality Management	Number of complaints has remained low. Necessary product destruction has been reduced.	2014–2017	Permanently ongoing process
	Crisis situation exercise with external support and introduction of improvement measures.	2014/ 2014–2015	Implemented Implemented
	Reduction of purely administrative work in Release 5	2014	Concluded in mid-2015, completion in 2016
Supply Chain Manager Sustainability Coordinator	Adopted "2020 Sustainable Goals"	2014–2017	Permanently ongoing process
Supply Chain Manager	Agreement	2014	Supporting member, completed
Logistics Manager in Nieder-Olm	Lean & Green label 20% checklist in field of logistics	2014	Received award, permanently ongoing process
Site Manager in Bad Fallingbostel, Research and Development (R&D)	85 million bottles per year with coating instead of multi-layer	Go-live Januar 2015	Evaluation completed, measures still being implemented, completed 03/2015
Supply Chain Services Manager	20 % less primary energy for minimum load of electricity in Bröl	Mitte 2015	Project started, implemented end of 2015, adapted in 2016, stopped due to EEG apportionment
Supply Chain Services Manager	10 % less complexity	2014–2015	Evaluation completed measures still being implemented, completed
Logistics Manager in Nieder-Olm	Freight reduction	2015	Completed
Manager of Safety, Environmental Protection and Facility Management	Internal environmental audit	2014–2017	Permanently ongoing process
Environmental Management Representative		2014–2017	Permanently ongoing process
Executive Board	3,000 copies in German and English	2014	Permanently ongoing process

## NIEDER-OLM

Responsible person	Measured parameter	Dates	Degree of achievement
Central Quality Management	<ul style="list-style-type: none"> <li>Number of complaints has remained low. Necessary product destruction has been reduced.</li> <li>Crisis situation exercise with professional external support and introduction of improvement measures.</li> </ul>	2017–2020	Ongoing process
Supply Chain Manager	Participation/exchanges 2020 Sustainable Goals	2017–2020	Ongoing process
Manager of Safety, Environmental Protection and Facility Management	EMAS introduction and validation	2018	Certificate
Logistics Manager in Nieder-Olm	Lean & Green Label Star Award	2017	Received award, on-going process
Site Manager in Bad Fallingbostel/ Site Manager in Bröl	10% more coatings compared to previous year	2017–2020	
Site Manager in Bad Fallingbostel/ Site Manager in Bröl	<ul style="list-style-type: none"> <li>Land register plan</li> <li>Software installed</li> <li>-10% gas and electricity</li> </ul>	2020	Project started
Manager of Safety, Environmental Protection and Facility Management	Internal environmental audit, annual report	2017–2020	Ongoing process
Environmental Management Representative	Roll-ups 2x per years	2017–2020	Ongoing process
Manager of Safety, Environmental Protection and Facility Management	2,500 copies in German and English	2017–2020	Ongoing process
Executive Board	<ul style="list-style-type: none"> <li>Auditing</li> <li>Monitoring, accidents at work</li> <li>Sugar strategy</li> </ul>	2017–2020	Ongoing process



Bröl –

*Great diversity*









# Bröl –

## Great diversity



**Volker Spohr**  
Site Manager  
Environmental Management Representative  
Location: Bröl



### The essential facts

Bröl, a district in the town of Hennef, is located approximately 20 km to the north-east of Bonn in the Bergisches Land natural park on the B478 and in the "Bröl, Waldbrölbach and the forests of the middle Bröl valley which lie immediately to the south".

The biggest Eckes-Granini Deutschland GmbH site for the production, bottling and storage of fruit juices, fruit nectars and fruit juice beverages is located here in Bröl with 262 employees.

The high-bay warehouse with approx. 37,500 pallet storage places – which was commissioned in 1999 – is the biggest and most modern Eckes-Granini warehouse in Germany.

The entire works site is 141,000 m<sup>2</sup> in size, of which 70,000 m<sup>2</sup> is covered by woodlands and green spaces; many of these are completely natural and remain untouched. The size of the built-over areas amounts to 41,630 m<sup>2</sup> and the size of the sealed areas to 29,370 m<sup>2</sup>.







The material efficiency is based on the site-specific input-output balance sheets.

## MANUFACTURING

Storage (raw Material, Packaging Material)

Juice mixing

## PRODUCTION

Bottling

## EGD WAREHOUSE

Storage

Number of items: approx. 280 units

Commissioning,  
preparation and shipping

## ESTATE

Biodiversity	(Land usage)
Total size	141,000 m <sup>2</sup>
Current built-over areas	41,630 m <sup>2</sup>
Sealed areas	29,370 m <sup>2</sup>
Woodlands and green spaces	70,000 m <sup>2</sup>

## INPUT 2016

Juice, juice concentrate, nectars,  
vitamins, flavours

approx. 54.252 million kg

cider apples

approx. 22.587 million kg

Bottles and other packaging

Bottles approx. 4.3 million units

Tetra approx. 15.6 million units

SIG approx. 20.6 million units

Preforms approx. 171.9 million units

Auxiliary materials  
(glues, R+D resources)

Cartons 491 t

Caps approx. 3.7 million units

Labels approx. 220.7 million units

Films approx. 223.1 million units

Straws 611 t

Fitments approx. 19.0 million units

Carry handles for six-packs approx. 19.5 million units

Electrical energy without logistics

Natural gas 14,200,254 kWh

Diesel 33,373,026 kWh

Drinking water 245,034 l

Well water 424,437 m<sup>3</sup>

27,299 m<sup>3</sup>

## OUTPUT 2016

Fruit juices, nectars and  
fruity beverages

Premix approx. 214.778 million l

Total approx. 3.017 million l

approx. 217.616 million l

Total units

Bottles approx. 46.4 million

Tetra 0.2 l approx. 16.7 million

SIG 1.5 l approx. 19.9 million

PET-Bottles 0.5 l approx. 13.1 million

PET-Bottles 1.0 l approx. 165.2 million

CO<sub>2</sub>-Emissions

Diesel (Oil/diesel 0.26071 kg/kWh,  
1 l = 10.08 kWh)

Gas (0.200418 kg/kWh)

From gas approx. 6,689 t

From diesel approx. 644 t

Noise

< 80 dB(A)

Waste water

249,422 m<sup>3</sup>

Waste

(glass, cardboard, labels, plastics,  
metals, films, commercial waste,  
composite packaging)

approx. 1,663 t

Sewage sludge/  
compost/organic waste

264 t

Of which apple stalks

154 t

Apple pomace

5,246 t

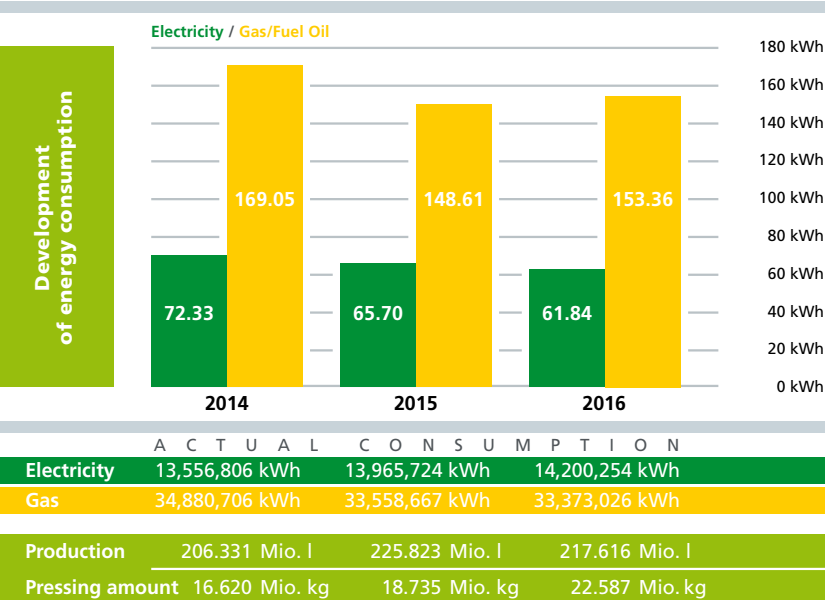
# Key indicators

## for energy consumption

### Development of energy consumption 2014–2016

#### Energy efficiency index

Energy kWh/1,000 l of juice incl. pressing, but without logistics



### Gas

The gas consumption remained practically constant from 2015 to 2016 despite a reduction in the production volume by approx. 3%.

- One of the reasons for this was a further improvement of the system efficiency and particularly of the PET system. Furthermore, the condensate drains were subjected to systematic monitoring to ensure that losses of steam could be reduced.

### Electricity

The electricity consumption was able to be reduced by approx. 6%.

This can be traced back to the targeted measures relating to reducing electricity consumption

- Compressed air generation: implementation of a systematic leakage monitoring system in respect of compressed air.
- Lighting: the existing lighting has been and continues to be gradually converted to LED technology. Savings of approx. 75% were able to be achieved in the areas of yard lighting and logistics (HQL spotlights) in particular. Since the lights used for logistics are turned on around the clock, the potential for savings was particularly large here.
- Open circuit protection of the new glass transporter was installed into the glass system.

### Diesel

As of 2016, the consumptions refer retrospectively to the company's own vehicle fleet in the updated environmental statement.

- Thanks to the ongoing training of the drivers and the transition of the vehicle fleet to the Euro 6 emission standard, the diesel consumption could once again be reduced.

### Development of CO<sub>2</sub>-emissions 2014–2016

Time period	2014	2015	2016
Gas (t)	6,991 t	6,726 t	6,689 t
Diesel (t)	922 t	763 t	644 t

### Specific CO<sub>2</sub>-emissions 2014–2016

Gas (t)	0.0339 t	0.0298 t	0.0307 t
Diesel (t)	0.0045 t	0.0034 t	0.0030 t

### Actual consumption

Diesel (l)	350,663 l	290,425 l	245,034 l
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## Water

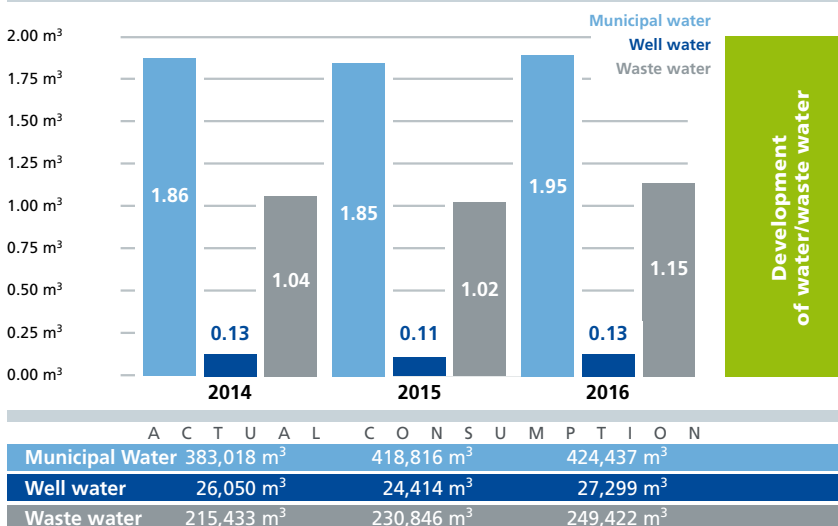
- The key figure for water consumption increased slightly from 1.85 m<sup>3</sup>/1,000 l of juice in the year 2015 to 1.95 m<sup>3</sup>/1,000 l of juice in the year 2016.
  - The specific water consumption has developed negatively from 2015 to 2016.
- Along with the previously mentioned quantitative effects, a growth in volume of 10% of *granini Die Limo* is another reason behind the increased water consumption.

## Waste water

- The key figure for the volume of waste water has slightly increased from 1.02 m<sup>3</sup>/1,000 l of juice in 2015 to 1.15 m<sup>3</sup>/1,000 l of juice in 2016.
- The increase in the amount of waste water must be seen in the wider context of the increased amount of pressing in 2016 compared to the previous year 2015. This increase in production alone is responsible for an additional volume of waste water amounting to more than 2 million litres.
- Moreover, a technical fault on the cooling tower of an SIG machine resulted in an increased amount of waste water. The fault has been repaired. It is also intended to replace this bottling line in 2018.

## Development of Water/waste water 2014–2016

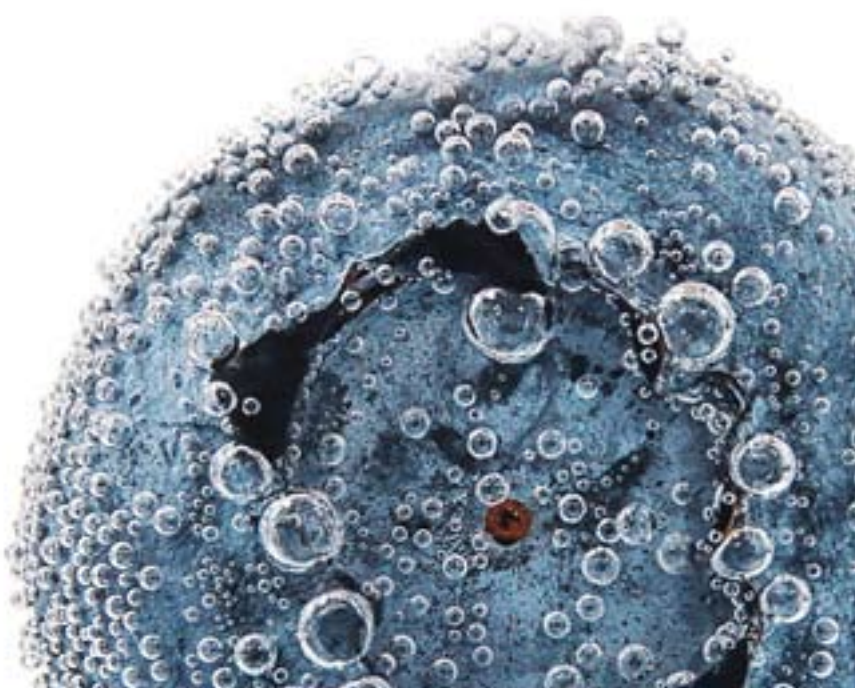
Water/waste water figures in m<sup>3</sup>/1,000 l of juice without logistics



## Peracetic acid consumption 2014–2016

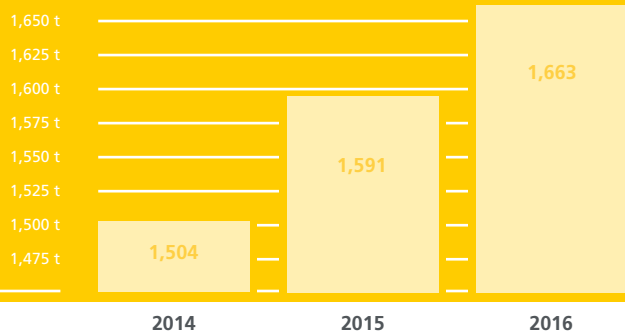
Time period	2014	2015	2016
Actual consumption	103.6 t	140.8 t	137.6 t
Specific consumption	0.50 t	0.62 t	0.63 t

The consumption of peracetic acid remained roughly the same despite the reduction in production volume.



# Development of the waste volume of the most significant waste typical for production 2014-2016

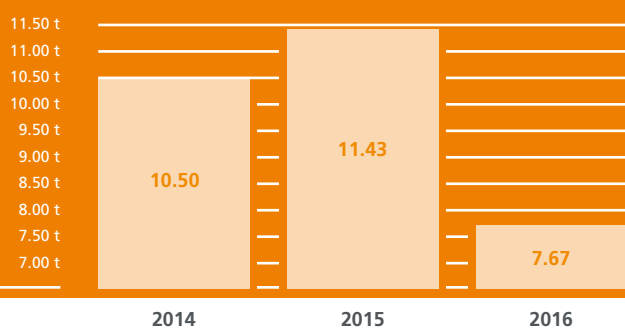
**Waste in tons (t)**



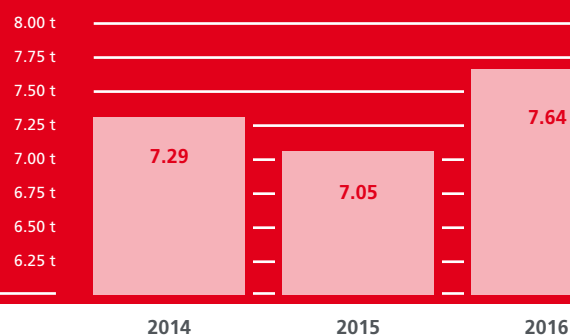
The companies that currently work with Eckes-Granini Deutschland are qualified waste disposal companies. They are audited at irregular intervals. They all currently have confirmation that they are recognised waste disposal companies.

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

**Hazardous waste in tons (t)**



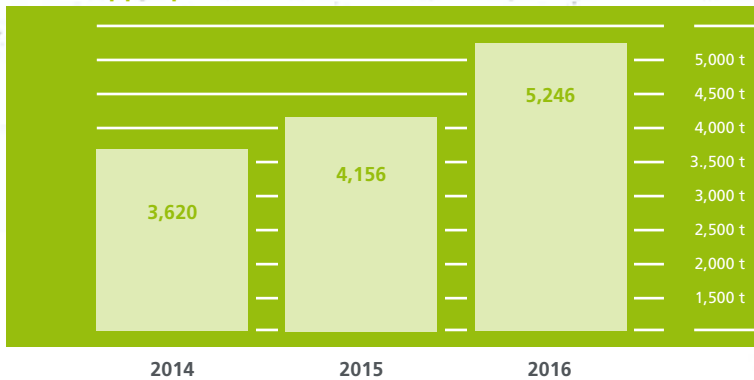
**Specific Waste in tons (t)/1 million liters of Juice**





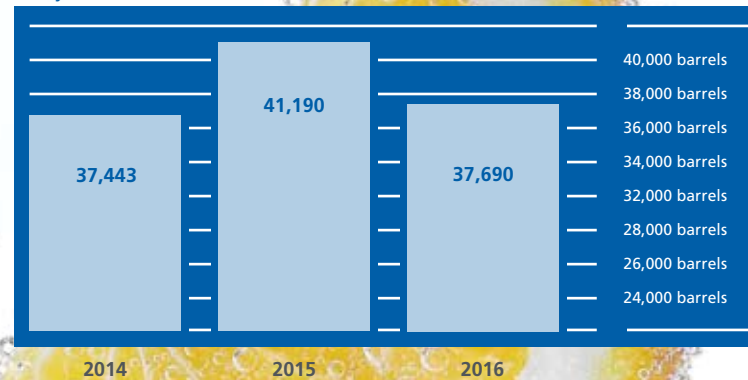


### Apple pomace in tons (t)



The amount of pressing in 2016 was considerably greater than in previous years.

### Recycled barrels



Barrels and recycling:  
100% of barrels are passed on for recycling.



## ENVIRONMENTAL TARGETS – 2014–2017 PROGRAMS

### Target

### Measures

1. At very least maintenance of or reduction in the specific consumptions per 1,000 l (bottled juice) in relation to the 2013 values	Continuation of consistent energy management
2. Monitoring of energy consumption with optimisation	Measurement of energy flows in the glass line as well as PET 1 and 2. Installation of additional compressed air, water and electricity meters incl. incorporation into our new AIS system (Proleit) in order to achieve reductions in energy consumption in a timely manner
3. Incorporation of PET 2 peracetic acid recycling to reduce the amount of chemicals	Conversion and reprogramming of rinsers with peracetic acid, water mixture return
4. PET tuning PET 2, improve eco-efficiency	Shortening of juice changeover times thanks to reprogramming and conversion of the valve cluster for the separate cleaning of pasteurisation systems, sterile tanks, filling nodes and fillers. Savings: water, waste water and energy.
5. PET tuning PET 1, improve eco-efficiency	Shortening of juice changeover times thanks to reprogramming and conversion of the valve cluster for the separate cleaning of pasteurisation systems, sterile tanks, filling nodes and fillers. Savings: water, waste water and energy.
6. Savings in primary energy	Cogeneration plant at site in Bröl
7. Further training of our employees in the field of environmental protection within the company	Implementation of 2014–2017 training plans, central training of representatives of the site
8. External communication regarding environmental protection	Publication of environmental statement following successful EMAS registration

## ENVIRONMENTAL TARGETS – 2017–2020 PROGRAMS

### Target

### Measures

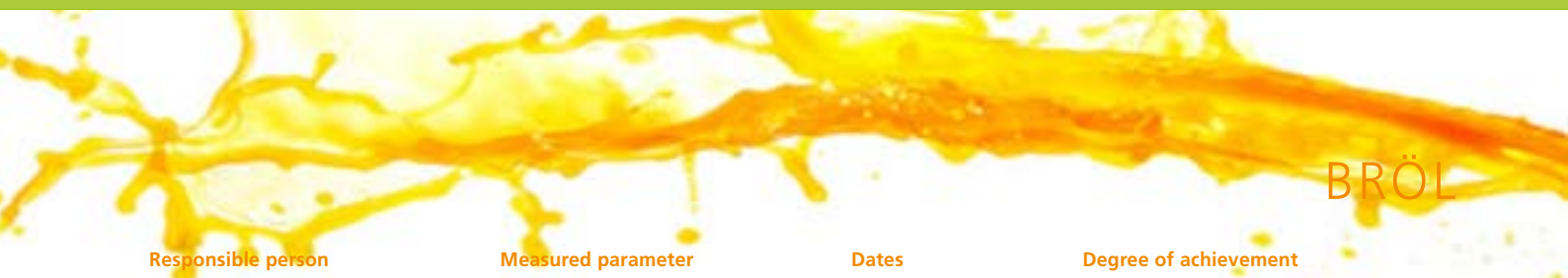
1. At very least maintenance of or reduction in the specific consumptions per 1,000 l (bottled juice) in relation to the 2016 values	Continuation of consistent energy management
2. Implementation of an energy management system	Measurement of energy flows in the entire field of production Where necessary, installation of additional compressed air, water and electricity meters incl. incorporation into the energy management system (Proleit) in order to achieve reductions in energy consumption in a timely manner Establishing an appropriate organisational structure
3. Reduction of municipal waste	Analysis of municipal waste, assessment of disposal methods, adopt measures
4. In the case of a fire: prevention of use of extinguishing water via the rainwater duct system in the Brölbach tributary	Retention device – decide on and install system
5. Increase in proportion of PET 2 mono-layer bottles	Plasmax system optimisation
6. Further training of our employees in the field of environmental protection within the company	Implementation of 2017–2020 training plans, central training of representatives of the site
7. External communication regarding environmental protection	Publication of environmental statement following successful EMAS registration



## 2016 TRANSITION PROCESS

BRÖL

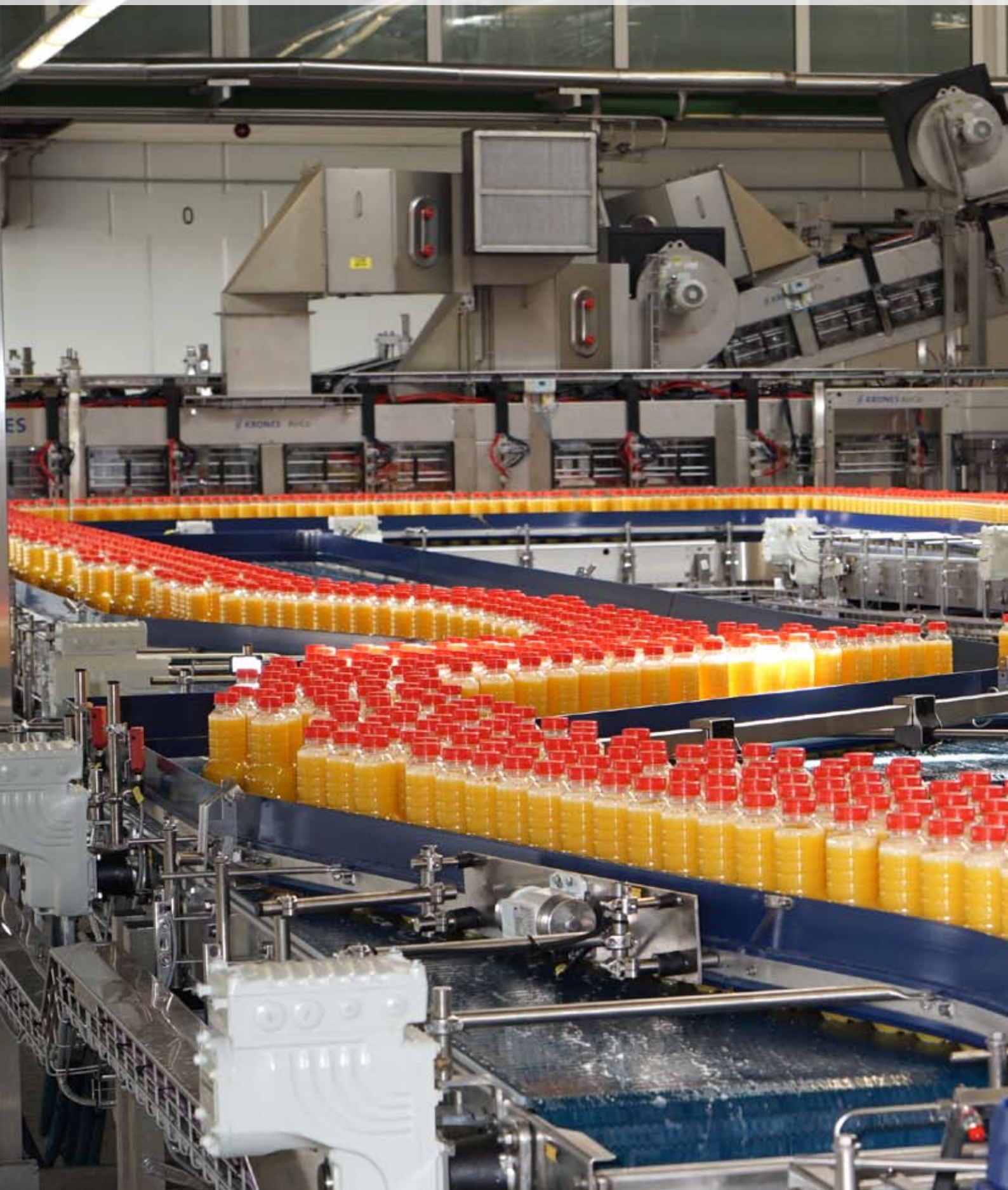
Responsible person	Measured parameter	Dates	Degree of achievement
Site Manager, Production Manager, Treatment Plant Manager, Technology Manager	Gas 169.00 kWh – 5 % Electricity 72.00 kWh – 5 % Water 1.85 m <sup>3</sup> – 2 % Waste water 1.00 m <sup>3</sup> – 2 %	2014–2017	Gas 153.36 kWh Electricity 61.84 kWh Water 1.94 m <sup>3</sup> Waste water 1.15 m <sup>3</sup>
Site Manager, Technology Manager, Production Manager, CIP Team, CIP Coordinator		2016	Degree of achievement 80 % Additional activities for 2017
Aseptics Manager	Reduction in consumption of water and waste water by 20 m <sup>3</sup> /day and peracetic acid by 500 kg/month	2014	Completed
Site Manager, Technology Manager, Production Manager, Aseptics Team Leader	Savings of at least 15 minutes per juice changeover	2015	Completed in 2014
Site Manager, Technology Manager, Production Manager, Aseptics Team Leader	Savings of at least 15 minutes per juice changeover	2015	Completed in 01.2015
Supply Chain Manager	20 % less primary energy for minimum load of electricity in Bröl	Mid-2015	Not implemented
Departmental Manager, HR Manager		2014–2017	Permanently ongoing process
Corporate Communications		2014–2017	Permanently ongoing process



Responsible person	Measured parameter	Dates	Degree of achievement
Site Manager, Production Manager, Treatment Plant Manager, Technology Manager	Gas 153.36 kWh – 5 % Electricity 61.84 kWh – 5 % Water 1.94 m <sup>3</sup> – 2 % Waste water 1.15 m <sup>3</sup> – 2 %	2017–2020	
Site Manager, Technology Manager, Production Manager, CIP Team, CIP Coordinator		2017–2020	
Site Manager	10% from 2016 figure	2020	
Site Manager, Treatment Plant Manager		2018	
Technology Manager, Production Manager	5 %	2018	
Departmental Manager, HR Manager		2017–2020	Ongoing process
Corporate Communications		2017–2020	Ongoing process

## Bad Fallingbösel –

*Modern and highly productive*









# Bad Fallingbostel –

Modern and highly productive



**Hermann Naumann**  
Site Manager  
Environmental Management Representative  
Location: Bad Fallingbostel



## The essential facts

The Eckes-Granini Deutschland GmbH site in Bad Fallingbostel (Lower Saxony) commenced operations in 1989/90. The brand classics *hohes C* and *granini* *Trinkgenuss* are delivered from this site to the supermarket shelves.

40,000 m<sup>2</sup> of green spaces, some of which are completely natural and remain untouched, shape the landscape of the works site (85,000 m<sup>2</sup> in size in total). The site is located more or less at the centre of the Heidekreis district and is part of the southern area of Lüneberg Heath on the edge of "Hohe Heidmark" (a biosphere region) with direct connections to the A7 federal motorway.

Approx. 125 employees work in a continuous three-shift system to produce and package around 125 million litres of juice per year – approximately one third of the entire production volume of Eckes-Granini in Germany.

A new cold-aseptic PET bottling system was installed at the site in 2016; this system was put into operation in July. We also use the new "vitamin-safe procedure" for our PET bottles in which the inner wall of the PET bottles is coated with a wafer-thin, completely transparent layer of glass. This layer of glass guarantees that the contents of the bottle are optimally protected against external influences. The bottles are 100 % recyclable.







The material efficiency is based on the site-specific input-output balance sheets.

## MANUFACTURING

Storage (raw Material, Packaging Material)

Juice mixing

## PRODUCTION

Bottling

## EGD WAREHOUSE

Storage

Number of items: approx. 270 units

Commissioning,  
preparation and shipping

## ESTATE

Biodiversity (Land usage)

Total size 85,000 m<sup>2</sup>

Current built-over areas 25,200 m<sup>2</sup>

Sealed areas 12,000 m<sup>2</sup>

Woodlands and green spaces 47,800 m<sup>2</sup>

## INPUT 2016

Juice, juice concentrate, vitamins,  
flavours

approx. 21.60 Mio. kg

Auxiliary materials  
(glues, R+D resources)

535.78 t

Bottles and other packaging

SIG approx. 12.05 million units

Preform approx. 74.60 million units

Bag-in-Box approx. 0.73 million units

Cartons

rd. 3.6 million units

Caps

PET approx. 71.54 million units

SIG approx. 13.04 million units

Labels

approx. 71.80 million units

Carry handles for six-packs

approx. 12.03 million units

Electrical energy without logistics

5,678,602 kWh

Natural gas

10,337,596 kWh

Diesel

68,995 l

Drinking water

120,833 m<sup>3</sup>

Well water

82,372 m<sup>3</sup>

## OUTPUT 2016

Fruit juices, nectars and  
fruity beverages

Premix approx. 94.03 million l

approx. 0.29 million l

Gesamt approx. 94.32 million l

Total units

PET-Bottles approx. 67.80 million

SIG approx. 11.90 million

Bag-in-Box units approx. 0.71 million

CO<sub>2</sub>-Emissions

Diesel (Oil/diesel 0.26071 kg/kWh,

1 l = 10.08 kWh)

Gas (0.200418 kg/kWh)

From gas approx. 2,068 t

From diesel approx. 182 t

Noise

< 80 dB(A)

Waste water

90,740 m<sup>3</sup>

Waste

(glass, cardboard, labels, metals,  
films, plastics, composite packaging,  
commercial waste, organic waste)

approx. 1,395 t

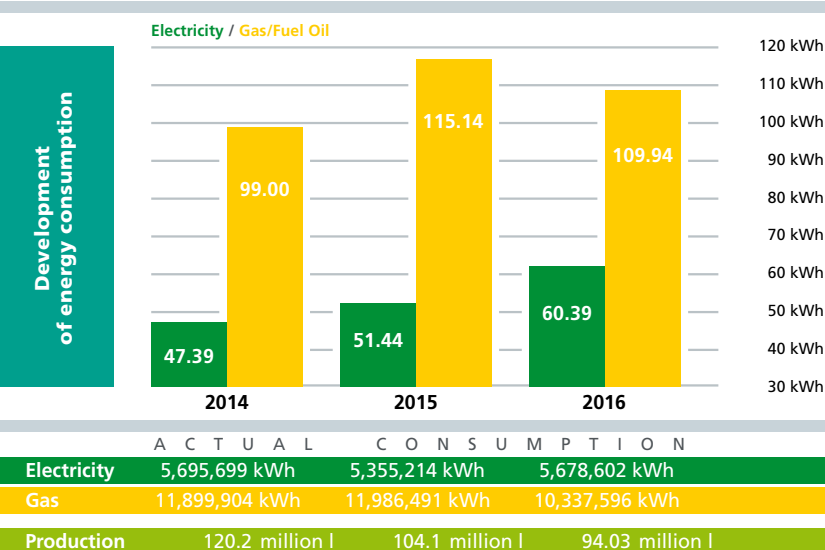
# Key indicators

## for energy consumption

### Development of energy consumption 2014–2016

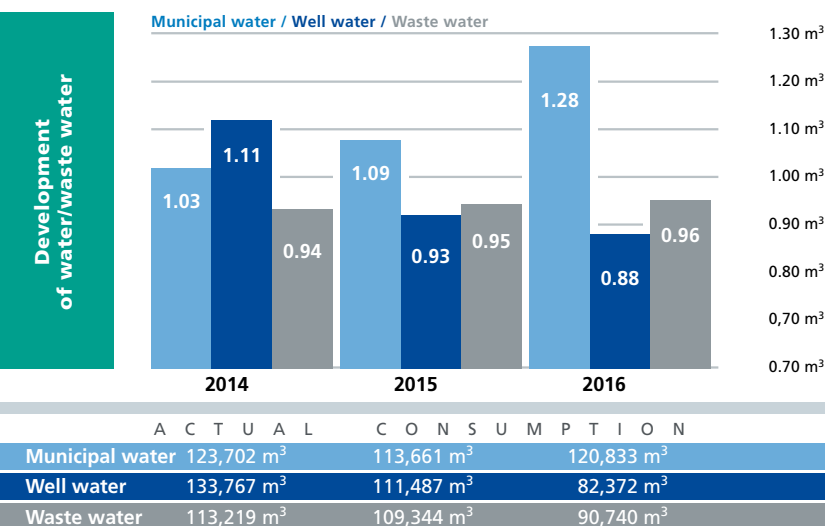
#### Energy efficiency index

Energy kWh/1,000 l of juice without logistics



### Development of water/waste water 2014–2016

Water/waste water figures in m<sup>3</sup>/1,000 l of juice without logistics



### Development of CO<sub>2</sub>-emissions 2014–2016

Time period	2014	2015	2016
Gas (t)	2,385 t	2,402 t	2,068 t
Diesel (t)	264 t	196 t	182 t

### Specific CO<sub>2</sub>-emissions 2014–2016

Gas (t)	0.0198 t	0.0231 t	0.0220 t
Diesel (t)	0.0022 t	0.0019 t	0.0019 t

### Actual consumption

Diesel (l)	100,418 l	74,480 l	68,995 l
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### Peracetic acid consumption 2014–2016

Time period	2014	2015	2016
Actual consumption	77.55 t	67.17 t	35.82 t
Specific consumption	0.64 t	0.64 t	0.63 t

## Energy

2016 was considered to be a year of transition from the old, wet to the new, dry PET technology.

This means that the installation and commissioning of the new technology, along with various tests and validation runs, took place in this year. Our old PET system was operated in parallel until June 2016 and subsequently switched off. Due to the various tests, validations and trial runs of the new line, the energy values – and particularly those for electricity – did not remain as constant as they normally do.

## Water

2016 was considered to be a year of transition from the old, wet to the new, dry PET technology. This means that the installation and commissioning of the new technology, along with various tests and validation runs, took place in this year.

Our old PET system was operated in parallel until June 2016 and subsequently switched off. Despite the various tests, validations and trial runs of the new line, the water values remained practically constant from 2015 to 2016.

Use of municipal water:

in line with our obligations, 100,000 m<sup>3</sup> of water must come from municipal sources each year.

The waste water polluting loads lay within the average COD (chemical oxygen demand) value range <1.5.

### Hydrogen peroxide consumption 2016

Time period	2016
Actual consumption	50.10 t
Specific consumption	1.33 t



# Development of the waste volume of the

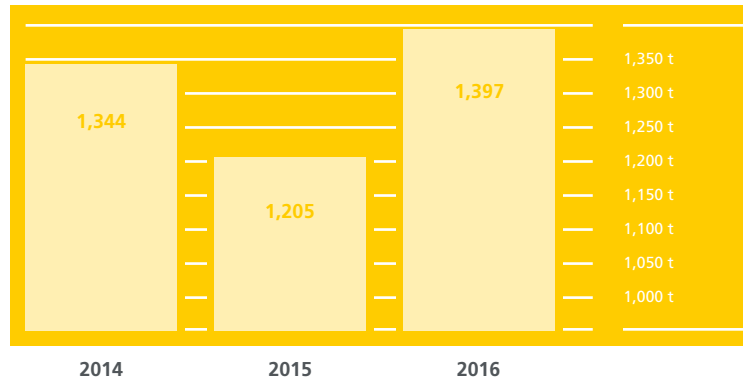
most significant waste typical for production 2014-2016



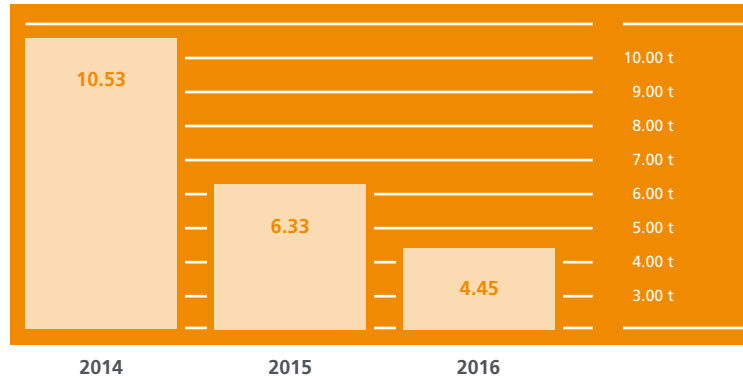
The waste management at the site was considered to be exemplary in 2016. The companies that currently work with Eckes-Granini Deutschland GmbH are qualified waste disposal companies which are audited at irregular intervals. Moreover, they all currently have confirmation that they are recognised waste disposal companies.

The contractual conditions have remained the same for the year 2016.

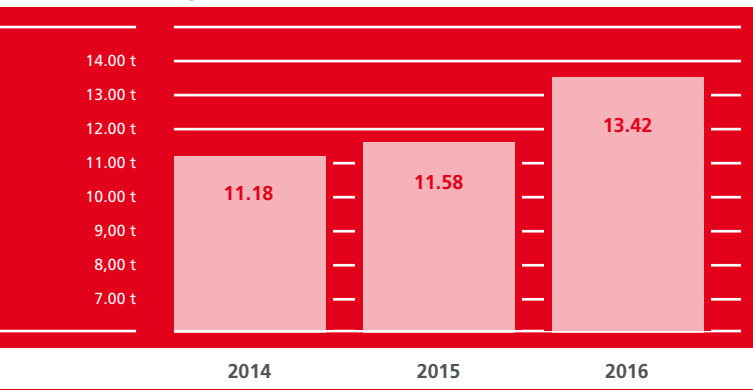
**Waste** in tons (t)



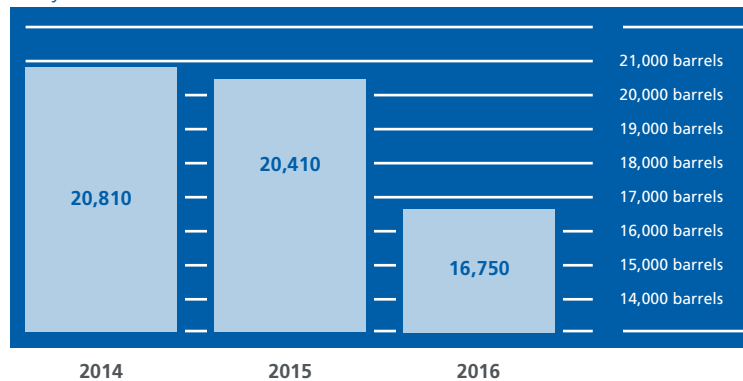
**Hazardous waste** in tons (t)



**Specific Waste** in tons (t)/1 million liters of Juice



**Recycled barrels**



**Barrels and recycling:**  
100% of barrels are passed on for recycling.

## ENVIRONMENTAL TARGETS – 2014–2017 PROGRAMS

### Target

### Measures

1. Maintenance of energy-specific consumptions per 1,000 l of juice.	Continuation of consistent energy management
2. Replacement of existing refrigeration units (R22) with ozone-friendly cooling agents.	Status check and creation of a new refrigeration concept for the field of juice production. Replacement of the old refrigeration units with natural cooling agents.
3. Creation of a new internal site well water concept. Reduction of the yearly amount obtained/of well water consumption.	In order to be able to take an even more sensitive approach to water resources in the future, a new concept for the obtainment and use of well water has been drafted. This only deals with process water for production.
4. Incorporation of peracetic acid recycling on the PET system to reduce the amount of chemicals	Conversion incl. programming work on the existing bottle rinser. Restoration of peracetic solution which would otherwise have been thrown away
5. Replacement of gas burners incl. a new control system on the steam boiler 1 (4 t).	Thanks to the use of a new burner with an optimised oxygen control system, we hope to make savings of 4% in gas.
6. Study into cogeneration plant at site in Bad Fallingbösel.	Development and review of alternative energy sources. Preparation of a feasibility study with regard to a cogeneration plant at the site in Bad Fallingbösel.
7. Further training of our employees in the field of environmental protection within the company	Implementation of 2014-2017 training plans, central training of representatives of the site
8. External communication regarding environmental protection	Publication of environmental statement following successful EMAS registration

## ENVIRONMENTAL TARGETS – 2017–2020 PROGRAMS

### Target

### Measures

1. At very least maintenance of or reduction in the specific consumptions per 1,000 l of bottled juice in relation to the 2016 values	Continuation of consistent energy management
2. Reduction in multi-layer PET packaging	Use Plasmax coating on more PET bottles
3. Savings in primary energy	<ul style="list-style-type: none"> <li>• Energy register</li> <li>• Monitoring-software</li> <li>• ABC energy analysis</li> </ul>
4. New 4 bar compressed air network (ACF process air)	Installation of new air compressors incl. piping system in order to adequately serve the sterilisation process of the aseptic bottling system
5. COD waste water reduction	Average discharge of waste water with a COD content < 1,000 mg/l from the site into the municipal waste water system
6. Phosphate-free waste water	Conversion and adjustment of cleaning chemicals to phosphate-free operation
7. Further training of our employees in the field of environmental protection within the company	Implementation of 2017-2020 training plans, central training of representatives of the site
8. External communication regarding environmental protection	Publication of environmental statement following successful EMAS registration





## TRANSITION PROCESS 2016

## BAD FALLINGBOSTEL

Responsible person	Measured parameter	Dates	Degree of achievement
Site Manager, Production Manager, Site Maintenance Manager	Gas 106.00 kWh – 3 % Strom 45.00 kWh – 3 % Wasser 1.88 m <sup>3</sup> – 2 % Abwasser 0.80 m <sup>3</sup> – 3 %	2014–2017	109.94 kWh 60.39 kWh 2.16 m <sup>3</sup> 0.96 m <sup>3</sup>
Site Manager Site Maintenance Manager		2014	Implemented
Site Manager Aseptics Coordinator	Key figures from the 2014 study yet to be determined. Target is an absolute reduction of < 10% on the current values captured in 2013.	2015	Commissioning of the new PET system, parallel operation with old system until autumn 2016. Well water concept to take effect from January 2017.
Site Manager, Site Maintenance Manager	Reduction in consumption of peracetic acid by approx. 220 kg/month	2015	Not implemented, since new PET system was bought.
Site Maintenance Manager	Cumulative consumption in 2013 = 99.5 kWh/1,000 l of juice	2015	Implemented
Site Manager, Site Maintenance Manager, Aseptics Coordinator		2016	Not profitable due to the new PET structure
Departmental Manager, HR Manager		2014–2017	Permanently ongoing process
Corporate Communications		2014–2017	Permanently ongoing process



## BAD FALLINGBOSTEL

Responsible person	Measured parameter	Dates	Degree of achievement
Site Manager, Production Manager, Site Maintenance Manager	Gas 109.94 kWh – 5 % Electricity* 60.39 kWh – 5 % Water 2.16 m <sup>3</sup> – 2 % Waste water 0.96 m <sup>3</sup> – 2 % * 2015 commissioning of Plasmax system	2017 – 2020	
Site Manager in Bad Fallingbostel	10 % of PET vs. previous year	2017–2020	
Site Manager in Bad Fallingbostel	<ul style="list-style-type: none"> <li>Land register plan</li> <li>Software installed</li> <li>Master plan for savings in energy</li> </ul>	2020 2017 2017	Project started
Site Manager in Bad Fallingbostel		2017	
Technology Manager		2018	
Site Manager in Bad Fallingbostel		2017–2020	
Departmental Manager, HR Manager		2017–2020	Ongoing process
Corporate Communications		2017–2020	Ongoing process



# ENVIRONMENTAL VERIFIER'S DECLARATION ON VERIFICATION AND VALIDATION ACTIVITIES

**TÜV NORD**

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. Ortmund Janson-Mundel, accredited for the "NACE codes 10.32, 10.39, 11.07 and 48.34"  
declares to have verified that the whole organisation

**Eckes-Granini  
Deutschland GmbH  
Ludwig-Eckes-Platz 1  
55268 Nieder-Olm  
Germany**

**Eckes-Granini  
Deutschland GmbH  
Werk Bröl  
Katharinental  
53773 Hennef / Sieg  
Germany**

as indicated in the environmental statement 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 (EMAS).

By signing this declaration, it is declared that  
- the verification and validation confirms that there is no evidence of  
requirements of Regulation (EC) No 1221/2009,  
- the outcome of the verification and validation relating to the environment,  
- non-compliance with applicable legal requirements of the organisation  
- the data and information of the environmental statement of all the organisations activities,  
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.

Essen, 2017-05-19

*Dr. Ortmund Janson-Mundel*  
Dr. Ortmund Janson-Mundel  
Umweltgutachterin  
DE-V-0193

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

Am TÜV 1

30519 Hannover

*Dr. Kay Fischer*

Dr. Kay Fischer  
Managing Director  
Eckes-Granini Deutschland GmbH

*Reiner Pfuhl*

Reiner Pfuhl  
Supply Chain Manager  
Eckes-Granini Deutschland GmbH

*Dr. Karl Neuhäuser*

Dr. Karl Neuhäuser  
Manager of Central Quality Management  
Eckes-Granini Deutschland GmbH

*Lutz Hofmann*

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



**EMAS**

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



# Environmental protection

*a win-win for everyone*

**At Eckes-Granini Deutschland GmbH, we know one thing for sure:  
environmental commitment pays off!**

This is clearly demonstrated by the facts and figures outlined in this environmental statement. Numerous improvements in our production processes and savings with regard to the consumption of raw and auxiliary materials prove that we are on the right track with our environmental measures and that environmental protection is important not only ecologically, but also economically.

As part of a process of continuous improvement, we will continue to remain dedicated to the environmental management system developed by our company in line with EMAS standards.

## **Date for the publication of the next environmental statement**

The next consolidated and printed version of the environmental statement for Eckes-Granini Deutschland GmbH will be made available in May 2020.

Registration number of the environmental auditor  
DE-V-0193

Dr. Ortrun Janson-Mundel  
TÜV NORD CERT UMWELTGUTACHTER GmbH  
Managing Director  
Am TÜV 1  
30519 Hannover, Germany

Our environmental auditor, Dr. Ortrun Janson-Mundel (sitting in the middle), presented the EMAS validation certificate to the Managing Director of Eckes-Granini Deutschland GmbH, Dr. Kay Fischer (sitting on the left), and the Manager of Safety, Environmental Protection and Facility Management, Lutz Hofmann (sitting on the right), amongst others. The team responsible for the environmental statement also organised the official handover of the validation certificate.

People from left to right sitting, then standing: 1. Dr. Kay Fischer (Managing Director of Eckes-Granini Deutschland GmbH); 2. Dr. Ortrun Janson-Mundel (TÜV NORD CERT Environmental Auditor); 3. Lutz Hofmann (Manager of Safety, Environmental Protection and Facility Management); standing: 4. Rupert Ebenbeck (Director of Corporate Communication for the Eckes-Granini Group GmbH); 5. Volker Spohr (Site Manager in Bröl, Environmental Management Representative of the site in Bröl); 6. Dr. Karl Neuhäuser (Manager of Central Quality Management); 7. Hermann Naumann (Site Manager in Bad Fallingbösel, Environmental Management Representative of the site in Bad Fallingbösel); 8. Reiner Pfuhl (Supply Chain Manager of Eckes-Granini Deutschland GmbH, Environmental Management Representative).



# Environmental definitions –



One term for all

## **"Sustainability",**

for Eckes-Granini, means taking its responsibilities seriously in order to ensure that ecological, social and economic systems are preserved in their original state for future generations.

## **"Corporate Social Responsibility" (CSR),**

also often known as Sustainable Corporate Governance, describes the voluntary contribution that a company makes to sustainable development. CSR should promote responsible corporate behaviour in business activities with respect to the environment and relationships with employees (in the workplace) as well as relationships with other relevant stakeholders and interest groups.

## **"Corporate Responsibility"**

refers to holistic entrepreneurial responsibility.

## **"Global Reporting Initiative" (GRI)**

is an NGO which, with the participation of various interest groups, has developed a set of sustainability reporting guidelines with the goal of making reporting non-financial information more comparable.

## **"EMAS"**

refers to Regulation (EC) No. 1221/2009 of the European Parliament and Council dated 25 November 2009 relating to the voluntary participation by organisations in a Community eco-management and audit system.

## **"Environmental policy"**

comprises an organisation's overall aims and principles of action with respect to the environment, including compliance with all applicable legal requirements relating to the environment and also a commitment to the continuous improvement of environmental performance. The environmental policy provides the framework for setting and reviewing environmental objectives and targets.

## **"Continuous improvement of environmental performance"**

describes a process of annual, continuous improvements to the measurable results of the environmental management system. The improvements relate to the management measures of the company with regard to its main environmental factors, which are based on the environmental policy and the respective environmental objectives and targets. These improvements do not have to happen at the same time in all fields of activity.

## **"Environmental performance"**

comprises the results of the company management with regard to the defined environmental factors:

prevention of significant pollution through the use of processes, practices, materials or products that avoid, reduce or control environmental pollution. These may include recycling, the treatment of waste, changes to processes, control mechanisms, efficient use of resources and material substitution.





#### **“Environmental review”**

is an initial comprehensive analysis of the environmental issues, impacts and performance related to an organisation’s activities.

#### **“Environmental factor”**

means an element of a company’s activities, products or services that can have an impact on the environment.

#### **“Environmental impact”**

means any change to the environment, whether adverse or beneficial, wholly or partially resulting from a company’s activities, products or services.

#### **“Environmental programme”**

describes the measures taken or planned and establishes deadlines for when and how environmental objectives and targets (responsibilities and resources) should be achieved.

#### **“Environmental objective”**

means an overall environmental goal which the company sets itself. It arises from the environmental policy and should be quantifiable where possible.

#### **“Environmental target”**

means a detailed performance requirement which may be quantified where possible and which is applicable to the company or individual parts thereof. The performance requirement arises from the environmental objectives and needs to be set and met in order to achieve those objectives.

#### **“Environmental management system”**

is the part of the overall management system that comprises the organisational structure, planning activities, responsibilities, practices, techniques, processes and resources needed to develop, put into practice, implement, evaluate and maintain the environmental policy.

#### **“Environmental audit”**

refers to a management tool that comprises a systematic, documented, regular and objective assessment of the environmental performance of the company, of the management system and of the processes intended to protect the environment. It makes it easier for the company management to review the practices that may have an impact on the environment.

#### **“Environmental auditor”**

is a person or organisation who is independent of the company to be audited and who is authorised to review the company in line with the conditions and procedures set out in EMAS Chapter 5.





# Imprint

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## **Printing**

Kunze & Partner, Mainz, Germany

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