



SUSTAINABILITY REPORT 2016/2017

Guidelines for responsible
entrepreneurial conduct

LEGAL NOTICE

4. Zentis GmbH & Co. KG Sustainability Report

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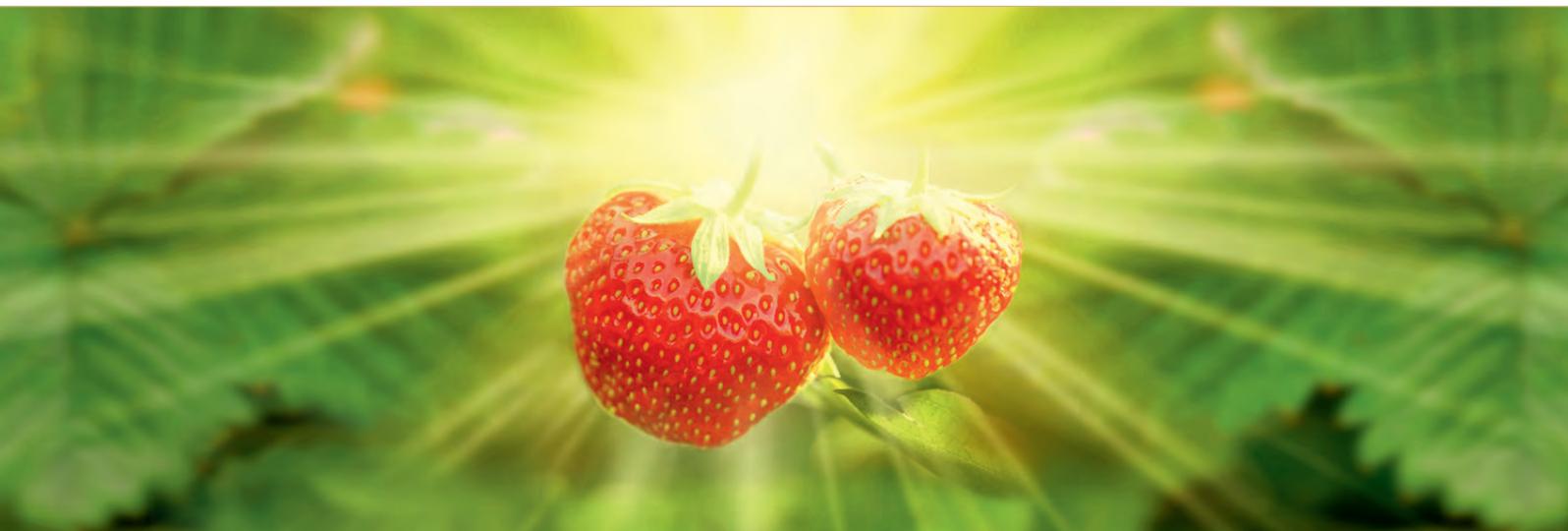
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FOREWORD

We have specialised in the processing and refining of fruit and other natural raw materials for 125 years. Nature has always been our most important supplier and thus an essential factor for our company's success. This makes it all the more important to handle available resources with care.

In our company, sustainable development means equal consideration for ecological, economic and social issues – in the form of active responsibility for our corporate actions along the entire value chain.

As a medium-sized company in family ownership, we are willing and able to implement long-term strategies beyond short-term investors' interests. We also consistently make use of this freedom in our commitment to sustainability.

We take responsibility, both within the company and towards our suppliers and partners.

We maintain long-term and intensive partnerships with our suppliers and customers. We resolutely endeavour to achieve close cooperation and transparent communication. This was also demonstrated by our first Supplier Day.

Our responsibility extends even further to working and growing conditions at our producers – especially for the raw materials palm oil, cocoa and coffee, as well

as nuts. We have steadily increased the use of RSPO certified palm oil and UTZ-certified cocoa. Where we cannot work with certification, we try to take influence on our suppliers. In particular, our consumers are paying more attention to these topics.

Efficient and resource-saving production is another central point of our activities. The successes are becoming less comprehensive at the high level already achieved, yet this does not diminish our ambition.

Another aspect of our sustainability strategy is action geared towards innovation and quality. For innovative, future-oriented products, we need not only our many years of expert knowledge, but also the close cooperation with our customers. Our quality and safety standards are manifested in established processes that are audited regularly.

We see the possibilities of digitisation in this area as a great opportunity to optimise processes and supply chains. We are already active in initial projects, e.g. in the area of "smart containers".

We welcome the fact that, in addition to the quality of their food, an increasing number of consumers keep an eye on where it originates and on how it is processed. We use proven and new channels for our customer communication in order to be consistently transparent and up-to-date.



We are proud of the above-average length of service of our employees. We want to support this by offering a safe, interesting work environment. This includes stringent personnel development and qualification opportunities, the shortage of skilled workers is also becoming partly noticeable in our company. New concepts were successfully launched in the reporting period.

Business development in recent years has been characterised by declining volumes and sales, partly due to the loss of a major customer and strong competition in Europe.

The development of our global business and expansion abroad are becoming increasingly important. We see decisive growth potential here for the future. The integration of the foreign subsidiaries – also in sustainability controlling – is being systematically pursued. Conversely, we have significantly consolidated the activities of Zentis Logistik GmbH and established it as the central logistics service provider for Zentis GmbH & Co. KG.

In this fourth Sustainability Report, we have taken advantage of the opportunities offered by the new reporting standard in accordance with the Global Reporting Initiative (GRI Standard) and have once again clearly focused on and identified our key topics. We describe corresponding developments and results in the following report and can report on many positive developments.

Henceforth, our sustainability management will be managed as a separate staff unit and assigned to the Quality Management Department.

The current market situation holds significant challenges for the future. Declining demand for consumer goods is characterising European markets. The decreasing population in Europe on the one hand and continuing globalisation on the other will result in more changes. A rise in demand for raw materials and concentration processes on the consumer side will bring about tangible changes.

The company also faces risks, for example those resulting from exchange-rate fluctuations or the global networking of flows of raw materials and goods.

The consequences of climate change, such as drought, frost and crop failures, can also influence us. Forward-looking action is essential in order to counteract these trends.

We are making Zentis strong for the future with new ideas and products for new markets, and sustainable management is one of the key elements of our strategy for the future.

Please use this Zentis sustainability report to inform yourself about our activities. We hope it makes for informative reading.



Karl-Heinz Johnen



Stephan Jansen



Norbert Weichele



ABOUT THIS REPORT

This report is the fourth Zentis GmbH & Co. KG sustainability report. Our company provides information on the reporting years of 2016 and 2017; the report is thus a stringent continuation of the 2011, 2012/2013 and 2014/2015 reports. It also contains selected current information from 2018.

Our third sustainability report, published in 2016, already outlined a number of positive developments. The feedback from our different stakeholder groups was equally as positive. It is thus clear to us how important the cross-departmental handling of topics for our report is. In future we will also document our efforts. We will continue to publish a report every two years. The next report will thus probably be published in 2020.

This report contains quantitative data and qualitative representations on Zentis Germany (Zentis GmbH & Co. KG incl. Zentis Logistik Service GmbH) and all the subsidiaries abroad. Included are Poland, Hungary, USA with all three locations, as well as Russia, with not all the data being collectible for Russia as a sales location.

(Further information on our subsidiaries can be found in chapter 1 “Zentis – Our Company” and in the appendix)

We are aware that credible reporting is based on transparency and reliable facts. This is why representatives from all relevant areas of our company have been addressing the question of sustainability since 2011. When necessary, they meet in a working group.

At the end of 2017, responsibility for sustainability management changed from the Controlling Division to Quality Management. In addition, a new position has been created so that one employee is now exclusively responsible for the development of sustainability management and reporting processes. Naturally, all the relevant company divisions and specialist departments are involved in the coverage and preparation of specialised topics and for quantitative data and descriptive information.



We measure our performance in all the relevant fields with our own indicators or with Global Reporting Initiative (GRI) indicators. Our Balanced Scorecard (BSC) also includes selected sustainability indicators and quantitative targets.

We focus on the following points for the Aachen location: all the direct and indirect greenhouse gas emissions from gas and electricity and the total volume of recycled, reused water. The amount of raw materials processed shown as a percentage for which the risk of child labour cannot be completely ruled out. The number of accidents and the amount of waste are also documented.



Zentis Aachen-Eilendorf, Plant II

INVOLVEMENT OF OUR STAKEHOLDERS

Our stakeholders are individuals, groups and institutions who are in contact with us, on whom we have an influence and whose activities have an effect on us. These were already defined in the Working Group “Sustainability” for the first Sustainability Report and confirmed again in 2016.

They include staff members (incl. works council), customers (industry, trade and consumers), suppliers and producers, civil society, players in the Aachen region and the media. The group of stakeholders also includes the partners and the advisory board.

Employees are involved by way of corporate communication (showcases, e-mails and intranet) and appraisals. Regular training courses and cross-departmental working groups are in place.

Our suppliers are trained. We involve them through written agreements.

We make contact with consumer groups using the conventional communication channels (website, telephone, social media and the press).



Industrial customers are contractually bound to our company. Direct cooperation, sometimes at the customer’s site, makes a permanent exchange possible. The owner families and partners are integrated into the company, while the various media groups are supervised by the “Public Relations” Division. There was no additional involvement for this report.

WHAT IS MATERIAL?

Sustainability covers many areas. We are not able to provide all the details of our sustainability activities in this report, which is why we have given some thought to the areas in which our main influences lie and report only on these. The materiality analysis also serves our aim to report in full and not forget any important aspect. Our sustainability management also gives priority to key issues.

In the run-up to our first Sustainability Report in 2011, intensive, externally moderated workshops were held with colleagues from all relevant corporate divisions to identify the Zentis key issues. In addition, we conducted and evaluated selected surveys with our stakeholders. This solid information basis has since then been continuously reviewed and adapted.

The requirements of our customers, suppliers and NGOs, current media coverage, current trends and the results of our market research are continuously taken into account. With this Sustainability Report, we have completed the transition from the GRI guideline version G4 to the GRI standard. We are thus taking advantage of the opportunity to focus more strongly on our key topics. This report has been prepared in accordance with the GRI Standards: Core option. Zentis also follows the sector-specific guidelines, the Sector Guidance “Food Processing”.



No external audit was carried out. However, the sustainability agency triple innova advises us on fundamental questions regarding the application of the GRI standard and in the process of preparing the report.

Preceding this report, the fields of our material effects were again updated and described in externally moderated discussions with the individual divisions of our company and confirmed by the corporate management:

- A resource-conserving production is important to us, which is why we address the aspects of energy, water, emissions, waste water and waste for all our production locations. We also have an eye on our logistics when it comes to energy and emissions.
- For us, forward-looking, customer-oriented management means above all product quality, customer health and safety, innovative product development and customer service. We practice this at all our locations, and in close cooperation with our customers.
- We are aware of our responsibility in the procurement of raw materials and report on the selection of our suppliers and our dealings with our suppliers as well as on the ecological and social situation in the producing countries.
- Our employees make Zentis what it is. We report on the central topics of employment, qualification, occupational safety and health protection as well as compliance for all our locations.

If you have any questions about this report, please contact us at the following e-mail address nachhaltigkeit@zentis.de or by post to Zentis GmbH und Co. KG, Jülicher Straße 177, 52070 Aachen, Germany





1. ZENTIS – OUR COMPANY

COMPANY PROFILE

Zentis GmbH & Co. KG is one of Europe's leading fruit processors, supplying fruit and vegetable preparations as well as raw marzipan for the processing dairy, bakery and confectionery industry. The company is also one of the largest producers of jams and sweet spreads. Our company stands for unparalleled expertise in the processing of fruit and other natural raw materials. Zentis is synonymous with first-class products, an uncompromising quality policy and a genuine passion for fruit.



Zentis Colonial Wares Store in the Adalbertsteinweg, 1893

Founded in Aachen (Germany) in 1893, our company's head office is still located there today. We are celebrating our 125th anniversary in summer 2018.

Our parent plant in Aachen-Jülicher Straße (Plant I) houses the production of fruit preparations, jams and the administrative centre. The plant in Aachen-Eilendorf (Plant II) houses the production of confectionery, the Purchasing Department and the head office of Zentis Logistik Service GmbH. Altogether 1,318 employees work in the two factories.

The Zentis Group has a staff of 901 employees at six sites abroad (one each in Poland, Hungary and Russia and three in the USA). The sites abroad produce mainly fruit preparations for the processing industry.

The Zentis Group employs 2,219 people worldwide.

DEVELOPMENT OF NUMBER OF EMPLOYEES

	2013	2014	2015	2016	2017
Germany	1,580	1,482	1,449	1,429	1,318
Total abroad	773	906	935	924	901

(status: each as of 31 Dec.)

COMPANY STRUCTURE

Zentis has been in family ownership since it was established. The partners are the owner families. The executive and controlling bodies of the company are the management and the advisory board. The three current managers constitute the highest management body.

They each represent the following areas of responsibility:

1. Marketing, sales, human resources and logistics
2. Production, product development, purchasing and technology
3. Finance and IT/organisation

The advisory board is made up of members of the owner families and external specialists. They advise the management.

The external members of the advisory board are economists who are or were leading executives of large corporations or consulting companies.

BUSINESS SEGMENTS AND TURNOVER

Our selection covers a wide product range, for the processing industry and also for final consumers. As a supplier for international and national industries, we produce high-quality fruit and vegetable preparations and raw marzipan. In cooperative partnerships with our B2B customers, we develop custom-made solutions in the respective markets for the dairy, baking and confectionery industries. Our international operations conduct sales worldwide. Our products for final consumers comprise sweet spreads and confectionery and mainly target the German market.



Fruit preparations for the baking industry

Our company is organised in five strategic business segments. They all account for a significant share of our company’s sales result and are a part of its comprehensive strategy.

OUR STRATEGIC BUSINESS SEGMENTS

BUSINESS SEGMENT	TURNOVER 2017
Dairy industry (fruit preparations for the dairy sector)	73%
Non-dairy (fruit preparations and raw marzipan for the baking and confectionery industry)	6%
Sweet spreads (food retail sector)	14%
Confectionery (food retail sector)	6%
Logistics	1%

Detailed information on our products can be found in chapter 2, on our logistics in chapter 3.

In 2017 we achieved overall sales revenues for the Group in an amount of around 669 million euros.

SALES DEVELOPMENT

	2013	2014	2015	2016	2017
Sales revenue in EUR million	749	678	683	666	669

FOREIGN BUSINESS

Our business is international, while at the same time being focused on the respective regional markets. We have had our own factories abroad since 1997. In 2011 our foreign branches already accounted for more than 30% of our Group turnover. This share had been increased to almost 39% by 2015 and remains at 39% at the end of 2017.

Our branches are in Europe, the USA and Russia. Besides Germany, our company is represented in four countries with its own operations. These locations abroad serve different markets. They perform different principal functions and have various production focuses. They are the basis of international expansion for us.

POLAND

With Zentis Polska Sp. z o.o., in Żelków, we serve the markets in Russia, Scandinavia and the Baltic States. Founded in 1995, with 310 employees it is the oldest and largest foreign location and also the biggest producer of fruit preparations for the dairy and bakery industry in Central and Eastern Europe.

HUNGARY

Zentis took full control of Zentis Hungária Bt. in Drégyalánk from the Swiss company Obermeilen in 2000. The plant, which specializes in fruit preparations and baking fillings, has had its own development laboratory since 2008. The company supplies the Balkans, Austria and partly also Southern Germany. This is where, with 105 employees, we develop samples for south-eastern European markets such as Romania, Bulgaria, Slovenia, Serbia and Albania.

USA

We have been active on the American continent with Zentis North America LLC, in Plymouth (Indiana) since 2006. In 2012, two additional sites were added, one in Philadelphia (Pennsylvania) and one in Gardena (California). A total of 444 employees now serve this important market for us and specialise in the manufacturing of fruit preparations for the dairy, ice cream, bakery and beverage industries, as well as in services for bulk consumers, such as catering businesses.



Zentis company premises in Philadelphia (Pennsylvania), USA

RUSSIA

OOO Zentis Russia, in Khimki near Moscow, was founded in 2002 and employs 42 people. The company sells fruit, vegetable and cereal preparations for dairies and bakeries for manufacturing ice cream, almond bread, savoury preparations for sauces and mayonnaise in Russia and the CIS. Zentis Polska develops and produces for Zentis Russia.

DEVELOPMENT OF NUMBER OF EMPLOYEES ABROAD

	2013	2014	2015	2016	2017
USA	283 ¹	431	480	468	444
Poland	315	318	308	305	310
Hungary	125	110	99	102	105
Russia	50	47	48	49	42

(as of: each on 31 Dec.)

¹ only Plymouth

THE ZENTIS BRAND

Zentis combines the skilled workmanship of a traditional family company with the innovative drive of a globally operating group. This is the basis of our aim of always making the best out of fruit. At the same time it is our brand promise to customers and partners. It is also a commitment for all our employees and the management of the company.

The selection of Zentis brand spreads was radically updated late in summer 2015 with the aim of remaining sustainable as a family-owned company with an awareness of tradition. The basis was a comprehensive, cross-departmental review of the entire manufacturing process with the objective of achieving the best possible quality: best raw materials, optimal processing and boiling processes as well as ideal batch sizes and energy efficiency.

Our company developed customised, needs-based offers to best meet current consumer requirements in terms of taste and packaging. To this end, we rely on intensive market analyses and consumer surveys. Among other things this resulted in a newly shaped jar, with improved handling for consumers, which also means less setting up and tooling and easier operation in the production process.

In August 2015, the jam product selection was expanded to include the *Sonnen Früchte* range. They are an expression of self-confident brand identity and our commitment: natural, fruity and authentic in flavour. Special features such as *75% Frucht* (a lot of fruit – little sweetness) and *Leichte Früchte* (calorie-reduced with Stevia as an alternative sweetener) will mainly target food- and health-conscious consumers. In 2018 we will explore further possibilities for sugar reduction.

In Germany, we sell our spreads and sweets through our own key account managers and external field service agencies, most of which are handled by our trade centres. We can thus specifically control our sales activities and close distribution gaps. As a result, Zentis will in future also be able to become more active in the annual business of confectionery beyond the seasonal business. The expansion of the product range is planned for 2018. Outside Germany, sales are handled by distributors and sales representatives.



A so-called “modelling” is planned for 2018. This involves measuring the efficiency and profitability of marketing expenses for products in relevant markets. The aim is to evaluate effects from the areas of communication, promotion and distribution and to clarify how they affect sales.

The sweet creams production, *Nusspli* and *Belmandel*, was outsourced to a partner company in which Zentis holds a minority stake in summer 2017. We informed about this in the press release and on our website.

COMMUNICATION AND RESPONSIBILITY

In awareness of our responsibility as a food producer, we also pay great attention to the contents of all our communication. This starts with the declaration of all the ingredients, which are shown clearly and accurately on every package. Other information on merchandise and legal matters concerning regulations for manufacturing spreads and confectionery and on all our products is available in detail on the Zentis website.

Our aided brand awareness¹ is at over 80%, for Zentis jams even over 90%.

We also base our advertising on diligence and honesty. In advertising, Zentis products are generally not shown in connection with health-promoting food, nor are the products specially promoted for children.

Open and transparent communication with all our customers and stakeholders is also a significant component of our brand identity. Our consumer service is an important element in communication and is available for questions, complaints and consumer tips. For this service we receive consistently positive feedback.

We also use our press office and the latest online channels for information and contacts. Our website has been “mobile” since the end of 2016, making it even more user-friendly. For example, we show the manufacturing processes of our various products in detail on www.zentis.de and on our Zentis YouTube channel. Short clips give concrete insights into everyday life in our Production Department for confectionery, jams and fruit preparations. We accompany production from raw materials to the final product, and explain our strict, cross-departmental quality management system and our uncompromisingly high hygiene requirements.

Hit rates, for example at www.zentis.de, which had more than 1.2 million visits in 2017, show just how important this offer of information is for all our stakeholders.

Our special promotions and test packages with special and limited editions are extremely popular, such as the 2018 anniversary edition of *Sonnen Früchte* “Strawberry–Rose petals” or the *Sonnen Früchte Creation of The Year*, “Apricot-Tangerine-Yuzu”, which was released in 2017. We have determined 1,000 product testers per campaign via our website and sent them a trial package. On our Zentis Facebook page we consistently maintain a lively exchange of information with a steadily growing group of fans and consumers. In this section, current Zentis topics and new products are shared. Direct, fast and binding communication with consumers is important to us.

In 2017 we started using selected bloggers to make the brand even more visible on the web. Through this communication mix and the continuous dialogue we are establishing an additional emotional connection and a positive attitude towards the Zentis brand.

Various online surveys based on social listening confirm that: Zentis is several times industry winner in the category “Food” and takes first place for “Best Brand

¹ Aided brand awareness describes the remembrance through the presentation of memory aids, e.g. images of a brand. (Source: MediaPlus I Strategic Insights Brand Tracker, July 2017)

Image 2016² and “Customer Favourite 2017 – Most Popular Brand”³ and was also test winner in the Focus Money study “Brands that make people happy”⁴ in 2018.

SOCIAL COMMITMENT

We have always been closely linked to the city of Aachen and its people. It’s where our roots lie. This connection has led to a deep sense of duty – not only to the region but also to the people who live there. We are especially concerned about the youth and about local traditions. That’s why we award our Zentis Children’s Carnival Prize each year. We also support numerous initiatives such as the Aachener Karlspreis. Since January 2017 we provide art lovers with free entry into the Museum Ludwig Forum every Thursday, which is close to our headquarters. Anyone interested in culture can enjoy the unusual exhibits there of the collection of Peter and Irene Ludwig.

Zentis also sponsors the Ronald McDonald Children’s House in Aachen and we are a partner to REWE Power Kisten, which work throughout Germany to ensure that children do not have to go to school hungry.

² Tödtmann, C. (2016): “Diese Marken haben das beste Image” in: WirtschaftsWoche, 05.12.2016, URL: <https://www.wiwo.de/unternehmen/handel/kunden-belohnen-ehrlichkeit-diese-marken-haben-das-beste-image/14934950.html>, retrieved on 28 May 2018.
³ Jacobs, T. (2017): “Deutschlands Kundenlieblinge” in: FOCUS 23, 2017.
⁴ Jacobs, T. (2018): “Emotionale Bindung” in: FOCUS 10, 2018.

We have worked closely with the organisation “Lebenshilfe Aachen” for more than 20 years, helping people with disabilities, for example by offering them production-related employment with our company.

We are also involved in many small local projects that are newly chosen every year. In doing so, we endeavour to guarantee a fair distribution of aid within defined regional borders around Aachen. Over the past few years the number of requests relating to a variety of projects has risen significantly.

Our apprentices volunteer their free time to support social projects as part of a Social Day. With this we want to support local social projects. In 2016 and 2017, our apprentices helped with necessary work on an adventure playground in Aachen, which is available to all children free of charge.

For the managers of our company, social commitment is also a natural part of what they do. For four years they have been actively involved in a Social Day in their leisure time, and they support a social institution. Our company also provides financial aid, for example to enable building material and furniture to be bought.





2. OUR PRODUCTS

INNOVATIVE PRODUCT DEVELOPMENT

“Innovation from tradition” is our credo: We develop products and concepts for existing and new markets. Our success is based on intensive market observation, continuous development work and the close exchange with customers, suppliers and external experts.



The comprehensive expertise of our employees is just as important as the cross-divisional integration of research and development specialists and process engineering. We accompany innovative product concepts from the initial product idea through to market readiness.

When necessary we also create interdisciplinary teams of specialists who work closely with our industry partners on site to ensure and optimise the perfect fit of

our preparations to the special requirements of the processor.

At the Aachen location, five specialists are employed in Research & Innovation and just under 50 in Development. Every day, teams of food engineers and technicians work on new product concepts, whether for special customer requirements or as in-house developments.

The Research & Innovation division performs important groundwork (e.g. process optimisation and the development of new methods and technologies).

Through cross-divisional cooperation – especially with Product Development, Production and our own Process Engineering – we optimise internal manufacturing processes and solve difficult customer-specific problems. When developing products, we also use computer simulations and integrate, for example, Purchasing, Production or Process Engineering in the realisation of our high standards.

A new, very modern Technical Baking Centre, including offices, cooling and storage rooms is located in a 450 m² building complex in Aachen-Eilendorf. The spacious premises are equipped with the latest technology. This enables us to respond even more individually to the wishes of our partners in the baking trade and the baking industry and to promote the development of customised products. While these applications used to be partially isolated, thanks to the Technical Baking Centre, Zentis is now able to produce both the filling

and the dough body itself. This allows developers to test the taste of the finished product directly, carry out comprehensive trials and tests with new fillings and preparations, and test all relevant sensory properties in their entirety.

AREAS OF COMPETENCE

Fruit preparations for the dairy industry

We produce a wide range of fruit preparations for the processing industry. They are processed by our industrial customers in yoghurt, curd, sweet desserts, drinking yoghurt, milkshakes and ice cream. We supply all the reputable European dairies with our fruit preparations.

Zentis' innovative applications include "swirled dairy products", i. e. the parallel existence of two different creams that are filled into a cup in star form, and firm chocolate chips that remain crunchy even when stirred into yoghurt.



Stable chocolate chips (for stracciatella yoghurt)

In this context sugar consumption is also becoming an increasingly important topic. We are developing alternative concepts in order to be able to offer our industry customers suitable solutions that also tasty for the consumer.

Fruit preparations and raw marzipan for the baking and confectionery industry

We produce fillings for bakery products sold in the bakery trade and used by industrial producers of bakery and confectionery goods. This segment includes fruit preparations, sweet creams, special fillings that

are oven and/or freeze resistant, raw marzipan, gel preparations, glazes and decorations.

We proactively focus more on sustainability and naturalness for our customers and use, for example, only RSPO-SG-certified palm oil and aim to do without aromas altogether.

Our focus is on an authentic product experience with predominant main ingredients and want to process only the essential raw materials, i. e. as few ingredients as possible and to use little or no additives.

Spreads

We offer a diverse selection of spreads for retailers and consumers, including well-known brands such as *Original Aachener Pflümli*, plum puree, *Nusspli*, hazelnut nougat spread, and *Sonnen Früchte*. The target markets are primarily Germany and Austria.

We have been using a new logo and glass shape for our jams since our brand relaunch in 2015. The years 2016 and 2017 were thus dominated by the consistent implementation of the new brand image and the related rise in market penetration. Zentis *Fein Cremig*, as a strained fruit spread, was placed under the umbrella of Zentis *Sonnen Früchte* as *Sonnen Früchte cremig* in 2017 for a stringent brand management.

We also produce a number of retail brands for the German and European market. The focus in this case is on southern Europe.

In 2017, the product portfolio for the end-consumer business was expanded to include fruit compotes and red groats under the Landliebe license brand.

Confectionery

Our confectionery is mainly produced as seasonal articles for Christmas and Easter, for example marzipan loaves, marzipan potatoes and marzipan eggs. We also produce all year round articles, with and without marzipan as various pralines of the *Hochfeine Creationen* range.

A novelty was presented in 2017 at the world's largest trade fair for confectionery, the ISM in Cologne: the new fine marzipan range. We consistently adapt this range to the current consumer needs with a large selection of top-quality products made from natural

ingredients, in sizes to suit requirements. The fine marzipan range includes loaves, potatoes, pearls and pralines in a decorative gift box.

We also produce a large number of retail brands, especially marzipan items, for the German and European market.



REQUESTS FROM CUSTOMERS

Our customers approach us with various wishes and new requests, for example those concerning the trend topics “without genetic engineering” or “vegan”. This also covers requests for regional foods and organic products and consumers’ demands for detailed information on where food originates and how it is certified. We are noticing a steady increase in requests, in terms of volume, scope and variety.

Zentis is able to clearly map this complexity of requirements, as coordinated processes among the specialist departments (sales, quality management, food law, etc.) are in place.

Our company is already certified for the production of organic products and for non-genetically modified foodstuffs (“GMO-free” and “GMO-free Austria”), as well as the “V-Label Vegetarian”, the quality seal of the European Vegetarian Union (EVU). In 2016 we achieved the “V-Label Vegan” certification. We can also fulfil the label “lactose-free”.

We have also been successful in obtaining authorisation to offer special chocolate and coffee products

with the UTZ logo for sustainable farming and, since October 2015, Fairtrade-certification for the product categories cane sugar, cocoa and chocolate, banana and herbs/spices (vanilla).

During the last few years, German retailers have focused on the following topics in the area of sustainability:

- Packaging and cardboard made of FSC-certified material
- Palm oil/RSPO-certification
- Sunflower lecithin instead of soy lecithin (end 2017)
- Low-migration inks for films
- Increasingly Fairtrade in cocoa/chocolate

QUALITY AND SAFETY

For us, environmental protection and quality assurance are inseparable. We guarantee the high quality of our products by way of an uncompromising quality-assuring production process, most modern production facilities, comprehensive analysis methods and experienced employees who have been specially trained.



Controlling product colours

These processes have all been fully implemented in the overall process and anchored in the minds of our employees. The following are part of our resolute, consistent quality strategy at all our production sites:

- Regular checks and certifications, in order to guarantee compliance with all the defined quality requirements and their implementation.
- Process-related quality management.
- A closer exchange of information with external experts and independent research facilities.

ACTIVE QUALITY ASSURANCE

Every day we actively check the RASFF (Rapid Alert System for Food and Feed) reports of the European rapid alert system as a precautionary measure. This gives us a quick overview of current news items on the question of food safety. This enables us to check our raw materials immediately if necessary and inform our customers.



Quality assurance at Zentis

We also use the reports from RASFF to adapt and expand our monitoring plan. This enables us to respond to changes in a targeted manner.

Our customers appreciate our superior knowledge which, for them and for us, also means having an edge in terms of safety.

In addition to the “EU-rapid-alert-system”, we also use various other sources of information in order to pick up on current trends and future developments. Our sources include professional organisations, universities, universities of applied science, external labs and consumer forums and customer platforms.

We also draw our vast specialised food knowledge from these sources, and this is in turn actively requested by various organisations in the sector. Our company is considered to be a trendsetter in new topics.

For instance, Zentis was quick to address the issue of food adulteration, as “Food Fraud” is becoming increasingly important.

At a workshop organised by Zentis in spring 2016, international strategic suppliers were specifically informed on the topics of prevention and analytics. Our colleagues in the departments were supported by various external partners.

Food fraud is now not only a political issue, but is also increasingly being included in the rules and regulations for certification standards. The IFS (International Featured Standards, uniform food and product standards) implemented the topic “Food Fraud” in 2017.

Certified food companies must be able to demonstrate how they protect themselves against food fraud. Zentis has taken all necessary precautions and implemented corresponding processes.

INCOMING GOODS INSPECTION

Every consignment received by us in the company is subjected to a stringent incoming goods inspection. Yet for us, quality assurance applies right from the start. Our close cooperation with suppliers guarantees that our raw materials are traceable right through to the batch used and their exact origin.



Zentis incoming goods inspection

We also regularly test the perfect functioning of our identification system in random checks.

In accordance with strict Zentis specifications, the fruit we process is gently prepared when it is freshly picked in the countries of origin, and transported to our factories in packaging specified by us. For

example, deep-frozen fruit is delivered in cartons with special inner bags and tinned food comes in specified large cans.

PROCESS-RELATED QUALITY CONTROLS

Process-related quality controls are a significant component of the Zentis quality concept. They are carried out throughout the entire manufacturing process. The cross-departmental use of IPCs (in-process controls) makes sure that the strict provisions of food legislation and EU regulations are observed, as well as guaranteeing that even the higher standards set by us and our customers are met.

Zentis focuses on various tested, proven systems for the modern detection of foreign bodies, and high-performance neodymium magnets are installed in the product feed pipes. We also use metal detectors and X-ray technology. We are testing other innovative procedures which are state-of-the-art and which we consider to be suitable.

OUTGOING GOODS INSPECTION

Quality is also the decisive criterion for inspections of outgoing goods. Our products are all conclusively tested against our sensory, microbiological and analytical quality parameters. Only then are they delivered to retail or processing customers.

Not only issues relating to safety are observed in this case; attention is also paid to health aspects. As part of HACCPs (Hazard Analysis and Critical Control Points) we carry out risk assessments on our raw materials, our production process and use at the customer's site. They are carried out according to a specified schedule and identify potential risks in the physical, chemical, microbiological and/or organoleptic characteristics of the raw materials.

The risk assessment identifies critical control points for food safety. In accordance with the HACCP concept, this is a point, a step or a procedure in the entire food production process at which control can be applied. Limits need to be established at the respective critical control points which require action to be taken when reached, for example maximum and minimum values and corrective actions when a deviation occurs. This

serves to prevent food which does not comply with the required limits from getting into the consumption cycle.

The HACCP system is regularly verified. These evaluation activities serve to guarantee that the aims of safe food production are always met. To ensure this, the facts resulting from HACCP verification are all documented.



Measuring the pH value

The product categories are all subjected to intensive review at least once a year as part of a risk assessment. This involves all the members of the HACCP team re-assessing the entire production process. This vital instrument not only reappraises changes; it also covers modifications to requirements concerning a product and the process. New customer requirements are also taken into account.

The team members are trained in-house and by external instructors in order to ensure that they maintain a critical approach.

CERTIFICATION AND STANDARDS

Just the same as we check our partners, we are in turn checked by many of our industrial and commercial customers. They carried out more than 40 audits and qualified visits during the reporting period in order to ensure that we comply with their quality specifications. In some cases these guidelines extend beyond the scope of existing certification standards such as the IFS (International Featured Standards, for uniform food and product

standards) and FSSC (Food Safety System Certification, standard to ensure food safety in the production of food).



Certifications

Zentis also took part in the IFS Food Check. This includes unannounced audits. The focus in this case is on production, pest control and internal risk assessment according to HACCP. Meanwhile, IFS and FSSC requirements are being implemented in a mixture of announced and unannounced audits. The IFS and FSSC requirements are now being fulfilled in a mixture of announced and unannounced audits.

It is no longer sufficient to implement and meet the requirements. Rather, the consideration of processes and risks is taking centre stage. This is clearly illustrated, for example, by the keyword “Food Defence”. The aim here is to protect the company premises and the production facilities from unauthorised persons. The goods that we receive must also be adequately secured by our suppliers, for example by means of sealed trucks or respective tamper-evident closures on the goods.

We use these audits to review and further develop the measures we have implemented. All audits were completed positively in the reporting period. There were no violations related to the health and safety impacts of our products.

In-house processes and the proper implementation of all quality measures are regularly checked by internal

audits as well as by external certification organisations. Allergy management in Plant I in Aachen, in particular the fruit preparation production section, has been subject to an allergen inspection according to ISO 17020 for many years and has been successfully certified.

The RSPO surveillance audit (sustainable palm oil/palm kernel oil) was carried out according to the “SG” (segregated) supply chain model and was also reconfirmed.

OUR SUBSIDIARIES

Just like in the past, our foreign operations handle their quality management system independently. The current quality management systems are each independently verified and further developed in the operations. Customer audits are also conducted independently. The Quality Assurance/Quality Management Department in Aachen is available for advice if needed.

A European quality meeting takes place regularly. Current quality management topics are discussed and each plant presents its experiences and, if necessary, the country-specific procedure, e.g. on test routines. These meetings also serve to discuss Zentis universal issues that are also relevant with regard to international customers.

In Poland, Zentis was successfully audited and certified “higher level” in the IFS Food standard and according to the FSSC 22000 standard and the BRC (Global Standard for Food Safety).

In Hungary, Zentis is also certified “higher level” in the IFS Food standard and according to the FSSC 22000.

The Zentis sites in the USA operate completely independently in terms of certifications and audits. They have been awarded SQF Level II certification (Safe Quality Food). IFS certification is planned for 2018.

With the enactment of the Food Safety Modernisation Act (FSMA) in the USA, companies are required to have—in addition to the preparation of a Food Safety Plan—a Preventive Controls Qualified Individual (PCQI). This is based on a more comprehensive risk assessment: from the field to the customer.

The production sites have all been certified according to a Food Safety Management System Standard.

TRAINING COURSES FOR EMPLOYEES

Besides food safety, staff hygiene and workplace hygiene, as well as continuous training for employees, are key elements of our quality system.



In the past it was frequently sufficient to train employees in hygiene matters, as is done in Aachen by an external service organisation. However, the requirements of our customers are becoming more challenging. This

is why many seminars and training courses are being organised; in addition to production technology, they also cover regularly recurring sensitisations to foreign objects and specific process regulations.

Due to the diversity and the specific requirements, many of these training courses are organised in the specialist divisions themselves or by these divisions, and also by specialist colleagues. Our training courses in securing quality standards thus frequently extend far beyond the scope required by law.

The fact that employees from Product Development train production staff in order for them to gain a better understanding of the products has proven itself.

It has also proven worthwhile that occupational safety and product protection are realised simultaneously with system planning instead of only needing to be subsequently implemented.

We do not only train our employees, we have also joined various associations in order to be able to perform cross-sector activities. In this context we work, for example, in the German Association for Processors of Fruit, Vegetables and Potatoes (BOGK) and in the Association of the German Confectionery Industry (BDSI) in order to improve and implement standards.





3. ENVIRONMENTAL RESPONSIBILITY IN PRODUCTION AND LOGISTICS

IMPORTANT PROJECTS AND DEVELOPMENTS

Quality and environmental protection are inseparable elements of our company philosophy. As a company operating in the food sector whose raw materials are obtained from nature, we know how important it is to preserve the environment and its resources for today's and for future generations. We are greatly committed to this protection.

The production of jam and fruit preparations requires a lot of water and energy. We are constantly working on measures to make our production process more resource-efficient and environmentally friendly. We implement innovative solutions to reduce the consumption of energy and water and the volume of waste and wastewater.

In this endeavour, production and logistics are the most important areas of influence, since we can act directly and quickly and plan further measures. We use our own logistics company in order to ensure that the transport of our goods is environmentally friendly, with maximum requirements in terms of quality and environmental protection also playing a central role.

Our most important projects and developments with the greatest influence in the period of the report were:

Further fragmentation of orders

A clear fragmentation of production orders is perceivable when products are developed and/or customer

requirements implemented. This results in smaller quantities per order with the number of orders placed remaining approximately consistent. Without energy-saving measures, water and energy consumption per tonnage of product is generally higher, as more cleaning processes are required.

Nanofiltration of wastewater

Our nanofiltration unit cleans wastewater from production plants. The recovered, still warm water, is returned to the process and made available for the pre-cleaning of the plants. This means that 4% (approx. 38,000 m³) of the fresh water required can be replaced. Our medium-term target of 3% has thus been achieved.

The issue of frequent filter clogging in the previous year has been resolved: The filters were clogged with wastewater containing chocolate. These are now no longer fed through the filtration unit, but discharged directly as wastewater.

Better coordination of the use of CHP and nanofiltration unit necessary

In the reporting period it became apparent that more warm water is produced than required when the nanofiltration unit and the combined heat and power units (CHP) are running at full capacity. This results in the shutdown of one of the systems. For reasons of efficiency, the CHP unit usually remains in operation. A continuous use is necessary and only sensible if there is a specific demand for heat and electricity. Thus,

the nanofiltration unit remained unused for longer periods of time. The better parallel use of these two important systems will be the subject of a bachelor thesis in 2018.

Outsourcing Nusspli production

In 2017, the production of the Zentis product *Nusspli* was outsourced to a partner company. The machines previously used for production and filling were shut down or relocated to the new production company. As Zentis employees work across all products, no major personnel measures were necessary.

In the future, Zentis' own conching room will only be used for the production of chocolate and nut nougat creams for confectionery.

PRODUCT STAGES

We purchase our raw materials, mainly fruits, in various forms of processing which require different production steps. Our production processes thus mainly comprise the steps for "preparing and/or cleaning the fruit", "heating, cooling and filling" and "cleaning the systems".



Boilers

Our expertise on the gentlest method of processing ensures that temperatures in the production process are optimally regulated, so that all microorganisms are completely removed during the heating process, and that the colour of products and their fruity flavour and freshness are maintained during the subsequent cooling process. Once the goods have been packed they are

also sent to our customers by our own logistics company. Logistics also provides cooling and frozen storing capacities in order to meet all the specific wishes of our customers in good time.

DIGITISATION

Networking processes and data is an important step in our company. Process engineering and commercial divisions are already pulling closer together.

An initial clear benefit for Zentis is the accurate representation of stocks for planned productions. This prevents delivery bottlenecks and expensive "emergency transports", but also waste.

In a current project in Germany, the sugar silos are equipped with sensors to measure levels correctly.

We are also testing "smart containers" that optimise the storage and transport of our products.

The trend towards mapping the entire supply chain is evident. In this regard we will expand the interfaces to our suppliers – and also to our customers.

RESOURCE MANAGEMENT

Water and energy influence our environmental balance most. We use water mainly for cleaning the production plants when we produce jams, fruit preparations, bakery product fillings and other fruit-based products. The products themselves contain little water.

Most of the energy used is for heating and cooling processes and for operating the production plants. Water and energy are shown combined, since part of the expenditure of energy results from heating up water.

We use energy in form of natural gas and electricity. Most of the gas we consume is used for the boiling process and for heating up water for cleaning purposes. Electrical energy is mainly used for operating cooling and compressed air units, as well as for the production plants. In 2016 and 2017 we recorded an increase in our gas consumption as a result of the commissioning of additional CHP plants, but we purchased correspondingly less electricity. Increased gas consumption is indeed desirable as long as the amount of electricity purchased decreases accordingly and own electricity generation increases.



The base load per plant is at a similar level. Some of the machines remain in operation on Saturday and Sunday as well. It is thus only possible to reduce the base load to a limited extent, since the cold store does not use less energy when it is not completely filled.

Our energy indicators for Plant I and Plant II are presented together in this report. In this case, various accomplishments in the processes are shown together with changed and/or costlier production procedures, thus moderating results. The two sites in Aachen are DIN EN ISO 50001-certified (energy management). The audit renewals in 2016 and 2017 were passed without restriction. The recertification was in May 2018.

Further energy saving measures for buildings and processes are ongoing, e. g. the use of LED lamps in buildings, halls and logistics workshop.

The individual Zentis divisions are responsible for monitoring and tracking as well as setting environmental goals. The so-called “Energy Committee”, which includes production managers, addresses relevant topics and assigns responsibilities accordingly.

After reviewing the respective country-specific requirements and laws, the experience and improvements developed by the Energy Team are transferred to the subsidiaries.

DISTRIBUTION OF CONSUMPTIONS OF ENERGY AND WATER

The following charts from 2017 show the distribution of energy and water consumptions for our most important process steps. The consumption of gas can be allocated absolutely specifically to processes with the help of ten gas meters.

NATURAL GAS CONSUMPTION	2015 %	2017 %
Product heating and sterilization of process equipment	60	60
Heating fresh water with steam	13	5
CHP plants (power generation, heating of fresh water and refrigeration)	25	33
Heating units	2	2

ELECTRICITY CONSUMPTION	2015 %	2017 %
Raw material refrigeration	5	5
Finished product refrigeration	5	5
Process refrigeration	26	25
Compressed air	10	12
Production plants	45	47
Lighting	9	6

WATER CONSUMPTION	2015 %	2017 %
Cleaning	75	75
Ingredient	18	18
Boiler room	3	3
Cooling towers	3	3
Remaining	1	1

ZENTIS INFORMATION PORTAL

The ZIPO (Zentis Information Portal) resource management system depicts all data from the various production steps in the respective plants in real time—from boiling to filling including tooling and cleaning.

The production order data is transferred from the ERP system (Enterprise Resource Planning—software solution for resource planning) to ZIPO, where it is pre-processed and then transferred to the production lines. These then report the current production status to ZIPO.

Critical quality management control points are also monitored and documented. In case of deviations, the responsible employees are informed automatically and without delay.

The ZIPO results can be used for organisational and technical observations and for optimisation measures. As part of this process, key figures were formed in the production facilities during the year to reflect availability/performance/quality and capacity utilization. ZIPO generates these key figures on a daily basis and forms the basis for measures in our continuous improvement process.

The key figures are made available to the plants online at terminals in Production.

At the same time the ZIPO also functions as an internal early warning system. For example, the system will automatically provide relevant data to the Production and Quality Departments if considerable deviations in boiling times occur. These departments will be able to initiate immediate countermeasures.

It is possible to link the data intelligently, for example so that fresh-water volumes and disinfectant requirements can immediately be ascertained.

Energy readings and energy costs can also be shown on a daily basis. On the basis of statistical analyses, the ZIPO also makes it possible to take a look into the future – offering concrete assistance in the planning and evaluation of investment projects. In this context, a heat recovery plant is currently being planned for the Philadelphia site on the basis of measurement results, since higher specific values are regularly identified there. Local water and gas costs are also taken into account in planning the plant.

ZIPO has been implemented at all sites and serves as the interface between the ERP system (Enterprise Resource Planning – software solution for resource planning) and production.

SAVING ON ENERGY AND WATER

Energy supply at both Aachen locations is now provided by five combined heat and power plants (CHPs), which our engineers began planning in 2012.

The own power supply by CHP units at both plants in Aachen already amounted to 62% in 2016 and 64% at

the end of 2017. We have not yet reached the planned target of 70%.



Combined heat and power plants No. 3 and 4

The use of CHPs has a significant impact on our (specific) energy indicators. While the volume of gas required for the use of heat, cooling and electricity is increasing, the volume of electricity purchased is falling thanks to the generation of our own electricity supply. This not only reduces costs, it also protects the environment. The efficiency of the CHP plants far exceeds that of the generation of conventional energy. The reduction in greenhouse gasses thanks to commissioning in Germany in 2016 will amount to 4,992 t CO_{2e} and 5,126 t CO_{2e} in 2017.

One of the CHPs generates cold and replaced an older cooling system at the end of 2016. The more modern speed-controlled refrigeration system has already saved 1 GWh.

As a result of the CHP plants now in operation, the boiler room with the conventional pure gas firing system for heat generation runs to a significantly smaller extent. If the outside temperatures allow, we switch off the boiler room on non-production weekends for further gas savings.

However, the consistent use of savings potential also means that the leverage of new measures will be reduced in the future.

In the coming years Zentis will have to invest significantly more in the purchase of emission trading

certificates. Due to strategic purchases in preceding years no major purchases of emission rights were necessary in the reporting period.

The constant availability of steam and heat from the CHP plants makes it possible to optimise further processes in production:

- It was possible to heat the heat cells for storing sensitive materials such as chocolate pastes, which must be kept liquid/soft, with the heat from the CHP units instead of the usual use of electricity. Measurable success will be achieved in 2018.
- In the reporting period, warm storage rooms were successfully heated with excess heat for the first time during the non-production period.
- In the cold season, office complexes are heated with excess heat.

In the past few years we have consistently extended our system of water consumption control in order to identify and prevent any water leakages, which rarely occur but which could occur, in the production process in good time. This includes, for example, electronically monitored internal water meters as well as the reading of the daily consumption in the production areas.

We can portray the current trend towards a more consistent separation of allergen-contaminated water and allergen-free water.

Detailed information on energy and water consumption and CO₂-emissions can be found in the appendix (GRI 302, GRI 303, GRI 305).

REDUCTION IN WASTE, PACKAGING AND WASTEWATER

Waste, wastewater and packaging are to be minimised and remaining waste and wastewater recycled to the benefit of the environment or disposed of if this is not possible. Unavoidable waste is recycled whenever possible. We always work exclusively with waste management facilities.

In 2017, around 9,971 tons of waste was produced, of which around 5,141 tons was food waste. This includes fruit preparations, jams and confectionery that can no longer be used. This waste is used in the production of animal feed, for the production of ethanol or it is processed in biogas plants. The high quality standards

for raw materials and manufactured products sometimes lead to increased waste. Other waste comprises cartons, mixed packaging and building rubble. Refer to the appendix for detailed lists (GRI 306).

Distribution among the types of waste mentioned is similar for the sites in Poland, Hungary and the USA. The site in Russia is purely for sales so it does not produce any noteworthy amount of food waste.



Zentis waste separation

Almost 2,295 tons of materials similar to household waste and mixed packaging were transported to the waste incineration plant for energetic utilisation. This is mainly fruit-residue contaminated cardboard boxes and foil inlets which were delivered with the fruit raw material. These are generally 10-kg or 12-kg boxes, but not bigger than 25-kg boxes. Larger volumes are out of the question due to manageability and occupational safety. Sugar is mostly delivered in silo trucks.

We continuously check the packaging sizes of our raw material deliveries. The aim is to achieve the optimum container size so that residual quantities are avoided or are as small as possible when the best before date expires.

The fruit preparations we manufacture are transported to our industrial customers globally in around 32,000 sturdy, "reusable" stainless steel containers. This applies for around two-thirds of our products. The packaging is all taken back, cleaned and refilled with fresh goods. This accounts for approx. 70% of the product packaging for our entire production.

Our nanofiltration unit removes allergenic substances from production wastewater. The recovered, still warm water, is returned to the process and provided for preliminary cleaning of the plants.

Up to now wastewater has been unproblematic; the treatment plant uses the biological residues such as sugar and pieces of fruit for its processes. We monitor our wastewater and document in particular the pH value and the carbon content.

At the end of 2017, the city of Aachen voiced objections for the first time about the –consistently– high pH value of the wastewater. The operator of the sewage treatment plant had to intervene to reduce the pH value. Zentis is in talks with the city of Aachen to find a satisfactory solution. Wastewater treatment plants and methods must now be discussed.

The site in Plymouth in the USA must neutralise its wastewater before it is led into a public wastewater system by constantly adjusting the pH level. US regulations require that the organic content be less than it is in Aachen. In Hungary there is a “sprinkler forest” near the plant.

LOGISTICS

Logistik Service GmbH is an independent Zentis business unit. The company was founded at the site in Aachen in 1998, and delivers our products to customers, and organises transportation between our plants and the external finished-product warehouse near Aachen. The company specialises in temperature-controlled, flexible transportation, with cooled transportation clearly accounting for the largest share.

Logistics also provides cooling and frozen storing capacities in order to meet all the specific wishes of our customers in good time.

The following information refers exclusively to distribution and internal transport logistics. The delivery of raw materials is mainly carried out by suppliers themselves.

A decisive strategic change took place in mid-2017 as a result of the sharp decline in volumes in third-party business. Activities were reduced to the core business and the focus was placed on logistics services for Zentis GmbH. A few existing customers for whom complete

transports (refrigerated and dry material transports) can be performed are retained.

In the course of consolidation measures, trucks and trailers were sold. The Rosbach logistics centre was shut down, the Castrop-Rauxel logistics centre was taken over by another operator.

KEY FIGURES FOR GERMANY

	2013	2014	2015	2016	2017
Employees	234	219	205	212	142
Fleet size	80	88	83	60	31
Self-transportation in m. km	8.65	10.70	9.97	7.10	5.41
External transportation in m. km	7.62	8.11 ¹	7.75 ¹	8.35	6.63

¹ Data correction for the years 2014/2015

Logistik Service GmbH (Logistics) has 142 employees (status on 31 December 2017). Among them approx. 40 own truck drivers, administrative employees, dispatchers, workshop, Zentis-internal logistics.

The company operates a fleet of 30 of its own trucks and 130 trailers. The average age of the vehicles in our fleet was 1.7 years in 2017.



Zentis Aachen-Eilendorf, Plant II

An additional 50 trucks (truck and driver) are available through subcontractors who drive exclusively for Zentis.

In 2017, 5.41 million self-transportation (Logistik Service GmbH vehicles) kilometres were covered in

Germany, and approx. 6.63 million kilometres were covered as external transportation.

At our sales company in Russia, the number of Zentis-owned trucks decreased: 14 vehicles were in operation here in 2017. A total of 1.4 million self-transportation kilometres were covered. External transportation is only carried out in a few exceptional cases. In the USA, Poland and Hungary we do not have our own vehicle fleet.

The fleet is consistently renewed and modernised at our site in Russia. The average age of trucks in Russia in 2017 was 3.36 years. (Vehicle types: 1x Euro 3; 13x Euro 5).

ENERGY CONSUMPTION AND EMISSIONS

We also evaluate our logistics in terms of energy consumption and emissions. For the reporting period, we present the emission values for our own vehicle fleet in Germany. In view of the consolidation measures, we have decided not to present the figures for previous years.

EMISSIONS (data for own vehicle fleet in Germany)	
2016	2017
5,738.06 t CO ₂	4,206.10 t CO ₂

Increasing fragmentation of customer orders at Zentis GmbH & Co. KG has no impact on the logistics business. We create complete consignments from different orders to ensure optimal route planning.

As a rule, the contractor Zentis GmbH & Co. KG plans deliveries to customers with fully loaded trucks; bottlenecks and thus “emergency trips” are also very rare due to inventories at the customer’s premises.

We avoid empty runs by purchasing return transports. We consciously use the advantages of our own logistics. This allows us to react flexibly to customer requests and to use our additional services in a targeted manner. This not only includes the storage of products, but also the quality of the transports, e.g. by trained drivers, load securing and an in-house motor vehicle workshop. At the same time, we are able to implement our own environmental requirements for our logistics.

Logistics supports the parent company in various projects in which logistical expertise plays an important role, e.g. in testing “smart containers” (the digital link in the supply chain), or in the container management system CLS, which is currently being introduced at the subsidiaries.

POTENTIAL SAVINGS

The following measures have been implemented:

- Changeover of the truck software: Optimised driving thanks to regulated trucks, thus lower fuel consumption

DIESEL CONSUMPTION PER 100KM	
2016	2017
30.90l	29.66l

- Reduction of continuous cooling of refrigeration units
- Since end of 2017: only Euro 6 standard trucks (in Germany)
- Reintroduction of scheduled services for certain customers, i.e. fixed shuttle services between Zentis and the customer location. This ensures optimum use of trucks and simplifies transport routes; in principle, the number of kilometres driven per truck has increased with a reduction in total kilometres. In future, we will pay even greater attention to weight-optimised transports: trucks with a smaller cab can be used for short journeys and shuttle services. The weight saved here enables a higher payload. It is also possible to make optimum use of the patented lifting device in the truck for loading empty containers beyond the actual payload. The tried and tested system is now available in 56% of the trailers. With the system, as many as 48 containers can be carried instead of 28, which cuts down on a third of every empty return transport.
- A declining trend (sea and air freight) can also be observed for the transports carried out by Zentis Logistik between Aachen and the locations in the USA, which leads to a further reduction in environmental pollution. Our “slurry products”, which enable us to save two out of three containers because the products are delivered as concentrates, are the main contributors to this trend.
- By 2020 we will have implemented the legal requirements for refrigerant exchange in our cooling units.

DATA ENTRY

Data on consumption, mileage and CO₂ emissions is regularly entered. We have developed specific indicators as part of sustainability management. These indicators have been used to constantly measure all the mileage figures since 2011. In-house Zentis indicators (ZE) measure the effects of internal transportation: diesel (litre) (ZE5), distance (km) (ZE6), km/t (ZE7), average consumption of diesel (ZE8), average age of fleet (ZE9), emissions (ZE10), and emission categories (ZE11).

EXTERNAL CARRIERS

We also engage external carriers in Germany, Poland, Hungary and the USA. The following chart shows the number of external kilometres in Poland, Hungary, and USA.

In Russia, external transportation is only carried out in a few exceptional cases. In the USA, Poland and Hungary the company does not have its own fleet of vehicles.

NUMBER OF EXTERNAL KILOMETRES (KM)				
	2014	2015	2016	2017
USA (all sites)	not specified	not specified	5,876,711	5,972,932
Poland	6,705,601	6,327,752	6,101,057	7,066,245
Hungary	402,272 ¹	383,827 ¹	328,640	289,237

¹ Data correction

Air and sea freight are not included in external transportation.

In the future, domestic transportation in the USA can be reduced by relocating the production of a key customer product from our site in Plymouth to Philadelphia in 2017, as this considerably shortens the transport route to the customer.

The country-specific “Zentis Quality Regulations for Forwarding Agents” to guarantee the best-possible quality in terms of product treatment, temperature, means of transportation, load safety, cleanliness, and hygiene and safety, apply for all external carriers.

TRAINING COURSES FOR TRUCK DRIVERS

All our own truck drivers need to be professional in the handling of sensitive foods. They receive continuous further training, with the focus on training courses in hygiene and quality management. The same applies for resource savings. Our drivers have already been paid a bonus for saving on fuel and for low loss frequencies since 2011.

Zentis Quality Management and the “higher level” IFS certificate apply equally for Zentis Logistik Service GmbH and Zentis on the whole. The most recent certifications were in March 2017.





4. RESPONSIBILITY WHEN PURCHASING RAW MATERIALS

PROCUREMENT OF RAW MATERIALS

Natural, high-quality raw materials are the basis of our business. The most important natural materials for our products are fruit, almonds, nuts, chocolate, or cocoa, and cereals and sugar.

The fruits we used most in 2016/2017 – ranked by the volume processed – were: strawberries, cherries, raspberries, peaches, apricots, plums, blueberries, blackberries.

We buy all our raw materials in many countries all over the world. We pay attention to a number of economic and qualitative aspects and check local conditions carefully in the respective harvest year. The wishes and requirements of our customers are also very important.

As an example, we buy almonds from California, cherries from Baden, strawberries from Poland and Morocco.

We only buy fruit in the regions in which compliance with our strict specifications concerning growing, harvesting and quality is guaranteed. The fruit is gently processed when it is freshly picked in the land of origin and delivered to us in specified packaging.

In some countries poor weather conditions and other factors can cause shortages in the availability of respective raw materials or reduce the quality of the raw

materials. We can generally offset this by switching to other regions thanks to the large number of supplier countries.

The extreme weather conditions of recent years have led to a shortage and thus to an increase in fruit prices, especially for strawberries, cherries and plums.

For raspberries, the Ukraine has been accepted as a new producer country. The Ukraine now also meets the high quality standards we require. In the future we will be able to obtain more fruit from this region.

Geographical focus of our fruit suppliers



In terms of fruit farming, South America has always been our most important alternative to Europe – now and in future too. The proximity to South America is vital, particularly for our plant in the USA. We reinforce business relationships by regularly visiting the major fruit trade fairs in the USA, where we meet South American producers, for example those from

Chile and Peru. This is how we identify suppliers and select them according to stringent Zentis eligibility criteria. These personal contacts also help us to minimise risks.

Almonds/hazelnuts

Almonds are the most important raw material for our marzipan products. About 95 % of the almonds we use come from California. The remaining almonds are bitter almonds and come from Morocco. Our hazelnuts come from Turkey.

Through supplier audits and our Supplier Code of Conduct, we try to exclude critical issues relating to working conditions and child labour.

Sugar

We also pay special attention to our raw material sugar. We consciously endeavour to keep transportation reduced as much as possible. We supply our European plants with sugar from Germany and other European countries. We extract almost all our sugar from sugar beets, thus supporting German and European farming.

We only use sugar from sugar cane upon very special request by a customer. In Germany we extracted only 1.7% of our sugar from sugar cane in 2017. Around 89% of this sugar was organic cane sugar. In our Polish plant, sugar cane only accounted for 0.38% in 2017, and 0.19% in 2016.

In addition, we currently purchase Fairtrade certified sugar at the customer's request.

SELECTION OF AND COOPERATION WITH SUPPLIERS

We generally distinguish between producers and suppliers. For us, producers are all the operators in the first processing stage in the supply chain. Freshly harvested fruit is washed, sorted, cubed if necessary, deep-frozen and aseptically packed or preserved and packed to be further processed at these producers' plants. We get a "ready-to-use product" from them for use in our plants.

Suppliers on the other hand are the importers of the goods and thus generally also our contacts and contracting parties. A supplier can, however, also be the producer of goods. For example, 60 % of all our

suppliers in Germany were also producers in 2017. This accounted for a procurement volume of 75 % of our total volume.



Processing of frozen strawberries

INTERNATIONALISATION

Zentis uses its international positioning and since 2017 has bundled its purchasing forces under the topic of "Lead Buying". This is based on an origin-related assignment of responsibilities within the Zentis group for the procurement of raw materials. This new concept enables a more targeted and better exchange of information both with the subsidiaries and with our suppliers. It also enables us to expand our supplier portfolio globally. Zentis Germany, for example, will lead buy peach cubes from Europe, while Zentis North America will buy mango products from South America.

SUPPLIER COMMITMENT

Many years of trusting cooperation characterise our relationship to our suppliers. This makes it possible for us to conclude multi-year contracts for some of our important raw materials.

We purchase our raw materials from sellers all over the world with whom we have as a rule done business for many years. For Zentis Germany this has applied for about 70% of our sources of supply for more than ten years now. We generate an annual turnover of more than 200,000 euros with 47% of our raw-material suppliers. We buy more than 90% of our raw material volumes from around 20% of our suppliers. There are currently 300 suppliers in the fruit and raw materials sectors.

Lead buying does not lead to any fundamental changes in our supplier commitment and assessment.

Supplier Day

Our first “Supplier Day” took place in July 2017. Our strategic suppliers from the fruit, raw materials and packaging sectors as well as the purchasing managers from our locations in Poland and the USA were invited.

The processes between Zentis and its suppliers were explained and discussed in an open and cooperative atmosphere. The aim was to create more transparency and understanding and to develop approaches for optimisation.

The positive feedback from our suppliers encourages us to continue our open dialogue with our suppliers.

ELIGIBILITY CRITERIA FOR SUPPLIERS

Our requirements for suppliers and our commitment to sustainability in the production, manufacturing, packing and transportation of all our raw materials extend far beyond legal and food legislation aspects.



This also becomes apparent in the updated General Specification, which has been sent to all suppliers since March 2016. The general set of requirements is binding for all our suppliers; they must confirm compliance in writing. The General Specification is also the framework for sustainability issues – at a social and ecological level. It has contents from fields such as HACCP (Hazard Analysis and Critical Control Points), hygiene measures,

GMP (Good Manufacturing Practice), avoidance of foreign bodies, allergy management, farm management, specifically certified raw materials, genetically modified organisms (GMO), radiation, nano materials, branding and traceability. A general specification for packaging has also been available since 2018.

Procedure for new suppliers

We have a strict supplier eligibility procedure in place for new suppliers. We regularly have this eligibility system audited by external specialists.

A core element of our check on suppliers is a supplier questionnaire especially developed for this purpose and regularly reviewed and adapted to new requirements.

Procedure for existing suppliers

Our suppliers are audited regularly to ensure compliance with our high quality standards. Irregular on-site visits also ensure that the quality of the goods meets our specifications at all times. To this end, we draw up appropriate audit plans to check the quality of our upstream cooperation partners and, if necessary, make proposals for improvement. We use these measures because we wish to ensure that all the raw materials purchased come from suppliers who comply with our purchasing guidelines. We also accept audits conducted according to GFSI (Global Food Safety Initiative) standards.

SUPPLIER CODE OF CONDUCT

In 2013, we introduced a Supplier Code of Conduct, which has to be signed by every supplier in the USA. We have also had our own Supplier Code of Conduct in Germany since the beginning of 2016. This Code of Conduct addresses the current BSCI content and supplements it with our own themes, such as specifications for compliance with the minimum wage in the country of origin.

Business Social Compliance Initiative (BSCI) is a non-profit business association for improving social standards in a global value chain. BSCI provides a code of conduct to protect workers' rights. These include fair working conditions, the prevention of forced and child labour, the promotion of health and safety in the workplace and aspects of environmental protection. The new Supplier Code of Conduct will in future have to be confirmed by every supplier and signed once.

SUPPLIER QUESTIONNAIRE

A core element of our check on suppliers is a supplier questionnaire especially developed for this purpose and regularly reviewed and adapted to new requirements. All our suppliers are all obliged to complete this questionnaire and update it regularly.

This gives us a comprehensive insight into the working methods of the supplying company.

Responses to the questions are evaluated and reviewed by our Quality Management Department in close cooperation with our Purchasing Department. Any distinctive deviations from the specifications result in the corresponding suppliers not being authorised or in the case of subsequent violations in their immediate suspension and delisting.

In addition to general questions on the company, the questionnaire also contains questions on the following:

- Quality and supplier management
- Ecological sustainability and farm management
- Food safety
- Hygiene standards
- Handling foreign matter
- Traceability
- Quality assurance
- Storage and transport
- Regulation of occupational safety and protecting employees against chemicals
- Human rights and working conditions

This is where the conditions we require in our General Specification are explicitly asked for once again.

ANNUAL ASSESSMENT OF SUPPLIERS

We carry out a comprehensive annual supplier assessment on our strategic suppliers and suppliers generating a specific volume of turnover. With this assessment we cover over 86% of the purchasing volume in the fruit sector and approx. 50% of the purchasing volume in the packaging sector.

This supplier assessment covers qualitative and quantitative aspects. Quality, prices and conditions, delivery and service, and also GMP (Good Manufacturing Practice) are evaluated by way of variously weighted questions.

Suppliers are informed about the outcome of the different aspects and about their rating.

Suppliers are then classified in four categories on the basis of the evaluations. Depending on the category, the supplier will merely receive information or be required to submit a statement. They can also be asked to undertake specific improvement measures in cooperation with our Purchasing Department and Quality Assurance Department. If this does not come into being or if the measures do not comply with our specifications, this supplier will be suspended.

If we see considerable potential for improvement in suppliers, we will actively accompany them and provide support. This involves in-depth talks, and also special coaching at Zentis and locally at the supplier or producer.



The suspension of a supplier may also come about ad hoc for a special reason, particularly if repeated consignments are inadequate. This step is taken in close cooperation with our Purchasing Department and our Quality Assurance Department.

Currently, eight raw material suppliers and three packaging suppliers are suspended. The reasons for suppliers being suspended were repeated declines in quality, processing problems or poor document management. No suppliers were suspended due to social risks (e.g. human rights violations) or environmental risks.

Suspensions are also always carried out in the system and they are always initiated by our Purchasing Department. In addition to complying with all the specifications, termination of suspension and inclusion in the list of suppliers again also requires the approval of the management.

DEALING WITH CRITICAL ISSUES IN THE SUPPLY CHAIN

In the case of some raw materials it is not possible to avoid purchasing goods from main growing areas where child labour is tolerated or where this is even socially acceptable, for example hazelnuts from Turkey, where 75% of the world's harvest of hazelnuts is grown, or cocoa from some African countries.

In this case we will take action within the scope of our possibilities: We maintain a list of risk countries and regions – such as Central America (Mexico), Turkey, India and a number of African countries (Equatorial Belt, Ivory Coast).

The issues of child labour and forced or compulsory labour are not only substantiated with the help of the supplier questionnaire; we also have our suppliers sign our Terms and Conditions of Purchase once and the Supplier Code of Conduct. We have ensured this continuously for many years now. New suppliers all must go through this three-stage process and meet all the conditions.

For an average of around 5% of all the raw materials we purchase every year for our European plants we cannot completely rule out the risk of child labour. This figure covers chocolate and nuts purchased and supplies of raw materials from risk countries which are not UTZ or Fairtrade certified.



Certifications

As a processing and trading company in the middle of the supplier chain, we joined the independent organisation Sedex (Supplier Ethical Data Exchange) as early

as in 2006 and have been a member since this time. Sedex is a web-based database for companies with the aim of recording the ethical data of its members and making this data available to members among one another. It enables companies, i. e. customers and suppliers, to analyse and evaluate potential risks in the supply chain.

Sedex uses a special Risk Assessment Tool. It is reviewed every six months and the risk assessment is carried out by the British company Maplecroft, a global risk and strategy consultancy. Their work includes the analysis of important political, economic, social and environmental issues affecting global companies and investors. We also use this tool for our risk assessment and currently have no high-risk suppliers.

The social standards in the Zentis group of companies as a whole are already being audited by various customers. These Social Workplace Accountability Audits are based on customary international social standards such as the SA 8000.

At present, we see our focus on quality-related and social issues in our supply chain. We meet the high standards we set ourselves by means of tangible specifications and processes. We recognize the relevance of environment-related topics, but at present we can only deal with them by using appropriate raw material certifications. A further breakthrough at the supplier, e. g. water and energy consumption, is not possible. Up to now, these areas have only been approached in the supplier questionnaire or in the general specification (ecological sustainability and farm management). Environmental issues can also be found in the Risk Assessment Tool in Sedex.

Our Supplier Code of Conduct also contains environmental protection requirements. The supplier declares to protect the environment by complying with legal stipulations and international standards, to conserve natural resources through sustainable use, to work in an energy-efficient manner and to continuously minimize environmental pollution.

QUALITY ASSURANCE AND TRAINING COURSES

Our many years of doing business with our partners is also an expression of the high standards we require from all our suppliers. These standards are subjected

to consistent, intensive checks. The result is trusting cooperation on the one hand and no compromises in terms of quality assurance on the other hand.

Our suppliers must meet the stringent Zentis standards at all times. They are given intensive training in doing so. We have for this reason been conducting workshops with our fruit suppliers for many years. The workshops are either held directly in the Zentis plants or at the premises of our fruit suppliers. All the participants in the workshops – act as disseminators in their operations. Hundreds of employees have already taken part.

SUPPLIER TRAINING

During the reporting period, an increased number of training courses were held: at one supplier/producer in Peru with eight workshops, and in Chile with five suppliers/producers.

Employees as well as team and department heads were trained on product-related quality issues, such as foreign object management and hygiene. Department heads are also trained on environmental and social topics. The training material includes photos from the plant tour, so that current and company-specific topics can be made vivid.



The main aim is to make all our raw material suppliers aware of the fact that they are a responsible part of the supply chain and that they have an elementary influence on the products that go to end consumers. For example one ton, or around two containers, of fruit is used to produce tens of thousands of cups of yoghurt for consumers.

Our suppliers are regularly audited in order to ensure that our high quality standards are maintained. In addition, irregular on-site visits ensure that the quality of the goods complies with our specifications at all times. We draft corresponding audit schedules to ensure this, and use them to check the quality of our upstream cooperation partners and make proposals for improvement. We use these measures because we wish to ensure that all the raw materials purchased comply with our purchasing guidelines. We also accept audits conducted according to GFSI (Global Food Safety Initiative) specifications.

Our suppliers are also responding to the increased food safety requirements by investing in new detection systems and employee qualifications.

PURCHASING OF CERTIFIED RAW MATERIALS

As a company that predominantly processes agricultural products, we are aware of the impact of our management on human rights and labour rights on production and on the environment, and we seek solutions.

As in the past, our focus of sustainable purchasing is on the raw materials palm oil and cocoa.

This is where problems with complying with environmental and human rights standards are most serious and require the most rapid action.

CERTIFICATIONS

We have our company certified to demonstrate our sustainable actions. This is one of the most tangible ways for us to address social and environmental issues in the supply chain. We have identified certification possibilities together with our customers to reflect the standards we set ourselves and our commitment to the question of sustainability.

We have appointed persons who are responsible for the implementation of the sustainability programme specifications in the company. They pass information and instructions on to the departments concerned, implement revisions to the standards in the company and update Zentis QM procedure instructions drafted especially for the sustainability programmes. At the same time they regularly conduct internal training courses.



To meet the growing number of sustainability programmes in which our company is involved, we created a new position in the purchasing department in April 2016.

We are currently certified according to RSPO, UTZ and Fairtrade.

RSPO AND FONAP

Roundtable on Sustainable Palm Oil (RSPO) is an initiative of NGOs, the food industry, and other stakeholders. Its aim is to reduce deforestation and contribute to the preservation of biological diversity. At the same time, living conditions in the rural communities of palm oil producing countries are to be respected.

We have been a member of the RSPO since 2012. This helps us to reduce the negative social and environmental impact of this important raw material.

We also joined the Forum for Sustainable Palm Oil (Forum nachhaltiges Palmöl – FONAP) in 2017, an association of currently 52 companies, non-governmental organisations, associations and the Federal Ministry of Food and Agriculture (Bundesministerium für Ernährung und Landwirtschaft – BMEL). The aim of FONAP is to boost significantly the proportion of sustainably produced palm oil and derivatives on the German, Austrian and Swiss markets as quickly as possible while at the same time improving existing standards and certifications.

By becoming a regular member, Zentis would like to support concrete activities of FONAP and, together with various partners, contribute to the quick achievement of this goal. The members of FONAP have made a public commitment. In this declaration, they undertake to use only 100 % sustainably produced palm and palm kernel oil in their products. In addition, the members strive for traceability of the palm oil used and compliance with certain additional criteria which are not yet covered by the certification systems.

Palm oil

As early as in 2013, all the products for which we purchase palm oil were switched to RSPO mass balance palm oil. In summer 2014, we were able to switch our nut nougat cream articles to the use of sustainable palm oil according to “Segregated”.



Oil palm fruits

The Supply Chain Model “Segregated” (SG) requires that in every stage along the entire supply chain, certified palm oil be kept separate from non-certified palm oil. The final product actually only contains certified palm oil that may also originate from different sources.

At the end of 2017 99% of our palm oil used in Germany was RSPO-SG-certified, 1% was RSPO-MB-certified.

Another focus is on all the raw materials containing palm oil or palm kernel oil also in the form of derivatives and fractions if appropriate. Examples in this case are pastries, aromas and emulsifiers. In this area we also require RSPO-certification from our suppliers, if possible even “Segregated”.

For years it has been particularly difficult to obtain the fraction palm kernel stearin. It is not possible to adequately meet demand. These products are assigned by the supplier.

WWF Scorecard 2017

Every two years since 2009, the WWF has been examining the purchasing policy of buyers and processors of palm oil with its palm oil scorecard. It assesses how seriously companies take their commitment to purchase and use certified palm oil. Zentis scored 18 out of 22 possible points. We were thus able to improve by a further three points compared to the Scorecard 2015.



UTZ

The programme and seal of approval distinguish responsible, sustainable farming and transparency along the supply chain, with UTZ focusing on the management of farms, in particular small farms. The programme supports farmers and workers and their families in that it improves their income and social situation. At the same time, UTZ makes a contribution to protecting our natural resources. The term “utz” originated in the Maya language Quiché, and is translated as “good”.

At the beginning of 2018, UTZ merged with the “Rainforest Alliance” seal. In 2019 a new joint programme is to be launched, with more efficient certification and auditing processes and a new seal.

From that date, the companies have a transitional period of three years for changing the seal on packaging materials, for example.

FAIRTRADE

The Fairtrade-certified label marks goods that originate on the basis of fair trade. The production must meet specified social and ecological criteria. An elementary component of the label is the payment of guaranteed prices and an additional bonus for community projects in the farming regions. Fairtrade supports an ecological, contractually fixed farming practice and forbids exploitive child labour.

Cocoa and coffee

The proportion of sustainably derived cocoa in confectionery sold in Germany is rising steadily. A survey conducted by the Association of the German Confectionery Industry (Bundesverband der Deutschen Süßwarenindustrie – BDSI) among its member companies showed a clear increase. While the proportion was 3 % in 2011, it is now as much as 55 % in 2017.

Our company is very clearly positioned above the average for the sector: Sustainable UTZ-certified cocoa in the confectionery sold by Zentis in Germany (Zentis brand and trademark) accounted for more than 97 % of the total amount of cocoa used in 2017.



Apart from the cocoa used in our confectionery products, we are using more certified cocoa. The decisive factor here is the customer’s requirements. The proportion of total cocoa rose considerably in 2012, to reach as much as 42 % in 2017.

In addition to our operations in Germany, our Polish plant has also been licensed to sell products produced with UTZ-certified cocoa since autumn 2015. With this

move we are ensuring that products certified according to UTZ criteria can also be sold in other countries from our Polish plant.



Company premises in Siedlce, Poland

Since 2015 our Aachen location has fulfilled the conditions required for UTZ coffee certification SG (segregation traceability level) for coffee. We can thus now also offer our customers products containing sustainable, socially and environmentally compatible farmed

coffee, or we can develop new products in cooperation with our customers.

Our Aachen location has been Fairtrade-certified since autumn 2015. We can thus offer customers with their own Fairtrade licence products treated according to the Fairtrade guidelines in the Fairtrade programme, from their purchase to processing and to their sale.

PURCHASING OF PACKAGING MATERIAL

When purchasing packaging material for our products, we pay particular attention to short distances, especially for large-volume and heavy packaging. We purchase our cartons (e. g. trays for transport and presentation on the sales shelves for jams or confectionery articles) and also our glass jars for jams and fruit spreads nationally, predominantly even regionally; also for ecological reasons.

For some time now, we have been insisting on our suppliers using mineral oil-free and low-migration printing inks for labels, cartons and films. We use films primarily for the packaging of our confectionery.

Since mid-2017, we only use cartons and labels with FSC-certified paper.





5. ZENTIS EMPLOYEES

CORPORATE CULTURE

As a modern medium-sized company in family ownership, we pursue a sustainable and value-oriented personnel policy in which trust, openness and respect are fundamental. Our committed employees are one of the keys to our company's success. That is why we attach great importance to their individual involvement and development.



We want our employees to be satisfied and motivated in their daily work. Active personnel development and individual talent development, a variety of opportunities for vocational training and advanced training, open communication, health management, a company pension programme and, last but not least, a secure

job and performance-linked remuneration all contribute to this.

We also offer performance-related bonuses and have a compliance management system.

The longer than average periods of service with the company in comparison to the sector show how loyal our employees are to our company and is a sign of staff satisfaction.

AVERAGE PERIOD OF EMPLOYMENT WITH ZENTIS
(IN YEARS)

	2013	2014	2015	2016	2017
Germany	16.8	17.9	18.6	19.0	18.6
Logistics (Germany)	12.1	12.0	12.5	13.8	18.2 ¹
USA	2.5 ²	6.4	6.6	6.9	8.0
Poland	10.8	11.5	11.9	12.5	13.0
Hungary	5.9	7.1	7.6	7.5	7.9
Russia	3.8	3.8	4.7	5.3	6.7

¹ Decline in the number of employees

² Plymouth only

As far as possible, vacant positions, for example when a staff member retires, are filled with our own junior employees at all levels of experience. These successor employees are given specific training for their new position.

Our general intention is to fill 70 % of our vacant positions with internal employees and 30 % with external applicants. In the reporting period we were successful in doing so.

The focus is clearly on career development within Zentis. Our apprentices also ensure that we have a productive mixture, since they are consistently supported and prepared for future responsibilities.

Zentis is also a popular company on the external employment market. New employees bring in new ideas and impulses.

Due to the low fluctuation in the production areas, a relatively high average age of employees can be observed.

In 2017 the average age of all employees was 45.41 years, the average age of employees in production/technology was 48.82 years.



Our company also benefits from the long periods of service, since knowledge and skills are maintained at the sites and can be passed on to new colleagues.

Due to the age structure, we must make early efforts to recruit junior staff, but also to ensure lifelong learning and the health of our employees.

The increasing shortage of experts in Germany is primarily evident in our company among technical experts such as electronics technicians and mechatronics technicians. In these professions there is also increasing competition between the major employers (the food industry) in the region.

Necessary replacements with electronics technicians for automation technology and machine operators are sometimes difficult. We have therefore expanded our training activities and created more training positions in industrial-technical occupations.

In addition, a greater number of experienced temporary employees were taken on and integrated into existing production shifts.

QUALIFICATION AND PERSONNEL DEVELOPMENT

Zentis is committed to providing its employees not only with the necessary expertise, but also with the necessary skills to meet the complex challenges of the present and future world of work.

As part of our qualification strategy, we also aim for increased flexibility so that employees can successfully take on other positions in production in the event of absences.

Zentis offers a general framework concept with various seminars for personnel development, which takes into account the individual strengths of the employees – as well as targeted management development and systematic talent management.

Our personnel development at the German site includes various open seminars every year. The focus is on personality-developing topics (communication, conflict management, self-organisation, stress management, “first time supervisor”), but also on methodological competence, such as project management.

As an increasingly international company, employees are facing new challenges (cultural diversity, languages, globalisation, etc.).

We regularly assume the costs for seminars and training courses, and on an individual basis also for more long-term and more comprehensive advanced training courses such as those held at a master school and part-time degree programs.

English and French language courses can be attended during regular working hours.

Semi-retirement is possible on an individual basis at our German sites. If necessary, employees are offered advice on the transition to retirement.

All measures taking place centrally are evaluated using an assessment sheet. Since 2017, a personnel officer from Zentis (responsible for the personnel development program) has been taking part in selected seminars for quality assurance purposes, or is leading them together with an external trainer.

An important tool for assessing performance and defining development plans is the annual performance review (Mitarbeiterjahresgespräch – MAJG). In talks between managers and employees, the annual review, the current situation and the outlook for future measures are evaluated.

Annual performance reviews are carried out once a year as part of a structured feedback process with all our employees in the areas of commercial administration purchasing and sales. In Production, talks are carried out up to the level of team leaders and their stand-ins and in production-related areas up to the level of team and/or shift leaders and their stand-ins, as well as with key employees (specialists, employees with special functions).

TALENT MANAGEMENT

We are aware that we must define future requirements for our employees and managers precisely and decide which skills and knowledge will be relevant in the future. To this end, we have developed our own talent management strategy.

We use the term “talents” to describe employees who are seen to have good potential for challenging tasks – including management or specialised management tasks – without all skills for future tasks already having been trained.

Our Talent Management thus pursues the goal of ensuring the succession of key positions in the company that are critical to success. Network building and interdisciplinary exchange are also important, and are ensured by interdisciplinary events such as Talent Forums (October 2017, May 2018), with comprehensive modules that include self-image, external image, Change Management and interdisciplinary project work. There are two programs for in-house employees: “Zentis Talents” as an entry level and “Senior Professionals” for experienced employees/managers. This also includes a trainee program aimed at attracting young university graduates to the company.

Zentis Talent Management was first introduced in autumn 2016 and comprises measures for a period of two years. Preparations are currently underway for the start of the new cycle in autumn 2018, and this time employees of our foreign subsidiaries will also be taking part in order to accommodate our international positioning.



A mentor program has also been introduced as part of Talent Management, which not only enhances the network character and at the same time promotes the development of talents, but can also mean leadership development for the mentors themselves in their new role. Various workshops have been offered, and will be continued in the future.

Twelve employees are taking part in the current round. Some of them have already successfully reached their targeted positions. Twenty participants are scheduled for 2018.

Since 2016, we have also been creating individual development concepts for those who do not participate in Talent Management, if requested and necessary.

In addition, the functional personnel development is usually planned and managed within the company's own departments.

MANAGEMENT DEVELOPMENT

We are increasingly including the development of our managers in our personnel programs. The key factors for us here are the opportunities for networking with one another and the systematic development of the necessary management skills.

These measures involve the division management (19 employees, three of whom are female) and department management (66 employees, 16 of whom are female).



A cross-divisional exchange of information at a top-management level (division manager) is one of the items on offer as part of our “Manager Forum”. In this forum, we offer our managers the opportunity to discuss any topic relating to the company and also diverse business, political and social networks, and also make recommendations to the management. This institutionalised and at the same time open platform reinforces the team concept and cooperation throughout the Group.

Since 2017, we have also focused on executive development in the commercial and technical areas. Among other things, we aim to achieve a uniform management culture and promote motivation and continuous further development. The concept includes a two-year supporting programme with four modules, which each participant must complete. The main topics are leadership, communication, conflict management and the fundamentals of labour law. This measure affects 98 employees from Zentis GmbH & Co. KG and Zentis Logistik Service GmbH (from team leader/shift leader upwards).

VOCATIONAL TRAINING

We train apprentices at our German sites and support the young talents in our company. Vocational training is provided as needed: anyone who is trained and

successfully completes their apprenticeship is highly likely to be taken on by the company.

TAKEOVER OF APPRENTICES (%)

	2014	2015	2016	2017
Takeover quota	59%	75%	69%	64%

Zentis is one of the best training companies in Germany.

This was the result of an independent, recent study commissioned by “Deutschland Test” and “Focus Money”⁵. The study examined 5,000 of the companies with the largest number of employees from various sectors, and Zentis is one of the 413 companies that received the award. One reason for the distinguished training: the majority of trainees are taken on as permanent employees after completion of training.



Our apprentices in 2017

We have also prepared for the “Best place to learn” certification at the end of 2017 in order to achieve this in 2018.

In 2016 and 2017 we had 31 apprentices at Zentis GmbH & Co KG and two new trainees at Zentis Logistik Service GmbH.

Vocational training is also provided at the international sites in Poland and Hungary, using models typical of the country.

⁵ Jacobs, T. (2017): “Deutschlands Beste Ausbildungsbetriebe” in: FOCUS 14, 2017.

NUMBER OF APPRENTICES

	2013	2014	2015	2016	2017
Zentis GmbH & Co. KG	36	26	26	28	36
Zentis Logistik Service GmbH	13	12	8	6	2

In August 2017, the number of apprentices in vocational training for machine and systems operators in particular was raised to nine, due to the noticeable shortage of skilled workers and the age structure in the production area.

Our apprentices go through an introductory week: They familiarise themselves with the company and receive various seminars, e. g. on hygiene regulations and energy saving. Subsequently, all apprentices spend two weeks getting to know the production process.

Basic training courses are also offered, most of which are the responsibility of the specialist trainers. Every year there is an excursion for all apprentices to another food processing company. This enables the apprentices to exchange ideas and gain insight into other production sites.

The apprentices also participate voluntarily in an annual Social Day, where they support social projects together with the head of training.

DIVERSITY & EQUAL OPPORTUNITIES

We consider diversity a particular strength and enrichment for our company. It contributes to enhancing Zentis performance and supports us in the face of increasing internationalisation and global competition. We encourage the exchange of professional and life experience and a wide variety of interests in our daily dealings with one another.

This principle has been firmly anchored in our Code of Ethics: the focus is on people and their personal contribution to the company, irrespective of their age, gender, nationality, religion or sexual orientation.

Zentis currently employs staff from 30 different nations.

For us, diversity also means striving for a good mixture of both young and old employees in our teams.

Diversity also includes a balanced number of women and men in the workforce and in management positions. We will continue to work at increasing the proportion of women in managerial positions.



For a better work-life balance we offer flexible working hours as well as the possibility to work in home office. The number of persons who can temporarily perform their work outside the operating site has been expanded and more flexible working has been made possible. In total, 90 employees were able to work in home office, 57% of them women.

Zentis is also involved in Girls' Day. Every year, Zentis welcomes around 20 schoolgirls to this nationwide event, which is intended to motivate girls and women in particular to take up technical and scientific professions, and gives them an insight into technical careers.

Against the background of legal changes in temporary employment, the management has decided to reduce the proportion of temporary employees in the company. Therefore, in 2016/2017 a total of 37 positions were filled by former temporary employees. Temporary work continues to be a suitable means of responding to fluctuations in orders or to bridge holiday periods.

In the reporting period, 3.6% of the parental leave period was taken by male employees. In particular, the two partner months are used. Zentis expressly welcomes the fact that male employees are increasingly using parental leave to look after and raise their children.

Through the cooperation with the Lebenshilfe workshops, Zentis provides people with disabilities with a permanent job. They are responsible for the packaging of confectionery, support their colleagues and are an integral part of the team. In 2016, we celebrated 20 years of inclusion and good cooperation between Lebenshilfe workshops and Zentis.

INTERNAL COMMUNICATION

Our flat hierarchies facilitate close cooperation and direct communication in daily business. Managers and employees regularly exchange information. This is very important to us. In 2017, we strengthened internal communications with a new Corporate Communications Unit directly at the management level. One of the decisive factors was the positive experience gained from the very open internal communication during the brand relaunch in 2015. The increased involvement of employees is to be continued and is now firmly established in the corporate structure.

Existing communication tools and channels are to be further developed and, if necessary, new ones created in order to improve the overall flow of information within the company.

The Zentis Intranet serves as a common means of communication. Relevant information is available on notice boards for employees without a PC workstation.

SOCIAL BENEFITS

In addition to the usual social benefits and a well frequented canteen, we support our staff with a sophisticated company health management system providing and sponsoring various offers such as membership in health-oriented gyms, courses on nutrition, etc. Our employees also benefit from the provision or subsidisation of parking spaces near the company and from benefits from the staff fund. Depending on business results, we give away goods vouchers for sales to staff members, birthday gifts, and contributions to Christmas parties. We also make one-off payments into the pension scheme.

CONTRACTS AND PERFORMANCE-BASED REMUNERATION

The majority of our staff members were hired on the basis of permanent contracts and most of them work

full-time. The few fixed-term contracts are mostly concluded in time-limited situations, such as when we need replacements for employees on maternity leave or sick leave, or in connection with specific temporary tasks and projects.



Performance-related remuneration, equally applicable for all our employees and without discrimination for any individual groups, is very important to us. For us, performance-related also means that we pay not less than the collectively agreed rate, and thus more than a minimum wage. Bonuses paid are also profit-related and performance-based.

Employee protection and representation of interests are taken for granted in our company. At Zentis GmbH & Co. KG and Zentis Logistik GmbH, 98% of our workforce is represented by the works council.

We have also established a company pension scheme. At the international locations there are different models (see appendix).

EMPLOYEES AND SUSTAINABILITY

Sustainability is not only an issue in production and purchasing. Employees have many points of contact:

- Our employees have been sensitised to their own behaviour through regular training (switching on light only when required, heating and ventilation behaviour, sensible use of air conditioning systems, etc.). The focus of the training varies depending on the field of work. For example,

production employees are also made aware of energy saving possibilities in their work area. The training courses also include useful energy-saving tips for the home.

- To avoid business trips – and thus also emissions – conference technology and Skype are used for meetings wherever possible. And not only in an international environment. Our IT Department offers appropriate training courses.
- Through digitisation, paperless processes are increasingly taking place in all areas of the company: Documents can now be released quickly and easily in the system at the click of a mouse. This saves paper, space and above all time.
- Payroll accounting for employees is now primarily digital.
- One example is the paperless administration of tour documents by changing the archiving system at our Logistik GmbH.
- All employees should consider the necessity of printing. In particular, the number of colour prints has been drastically reduced.
- Wherever economically viable, sustainably produced furniture is purchased for our office equipment.
- With a critical eye we review processes in all areas and implement suggestions for improvement wherever possible, e. g. the conversion from plastic cups to paper cups in Production.

EMPLOYEE SUGGESTION SYSTEM

We welcome and support the personal initiatives taken by any of our employees. They have the opportunity to bring in their specific ideas and make suggestions for improvement in our employee suggestion system. The suggestions are evaluated by an internal committee. Purposeful, viable ideas are rewarded financially, for example by way of bonuses or payments of a percentage of potential savings.

One award-winning proposal was the saving of pectin (gelling agents). At the weekend, after the last shift, the pectin lines leading to the production plants must be emptied and cleaned. These volumes are flushed into the sewage system during the cleaning process. The discarded pectin volumes were reduced by means of improved pre-planning for the last boiling stage of each production plant. For this suggestion for improvement there was a bonus of EUR 1,000.

NUMBER OF SUGGESTIONS				
2013	2014	2015	2016	2017
67	44	71	88	88

OCCUPATIONAL SAFETY AND HEALTH

COMPANY HEALTH MANAGEMENT

Protection against physical and emotional stress and health care in our German plants have been significant cornerstones of our system of company health management since 2000.

During the reporting period, we formed a working group (consisting of the safety specialist, the production management, the works council, the company physician and the personnel department) that began with a survey on psychological stress at the workplace. The survey will be conducted by division or department and will be completed by the end of 2018. We are using a standard questionnaire developed by occupational scientists from the “Bundesanstalt für Arbeitsschutz und Arbeitsmedizin – BAuA” (Federal Institute for Occupational Safety and Health). After the evaluation of the respective results, these will be presented and – if necessary – improvements will be developed in action workshops.

At the German locations, a wide variety of services are offered as part of the company health management. During the reporting period, energy massages and break time exercises at the workplace for mobilisation, strengthening, stretching and relaxation met with particularly strong approval. For the first time, employees were offered free fruit in the canteens of both German sites.

In 2016, we held our biennial health days. Various booths offered health-related services, e. g. health check-ups (e. g. blood sugar, total cholesterol, and blood pressure), lectures or trial courses.

As a result of the turnout at the health days, follow-up courses such as fascial training and spinal gymnastics/back fitness were offered during the reporting period.

For the first time, an in-house “Fit after Work” course was also offered to all employees who want to keep fit after work through sporting activities.

Besides the offer of check-ups by the company doctor, the employees can be trained as first responders.

Zentis also supports its employees with the following measures (permanent offers):

- Participation in programs for a healthy change in nutrition
- Health-oriented full body workout
- Participation in company running events (assumption of starting fee and provision of running shirts as well as a Meeting Point)

Consulting

- Operational integration management
- Medical check-ups for employees in production areas with noise pollution and shift work and computer workstations in administration

OCCUPATIONAL SAFETY

Occupational safety rates high in our company. It is regulated in detailed, comprehensible guidelines. In 2017, there were only 36.2 reportable accidents per 1,000 employees in Germany – with all the accidents involving more than three calendar days of lost time being reportable. We are below the average for the sector with this figure.

More than a third of lost days of work in Germany were due to behaviour-related accidents caused by falling. We are following the example of the “Hand on the Handrail” initiative run by the German employers’ liability insurance association in order to reduce the number of these accidents.

The risk of accidents caused by falling is increasingly addressed in the instructions.

There are a number of causes (primarily cut injuries) for the other lost days of work and for everyday accidents, without it being possible to identify any other main reason. Consequently, there are no work areas in which employees are fundamentally exposed to a higher sickness rate or health risk.

Division and department heads are responsible for conducting the necessary training courses. In addition to the teaching of contents, practical exercises must also be carried out for the use of personal protective equipment in connection with hazardous substances.

COMPLIANCE

We have set high ethical standards for ourselves and for our activities. This is the basis on which we maintain a professional, respectful relationship with our employees, customers and suppliers. In 2012, we laid down everything that had been a matter of course in our dealings with one another for many years as being compulsory in our Compliance Management System (CMS). We remain dynamic at all times, consistently adapting this system to changes in legislation and national specifics. The system is certified according to IDW PS 980 (German Institute of Public Auditors). This certification in the third-highest of any possible rankings is confirmation of the effectiveness of the system.

Our guidelines extend beyond the scope of legal requirements. The significant content of the guidelines in our compliance management system are structured in:

- Code of Ethics (already implemented at the end of 2012) also forms the basis for the Zentis Supplier Code of Conduct; the Code also meets the fundamental customer requirements of ethical codes. In most cases, the re-signing of customer codes was therefore not necessary.
- Ethics guideline
- Compliance guideline
- Corruption guideline
- Antitrust guideline
- Gift guideline

Since April 2013, the CMS applies for all our sites, including all subsidiaries abroad, and our minority share(s). During the reporting period, the guidelines were systematically updated and adapted to regional specifications and laws. At the beginning of 2018, the new EU Data Protection Regulation was implemented and incorporated into and supplemented by the relevant directives.

The guidelines thus reflect the specific characteristics of a country. A binding set of rules also exists in the “Employee Handbook” in the USA.

A comprehensive compliance report is prepared annually by the external Compliance Office (a law firm in Aachen). The report explains in particular the incidents, activities, amended and new guidelines, and training measures of the reporting period.

There were no incidents of non-compliance with social/societal and economic laws and regulations (fines, non-monetary sanctions, dispute resolution proceedings) for the reporting years 2016 and 2017.

Division managers are also compliance officers in our company; this also applies for respective managing directors in our subsidiaries. They are responsible for distributing relevant information, for the implementation of specified guidelines and for compliance with these guidelines. At the same time they are the contact persons for all our employees on any compliance aspect.

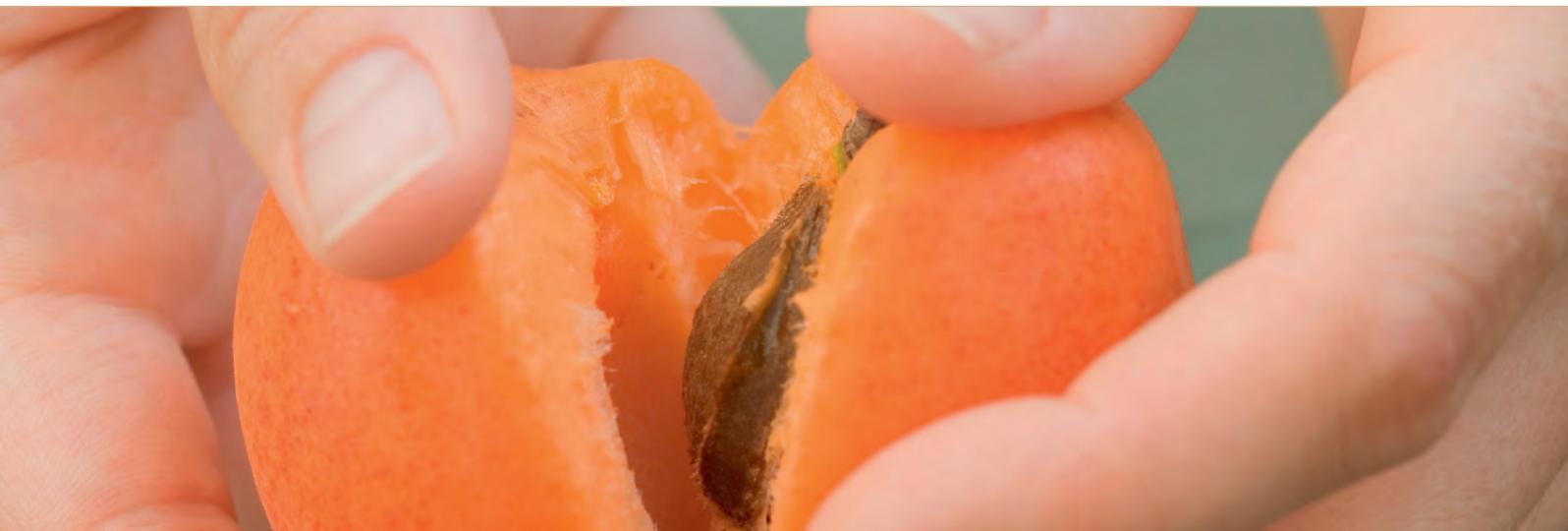
Division heads are regularly trained on compliance issues. They also get support from external consultants and experts. They inform their employees on this basis and offer them training. In the reporting period, money laundering was the main topic of discussion. Other training measures included data protection and employee liability.

In the event of a violation, various reporting procedures are implemented – by principle, the management and the external Compliance Office are informed. The direct route to the Compliance Office is open to all employees; they are familiar with telephone numbers and contact details.

NEW TOPICS IN THE REPORTING PERIOD:

- Important measures implemented with regard to current regulations on “Tax Compliance”, to avoid “reckless tax cutting”. Establishment of a corresponding internal guideline that defines all processes and responsibilities for correct tax handling.
- Compliance with the Data Protection Ordinance will become binding from 2018; i. e. personal data must be protected and may not be stored. All areas from personnel (for internal data) to marketing/sales (for customer data) are to be processed; Zentis internal project team and external consultants control the process in order to implement the necessary steps.





APPENDIX

CHAPTER I: ZENTIS – OUR COMPANY

- GRI 102-45 GROUP STRUCTURE
 GRI 102-5 OWNERSHIP AND LEGAL FORM

Group structure (as of 31 Dec. 2017)

Parent company: Zentis GmbH & Co. KG, Aachen

Direct shareholdings:

- Zentis Holding GmbH, Aachen
- Zentis Technik Service GmbH, Aachen
- Obstbauern Nahrungsmittel GmbH, Aachen
- Zentis Logistik Service GmbH, Aachen
- Allfrucht Vertriebs GmbH, Düsseldorf
- Zentis Hungária BT, Drégelypalánk, Hungary
- Zentis Holding Kft., Drégelypalánk, Hungary

Indirect shareholdings:

- Zentis Beteiligungsverwaltungs GmbH & Co. KG, Aachen
- Zentis Polska Sp. z o.o., Siedlce, Poland
- OOO Zentis Russia, Moscow, Russia
- Zentis Verwaltungs GmbH & Co. KG, Aachen
- Zentis North America Holding LLC, Plymouth/USA
- Zentis North America LLC, Philadelphia/USA

Investments:

Joint Venture Company Maryman B.V., Roosendaal, Netherlands (37%)
 (Not part of the Sustainability Report.)

CHAPTER 3: ENVIRONMENTAL RESPONSIBILITY IN PRODUCTION AND LOGISTICS

ENERGY

GRI 302-1 Energy consumption within the organisation

NATURAL GAS (IN GIGAJOULE)							
	2011	2012	2013	2014	2015	2016	2017
Germany	442,115	433,017	405,220	394,657	441,181	494,988	490,958
USA ¹	104,405	96,305	110,651	178,720	191,122	184,899	186,092
Poland	80,959	83,677	88,009	87,505	80,257	74,362	69,213
Hungary	not specified	34,034	30,922	26,080	24,898	24,847	23,706

Excluding Russia, as only sales office
¹ 2011-2013 only Plymouth

ELECTRICITY (IN GIGAJOULE)							
	2011	2012	2013	2014	2015	2016	2017
Germany ¹	167,538	154,161	138,513	123,236	96,137	61,164	59,209
USA ²	33,196	34,056	38,513	69,522	73,008	71,807	70,569
Poland	23,828	24,098	23,885	24,142	23,602	23,211	22,810
Hungary	not specified	9,346	8,124	7,326	6,755	6,578	6,621

Excluding Russia, as only sales office
¹ Germany: Electricity provided by the company's own CHP units is not included. In relation to German electricity: renewable share 29.5% (according to the German energy mix 2016, Federal Statistical Office (Destatis), 2017).
² 2011-2013 only Plymouth

GHG EMISSIONS

GRI 305-1 Direct GHG emissions

Gas (kWh/a) * 228 (g/kWh)/1,000,000 = CO₂ (t/a)

CO ₂ (IN TONS PER YEAR)							
	2011	2012	2013	2014	2015	2016	2017
Germany	28,228	27,424	25,664	23,848	26,347	31,349	31,094
USA ¹	6,612	6,396	7,080	10,915	12,393	11,710	11,786
Poland	4,295	4,539	4,773	5,469	5,016	4,710	4,383
Hungary	not specified	1,455	1,243	1,652	1,577	1,574	1,175

Excluding Russia, as only sales office
¹ 2011-2013 only Plymouth

GRI 305-2 **Indirect GHG emissions****Energy indirect greenhouse gas emissions**

CO ₂ (IN TONS PER YEAR)							
	2011	2012	2013	2014	2015	2016	2017
Germany	30,244	27,359	24,651	21,676	17,008	8,954	8,668
USA ¹	5,892	6,045	6,835	12,338	12,740	10,512	10,331
Poland	4,229	4,277	4,239	4,285	4,189	3,398	3,339
Hungary	not specified	1,376	1,198	1,300	1,119	963	969

Excluding Russia, as only sales office
¹ 2011-2013 only Plymouth

In relation to this indicator, the term indirect emissions for 2016 and 2017 concerns CO₂ emissions caused by the generation of electricity and delivered for the company's own consumption.

Electricity (kWh/a) * 527 (g/kWh)/1,000,000 = CO₂ (t/a)

[The volume of CO₂ per ton of final product is calculated using a recognised conversion factor (638.9 g/kWh). It is however, a conversion factor that represents the German federal energy mix for electricity, 40.1% coal, 13.1% nuclear, 29.5% renewable energies and 12.9% gas.]

GRI 305-4 **GHG emissions intensity**

- Direct greenhouse gas emissions from natural gas; CO₂ (kg) per ton of final product
- Indirect greenhouse gas emissions from electricity; CO₂ (kg) per ton of final product
 Electricity (kWh/a) * 527 (g/kWh)/Final product (t/a)/1,000 = CO₂ (kg) per ton of final product

CO ₂ (IN KILOGRAM PER TON OF FINAL PRODUCT)							
	2011	2012	2013	2014	2015	2016	2017
Germany	220	223	214	212	209	226	224
USA ¹	240	214	201	224	239	235	236
Poland	198	204	209	234	246	225	236
Hungary	not specified	180	185	249	261	240	239

Excluding Russia, as only sales office
¹ 2011-2013 only Plymouth; Data correction for 2014 and 2015

WATER

GRI 303-1 **Total water withdrawal by source**

Water from the municipal water supply is used. Drinking water must be used at all our sites. Hungary has its own well.

TOTAL WATER WITHDRAWAL (IN CUBIC METERS)							
	2011	2012	2013	2014	2015	2016	2017
Germany	1,171,818	1,156,970	1,019,111	992,501	1,005,276	986,231	947,096
USA ¹	239,049	245,196	271,802	454,831	416,506	391,943	390,400
Poland	232,253	258,960	281,414	264,751	240,540	233,319	207,988
Hungary	not specified	71,118	69,781	68,984	59,449	61,515	51,605

Excluding Russia, as only sales office
¹ 2011-2013 only Plymouth

GRI 303-3 **Percentage and total volume of water recycled and reused**

Recovered and reused water in Germany (from nanofiltration)

RECYCLED/REUSED WATER							
	2011	2012	2013	2014	2015	2016	2017
Total water volume in m ³	22,175	42,808	35,465	15,500	13,500	31,000	38,000
% proportion of the volume of water stated in GRI 303-1	2.0	3.7	3.5	1.6	1.4	3.1	4.0

WASTE WATER AND WASTE

GRI 306-1 **Total waste water discharge by quality and destination**

Fresh water (m³/year) - cooling tower water (m³/year) - preparation water (m³/year) - boiler feed water (m³/year) - surface water evaporation (m³/year) = waste water (m³/year)

In Germany, the volume of waste water is calculated on the basis of the consumption of fresh water, taking account of evidenced water losses. However, this calculation must be plausibly laid out at the relevant authority. It is irrelevant whether the waste water is first discharged into an in-house waste water treatment plant or into the municipal sewage system.

Ultimately, the amount of waste water charged by the municipality's waste water charge must be considered.

WASTE WATER (IN CUBIC METERS)							
	2011	2012	2013	2014	2015	2016	2017
Germany	922,445	906,487	764,957	779,485	799,142	778,475	738,567
USA ¹	222,619	209,770	255,076	378,694	358,278	330,077	315,043
Poland	190,158	183,153	204,134	253,653	228,440	199,253	221,910
Hungary	not specified	40,769	37,054	62,374	52,069	56,204	43,380

Excluding Russia, as only sales office
¹ 2011-2013 only Plymouth

GRI 306-2 **Total weight of waste by type and disposal method**

Distribution among the types of waste mentioned is similar for the sites in Poland, Hungary and the USA. The operation in Russia is purely for sales so it does not produce any relevant amount of food waste or other waste. Less than 0.1% of waste is classified as being hazardous according to the waste catalogue. These pollutants include waste oils and solvents which are collected in suitable, authorised containers and professionally disposed of. This applies to all locations.

TYPES OF WASTE IN GERMANY (IN TONS)							
	2011	2012	2013	2014	2015	2016	2017
Food waste (animal feed/biogas utilisation)	5,045	4,473	4,522	4,181	3,670	4,090	5,142
Cartons (utilisation)	2,356	2,301	2,091	2,003	1,876	1,674	1,513
Mixed packaging (use through recycling)	2,370	2,400	2,214	1,742	1,794	1,890	2,295
Building rubble (recycling of materials)	507	241	133	122	114	165	294
Other	1,728	870	681	663	702	710	727

WASTE (IN TONS)							
	2011	2012	2013	2014	2015	2016	2017
Germany	12,006	10,285	9,641	8,711	8,156	8,529	9,971
USA ¹	3,980	1,718	1,772	2,948	4,088	1,289	1,279
Poland	1,202	876	1,088	745	610	704	650
Hungary	not specified	367	236	133	116	104	75

Excluding Russia, as only sales office
¹ 2011-2013 only Plymouth

CHAPTER 5: ZENTIS EMPLOYEES

GRI 102-8 Information on employees and other workers

ZENTIS TOTAL		2014	2015	2016	2017
All employees ¹ ...					
...by employment contract (permanent/fixed-term) by gender	(permanent f/m)	468/1,508	498/1,464	514/1,424	503/1,362
	(fixed-term f/m)	35/83	33/66	37/65	35/98
...by employment (full-time/part-time) by gender	(full-time f/m)	445/1,581	470/1,517	481/1,480	473/1,448
	(part-time f/m)	58/10	60/14	67/12	65/12

¹ Employees: an employment relationship with Zentis exists. (data without temporary workers, without trainees, without interns)

ALL EMPLOYEES BY EMPLOYMENT CONTRACT (PERMANENT/FIXED TERM) BY REGION		2013	2014	2015	2016	2017
Germany	(permanent)	1,210	1,161	1,099	1,092	1,032
	(fixed-term)	114	78	56	50	94
USA	(permanent)	not specified	431	478	467	444
	(fixed-term)	not specified	0	2	1	0
Poland	(permanent)	246	245	249	253	263
	(fixed-term)	14	20	26	25	16
Hungary	(permanent)	92	96	89	84	84
	(fixed-term)	33	14	10	18	21
Russia	(permanent)	47	41	45	46	40
	(fixed-term)	3	6	3	3	2

At Zentis Logistik GmbH, 50 trucks (including drivers) are available through subcontractors who drive exclusively for Zentis.

Our core workforce is supported by temporary staff during peak periods and seasonal fluctuations (only in the confectionery production area). The employment of temporary staff also ensures that jobs for the core workforce can be filled at short notice during vacation or other absences. In particular, temporary employees take on semi-skilled activities in the preparation and processing of raw materials as well as transport and packaging activities. In the reporting period Zentis GmbH & Co. KG employed an average of 103 temporary employees and Zentis Logistik Service GmbH 28 temporary employees.

GRI 401-1 **Fluctuation**

A) Number and rate of new employees (broken down by self-selected age group and gender) for Germany (not for the subsidiaries in this report).

(Calculation basis: Total number of employees at year-end)

NUMBER AND RATE OF NEW EMPLOYEES, IN GERMANY				
ZENTIS	2014	2015	2016	2017
Total	30	40	52	93
Rate in % of total	2.9	4.2	5.5	9.4
female	11	16	21	28
male	19	24	31	65
<30 years of age	16	26	29	45
30 – 50 years of age	7	9	17	41
>50 years of age	7	5	6	7

NUMBER AND RATE OF NEW EMPLOYEES, IN GERMANY				
LOGISTIK	2014	2015	2016	2017
Total	32	19	6	2
Rate in % of total	14.5	9.0	3.0	1.4
female	4	4	3	0
male	28	15	3	2
<30 years of age	13	8	3	0
30 – 50 years of age	16	8	3	2
>50 years of age	3	3	0	0

B) Number and rate of employee departures (broken down by self-selected age group and gender) for Germany (not for the subsidiaries in this report).

(Calculation basis: Total number of employees at year-end)

NUMBER AND RATE OF EMPLOYEE DEPARTURES, IN GERMANY				
ZENTIS	2014	2015	2016	2017
Total	87	82	18	20
Rate in % of total	8.5	8.7	1.9	2.0
female	28	10	4	4
male	59	72	14	16
<30 years	15	9	1	2
30 – 50 years	45	26	11	13
>50 years of age	27	47	6	5

NUMBER AND RATE OF EMPLOYEE DEPARTURES, IN GERMANY				
LOGISTIK	2014	2015	2016	2017
Total	30	27	19	55
Rate in % of total	13.6	12.7	9.6	39.3
female	2	4	1	4
male	28	25	18	51
<30 years	4	4	4	5
30 – 50 years	12	12	11	30
>50 years of age	16	13	4	20

GRI 403-2 Rates on occupational diseases, injuries, lost days and absences, fatalities

ACCIDENTS SUBJECT TO REPORTING REQUIREMENTS PER 1,000 EMPLOYEES							
	2011	2012	2013	2014	2015	2016	2017
Germany	41.1	45.9	42.0	37.3	40.9	67.9	36.2
USA ¹	4.0	7.3	10.7	22.8	13.5	6.6	4.3
Poland	32.9	12.0	15.4	3.7	10.8	17.9	7.1
Hungary	not specified	16.5	0.0	0.0	26.0	10.0	10.0
Russia	not specified	not specified	not specified	0.0	0.0	0.0	0.0

¹ 2011-2013 only Plymouth

A survey of accidents in relation to total working hours (injury rate) is planned for the next reporting cycle.

LOST DAYS (CALENDAR DAYS) PER REPORTABLE ACCIDENT SUBJECT TO REPORTING REQUIREMENTS							
	2011	2012	2013	2014	2015	2016	2017
Germany	17.3	16.4	16.8	20.3	14.9	27.4	15.8
USA ¹	5.0	24.0	98.5	51.5	41.4	23.7	11.0
Poland	58.0	75.7	27.0	70.0	61.0	17.4	85.0
Hungary	not specified	17.5	0.0	28.0	13.0	23.0	13.0
Russia	not specified	not specified	not specified	0.0	0.0	0.0	0.0

¹ 2011-2013 only Plymouth

A survey of lost days in relation to total working time (lost day rate) is planned for the next reporting cycle.

Types of injuries are described in Chapter 5.

There were no fatalities in the period of the report.

Accidents involving more than three calendar days of lost time are reportable.

For the next report we will check the absence rate and the occupational illness rate.



GRI CONTENT INDEX

General standard information (GRI Standard 2016)			
GRI-STANDARD	DISCLOSURE	PAGE	OMISSION
GRI 102: ORGANISATIONAL PROFILE	102-1: Name of the organisation	11	-
	102-2: Activities, brands, products, and services	12, 17-18	-
	102-3: Location of headquarters	11	-
	102-4: Location of operations	12-13	-
	102-5: Ownership and legal form	49	-
	102-6: Markets served	12-13, 17-18	-
	102-7: Scale of the organisation	12	-
	102-8: Information on employees and other workers	54	-
	102-9: Supply chain	24, 31-32	-
	102-10: Significant changes to the organisation and its supply chain	14, 28	-
	102-11: Precautionary Principle or approach	6-7	-
	102-12: External initiatives	36-38	-
	102-13: Membership of associations	22	-
GRI 102: STRATEGY	102-14: Statement from senior decision-maker	6-7	-
GRI 102: ETHICS AND INTEGRITY	102-16: Values, principles, standards, and norms of behaviour	33, 47	-
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GRI-STANDARD	DISCLOSURE	PAGE	OMISSION
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	102-41: Collective bargaining agreements	45	-
	102-42: Identifying and selecting stakeholders	9	-
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	102-47: List of material topics	10	-
	102-48: Restatements of information	8	-
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	102-54: Claims of reporting in accordance with the GRI Standards	9	-
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	103-2: The management approach and its components	23, 24, 25, 26, 28, 29, 30	-
	103-3: Evaluation of the management approach	23, 30	-
GRI 302: ENERGY	302-1 Energy consumption within the organisation	50	-
	302-2 Energy consumption outside the organisation	29	-
	302-4 Reduction of energy consumption	26, 29	-
WATER			
GRI 103: MANAGEMENT APPROACH	103-1: Explanation of the material topic and its Boundary	23, 24	-
	103-2: The management approach and its components	23, 24, 25, 26, 27	-
	103-3: Evaluation of the management approach	23	-
GRI 303: WATER	303-1: Water withdrawal by source	52	-
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GRI-STANDARD	DISCLOSURE	PAGE	OMISSION
EMISSIONS			
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	305-2: Energy indirect (Scope 2) GHG emissions	51	-
	305-4: GHG emissions intensity	51	-
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WASTEWATER/WASTE			
GRI 103: MANAGEMENT APPROACH	103-1: Explanation of the material topic and its Boundary	23	-
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GRI 306: EFFLUENTS AND WASTE	306-1: Water discharge by quality and destination	52-53	-
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GRI 103: MANAGEMENT APPROACH	103-1: Explanation of the material topic and its Boundary	35, 36-39	-
	103-2: The management approach and its components	32, 35-36, 36-39	-
	103-3: Evaluation of the management approach	33, 34	-
GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT	308-2: Negative environmental impacts in the supply chain and actions taken	33-35	-
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GRI 103: MANAGEMENT APPROACH	103-1: Explanation of the material topic and its Boundary	40-41	-
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GRI 401: EMPLOYMENT	401-1: New employee hires and employee turnover	55-56	-
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GRI-STANDARD	DISCLOSURE	PAGE	OMISSION
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	103-2: The management approach and its components	20, 22, 30, 41-44	-
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SUPPLIER SOCIAL ASSESSMENT			
GRI 103: MANAGEMENT APPROACH	103-1: Explanation of the material topic and its Boundary	35, 36-39	-
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The Zentis Sustainability Team welcomes feedback and queries relating to the report at:
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