

TOGETHER
INTO AN
enjoyable
FUTURE.

Our Sustainability Report 2020/2021





Our Sustainability Report 2020/2021

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Preface

For over 125 years, Zentis has specialized in the processing and refining of fruits and other natural raw materials. Today, we are increasingly becoming a global driving force for natural and enjoyable food. With our innovative ideas and products, we are tapping into new markets – and with the consistent expansion of our digitalization capabilities, as well as our centralized innovation management system, we are making Zentis fit for the future.

At the same time, we are taking responsibility towards our environment and society based on our sustainability strategy. Nature is our most important supplier and therefore an essential factor for our company's success. As a result, sustainable and ecological business practices are a matter of course for us and firmly established in our company's philosophy. As a medium-sized, family-owned enterprise, we want to and can implement strategies beyond short-term investor interests. We consistently leverage this freedom for our sustainability engagement.

In the reporting period, the Covid pandemic as well as each individual in our society have led us to face new challenges: changing working conditions for our employees, delays and shortages in our supply chain, turbulent sales margins due to lockdowns worldwide, along with limitations to personal and direct communication on site with our suppliers.

A friendly and mindful use of natural resources, as well as the fair and respectful treatment of all people along the supply chain, is more important today than ever before.

This is why we have consistently further expanded our sustainability strategy, despite the additional challenges, and have set concrete goals for our company. The growing demands, also to our contribution to sustainable development, require a company-wide and systematic handling and management of the relevant issues. In the future, we therefore want to be guided by the United Nations Sustainable Development Goals (SDGs) and integrate sustainability actions even more intensively into our company's strategy.

The implementation of our sustainability strategy, the progress achieved in 2020/2021 and the measures planned are communicated in this Sustainability Report.

We are especially proud of our concrete measures within the reporting period in the area of climate protection. Here, we have been able to successfully achieve important accomplishments such as the changeover to 100% eco-friendly power supply. Thanks to the compensation of our unavoidable emissions to date, we have been certified as a climate-neutral company at our German offices since 2021.

When it comes to sourcing raw materials, we rely on long-term relationships and close collaboration with our suppliers and producers, as well as on certified raw materials. Thanks to our membership in the industry's Food for Biodiversity initiative, we are actively supporting the preservation of biological diversity in the supply chain. Within the reporting period, we have launched a pilot project, among others, focusing on apricot growing that supports biodiversity.

In order to successfully push forward with sustainability issues actively with our stakeholders, also beyond the company's own four walls, we are involved in industry networks, foster startups, and work on solutions for enjoyable and natural foods together with our customers and suppliers to meet their needs. For the development of new and future-proof product concepts, we focus particularly on the use of natural ingredients, as seen in our NaturRein range. To intensify global collaboration in the area of product development, we have created internal platforms.

Absolutely essential for making our sustainability strategy a success is our employees, who contribute their know-how and expertise to our business every day. This is why the active integration, qualification, and further training of our employees is a significant pillar of our strategy.

In the years to come, the consequences of climate change, along with crises such as the current war in the Ukraine, will force us to face new challenges – starting with the limited availability of raw materials. Turbulent times like the ones we are currently experiencing show once again that we as

a company have to continuously adapt to a changing environment – making agility and resilience more important today than ever before. The compliance with new legal regulations, such as due diligence in the supply chain and the duty to report, will require an adjustment to and further development of existing processes in the future.

To face these challenges, we have expanded the executive team by promoting Hamed Hesami to a third member of the Executive Board of the Zentis Group, effective on July 1, 2022. Thanks to the division of responsibility on

the management level – spread across the shoulders of three – leadership and decision-making at Zentis will evolve holistically. By relying on an expert within our own Zentis family, we are signaling our desire for continuity while showing that we are ready and willing to make a positive change for the future.

We cordially invite you to find out more about our sustainability activities in this report.



Karl-Heinz Johnen
Zentis Managing Director

A handwritten signature in black ink, appearing to read 'K.H. Johnen', with a long horizontal stroke extending to the right.



Norbert Weichele
Zentis Managing Director

A handwritten signature in black ink, appearing to read 'N. Weichele', with a stylized, cursive font.



Hamed Hesami
Zentis Managing Director

A handwritten signature in black ink, appearing to read 'Hamed Hesami', with a stylized, cursive font.

Our company

Who we are

Zentis GmbH & Co. KG is one of Europe's leading fruit processing companies and was founded in Aachen, Germany, in 1893. Ever since then, the company has remained in the hands of the founders' family, with **headquarters in Aachen.**



Global driving force

*... For natural and
delightful food*

Company structure

Our three managing directors are the highest management bodies. The advisory committee, consisting of members of the owner families and external specialists, is the monitoring body. The shareholders are the members of the owner families.

Zentis Germany



Main manufacturing facilities, Aachen Werk I:

Headquarters and production as well as Zentis Holding



Aachen Werk II:

Zentis Logistics and Zentis Confectionery

No. of employees	2021
Germany	1,291
Global (total)	902
Zentis Group	2,193

Turnover	2021
Turnover in € m	625
Share of foreign offices contributing to company sales	37.4 %

A close look at our offices worldwide

Zentis international



Poland

Zentis Polska Sp. z o.o. in Żelków was founded in 1995 and serves the markets in Russia, Poland, Scandinavia and the Baltic states – providing fruit preparations for the dairy, non-dairy and baked goods industries. Within the reporting period, the location single-handedly and successfully launched the development and production of coloring foodstuffs.



Hungary

Zentis Hungária Bt. in Drégelypalánk is supplier to the Balkans, Austria and areas of southern Germany. The company is specialized in fruit preparations and fillings for baked goods. The location also has its own development laboratory.



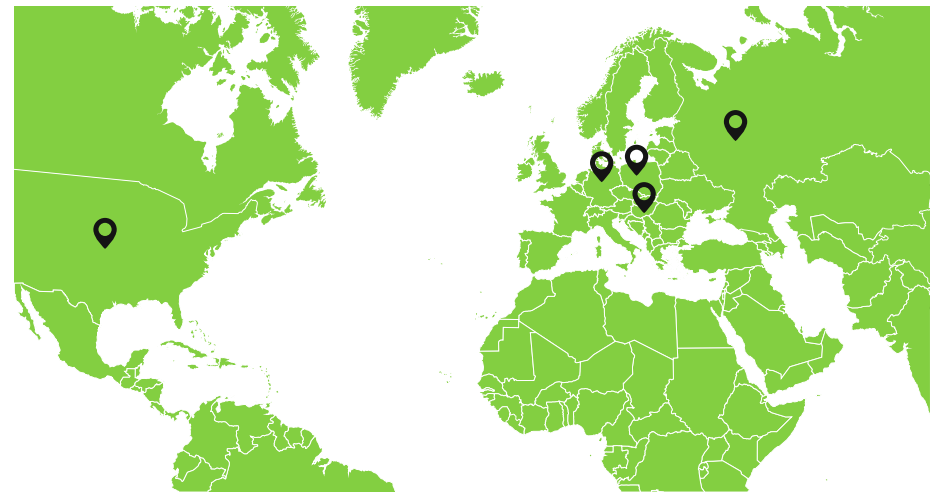
USA

In 2006 is when Zentis North America LLC in Plymouth, Indiana was founded. This was followed by two additional locations, of which one was closed in 2019. The US locations are specialized in the production of fruit preparations for the dairy, ice cream, baked goods and drinks industries, as well as in services for large-scale consumers such as restaurants.



Russia

Our sales location OOO Zentis Russia in Khimki, outside of Moscow, was founded in 2002. It sells fruit, vegetable and cereal-fruit preparations for dairies and bakeries – allowing the production of ice cream and mandelbrot, and savory preparations for sauces and mayonnaise in Russia and the Commonwealth of Independent States. Developed and produced by Zentis Polska.



Development in no. of employees (as of Dec. 31)

	2017	2018	2019	2020	2021
Poland	312	356	375	406	398
Hungary	105	92	92	81	73
Russia	42	53	51	49	48
USA	444	412	348	375	383

What we do

Zentis GmbH & Co. KG stands for exemplary expertise in the refining of fruits and other natural raw materials. We unite the handcrafting skills of a traditional family-owned company with the power of innovation that a globally active company can provide.

We always get the best out of fruit. This forms the basis for our high standards, our brand promise for customers and partners, and our obligation to all our employees as well as corporate management.



Our range of products



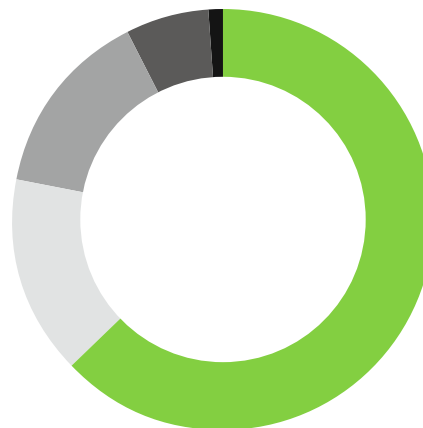
High-quality fruit and vegetable preparations, as well as marzipan in gross mass for further processing by industrial producers



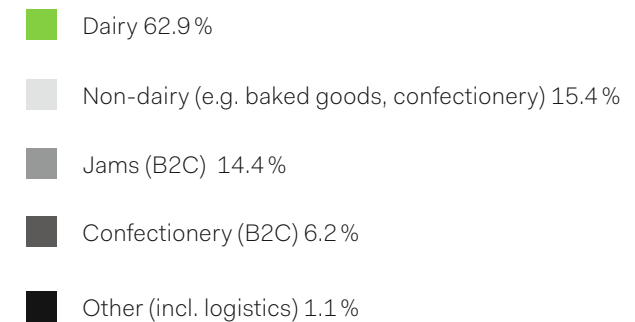
Customized solutions (e.g. chocolate chips) for the dairy, baked goods and confectionery industries



End consumer products: jams and confectionery (mainly catering to the German market)



Five strategic fields of business, turnover in % in 2021



About this report

Ever since 2011, Zentis has been reporting on the company's sustainability activities every two years. The previous Sustainability Report for the years 2018/2019 was published in July 2020.

This Sustainability Report is the sixth report provided by Zentis GmbH & Co. KG and covers the reporting years 2020 and 2021. In this report, all of the company's sustainability activities are recorded and documented, and then compared to the previous years' activities. In the future, we aim to set up our company strategy on a more international level. To achieve this, progress has been made in some areas within the reporting period and global projects have been pushed forward. This Sustainability Report includes such projects for our global strategy; however, it focuses mainly on Zentis in Germany.

This Sustainability Report includes quantitative data and qualitative statements on **Zentis Deutschland** (Zentis GmbH & Co. KG, Zentis Süßwaren GmbH & Co. KG, Zentis Logistik Service GmbH and Zentis Holding GmbH) and was drawn up in line with the Global Reporting Initiative (GRI) standards, "Core" option. What's more, we capture quantitative data for all foreign subsidiaries (Hungary, Poland, Russia and USA), which is largely communicated in the Appendix. Our performance is measured in all the relevant fields by our own indicators and those of the GRI, including the Food Processing Sector Disclosures.

The development of this Sustainability Report is focused on the areas of action of our sustainability strategy, which is communicated in the subsequent chapter "Sustainability strategy".

For the next Sustainability Report, we aim to analyze and further develop essential issues.

An external audit was not performed. However, we are advised by the sustainability agency triple innova when it comes to basic questions on the use of the GRI standards, to the process of drawing up this Sustainability Report and to the development of our sustainability strategy.

Should you have any questions regarding this Sustainability Report, we are happy to answer them under the e-mail address nachhaltigkeit@zentis.de

Our sustainability management

Ever since 2017, a sustainability manager has solely been involved in the monitoring and steering of our sustainability projects and sustainability strategy, as well as the reporting process. Thanks to an internal restructuring of the Quality Management, Food Law, and Sustainability divisions, sustainability management is today under the wing of the Global Continuous Improvement & Quality division – with the aim to give us a more global setup for the future. The Corporate Social Responsibility department is a spin-off of sustainability management and was created in 2020.

From the very start, all the relevant company divisions and specialist departments have been involved in the transparent collection and handling of issues, as well as the quantitative data and descriptive information. The responsibility for the implementation of measures also lies with the respective company divisions. High-profile decisions regarding sustainability are made by the Management Board.

Stakeholder involvement

Essential for long-term change are not only our employees but also all other relevant stakeholders, who we likewise want to involve in our measures and research.

Our stakeholders are persons, groups and institutes whom we are in dialogue with, whom we can influence and whose work can influence us. These include our employees (incl. works council and advisory committee) and shareholders, customers (industry, trade, end consumers), suppliers and producers, society, stakeholders in the Aachen region, and the media.

Stakeholders: Employees

Involvement via: Internal communication (famos.net intranet, global strategy of the Internal Communications department), annual employee review talks, e-learnings, frequent trainings, cross-departmental working group (e.g. sustainability initiatives), activities/surveys (e.g. Sustainability Month), workshops, strategy days

Stakeholders: Suppliers and producers

Involvement via: Schoolings, written agreements, joint projects, workshops

Stakeholders: Consumer groups

Involvement via: Website, phone, social media, press

Stakeholders: Industrial customers

Involvement via: Ongoing dialogue via direct collaboration (e.g. in our Customer Relations Area in our new Zentis creativity rooms)



Our sustainability strategy

**Our
sustainability strategy >**

**Our five
areas of action >**

**Achieving
sustainability together >**

Our sustainability strategy

We work hand in hand with nature and our stakeholders along the entire value-added chain – which is why sustainable actions are firmly rooted in our company philosophy.

Our materiality analysis was updated in 2019 during a cross-departmental sustainability workshop. Based on the results of this workshop, we have defined five areas of action for Zentis, which form the framework for our sustainability strategy.

In the reporting period, this strategy was consistently developed further and more intensively aligned with our company strategy. At the same time, we expanded our partnerships along the value-added chain. To ensure our areas of action continue to be reflected in our activities, the “Customer-centric business practices” area has been renamed “Partnership-like and customer-centric business practices”.

And the next steps have also been defined: We would like to ensure that we contribute to achieving the sustainability goals of the UN SDGs through our activities. For this reason, we have identified those SDGs that we as Zentis can implement to make a direct positive contribution. We consider these when formulating objectives and developing activities.

The support of the following SDGs is particularly important to Zentis:



The prevention of food waste, the encouragement of sustainable and productive farming, and the support of small farmers are extremely important to us.



We rely on long-term supplier relationships as well as strict standards and audits on site, with the aim to ensure the protection of human rights within the supply chain. As an employer, the development and further training of employees, the protection of their health, their occupational safety and compliance are particularly important to us. At the heart of this are our values of trust, open-mindedness and respect.



With natural and sustainable products for our customers and end consumers, we at Zentis have a direct influence on a sustainable lifestyle. We take a number of measures to set up our production to be resource-friendly.



We have developed a comprehensive climate protection strategy and want to continuously reduce our direct greenhouse gas emissions as well as encourage climate-friendly measures in our supply chain.



Together with our produces and suppliers, we execute projects for sustainable raw material farming and take part in projects and initiatives that support biological diversity.

Our five areas of action

1. Resource-friendly production and climate protection:

This area of action focuses first and foremost on the reduction of our energy and water consumption, as well as the reduction of waste in production and logistics. Within the scope of our climate protection activities, however, we are increasingly considering the entire supply chain. The main regulatory aspect is our carbon footprint.



The most important achievements in 2020/2021:



Certified as "climate-neutral company" in 2021



Changeover to 100% eco-friendly power at our German locations



Reduction of our carbon footprint (Scopes 1 and 2) at our German locations by 8% between 2018 and 2021



Reduction of water consumption by 15% in 2021 compared to 2019



Member of the 10×20×30 initiative to reduce food waste



Launch and trial run of our first LNG-powered trucks in 2021

Commitments and goals:



Reduction of our global Scopes 1 and 2 emissions by 30% up to 2030 compared to 2019



Identification of a Scope 3 reduction goal according to the criteria of the Science Based Target initiative (SBTi)








Global reduction of our food waste by 50% up to 2030


2. Responsibility for the sourcing of raw materials:

We are highly aware of our responsibility when it comes to the sourcing of raw materials. We are improving the social and ecological situation within our supply chain by being committed to the compliance with human rights and the preservation of biological diversity, to name just two. Long-term relationships, certified raw materials and the ongoing qualification of our suppliers and producers are essential in achieving this.

The most important achievements in 2020/2021:

-  Use of >99% RSPO (SG) certified palm oil
-  Use of >99% certified cacao for our own brands
-  Member of the industry's Food for Biodiversity initiative
-  Launch of a pilot project for apricot growing that supports biodiversity
-  Sustainability workshop with our NaturRein suppliers

Commitments and goals:

-  Improvement of social and ecological standards within our supply chain
-  Protection and encouragement of biological diversity
-  Expansion of sustainability projects on site at our suppliers
-  Increase in sustainability standards for our suppliers



3. Partnership-like and customer-centric business practices:

Customer-centric business practices not only includes product quality and customer health in our view, but also the increasing number of sustainability standards from our customers. At the same time, it is important for us to cultivate partnerships with our customers and suppliers along our supply chain and to create synergies to effectively execute projects and handle current issues.

The most important achievements in 2020/2021:



Expansion of our innovation ecosystem for safe and sustainable food production, also through our memberships in innovation networks such as Foodhub NRW, Kitchen-Town and co.food.



Foundation of Zentis Ventures Studio following a successful investment in the startups Haferkater and DÖRRWERKK



Establishment of the strategic partnership Zentauer between Zentis and Martin Bauer to create synergies in product development, innovation and sustainability



Expansion of our FruchtCampus with modern working areas for dialogue, creativity and customer events as well as the development of innovative ideas

Commitments and goals:



Expansion of partnerships for sustainable development along the entire value-added chain



Support and encouragement for the execution of promising, innovative business ideas in the food tech industry



Expansion of strategic partnerships with suppliers and customers to create synergies in product development, innovation and sustainability



4. Natural products:

We develop innovative and future-proof product concepts. An important part in achieving this is the use of largely natural ingredients and the development of sustainable packaging.

The most important achievements in 2020/2021:



Development of the Fair to Nature philosophy for our successful launch of the NaturRein range



Analysis of the resource consumption of our products (e.g. PCF calculations)



Creation of an international sustainability platform for Zentis product development



Successful further development of low-sugar fruit preparations and expansion of our product portfolio for the non-dairy market



Establishment of an organic foods task force and expansion of our organic raw materials portfolio



Commitments and goals:



Expansion of our climate-neutral NaturRein range



Alignment of all R&D projects with the Zentis sustainability strategy



Achievement of sustainability goals within the scope of the international Zentis sustainability platform








Establishment of Zentis as a global driving force for natural and enjoyable food





5. Employees at Zentis:

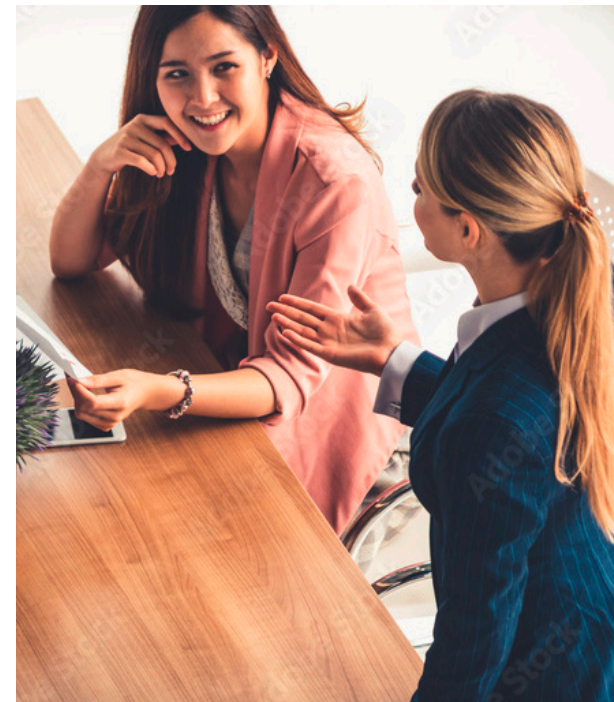
Our employees are key to our company's success. As a modern medium-sized enterprise, we encourage a company culture of trust and respect. Just as important to us is employee development and further training, the protection of health, occupational safety and compliance.

The most important achievements in 2020/2021:

-  Once again awarded BEST PLACE TO LEARN® for our vocational training
-  Development of a Female Empowerment program
-  Expansion and global alignment of our offers with further training events and seminars for individual personnel development and targeted management development
-  Targeted adaptation of our company's services and operational health management to the Covid pandemic mandates
-  Development of a Sustainability Ambassador program

Commitments and goals:

-  Support, protection and qualification of our employees
-  Encouragement of a company culture of trust and respect
-  Encouragement of a diverse team, with staff from various nationalities and age groups, as well as of a balanced share of men and women
-  Further development and expansion of the global alignment of our programs for personnel development



Achieving sustainability together

Our employees contribute the expertise they have gained in their daily work and private lives to the success of our sustainable business practices. Only together can we make a change over the long term, which is why our employees play a leading role in sustainable development at Zentis. Thanks to their know-how, their experience and their personal commitment, our employees make a significant contribution to implementing our sustainability strategy.

Together with the Internal Communications and Global Continuous Improvement & Quality departments, we have launched a number of projects and provided offers for our employees with the aim to actively involve them, to support their engagement even more intensively in the future and to make them more aware of sustainability. The issue of sustainability is a natural and active part of the Zentis company culture. What's more, we have our Sustainability Ambassador program in place. By actively

involving our employees, we not only want to pass on the knowledge, skills and values that are essential for our sustainability actions at Zentis – we also want to empower our employees to leverage these for sustainability in both their work and home environments.



Sustainability Month

March 2021 was named Sustainability Month in which employees were informed of our activities and successes to date in the area of sustainability. For this, a wall newspaper was created that was displayed in the canteen and shared via internal communication. Throughout the month of March, our employees could also submit their ideas for more sustainability at Zentis as part of an ideas competition. For each idea submitted, Zentis planted a tree in Germany through the Verein zum nachhaltigen Umbau regionaler Wälder e.V., an association for the sustainable conversion of regional forests.

Sustainability Ambassador

Since March 2021, our employees have been able to participate in an e-learning program on our centralized learning platform focusing on the topic of sustainability, and then be distinguished as a Sustainability Ambassador. Today, more than 200 employees are certified Sustainability Ambassadors. The e-learning program conveys the basics and the latest developments in sustainability to our employees, as well as the engagement of Zentis and thus the impact that the various departments are making.



Teil 7:
Nachhaltigkeit

Bewusst. Natürlich. Zentis.

Was heute gut ist...

... machen wir morgen noch besser!

Nachhaltigkeit ist in aller Munde. Und das gilt nicht nur für unsere Produkte. Sie ist eines der großen Themen unserer Zeit. Doch was bedeutet Nachhaltigkeit für uns als Unternehmen?

#1 Verantwortung in der Rohstoffbeschaffung
Bewusst beschaffen wir Rohstoffe aus nachhaltigen Quellen.

#2 Kundenorientiertes Wirtschaften
Wir streben danach, unsere Kunden mit unseren Produkten bestmöglich zu unterstützen.

#3 Beschäftigte bei Zentis
Wir fördern die Entwicklung unserer Mitarbeiterinnen und Mitarbeiter.

#4 Natürliche Produkte
Wir verwenden nur natürliche Rohstoffe.

#5 Ressourcenschonende Produktion und Klimaschutz
Wir setzen auf energieeffiziente Produktionsverfahren und erneuerbare Energien.

Klimaneutral seit 2021

Klimaschutz und eine ressourcenschonende Produktion sind wichtige Pfeiler unserer Nachhaltigkeitsstrategie. Unsere CO₂-Bilanz bzw. das kontinuierliche Streben nach weniger Emission bildet das Basis unserer Strategie zum Klimaschutz. Alle CO₂-Emissionen, die sich bislang nicht vermeiden lassen, kompensiert Zentis durch die Unterstützung von Klimaprojekten.

100% Ökostrom

Nachhalt Dich!

Lasst uns Zentis gemeinsam besser machen!

Teile bis zum 31. März deine kleine oder große Idee für mehr Nachhaltigkeit bei Zentis. Für jede eingereichte Idee wird ein Baum über den Verein **REIMALIMA** e.V. in Borneo (Indonesien) gepflanzt. Die 3 besten Ideen werden jeweils mit 200 Euro prämiiert.

Idee einreichen über:

ideen@zentis.com



Im nächsten Teil gibt es mehr Informationen zu einem weiteren Handlungsfeld der Strategie FAMOS 2025

Sustainability initiatives

The fact that our employees are key to our sustainable development can be seen in the sustainable engagement of the Product Development department. In 2021, the team made it their goal to reduce by 65% the amount of plastic waste of nearly 1 tonne/year – waste caused by working utensils (spoons, cups, buckets). In that same year, plastic spoons were replaced by metal spoons and reusable cups were introduced. The biggest step taken to successfully achieve the goal to reduce waste was the purchase of a dishwasher to be able to clean the reusable containers. The changeover to other reusable containers such as bowls will continue.

Within the scope of four sustainability initiatives, committed employees across several departments came together in January 2022 to work on sustainability issues, which were then, for instance, submitted to the ideas competition. The issues ranged from mobility of employees to the separation of waste in the office to the expansion of vegetarian dishes in the canteen. Within the sustainability initiatives, working groups were created in which employees of different expertise are able to exchange ideas and information on a voluntary basis and work on ideas together step by step.

1 Separation and prevention of waste

This initiative focuses on how the different kinds of waste generated by the processes at Zentis can be prevented. On top of this is the goal to make colleagues more aware of waste separation and recycling in the offices and common rooms, as well as to show how employees at Zentis can make a contribution to separating and preventing waste.

2 Sustainability in the canteen

The goal of this initiative is to expand the number of vegetarian and vegan dishes in the Zentis canteen as well as to make employees more aware of climate-friendly meals, such as through the use of a label. What's more, the initiative drew up a concept for reducing plastic waste in the Zentis canteen, for example through the use of reusable take-away tableware.

3 Energy savings

This initiative comes up with creative solutions on how both the company offices and production as well as remote offices can save energy. The goal is to share the knowledge gained with colleagues.

4 Supporting alternative mobility

This initiative aims to expand the number of options for employees and to encourage the use of public transportation, bicycles or electric mobility to travel to work. For this, the initiative generates concepts such as the expansion of charging points on the company's premises, and job tickets or job bikes for our employees.



Resource-friendly production and *climate protection*

Zentis and climate protection ›

**Our corporate
carbon footprint ›**

**Our product
carbon footprint ›**

**Resource-friendly
production and logistics ›**

**Production and
supply chains go digital ›**

Zentis and *climate protection*

We source our raw materials nearly solely from nature – and are therefore particularly responsible for acting as environmentally and resource-friendly as possible. For this reason, we are working more intensively on a comprehensive **climate protection strategy** as part of our sustainability agenda.

The key regulatory factor is our **carbon footprint**. It serves as the basis for cross-departmental approaches to emissions reduction along the value-added chain.

We are committed to the **Paris Agreement**, which aims to limit global warming to significantly under 2°C, and even 1.5°C if possible. Which is why we have pledged to strive for science-based climate goals as part of our commitment to the **Science Based Targets initiative** (SBTi).

Zentis became certified as a **climate-neutral company** in 2021 for its location in Aachen. We achieved this climate-neutrality by investing in climate protection projects and thus compensating our unavoidable emissions.

Our corporate carbon footprint

The corporate carbon footprint (CCF) is the carbon footprint of a company. It serves to identify potential for prevention and reduction, for defining goals and for developing and implementing reduction measures. The CCF considers all the relevant greenhouse gases and discloses these as CO₂ equivalents (CO₂e). For the sake of simplification, these are labeled as CO₂ in this Sustainability Report.

Separation into scopes:

Scope 1 consists of all the directly generated emissions, for example through the heat consumption of production facilities.

Scope 2 lists emissions that are created through the purchase of energy, such as electricity.

Scope 3 covers all the other emissions that are not directly under the company's control, for example those emissions generated upstream the supply chain when purchasing raw materials.

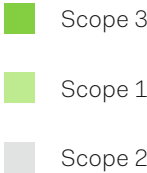
The frequent calculation of CCFs enable us to monitor our achievement of goals and the effectiveness of our measures. For this reason, we have been capturing our carbon footprint annually since 2018 within the scope of a comprehensive greenhouse gas statement, which we have successively developed further.

In 2020, we created a global CCF for the first time in the Zentis Group, which includes all Scope 3 emissions.

Total global emissions in 2020*:
717,740 t CO₂e

Major CO₂ emission sources

77.5%
556,443 t



5.8%
41,839 t



Heat

5.5%
39,464 t



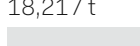
Inbound logistics (self-produced)

3.3%
25,454 t



Outbound logistics

2.5%
18,217 t



Electricity (stationary)

5.3%
38,323 t



Other emission sources

The results show that a total of >90% of carbon emission are generated upstream the Zentis supply chain and thus fall within Scope 3. Our production material and consumables – the raw materials and packaging we purchase – account for the largest share of this.

The Scopes 1 and 2 account for <10% of our entire carbon footprint. Despite this, they are a decisive factor of our climate protection strategy, as we do not have a direct influence on them. To steer our global Scopes 1 and 2 emissions, we have been capturing these since 2021 at all Zentis locations, in addition to the CCF, on a monthly basis in a carbon dashboard.

Within the scope of the SBTi, we have set ourselves the goal to reduce our global Scopes 1 and 2 emissions by 30% up to 2030 (compared to 2019). The next step is to define a science-based reduction goal for our Scope 3 emissions.

**Incl. Scopes 1, 2 and 3.*

Our path to a climate-friendly company

The largest share of our global emissions are produced by our locations in Germany. In 2021, our carbon footprint (incl. Scopes 1 and 2 emissions as well as select Scope 3 emissions) amounted to 38,442 t CO₂e at our facilities in Aachen.

Since the start of the year 2021, the Zentis facilities in Aachen have been officially climate-neutral. To achieve this, our climate protection strategy is based on three pillars: prevention, reduction, and compensation. Thanks to efficiency measures in production and logistics, as well as the changeover to **100% eco-friendly power** in 2021 at our German locations, we were able to achieve a **carbon reduction** in our Scopes 1 and 2 emissions of **8% (2,574 t CO₂e)** at our facilities in Aachen between 2018 and 2021.

To make an additional contribution to climate protection, Zentis is investing in certified climate protection projects focusing on forest protection, reforestation and the support of renewable energies. What's more, we are developing an own reforestation project. With this, the unavoidable emissions to date will be compensated and our greenhouse gases balanced.

Compensated emissions in 2021:

Scope	Emissions acc. to category	Amount in t CO ₂ e	Share in %
Scope 1	Heat consumption	26,041.61	67.7 %
	Fuel consumption (company)	3,214.90	8.4 %
	Total	29,256.51	76.1 %
Scope 2	Energy consumption	0.00	0.0 %
	Total	0.00	0.0 %
Scope 3	Upstream energy-based emissions	4,798.23	12.5 %
	Business trips and hotel stays	170.70	0.4 %
	Employee commuting	1,164.86	3.0 %
	Water consumption / waste (company)	2,759.47	7.2 %
	Paper consumption	291.84	0.8 %
	Total	9,185.10	23.9 %
Grand total		38,441.61	100 %

To monitor the emissions at our German locations with the aim to achieve climate-neutrality, we have generated a carbon footprint for our facilities in Aachen that consider our Scopes 1 and 2 emission as well as select Scope 3 emission which we also have a direct influence on, e.g. water consumption and waste within the company. Thanks to the changeover to 100% eco-friendly power, our Scope 3 emissions have been reduced to such an extent that we did not have to compensate Scope 2 emissions in 2021.

Our product carbon footprint

The product carbon footprint (PCF) provides additional transparency centered on the carbon footprint of our products. It contains all the emissions generated along the entire value-added chain according to the cradle-to-customer principle. All in all, more than 30 products have been balanced at Zentis to date.



Raw materials: Farming and production of raw materials (fruit, sugar, thickening agents)



Production process: Preprocessing of fruit at the supplier and processing of the fruit within production at Zentis



Inbound logistics: Transport of raw materials from the country of origin to Zentis



Outbound logistics: Transport of the fruit preparation from Zentis to the customer



Other company emissions: Business trips, commuting, administration



Packaging: Production and recycling of the stainless-steel containers in which the fruit preparation is transported to the customer

An example of our PCF based on strawberry fruit preparation using conventional strawberries for our B2B segment:

Total emissions:

1,030.9 kg CO₂e/t

Break-down of emissions



Resource-friendly production and logistics

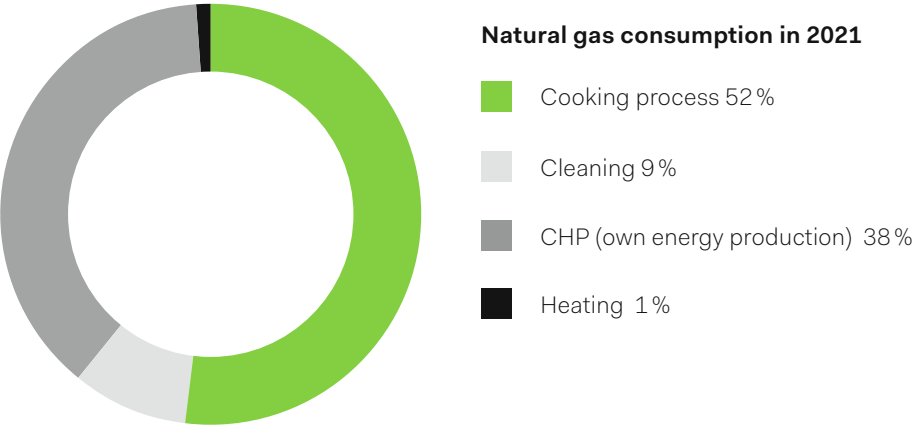
Our goal is to make the product process as resource-saving and environmentally friendly as much as possible. To achieve this, we rely on innovative solutions that reduce energy and water consumption, as well as waste and wastewater, over the long term. On top of this, we work with our own logistics company to transport goods to our customers in an environmentally friendly way.



Energy

We purchase our raw materials in various processed forms as required by the different production steps. However, generally speaking, the following steps are involved: preparation or cleaning of the fruit, heating, cooling and filling, cleaning of the production systems.

In the reporting period, we were not able to lower our basic load, despite all our efforts; however, we did record reduced electricity consumption. It is absolutely desired to have the amount of electricity purchased reduced in line with our gas consumption, and to have our own energy generation increase.

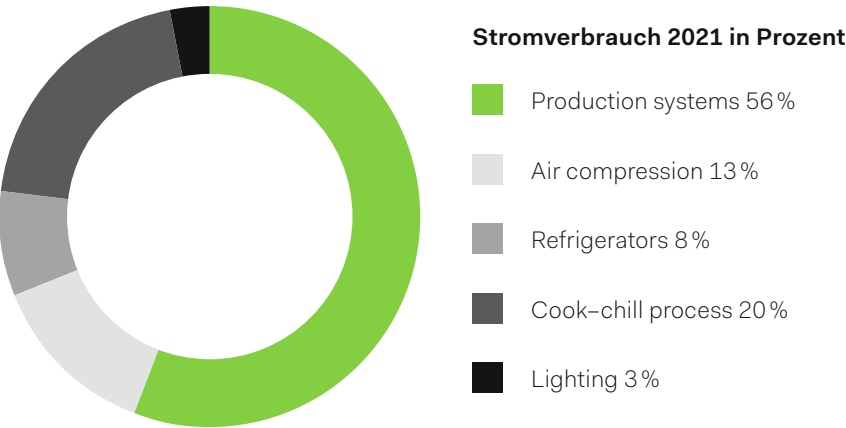


Based on the above-mentioned production steps, the energy consumption in Germany in 2021 amounted to 514,986 gigajoules (2019: 515,834 GJ) due to the heating and cooling processes as well as for the operation of production systems. All energy input at Zentis is won from natural gas and electricity.

Energy consumption in Germany

Germany*	2016	2017	2018	2019	2020	2021
Natural gas in kWh/t	705	703	678	718	723	702
Electricity purchased in kWh/t	87	85	86	83	76	79
Energy consumed in kWh/t	792	788	764	801	799	781

* Locations in Aachen, certified to ISO 50001.



Using energy more efficiently: our most significant measures and projects

Combined heat and power (CHP) plant

We have been using five of our own CHP plants since 2016, as their degree of efficiency is much higher than conventional heating systems. The share of electricity generated from this amounted to 55.2% in 2021. In 2020, our CHP plants generated 111.42 kWh/t, and in 2021 this number was 100.10 kWh/t. The decrease within the reporting period is due to a defective gas line, which caused the shutdown of a CHP plant.

The heat generated by this mainly serves to generate warm water for cleaning the production systems and the stainless-steel transportation containers. For the best-possible utilization, the excess warmth is used to heat one of our buildings and to cool the refrigerators on production-free weekends.

Overall equipment effectiveness (OEE)

The OEE communicates the efficiency of the production systems for fruit preparation / confectionaries. This figure is calculated based on the degree of performance, the degree of availability and the degree of quality, and is measured on a daily basis to be able to quickly identify weak points. Furthermore, the OEE team, which was established at the start of 2020, works out potential optimization options in the structure, organization and processing time – while searching for potential to standardize workflows. The OEE team was able to determine that certain recipes burn more easily during the cooking process. This results in more frequent and intensive

cleaning, and, ultimately, is more time-consuming and cost-intensive. An idea developed by the OEE team finally led to an exemplary restructuring of the cooking system. Thanks to a reduction of the heat in the steam jacket and direct steaming into the product at a bypass, the fruit preparation is prevented from burning. The number of cleanings and their intensity have thus been reduced.

Small-unit system

The trend towards the fragmentation of production orders continues. The system adapted for these small units has been well utilized since it started up operations at the turn of the year 2019/2020. This resulted in the improvement of specific energy consumption, ultimately leading to an increase in OEE within the reporting period.

Solar energy

In the reporting period, a renewed evaluation of the installation of solar cells was performed. The results showed that the setup of a solar system is possible thanks to new, more advanced technologies – despite the low load-bearing capacity of the roof. The installation of a photovoltaics system is scheduled for mid-2022. It is estimated to produce up to 25,000 kWh of electricity annually.

Other measures



Thanks to the successive replacement of old light bulbs with modern LED lamps, nearly all lighting comes solely from LED lamps today.



The immediate reporting of air compression leaks and the respective installation of new generations of valves during larger-scale modernization projects. In 2021, with external support, a rough air compression analysis was performed. Inefficient adjustment control caused highly frequent load/idle runs. For this reason, in 2022, the air compression control unit was replaced. The savings potential lies at around 370,000 kWh. With the support of an external specialist company, air compression leakages will be detected and repaired more diligently in the future.



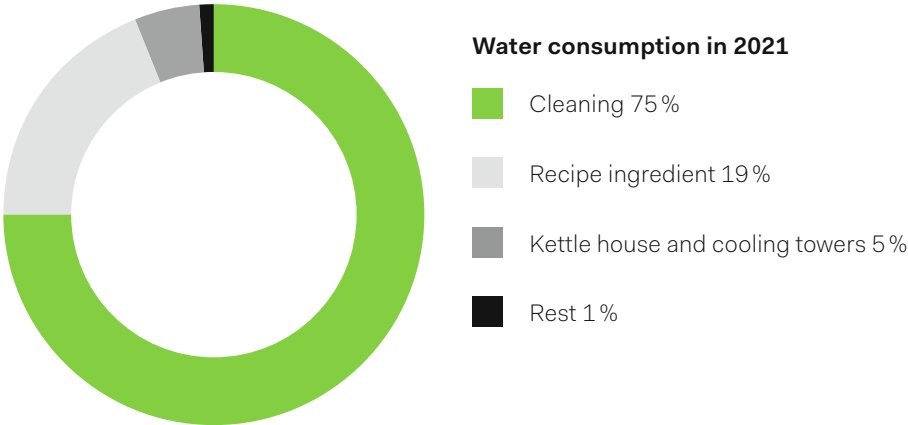
For 2020, the plan is to switch from using two to one kettle, with the aim to lower gas consumption. This measure would save 2,000 t of carbon emissions; however, it comes with the risk of production downtime should the kettle be defective. After a trial run in the fall of 2020, this project was rejected due to this risk, which is too high for us.

Due to the Covid pandemic, the focus within this reporting period was on the maintenance of production, which is why the implementation of individual projects was temporarily halted.

Water

We mainly use water to clean the production facilities. As a part of our products themselves, water is used in very low amounts.

In 2021, water consumption in Germany totaled approx. 853 megaliters (852,592 m³).



For every tonne of end product, our water consumption has developed as followed:

Germany*	2016	2017	2018	2019	2020	2021
Water consumption in m³/t	5.1	4.9	4.9	5.4	5.2	4.7

* Locations in Aachen, certified to ISO 50001

Compared to the production volume, the water consumption from 2019 to 2021 has been reduced by about 15%. The reason for this is the optimization of the allergen cleaning process, during which the water consumption has once again been significantly lowered.

Reducing water consumption: our most significant measures and projects

Cleaning process for allergen-free fruit carts

The startup of the fruit cart cleaning system in 2019 for allergen-free carts resulted in an increase in water consumption. The main reason for this is that the water used for the allergen-free cleaning must be immediately disposed of. To counteract this, the cleaning process was optimized. For less-soiled fruit carts that do not transport allergen-containing materials, we have implemented a special cleaning program that uses significantly less water. Water from the previous rinsing step is reused for roughly cleaning the next fruit cart.

Expansion of decentralized cleaning systems (D-CIPs)

Thanks to the connection of the production systems to D-CIPs, water from the previous rinsing step is reused for the next precleaning step. This process can save up to 40,000 m³ of potable water annually. The further installation of D-CIPs has temporarily been halted.

Wastewater quality

The fragmentation of orders and the increased demand for allergen-free products have also had an impact on the pH value, and therefore the quality, of the wastewater. As a result, we started up a wastewater treatment plant in 2019 that adapts the pH value as required.



Waste

All in all: Waste and packing will be minimized, and remaining waste reused, to be eco-friendly or, if this is not possible, disposed of by specialist waste disposal businesses. About two-thirds of the fruit preparations we produce are transported globally in about 32,000 stable reusable stainless-steel containers to our industrial customers. The advantage of this: The containers are returned, cleaned and refilled with the freshly produced product.

The amount of waste in 2021 broken down into the different types:



- 4,520 t of food waste, e.g. non-reusable fruit preparations, confectionary goods and confectionery (pet food / ethanol production / biogas recycling)
- 2,783 t of cardboard (recycling)
- 1,795 t of mixed packaging (thermal recycling)
- 161 t of debris (material recycling)
- 1,271 t of other

The high quality standards placed on the raw materials and products produced have, in part, led to a higher amount of waste. As the amount of end products produced has increased by about 3%, so, too, has the amount of waste by about 3% from 2019 to 2021.

Preventing waste: our most significant measures and projects

Reduction of our food waste

In 2021, Zentis committed to the goal of the 10×20×30 initiative: to halve our worldwide food loss and waste by the year 2030. With the 10×20×30 initiative, we are supporting the world's largest food retailers and suppliers, as well as their most important suppliers, in achieving the goal of the United Nations – namely, to drastically reduce food waste and loss within production and the supply chain up to the year 2030. The supporters of the initiative measure and publish the food loss and waste produced by their operations and take the measures necessary to reduce waste.

The challenge of packaging for raw materials

In contrast to sugar, which is mainly supplied in silo trucks, we normally receive the raw fruit material in 10 to 12 kg cartons. These are made of cardboard and feature plastic film that has been soiled by remaining bits of fruit. Producers and suppliers are increasingly using film- and wax-coated cartons in order to avoid the use of plastic bags. In this respect, the use of plastic bags is avoided – yet the recycling of the cartons has become more difficult. After a complaint from our recycling partner, we performed research and visited our waste disposal company on site. Wax-coated cartons are no longer accepted by the paper factories and have to be thermally recycled as mixed packaging. All in all, the waste disposal industry is showing to have higher quality standards when it comes to the material recycling of cardboard. To date, the wax-coated cartons have not been able to be replaced by other suitable alternatives for fruit preparations.

Achieving more together

Also internally, we are increasingly taking care to prevent waste. Several activities, mainly initiated by employees, have been helping us since 2019 to reduce the amount of single-use plastic in the canteens and laboratories – and to separate waste as much as possible, whenever possible.



Logistics

Logistik Service GmbH was established in 1998 in Aachen and is an independent business unit of Zentis specialized in refrigerated and flexible transportation. The company's key task is to supply products, to organize the sourcing of raw materials and to transport goods between our European locations and external warehouse for finished products in Aachen. For this, orders are normally consolidated in order to guarantee optimal utilization.

What's more, we are able to quickly react to customers' wishes. Logistik Service GmbH also allows us to directly adapt and implement our climate strategy measures, which we have been continuously measuring based on specific indicators since 2011. For instance, a patented lifting system in the trucks saves a third of the transport of empties – thus lowering emissions at the same time.

In the reporting period, the greatest challenges for our logistics are the increasing fuel prices, the lack of specialists (e.g. truck drivers, warehouse specialists) and the changes due to the Covid pandemic, such as shortages and compliance with hygiene measures without impacting loading and unloading flows.



Facts and figures:



Logistik Service GmbH employees
151 members of staff (as of Dec. 31, 2021)



Fleet of about 37 own vehicles and
116 trailers



Trucks to the EURO 6 standard in Germany
since 2017



Average age of our fleet's vehicles: 1.78 years



In Russia, 18 own vehicles were in use in 2021,
whereby 1.4 million km of our own transports
were performed



Average age of the fleet in Russia in 2021:
2.94 years



In the USA, Poland and Hungary, an own fleet
is not deployed



Two transports using airfreight from China
and Saudi Arabia in 2020; in 2021, no
transports via airfreight. Airfreight is only
performed upon customer request and
only in exceptional cases.



All partners are subject to the country-specific
“Zentis Quality Guidelines for Logistics”,
which aim to guarantee the best-possible
quality when it comes to handling products,
to temperature, means of transportation,
loading safety, cleanliness and hygiene as
well as safety.

Use of third-party logistics companies:

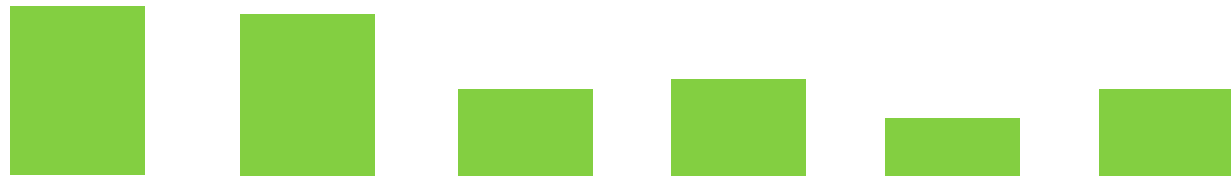


Logistics partners are used in Germany, the
USA, Poland and Hungary; in Russia, only in
exceptional cases as usual



Sea freight mainly from Canada to Iceland

Data on our own fleet in Germany:	2016	2017	2018	2019	2020	2021
Diesel consumption per 100 km	30.90l	29.66l	25.40l	26.00 l	26.00 l	26.00 l
Carbon emissions	5,738 t	4,206 t	2,701 t	2,871 t	2,596 t	2,727 t



Efficient logistics: our most significant measures and projects



Expansion of our own sourcing logistics (implemented in the reporting period: raw materials, packaging material, cocoa butter and mass, hazelnut paste, flakes, cornstarch, sugar, syrup and, for example, strawberries as fruit).



Savings of about 440 g of leftover amounts that would otherwise remain in the barrels, thanks to the delivery in tanks (such as hazelnut paste). What's more, the tanks can be reused compared to single-use barrels, which are disposed of after use.



Optimal use of trucks thanks to line routes, in other words a fixed commuting schedule between Zentis and the customers' premises



Use of an LNG-powered truck.



Retractable axle on trailers enable the front axle of the trailer to be lifted for transports below 4 t. This technology can be used when returning empties, for instance. This allows us to lower tire friction and thus fuel consumption.



The successive modernization of the cooling aggregates since 2021. In 2022, the further expansion of trailers with modern cooling aggregates is planned. This modern technology will result in less fuel consumption. On top of this, it is lower in noise and thus more comfortable for our drivers.



The e-learning tool allows the simplified schooling of drivers regarding topics such as general driving instructions, driving and break times, load lashing and hygiene courses.



Production and supply chains go digital

The digitalization of the supply chain and the production processes offers great potential for increasing efficiency. For this reason, the Supply Chain Management department was established in 2018. Supported by the department for digitalization, Business Processes & Digital Transformation, it will guarantee a cross-divisional and process-centric planning and steering of production flows.

Measures and projects



The integration of sensors as planned for all sugar silos enables us to take precise measurements of the level of sugar and thus prevent emergency purchases.



A control process is being built up to allow for an exact overview of our current item and raw material stocks and therefore prevent shortages, expensive emergency transports, and waste.



The implementation of a container logistics system (CLS) in Germany, which allows for the monitoring of containers worldwide as well as the analysis and tracking of containers. Additionally, the CLS improves the ability to plan return transports.



An app for digitally capturing and analyzing data for small containers was developed to reduce paper consumption. At the moment, the app is being tested in the areas of cooking and filling. In the next step planned, the capture of mal-functions during filling and the checklists will be digitalized.



Implementation of a forecasting system for generating a sales forecast to be able to estimate needs in sourcing and avoid both food waste and emergency purchases.



What's more, we continue to be in the development phase of smart containers that can better identify our container levels, enable us to plan the retrieval at the customers' premises more efficiently and thus contribute to the optimization of the storage and transport of our products. For this, the sensor requirements of the specialist departments as well as the procedures within production have been internally noted. In the reporting period, the first trial runs began, which are scheduled to be finalized within the course of next year.

Our projects:

innovative and efficient

To boost efficiency, the cross-departmental strategy project, entitled Effizienz, was established in 2019 together with various department heads. This working group discusses and develops ongoing as well as future projects and creates measures for boosting efficiency based on figures. An overview of projects on an annual basis is then discussed monthly. The efficiency measures developed concern, for instance, the review of internal interfaces and process flows, and the reduction of material diversity. In 2020, 26 projects were listed from four departments (Procurement, Logistics, Supply Chain Management, and Production). In 2021, the departments of Cost Engineering and Finances were added to the list. In the future, the issue of sustainability should be more strongly considered when considering new projects. The efficiency aimed for with the projects implemented (mainly measured in euros) was continually high in the reporting period.



Responsibility for raw material sourcing

**Our raw materials:
quality made in nature ›**

**Challenges in
sourcing raw materials ›**

Collaboration with suppliers ›

Certifications and memberships ›

**Tools for assessing
and approving suppliers ›**

Raw materials:

*quality
made in nature*

These were our most important raw materials in 2020/2021:

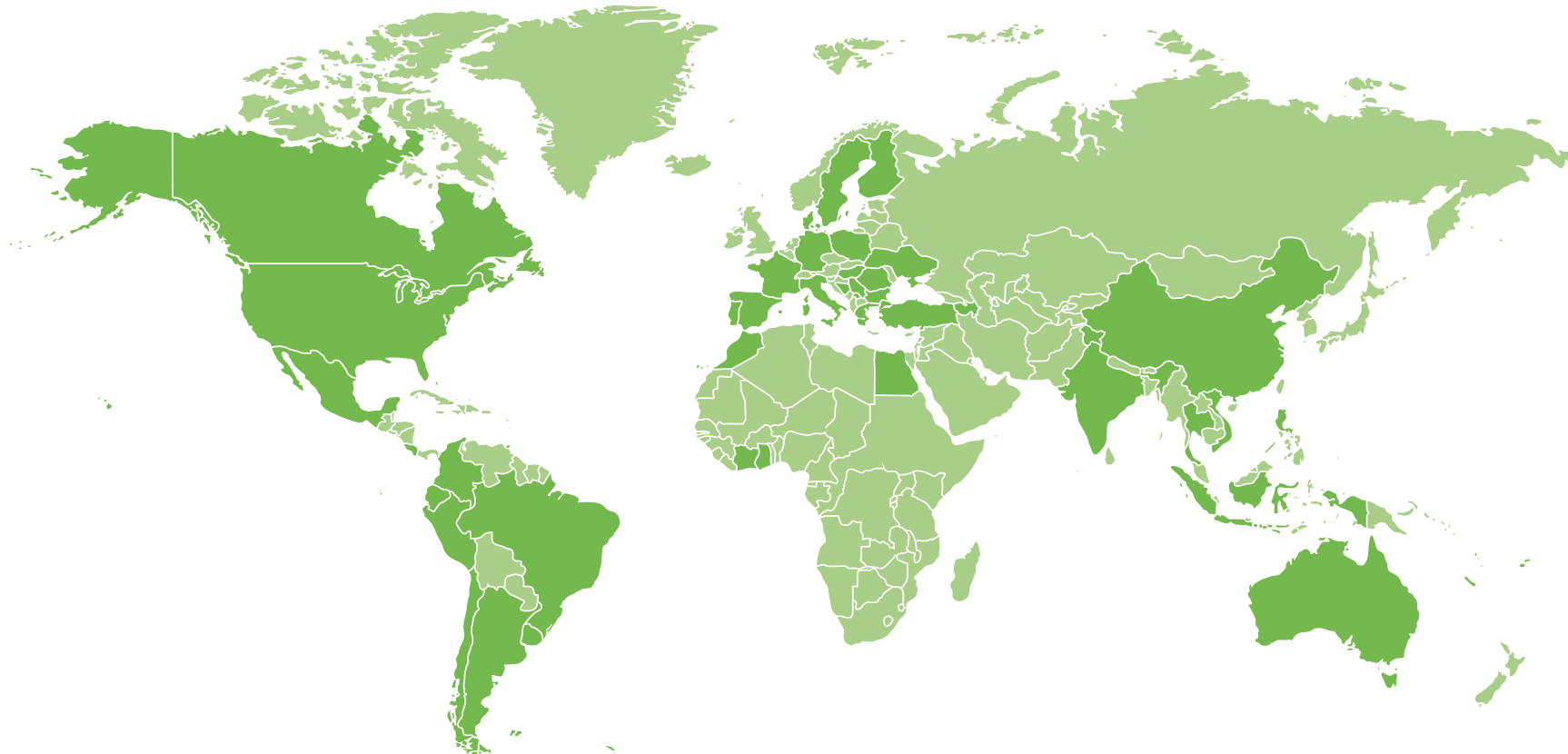
Raw materials	t
Strawberries	████████████████████
Raspberries	██████████████
Cherries	██████████
Peaches	██████████
Apricots	██████████
Blueberries	██████████
Plums	██████████
Blackberries	██████████
Sugar cane	██
Almonds (all processing forms)	██████████████
Cocoa (all parts)	██████████
Hazelnuts (all processing forms)	██████████

Zentis is committed to improving ecological and social aspects within the supply chain on an ongoing basis. Whereas social measures have been the focus to date, environmental aspects such as the loss of biological diversity or the consequences of climate change are becoming ever more relevant. To embrace the growing number of sustainability programs, an additional career in the area of procurement was created in 2016. Our long-term relationships with and close contact to our suppliers, as well as a strict supplier assessment and approval process, guarantee that we can live up to our quality and sustainability standards. Moreover, our lead buying strategy and our fruit scout support us in ensuring we can responsibly source raw materials.

“
The use of natural and high-quality products is the foundation on which our business is built.
”

Our sources

We purchase our raw materials where they grow and ripen the best – namely, in various countries around the world. At the same time, we consider numerous economical and qualitative perspectives and carefully assess the harvesting conditions on-site every year.





Fruit

We source strawberries in bulk from Egypt and Morocco, raspberries from Poland and Serbia, and peaches from Spain and Greece. At the same time, South America remains the most significant alternative to Europe as a growing region thanks to its geographical proximity to our US locations. We solely purchase fruit from producers who adhere to our strict standards for growing, harvesting and quality. To guarantee this, we strictly abide by our meticulous supplier assessment and approval process.

Almonds/hazelnuts

Almonds are the most important raw material for our marzipan products. About 95% of the almonds we source come from California; the remaining 5% are bitter almonds from Morocco. Our hazelnuts are sourced from Turkey. With our years-long supplier relationships and trustworthy collaboration, along with our Supplier Code of Conduct, we aim to eliminate critical issues regarding working conditions and child labor.

Sugar

Our raw material sugar is especially important for our products. We supply our European production locations with sugar from Germany and other European countries, and we keep the transportation distances to a minimum as much as possible. The sugar purchased is won solely from sugar beets, allowing us to also support German and European farming.

Challenges in sourcing raw materials

When it came to raw materials in 2021, the harvest was once again marked by dramatic global weather conditions. Extreme drought, heat and frost as a consequence of **climate change** complicated farming conditions, negatively impacted availability and increased prices. For instance, spring frost in southern Europe led to drastic losses in the apricot and peach harvests. A heatwave in the northwest of the USA at the end of July (heat dome), as well as cold and rain periods in the summer in Europe, led to a dramatic shortage of raspberries and blackberries. The availability of these fruits was extremely limited, causing the prices to rise to a never-seen-before, historic level.

What's more, the **Covid pandemic** mandates strongly impacted supply chains worldwide. Numerous delays continue even today when it comes to truck and container shipping along all national and international trade routes. The effects of the pandemic mandates are being compounded by high energy costs, a labor shortage, a global shortage in the availability of containers, and the complete lockdown of ports. On top of this comes the worldwide shortage of raw material, particularly the shortage of raw materials within the reporting period for the production of packaging, and thus bottlenecks in the availability of PE films, tin sheets and paper/cardboard. Added to the consequences of the disruptions caused by the pandemic mandates is a strong increase in prices for both transportation as well as raw materials.



Facing the challenges

Our focus within the reporting period was placed heavily on operative issues – in other words, the securing of production supply and thus the steering of the flow of goods. Here is where our own sourcing logistics proved to be highly beneficial. We pick up many of our materials directly from suppliers using our own logistics and are therefore rather independent from the cargo market.

Long-term partnerships

Our strategy to build up long-term and partnership-like collaborations with our suppliers has shown to pay off in these turbulent times. For example, we have been assured priority in delivery when it comes to new contracts. And the support of our suppliers in the prefinancing of raw materials has greatly helped to secure large amounts of goods.

Lead buying

Within the scope of our internationalization efforts, Zentis has been bundling its procurement strengths under “lead buying” since 2017. Thanks to this new concept, a more targeted and more efficient communication of information now takes place with the subsidiaries and our suppliers, and our supplier portfolio has been expanded on a global level. For instance, Zentis Deutschland took over the lead buying for peach cubes from Europe; Zentis North America for mango products from South

America. This division of responsibility empowers lead buyers to contribute their expertise in groups of goods and to exchange information with one other in a targeted way. Especially during the Covid pandemic and in the years marked by many poor harvests, this global interaction became more important than ever, particularly when it came to coordinating supply chains, making last-minute decisions and therefore precisely steering the flow of goods.

In this way, lead buying was able to directly set up alternative sourcing countries and suppliers for raspberry products, which were extremely affected by poor harvests globally, for several locations of the Zentis Group. New suppliers for blueberries, too, were globally qualified by the lead buying team in the USA.

Risk analyses

To improve ecological and social aspects in the supply chain, risk analyses of the raw materials relevant to us are planned for 2022. For these, hot spots will be identified that are particularly critical in terms of their human rights risks (including child and forced labor, occupational health and safety) and environmental impacts (such as greenhouse gas emissions, water and air pollution).



Collaboration with suppliers

The relationships with our suppliers and sellers is marked by years-long, trustworthy cooperation – worldwide. This allows us to close contracts that run for several years.

Producers are all the stakeholders within the first processing step in the supply chain. Here is where the freshly harvested fruit is washed for the next production step, then sorted and, if necessary, diced and frozen, before being aseptically packaged or canned. We receive ready-to-use products from producers for further use in our production facilities.

Suppliers, in turn, are the importers of the goods and thus generally our contact and contractual partners. However, a supplier can also be the producer of goods at the same time.



Around 67% of our sources have been our partners for more than 10 years (raw materials for Zentis Deutschland)



We purchase more than 90% of our raw material amounts (93% on an international level) from around 20% of our raw material suppliers



With 38% of our raw material suppliers, we achieve an annual turnover of more than 200,000 euros each (97% of the amount)



In 2021, 69% of all suppliers were also simultaneously the producers for our German locations; and with them, we realized a sourcing volume of 86% of the entire amount

Supplier Day

Frequent **Supplier Days** foster dialogue and future collaboration for concrete problem-solving. Within the reporting period, the Supplier Day could not take place due to the Covid pandemic mandates. The next Supplier Day is scheduled for September 2022, where the focus will be on the issues of innovation and sustainability.

Workshop for NaturRein

Prior to the launch of our new NaturRein range, a digital workshop took place in March 2021 with our suppliers, with the aim to introduce our NaturRein concept to them and communicate the philosophy behind this range: the use of raw materials from organic farming and the preservation of natural habitats and biotopes. What's more, the topic of sustainability based on strategy and commitment was introduced at Zentis

Support for our suppliers on-site

The goal of our visits and schoolings on-site is to clearly communicate to all raw material suppliers what role they play as a responsible part of the supply chain. Trainings have so far focused on product-based quality topics, such as foreign matter management and hygiene. Department managers were also trained in environmental and social issues.

To be able to support our suppliers on-site even better, and to serve as a catalyst for concrete projects concerning fruit, the career of fruit scout was created in the Procurement department. The fruit scout supports suppliers on-site with the aim to gain deeper insights into harvesting and processing, to actively support projects and to reinforce supplier loyalty.

Due to the Covid pandemic mandates, active support of suppliers on-site was not possible within the reporting period. This time was instead used for a comprehensive potential analysis of new producers. For instance, new sources for strawberry purée and concentrate were found in Spain, which expands our sourcing options for raw materials even in difficult harvesting situations. Also, in 2022, the activities of the fruit scout will be further inten-

sified; in other words, the analysis and development of new origins through the use of potential analysis and the selection of farmers will continue to be expanded.

In the future, together with suppliers on-site, projects on sustainability, such as growing strawberries in North Africa – considering the aspects of solar energy, water treatment, waste and reusable plastic film, biodiversity, etc. – will be realized.



Certifications and memberships

The integration of the entire value-added chain, as well as the more intensive and more frequent dialogue with stakeholders, are key elements of our sustainable sourcing strategy. Certifications and memberships in industry initiatives are also a concrete opportunity for us to improve social and ecological standards in the supply chain.



Food for Biodiversity

Without biodiversity, the earth would not be able to bear fruit – making the preservation of biological diversity an essential basis for food production and therefore for us, too. The agricultural and food sectors can contribute to preserving biological diversity and habitats or biotopes. Which is why Zentis is a member of the **Food for Biodiversity** initiative, which was established by the industry in March 2021. The goal of this initiative is to protect biological diversity in the food industry and in the upstream supply chain, as well as to make a contribution to preventing the extinction of species. To achieve this goal, stakeholders are integrated into projects and measures – which led to a pilot project being launched in 2022 for the development and implementation of biodiversity standards for our apricot suppliers. In addition to this engagement, we are fostering select projects as part of our NaturRein philosophy for the preservation and support of biological diversity, such as a natural orchard in Germany. *See the chapter “Natural products / Our NaturRein concept at a glance”*



Sedex

As a processor and retailer in the middle of the supply chain, we have been a Buyer/Supplier member of the independent organization **Sedex (Supplier Ethical Data Exchange)** since 2016. Sedex is a Web-based database for companies that aims to capture ethical data from its members to make this information available to other members. It enables companies to analyze and assess potential risks within the supply chain. Sedex uses a special risk assessment tool, which we also use for our own risk assessment. At the moment, we do not have any high-risk suppliers. We proactively approach suppliers to ask that they perform a SMETA Audit (Sedex auditing method). The network of the suppliers listed with Sedex was further expanded within the reporting period. Moreover, the social standards throughout the Zentis Group have already been audited by various customers. These corporate social audits are based on common international social standards such as SMETA (Sedex Members Ethical Trade Audit) or on customer audits such as Social Workplace Accountability Audit.



FONAP

We have also been a member of **Forum Nachhaltiges Palmöl (FONAP)**, since 2017, which focuses on sustainable palm oil. The goal of FONAP is to significantly increase the share of sustainably won palm oil and its derivatives on the German, Austrian and Swiss markets as fast as possible and, at the same time, to improve existing standards and certifications. For us, this means: With a self-declaration, we are showing our commitment to strive for the use of 100% sustainably won palm and palm kernel oil in our products.



RSPO

Roundtable on Sustainable Palm Oil (RSPO) is an initiative of non-governmental organizations, the food industry and other stakeholders in the palm oil industry that aims to reduce deforestation and contribute to the preservation of biological diversity. At the same time, the living conditions of the agrarian communities in the palm-oil-producing countries shall be respected. Zentis has been RSPO-certified since 2012.

Palm oil in 2021: RSPO "Segregated":

> 99 %

The supply chain model Segregated (SG) requires that certified palm oil remain separated from non-certified palm oil along the entire supply chain – guaranteeing that truly only certified palm oil is used in the end product.

It is particularly difficult to source the fraction of palm kernel stearin according to the RSPO SG model. For this reason, we also process just less than 1% of our palm oil according to the RSPO model Mass Balance (MB). A mixture of non-certified palm oil is legitimate at the same time. Because there were issues in sourcing aromas and emulsifiers with RSPO-certified palm oil derivatives and fractions, today we rely in part on palm-free aromas and emulsifiers should these not be available in the desired RSPO quality.

Rainforest Alliance

With the **Rainforest Alliance** certification program in 2020, and the introduction of the Rainforest Alliance label in 2020, the UTZ certification program has been phased out step by step. The program and quality label of the Rainforest Alliance (RA) are characterized by responsible, sustainable agriculture as well as transparency along the supply chain. The goal is the respect of human rights, the securing of income, the preservation of biodiversity and the protection of the climate.



Fairtrade

The **Fairtrade** label identifies goods from fairtrade whose production meets defined social and ecological criteria. An elementary part of the label is the payment of guaranteed prices and an additional bonus for community projects in the growing regions. Fairtrade supports ecological, contractual cultivation and bans exploitive child labor.



Share of Rainforest Alliance- and Fairtrade-certified products in 2021:	%
Cocoa confectionery:	> 99
Cocoa (total):	39.1
Chocolate:	34.8

The share of certified cocoa in our confectionery sold in Germany has increased in the reporting period and amounted to 100% in 2021, 72% of which were Fairtrade and 28% UTZ/RA-certified. The certified share of all the cocoa used in the reporting period was at the same level as 2019. Because less chocolate came from our own production in the reporting period, and we increasingly purchased conventional chocolate, the share of purchased certified chocolate in 2021 decreased.

We have also been sourcing RA-certified hazelnuts since 2020. In 2020/2021, the share of certified hazelnuts amounted to 1%; however, this percentage will be increased.

Bio

The current share of organic-certified raw goods used at Zentis is 2.6% (2019: 1.9%). The fruits we purchase are **6% organic certified** (2019: 3.8%). We only use sugar cane upon special request by the customer; however, up to 65% if this sugar is organic-certified. All in all, we want to increasingly rely on organic cultivation to support the long-term preservation of biodiversity, among others, and to be able to cater to customer needs in a more targeted way.

A cross-functional Bio Taskforce was established especially for this purpose, and in the reporting period, the taskforce generated a raw materials catalogue that documents all kinds of standard fruits and their respective characteristics such as taste, price, quality and availability. The supplier portfolio has also been expanded to include organically grown fruit from Spain, Morocco and Turkey (see chapter "Organic").



Tools for assessing and approving suppliers

Our high quality standards for suppliers and our sustainability commitment in the growing, producing, packaging and transporting of all raw materials go far beyond the legal and food law requirements. The tools applied are frequently evaluated by our quality management team in collaboration with procurement.

General Specification for our suppliers

Our General Specification is the binding collection of requirements for all of our suppliers, who must commit to their adherence in writing.

The General Specification was published in 2016 and most recently updated in 2019. It covers, among others, content regarding HACCP, hygienic measures, good manufacturing practice (GMP), the prevention of foreign matter, allergen management, farm management, genetically modified organisms (GMO), and traceability. It also sets the scope for sustainability issues on a social and ecological level. An additional General Specification for packaging has been in place since 2018.

Supplier questionnaire

We have a strict approval process for new suppliers. The key part of the supplier survey is a specially developed questionnaire, which is frequently reworked and adapted to new requirements. All suppliers must regularly update their answers. We frequently have this approval system audited by external experts.

In 2021, the Smart Lieferantenzulassung project for smart supplier approval, which was launched by the Procurement and Global Continuous Improvement & Quality departments, defines the latest requirements for approval, monitoring and collaboration with suppliers in preparation for the launch of a digital supplier management system. The project group is tasked with highlighting optimization options for the supplier questionnaire, the General Specification, supplier audits and more. Within this context, the supplier questionnaire shall be streamlined for those suppliers who can provide a Global Food Safety Initiative (GFSI)-approved certificate, considering such a certificate covers the majority of

our requirements for suppliers. This streamlining of the supplier questionnaire accelerates the approval process, allowing us to react to shortages of raw materials without compromising quality and safety.

In the future, we want to heighten our sustainability standards for our suppliers.

Supplier Code of Conduct

We have had our own Supplier Code of Conduct in place since 2016, which every supplier must sign (USA since 2013). This code of conduct focuses on the protection of employer rights. These include fair working conditions, the prevention of forced and child labor, the support of health and safety at the workplace as well as aspects of environmental protection. It is based on the content of the Business Social Compliance Initiative (BSCI), a not-for-profit company association for improving social standards in the global value-added chain. Its content is supplemented by our own, such as the adherence to the minimum wage in the respective country.

Annual supplier review

When it comes to our strategic suppliers and suppliers with whom we have a defined sales volume, we perform a comprehensive supplier review annually, which covers about 80% of the sourcing volume. It includes both qualitative and quantitative aspects: quality, price and conditions, delivery and service, as well as GMP. These are reviewed based on questions of varying importance.

Depending on the results, the supplier is simply informed or requested to provide a statement. However, they can also be required to implement concrete measures for improvement in collaboration with our procurement team and the department for quality assurance. Should these measures not be executed or not meet our standards, the supplier will be blacklisted. In the reporting

period, no suppliers were blacklisted based on the annual supplier review.

In 2021, a new tool for supplier assessment was launched in the Procurement department in order to monitor supplier loyalty and adherence to quantity stipulations, as well as the claims rate, on a monthly basis. Additionally, with the help of this tool, an annual review by Softfacts is performed that takes place with the use of a questionnaire and the integration of various company departments. The advantages of this are the automatic assessment of data from the systems of the individual country offices, as well as the automated steering and evaluation of the questionnaire.

Supplier audits

To ensure adherence to our high quality standards, our suppliers and, in part, our service providers are frequently audited. We accept an audit from our suppliers according to the GFSI-recognized food safety standards. What's more, we perform audits on-site that ensure the food safety and product quality are in line with our requirements and guidelines at all times. For this, we generate the respective audit reports, through which we review the quality of our upstream cooperating partners and, if needed, provide recommendations for improvement. The audit checklist has been updated for 2022. Unfortunately, the audit program was limited in 2020/2021 due to the Covid pandemic mandates and could not be completed in full. Audits are planned once again for 2022.

Risk countries

Unfortunately, there are still countries and key cultivation regions where child labor is tolerated or even accepted by society. We define these regions internally as risk countries and regions, which cover Central America (Mexico), Turkey and a host of African states, among others.

We do not source raw materials from these regions whenever possible, but should we be reliant on these countries due to the large volume of raw materials, we take special measures. An example is our sourcing of hazelnuts from Turkey, where 75% of the world's hazelnuts are grown. In addition to our supplier questionnaire and our Supplier Code of Conduct, we have stipulated that we will only use raw materials from Zentis-audited suppliers.

In total, despite our arrangements for about 5.9% of our raw materials, it is not possible to completely eliminate the risk of child labor. This percentage includes chocolate and nuts purchased as well as raw material suppliers from risk countries who are not certified by the Rainforest Alliance or Fairtrade.



*Partner-
-life*

and customer-centric business practices

Achieving success together ›

The Zentis innovation ecosystem ›

Quality and safety ›

Certifications and standards ›

Measures for
active quality assurance ›

Always up-to-date ›

Treating each other with respect:
Zentis compliance ›

Achieving success together

Partnerships along our value-added chain are particularly important to us for actively pushing ahead with our sustainability efforts among stakeholders and beyond our company's borders. For instance, we support startups and participate in industry networks. As a result, we at Zentis have created new international processes and new ways of working that encourage creativity and innovation and which give space for working together for and with our partners.

Together with our industrial clients and end consumers, we develop solutions to meet their needs and standards in quality, natural products and sustainability, to name just a few. The product quality as well as the health and safety of our customers are our highest priority, which we aim to ensure with our strict, cross-department quality management system. At the same time, we have high ethical standards for ourselves and our actions; standards that are guaranteed through our compliance management system.



The Zentis innovation ecosystem

Since the start of 2020, the Global Innovation Management department has served as the **catalyzer for all innovations** to come from the Zentis Group. Here is where structures and processes are created and the company's climate is improved to allow for innovations within all departments and on all product levels.

Within the reporting period, sustainability issues played a leading role in implementing the above, whereby the interface to our sustainability management system was reinforced. In doing so, we integrate the latest trends from customers and retailers – such as “plant-based”, low sugar, organic products, and certified raw materials – into our innovation projects. Thanks to our innovation management, synergies have been created from our innovation projects, for example by interconnecting similar projects, and thus saving resources. From now on, we will focus more intensively on the successful execution of innovation projects and the use of the potential from different types of innovations such as product, service and business model innovations.

Tools and projects

FruchtCampus

At the **FruchtCampus** in Aachen, we have set up new rooms next to production that provide a modern environment for creativity and which are equipped with the latest technology to offer the whole spectrum of opportunities for workshops with a theoretical and practical focus.

Spanning a space of 2,100 m² is a complete innovation ecosystem that has been specially conceptualized to foster creative cooperation among employees and comprehensive dialogue with customers and business partners.

Since early 2020, customer events have frequently taken place in the Customer Relation Area. Here is where participants have the chance to develop and improve on ideas together in a physical creative **show kitchen** featuring a senses-based laboratory.

In March of 2021, the FruchtCampus fully opened its doors, and departments such as Sales have moved into their new rooms, where employees can use agile workstations. What's more, since the opening, startups have been using the Startup Areal at the FruchtCampus.



Foresight

We define foresight as the activities of our company for looking ahead and preparing for developments within society and the industry. The scouting and analysis of trends takes place within a committee of experts and with the help of various workflows, which are being developed further within the scope of innovation management. Foresight projects handle such issues as alternative sources of protein like plants as part of the NewFoodSystems innovation space supported by the German Federal Ministry for Education and Research (BMBF) for resilient food systems, as well as issues such as the use of byproduct streams or food waste and the improvement of our carbon footprint.

Startups at Zentis

With the **Zentis Ventures Studio**, we foster partnerships and support **startups** on both a situational and needs-centric basis by providing coaching and giving access to our broad network of partners and experts, as well as by offering the use of rooms at FruchtCampus. Following investments in the startups Haferkater and DÖRRWERK in 2021, the establishment of the Venture Studio was the logical next step in taking fresh, unconventional ways of thinking and turning these into process-relevant components within innovative concepts. With LEROMA, nextAudit, AFTS and OrbiLoop in Aachen in 2021, we worked on the realization of their business ideas in the area of sustainability.



Less food waste: LEROMA is developing a novel search engine for raw food materials, in addition to a marketplace for leftover stocks.



Audit hub for the industry: nextAudit is working together with Zentis to set up a cloud-based, comprehensive audit system to make supply chains transparent for every company within the network.



A clear overview of supply chains: AFTS is developing an app that makes the sustainability of a product transparent for consumers, thanks to a blockchain-based track and trace platform.



Indoor farming: OrbiLoop is providing the fully automatic cultivation of plants for indoors and thus ensuring the best greens the whole year through.

Creating synergies

By leveraging **partnerships**, we aim to create synergies in product development and innovation as well as sustainability, involving the botanicals trend, plant-based extracts and Clean Label, to name just a few. To achieve this, we established a partnership in 2020 between Zentis and Martin Bauer, known as Zentauer.

Innovation networks

We actively contribute to innovation networks such as Foodhub NRW, KitchenTown and co.food. In this respect,

we are committed with other stakeholders in the food industry to supporting a better, safer and more sustainable production of food.

Global Innovation Journey

As part of our annual global ideas campaign, the **Global Innovation Journey**, we support and empower motivated employees along their innovation journey – from searching for an initial idea to implementing it.

Quality and safety

Our high quality is ensured by our consistent and ongoing quality mission at all our production locations. The processes, such as frequent monitoring and certifications, our process-supporting quality management and a close dialogue with external experts are firmly established in the minds of employees across all departments.

Although our different locations have established their own independent quality management systems, we have created the Global Continuous Improvement & Quality department to ensure quality management on a global scale. This means, in the future, we will successfully face challenges and deal with increasingly complex issues together.







Certifications and standards

The company's own processes and the correct implementation of all quality measures are frequently reviewed through both internal audits and with the help of external certification organizations. Our subsidiaries' locations are also certified to a food safety management system. The audits, as part of the certification process, are increasingly taking place randomly.



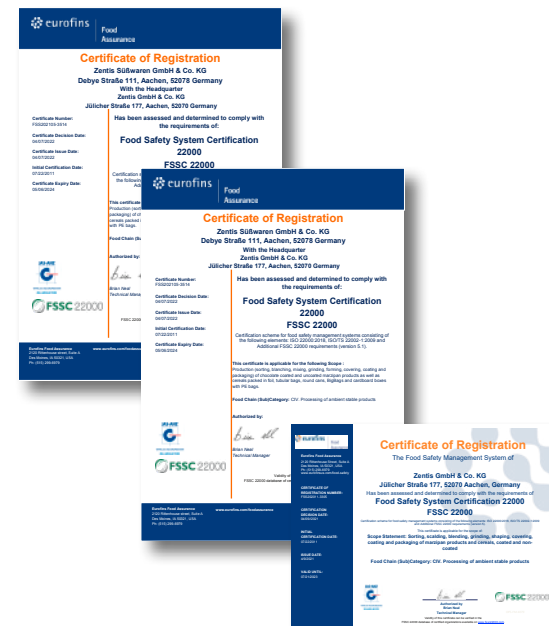
Our certifications:

-  IFS (International Featured Standard) Food 7
-  FSSC (Food Safety System Certification) 22000
-  Allergen inspection according to ISO 17020 (Werk I in Aachen)
-  Organic products (EG-Öko-VO [Bio], Naturland)
-  Non-genetically modified food (GMO-free and GMO-free Austria)
-  Vegetarian and vegan products (quality seal of the European Vegetarian Union [EVU]: "V" label vegetarian and "V" label vegan)

Additional product-based certifications are described in more detail under the chapter "Responsibility in raw material sourcing".

Just as we monitor our partners, we, too, are audited by many of our industrial and trade customers. Within the reporting period, our customers performed 10 audits and made audit-based visits to our locations in Aachen, with the aim to see for themselves how we maintain our quality standards. Due to the Covid pandemic mandates in the years under review, fewer visits took place.

All audits were completed with positive results within the reporting period. No violations were found in terms of the health and safety impacts of our products.



Measures for active quality assurance

Actively providing information

We check the RASFF (Rapid Alert System for Food and Feed) announcements every day and frequently check the updates from the industry's associations such as the Bundesverband der obst-, gemüse- und kartoffelverarbeitenden Industrie (BOGK), the Bundesverband der Deutschen Süßwarenindustrie (BDSI)* and external laboratories and consumer forums. Our aim: to react more quickly and thus give our customers as well as ourselves a lead when it comes to information.

Actively fighting food fraud

Our Zentis food fraud team leverages a vulnerability analysis to review potential risks and identify the respective measures to fight food fraud. A successful workshop on the issues of prevention and analytics took place in 2016 with our international, strategic suppliers. Ever since then, the danger of food fraud has been reviewed annually.

Issues include the availability of certain raw materials, price developments and countries of origin, as well as violations and information that we receive through our partnering laboratories and from associations. On top of this, information from various reports, which list the

known violations regarding food fraud, and from the Knowledge Center for Food Fraud and Quality is integrated into the risk analysis.

When it comes to the daily announcements of food fraud cases, we immediately check internally if Zentis products could be affected and, if needed, instantly take countermeasures. We integrate risk-centric and occasion-based analyses into our trial and testing plans.

HACCP concept

We perform a risk monitoring of raw materials, of the production processes and of the use of products at our customers' premises. Our Hazard Analysis Critical Control Point (HACCP) system is frequently evaluated by our core HACCP team.

Incoming goods monitoring

Each delivery is strictly monitored. When it comes to our raw fruit materials, we check 1% of the entire delivery. Thanks to the close collaboration with our suppliers, we guarantee the traceability of our raw materials – from their precise origin to the bunch processed.



Outgoing goods monitoring

Prior to each delivery to retailers or the industry for further processing, our products are tested in our Zentis laboratories according to senses-based, microbiological and analytical quality parameters.

In-process controls

During the entire production process, we check that the strict specifications of food law and EU regulations, as well as the requirements of our customers and ourselves, are adhered to.

Foreign matter detection

Integrated along the product lines are high-performance neodymium magnets, metal detectors and X-ray technology. In addition to this, to avoid foreign matter (e.g. seeds), we have continuously optimized and fine-tuned within the reporting period the strainer inserts for the various types of fruit. The frequent verification of our detection systems shows that the measures implemented to avoid foreign matter are successful.

Internal process audits

A risk-centric internal audit of all Zentis departments is performed by the Global Continuous Improvement & Quality department. All departments with a direct impact on food safety are audited at least once a year. At the same time, all other departments are regularly evaluated by trained colleagues regarding Zentis standards and guidelines. The departments are surveyed regarding their goals, energy savings, discrimination, hygiene and process flows. If required, measures for improvement are defined by the departments together with the auditors. What's more, space is given to share recommendations with colleagues regarding their processes and thus continuously live the partnership-like improvements at Zentis. Measures that have been agreed to must be proven to be implemented within a defined period of time.

Always up-to-date

Employee schoolings and training

Personal and operational hygiene as well as the ongoing schooling of employees are key elements of our quality management system and are performed by colleagues with external support or by external partners. Mandatory for all employees is the annual hygiene training, for instance. During the Covid pandemic, the number of in-person trainings was increased in order to stretch out participation on-site and ensure the health of employees. Besides this, the Human Resources department coordinated more than 30 additional schoolings and trainings as part of a framework plan, which includes production technology as well as frequent sensitizing courses regarding food safety culture, energy management and equal opportunities at Zentis. The plan is updated annually, and its implementation is reviewed in the course of internal audits, which are performed by qualified internal auditors.

In the future, the range of offers from Zentis will take place completely on our digital HR schooling platform. *See chapter "Employees at Zentis".*

Crisis management

There are several types of crises. The Covid pandemic has resulted in the crisis team being an important authority over the past few years. The ever-changing legal regulations and thus respective operational measures have often forced the crisis team to face additional challenges.

Crisis management at Zentis was set up on a broad scale between 2020 and 2021. A larger number of crisis managers from the Global Continuous Improvement & Quality team shall guarantee flexible and professional handling of crisis cases and coordinate standardized procedures.



Treating each other with respect: **Zentis compliance**

Based on our high ethical standards, we maintain a professional and respectful relationship to our employees, customers and suppliers. Since 2012, we have defined this work ethic for all locations, including all foreign subsidiaries and minority shareholders, and made it mandatory in our compliance management system (CMS), which is certified to the IDW PS 980 (Institut der Wirtschaftsprüfer) institute of auditors. In the USA, an additional binding Employee Handbook is in place.

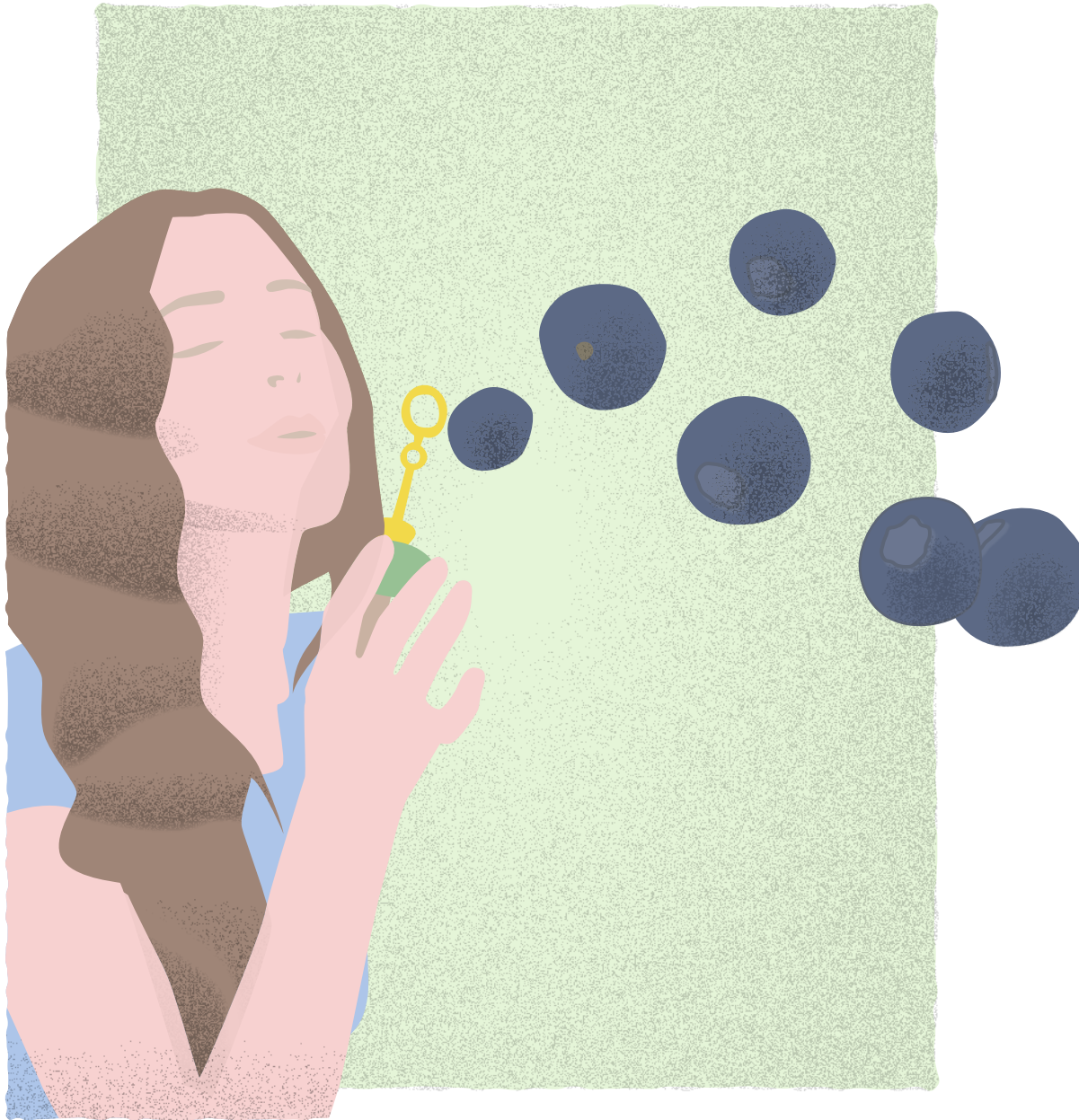
Our guidelines go beyond the legal stipulations and are structured as follows:

Our ethic codex serves as the foundation for the Zentis Supplier Code of Conduct and meets the basic customer requirements for ethic codices. Additionally, our guidelines are an integral part of our CMS when it comes to the issues of ethics, compliance, corruption, cartels and gift-giving.

Our department heads are also our compliance officers, just as are the individual managing directors of our subsidiaries. They are frequently schooled on the topic of compliance and supported by external advisors.

Within the reporting period, a compliance report was not published. Due to the Covid pandemic mandates, it was not possible to gain a picture of the situation on-site; particularly visits to locations around the world and thus personal interviews as well as talks were not possible. There are no known cases of non-compliance with laws and regulations within the social and economical realm for the 2020/2021 years under review.





Natural products

Experts in enjoyment ›

A tradition of innovation ... ›

The Zentis brand ›

Our NaturRein concept at a glance ›

**Social transparency:
Zentis online and social media ›**

Our packaging ›

Experts in enjoyment

Zentis is a global driving force for natural and delightful food. Thanks to our natural raw materials and our innovative ideas and production processes, we make a difference in the market. Our creativity has made Zentis one of the leading fruit preparation experts. Our diverse range of solutions enhance dairy products, dairy alternatives, baked goods and many more.

Our main competency is in the processing and preparation of fruit, largely for further processing by industrial companies. In the area of confectionery, our expertise is in the preparation of raw marzipan mass. Essentially, we cater to the following fields:



Fruit preparations for the dairy industry

Fruit preparations for yogurt, German curd cheese, sweet desserts, yogurt and milk drinks, ice cream and plant-based dairy alternatives; successful product revolutions like stable chocolate chips and chocolate cereals, which remain crunchy even when mixed with yogurt, desserts and other moist foods, grain and “warm-flavor” preparations as well as high-volume fruit preparations.

Fruit preparations and raw mass for the baking and confectionery industries

Fillings for baked goods, such as fruit preparations, sweet creams, special fillings that remain stable even when baked or frozen, raw marzipan mass, gel preparations, glazes and decorations.

Spreads for retailers and consumers

A diverse range of goods, including well-known brands such as the original Aachen Pflümli plum mousse, 50% less sugar jam, Nusspli nut-nougat cream and our new NaturRein range.

Confectionery for end consumers

The production of raw marzipan mass for baking, snacking and the production of seasonal German goods such as marzipan bread, marzipan potatoes and marzipan eggs, as well as chocolate-covered goods available all year round with and without marzipan – continuously in line with the needs of consumers (e.g. trends, smaller packaging sizes, vegan products).

A tradition of innovation ...





... is not only who we are – it is also the standard we have for our product development, with the aim to react to individual customer wishes flexibly and quickly. To achieve this, we integrate the comprehensive know-how of our research and development specialists with that of our employees in Procurement, Production, Marketing and Quality Assurance.

Our locations in Poland, Hungary and the USA, as well as Zentis Süßwaren, also have their own product development team, in line with each location's respective competencies. For instance, Poland develops new processes and products in the area of savory preparations and natural coloring agents.

At the heart of our innovation process is the innovation pipeline, where new ideas are assessed across several levels and developed step by step. The pipeline serves to ensure an ongoing output of market-ready innovations. As a result, we have created international platforms with the goal to reinforce global structures in the area of product development and to make the internal exchange of data more efficient and more transparent. These platforms serve to prioritize trends and support their respective innovations, and they reflect increasing standards in terms of sustainability and natural products.



Our most successful product revolutions:

-  Oat raw materials – also gluten-free – for non-dairy products (alternative dairy products)
-  Fruit preparations for non-dairy products (alternative dairy products)
-  Organic fruit preparations without stabilizers
-  New forms of stable chocolate cereals

Our international platforms

- 1. Clean Label:** Even though there is no legal definition for “Clean Label”, the term stands first and foremost for transparency – from the quality of natural products to the ingredients that remain in the artificially processed products. To create this transparency, a clean product is processed as little as possible and consists of simple, natural ingredients. The platform covers various Clean Label qualifiers: Natural, Clean and Ultra Clean.
- 2. Sugar Reduction:** This platform covers all the possibilities for reducing the sugar content of preparations, which includes considering alternative sugars, artificial sweeteners and aromas for enhancing the flavor profile, and documents best practice examples.
- 3. Functionality:** Here is where refinement with functional additives is covered, for which the relevant information about suppliers, processing, food law fundamentals and more is bundled.
- 4. Plant-based:** This platform consists of new developments for the growing market of dairy alternatives, such as the use of new raw materials, the preparations for plant-based end products or the production of compounds.
- 5. Organic:** This is for organic foods of all kinds. An organic task force was established to generate a raw materials catalogue and menu card that showcase the different standard types of fruit with their various attributes such as taste, price, quality and availability.
- 6. Daredevil:** This platform collects and documents ideas from developers. A procedure has been set up to review, estimate and further support ideas. On top of this are tools and inspiration for creatively coming up with ideas and supporting them.
- 7. Processing Technology:** Here is where all processes in the Zentis world are roughly illustrated with the aim to ensure transparency across all locations. Thanks to a common understanding of the opportunities, particularly technology projects can be worked on together.
- 8. Productivity:** This is where optimization potential is defined for raw materials, technologies or production processes, with the aim to implement the respective measures.
- 9. Indulgence:** This stands for pleasure and covers, for example, chocolate chips or ultra-heat-treated (UHT) preparations with caramel, coffee, nuts and chocolate. The platform supports the cross-country dialogue on trends, products, raw materials and product-group-relevant processes.
- 10. Sustainability:** Here is where sustainability products are developed in product development and support is provided to the centralized sustainability management team, such as for the analysis of our resource consumption through the calculation of the carbon footprints of our fruit preparations, as well as the conduction of hot spot analyses for raw materials.
- 11. Bakery:** This platform develops solutions for the baked goods and confectionary industries (e.g. fillings for baked goods and desserts) and has a broad palette of products spanning the latest food trends and innovative applications.

The brand *Zentis*

Under the Zentis brand, we market spreads and confectionary goods to our end consumers through our food retailers.

Always getting the best out of fruit is not only the standard we strive for – it is also our brand promise to our customers and partners.

The main range of the Zentis brand:



NaturRein



50% less sugar



Breakfast jams



Aachener Pflümli



Nusspli



Peanut butter



Raw marzipan mass



Belmanda refined marzipan



Traditions marzipan and premium refined marzipan at Easter and Christmas



Chocolate cereal snacks

Brand development

Within the reporting period, we especially pushed forward with the modernization of the B2C spreads in our main range of products, and we further expanded the innovation pipeline with product concepts, which we implemented for the B2C segment. The aim is to tap into the latest trends and new markets.

Likewise, Zentis Süßwaren relies on product innovations and is currently evolving from a classic marzipan producer to a broadly positioned confectionery manufacturer with products year-round to meet all kinds of needs.

The most significant *innovations* from the Zentis brand:



Very successful launch of the 100% plant-based peanut butter in the creamy and crunchy variants in 2020. Ever since then, the brand has been well positioned – and was even number one for a while in 2021. The unique selling point of the brand is the 90% share of peanuts, which not only lends the peanut butter its special aroma and full flavor but is also a natural source of protein. It is the perfect alternative or supplement to classic sweet creams – whether for breakfast, for cooking or for snacking.



Successful launch of the new NaturRein premium range of jams in April 2021, with 12 flavors and three sub-segments: classic, 75% chunky fruit, 75% smooth fruit.



Successful expansion of the range with 50% less sugar jams in 2020 and extremely smooth products.



Expansion of the 50% less sugar brand with 50% less sugar cream variants starting in October 2021: hazelnut–cocoa, milk–hazelnut and cocoa with cocoa bits. Particularly compared to conventional nut–nougat creams, they have no preservatives and artificial sweeteners. What's more, they do not contain palm oil.



Following the successful packaging launch of the seasonal range for our confectionery items, the focus is now on the expansion of the year-round range under the Belmanda brand (refined marzipan minis and bars in three flavors each).



The development of vegan raw marzipan mass, with the launch of vegan marzipan potatoes scheduled for 2022.

Our NaturRein concept at a glance

Because nature is our most important supplier, we would also like to give something back to it, which is why we actively contribute to the preservation of natural habitats and biotopes. For this reason, we meticulously act in line with our Fair-to-Nature philosophy when it comes to our NaturRein range.



Collaborations: Blütenparadies initiative under FAUK e.V., (supporting the setting up of wild-flower fields in the Aachen region as a source of food for insects), nature and culture initiative STREUOBSTWIESEN Kottenheim e.V. (protecting, supporting and preserving wild fruit meadows

around Kottenheim in Rhineland-Palatinate – animal and plant habitats), Naturefund e.V. (preserving valuable, old types of fruit – Naturefund focuses among others on the preservation of the multi-species wild fruit landscape around Wiesbaden)



Natural recipes: Clean Label approach with just the three classic ingredients fruit, jam sugar, and lemon juice



Aromatic fruit from organic farming: Hand-picked, sun-ripened field and forest fruit from nature-friendly farming – traceable back to the field



Climate-neutral thanks to compensation: Together with ClimatePartner, we are supporting a forest protection project in Peru



Fair-to-Nature Initiative: Support for projects centered on the care and preservation of wild fruit meadows and wildflower fields



Social transparency:

Zentis online and social media

The Zentis brand stands for open-minded and transparent communication across all groups of customers and stakeholders. Direct, fast and binding correspondence is very important to us and is practiced across all platforms.

Website and YouTube channel

Here is where we provide insights into all our departments, among others, such as our production processes – from the raw materials to the end product. At the same time, we continuously explain all the steps, the challenges and the standards. Within the course of the NaturRein launch, we created a landing page that presents who we are more precisely: genuine, emotional, modern. This landing page has served as our benchmark for the restructuring of our entire website, which was relaunched at the start of 2022. What's more, the social media accounts of Ehrmann and Zentis are being jointly used for Ehrmann High Protein Snacks.

Facebook, Instagram and LinkedIn

A large percentage of our main target group is still very active on Facebook. However, Instagram continues to grow and gain popularity. Which is why we are increasingly focusing on Instagram and will also further expand our communications on Instagram and LinkedIn in the future. Across all platforms, we maintain close contact to our followers and receive direct feedback regarding new products and launches, information which we share on these sites.

Pinterest

Set up in 2019, our Pinterest profile serves as inspiration by providing cooking and baking recipes. In 2021, we recorded 225,111 impressions.

Newsletter

With our newsletter, we inform subscribers of all the new highlights centered around our B2C business. The newsletter is one of our most important communication tools and is sent out about six times a year.

Trial packages and activities for getting to know Zentis

Activities and trial packages with new products are very popular among the target group – and valuable for us when it comes to product development, product recommendations and increasing awareness of Zentis. Within the reporting period, we organized the following activities:



Activities for getting to know new products such as 50% less sugar smooth and the peanut butter



NaturLiebeChallenge in 2021: Customers could choose their favorite from three sustainability projects, which will then be considered for the donation promotion – 10 cents from every jar of Zentis sold went to Naturefund e.V. and concretely supported the reforestation program for protecting bears in northern Spain. On top of this, participants were invited to post online their own engagements for nature and thus take part in a raffle



Advent calendar and winter activities



Sampling promotion for Belmanda minis and Ehrmann at the POS



Participation in food subscription boxes for increasing awareness among consumers



Collaborations with Fairtrade, such as raffles, Advent calendars and tasting promotions in supermarkets



Additionally, we organize frequent raffle promotions on our website, whereby various products are advertised

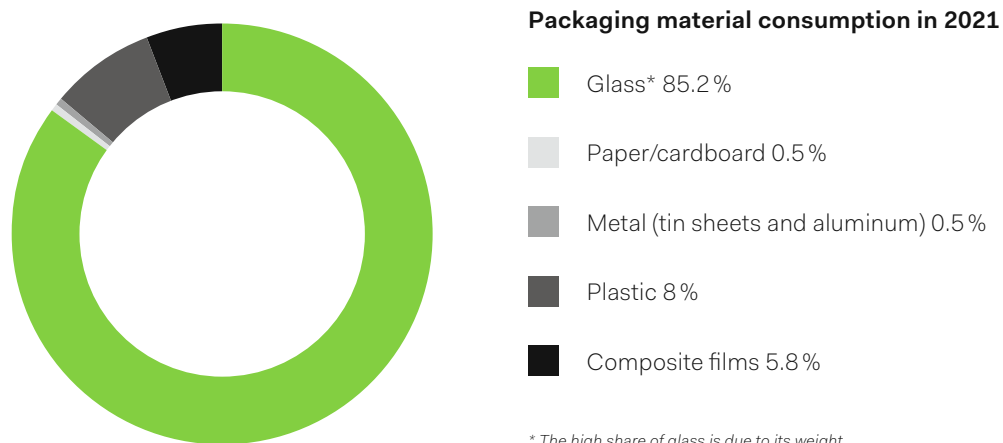
Our packaging

Product standards and environmental protection, perfectly united

Sustainable packaging is becoming more and more important for retailers and consumers. At Zentis, the Packaging Development department works on developing new packaging or further developing existing packaging, and it works on the continuous optimization and harmonization of packaging systems. It focuses on the efficient use of packaging material, supports Procurement in the sourcing of materials and the Technology and Production departments in the implementation of ideas – while always keeping an eye on costs and the supply chain. To continue to cater to the changing sustainability standards put on food packaging, the department was restructured and reinforced with new personnel at the end of 2021. In the future, it will more intensively handle the issues of circular economy, organic economy and alternative packaging material.



Share of packaging material within overall consumption



* The high share of glass is due to its weight.

Use of materials

For our jams, we use **jars** featuring **tin lids**. This lid is equipped with a compound for tight closure, which makes up about 10% of the entire weight. For the first time, for our NaturRein range, we have used PVC-free lid compounds that avoid the use of potential harmful plasticizers and which do not release poisonous combustion byproducts when thermally recycled. The labels of our jam jars are solely made of recyclable paper.

The majority of **plastic packaging** currently comes from the cups of our breakfast jam range and sweet creams (Nusspli and Belmandel). To guarantee food safety, the breakfast jams are closed using a tear-off **aluminum closure**; however, this makes up just a small share of the packaging volume. The rest of the plastic packaging is made of compound foil for confectionery, and the portioned jam packaging that is no longer produced today is recorded separately in the figure.

The use of plastic made of post-consumer recycled materials in our product packaging, which comes into direct contact with food, will not be possible in the near future due to food law regulations.

Our measures and projects



The reduction of packaging material (thin films) and the use of mono-materials (e.g. OPP film) to increase the recyclability of packaging for our confectionery.



Today, between 90% and 100% of many kinds of plastic packaging is recyclable, including wrapping film for our marzipan bread, films for the raw marzipan mass and round plastic containers for our marzipan potatoes.



Evaluation of innovative solutions for a potential switch to paper-based, flexible packaging (bag) for our confectionery.



Trays for the jams, confectionery and product displays as well as banderoles for our NaturRein range are made of 100% FSC-certified cardboard/paper.



The packaging for NaturRein unites aesthetics with sustainability: unique jar shape, PVC-free twist-off cap, and innovative cork lid made of waste from cork production. The packaging is designed to be used for DIY projects and upcycling.



The successive changeover of breakfast jams and sweet creams from plastic containers to jars at the end of 2022. The breakfast jam jars are also wrapped in an easy-to-recycle PET sleeve, which likewise is made in part of recycled plastic.



Feasibility studies on the use of alternative packaging material (natural fiber paper, organic-based hotmelts).



Analysis of packaging according to the new food contact inks regulation, which aims to prevent harmful or poisonous substances from migrating into the product from the packaging (e.g. film, labels). This indirectly also means the use of mineral-oil-free and low-migration printing inks (free of MOSH/MOAH).



Fruit preparations are mainly delivered in reusable stainless-steel containers, which can be used several hundred times and picked up by our logistics team during the next delivery to prevent empty runs.



Short transportation distances when purchasing packaging; high-volume packaging and heavy packaging like glass jars are largely sourced from the region.



Employees *at Zentis*

**The family-owned company
from Aachen ›**

Working at Zentis – the figures ›

What makes Zentis stand out as an employer? ›

Qualifications and staff development ›

Occupational safety / Employee health ›

Social engagement ›

The family-owned company from Aachen

As a larger medium-sized company, we have a values-based and future-centric staffing policy. Our main values are defined as: trust, open-mindedness and respect. These are reflected in our company culture.

Thanks to various services and perks, either from the company or as part of a collective bargaining agreement, we aim to contribute to the satisfaction, motivation and, ultimately, the health of our employees. All the measures not only cater to the personal, professional and cultural further development and qualifications of our employees – they also foster employees' identification with our company and are a sign of our appreciation. The strategic goals of these measures are compiled in the Zentis People Strategy, with which we also aim to organize the Human Resources department more strongly on a global level.



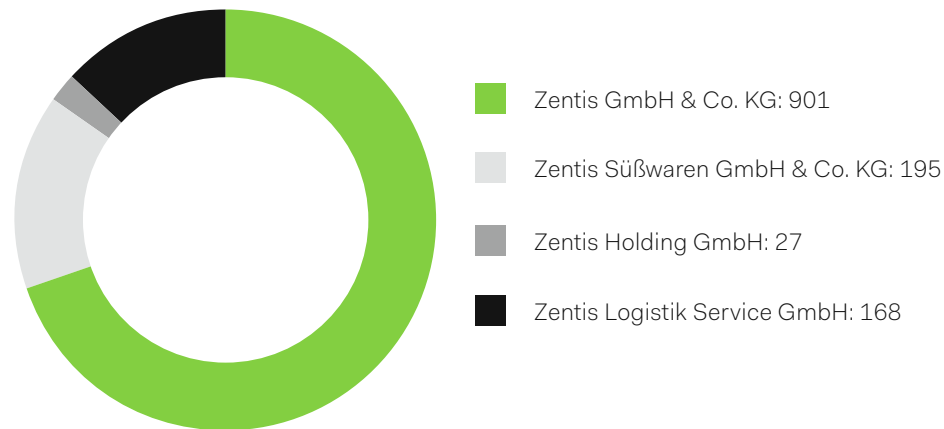
Working at Zentis – the figures

At our locations in Germany, Zentis employs 1,291 members of staff. Worldwide in the Zentis Group, we have 2,193 members of staff (as of December 31, 2021).

Between 2019 and 2020, we continued to focus on having a high percentage of trainees. The number of trainee positions increased from 47 to 50.

To cover the peak order times, as well as to ensure substitutes for vacation times and sick days, temporary workers continued to be deployed. The average number of temporary workers across all German locations was reduced within the reporting period: from 96 in 2019 to 84 in 2021.

Number of employees in Germany in 2021



The most significant challenges and successes

Within the reporting period, the focus for Zentis continued to be on demographic change, the shortage of skilled labor, flexible working situations and digitalization, along with the associated increase in efficiency of various HR processes.

We were able to meet these requirements for the future – despite all the challenges caused by the Covid pandemic mandates – thanks to active and targeted successor planning and the further development of company schooling and trainee offers, as well as the adjustment in personnel sourcing needed for implementing these measures.

Moreover, work in the various departments became more flexible and efficient with the continuation and expansion of remote working, the build-up of digital communication platforms, and online-based processes and workflows.

Also in terms of temporary workers, we are facing challenges due to the fact that it is becoming increasingly difficult to get the necessary staff through our partnering agents – especially for our short-term or temporary need for workers. In close collaboration with our partners, concepts are being developed to ensure a higher number and specialist qualification of temporary workers

Temporary challenge: Covid pandemic

The unpredictable and continuously changing challenges due to the Covid pandemic mandates required us to take additional measures within the reporting period. The highest goal was to protect the health of employees, to safeguard our products and to maintain our ability to deliver our products. We set up a task force that regularly advised us on the dynamically changing situation and which determined the necessary short-term measures.

The operational measures, the legal regulations and the answers to frequently asked questions were communicated nearly weekly to the staff.

The company's protective measures against infection included the distribution of FFP2 masks, the provision of quick tests and the expansion of disinfection measures in high-traffic areas and on contact surfaces.

The Occupational Health department provided employees and their direct family members consultation on the Covid vaccination and also administered the inoculation.

Even before the legal obligation to provide a home office option, we expanded our remote working possibilities and highly encouraged our staff to make use of these – insofar as personally and professionally possible.

Due to the pandemic-based restrictions, HR activities within the scope of occupational health management had to be limited or adapted. The following alternative options were offered instead:



Online workshops on issues such as resilience, mindfulness, health and fitness in home office



Virtual Zentis sport challenge



“Cycling to work” activity



Special offers in the canteens, such as porridge and muesli bars



What makes Zentis stand out as an employer?

Living values together

An essential part of our company strategy, FAMOS 2025, is our values: **trust, open-mindedness and respect.** To ensure our Zentis values can be practiced by all employees, the strategic project VORleben was launched. It focuses on developing how we can integrate our values as a compass for our daily actions, on an interdisciplinary level.

Fair wages

We set great store in providing performance-based wages, considering equal opportunities for all employees. As a company committed to a collective bargaining agreement, all our employees earn at the least the tariff wages according to the wage tariff contract of the fruit and vegetable processing industry; 92% of employees have such a tariff-based contract. With our tariff-based starting wages, we already offer remuneration today that is higher than the legal minimum wage (as of 2021), which is scheduled to rise to 12 euros an hour starting in October 2022.

In addition to the tariff-based wages, we guarantee other company services based on agreements or company perks on a voluntary basis. These include bonus systems in line with personal goals or company success.

Diversity

We are convinced that a diverse staff, with all the members' experience and different points of view, contributes to the development of new ideas, to the identification of market trends, and thus to the targeted catering to the needs of our customers. This means we see diversity as an enrichment.

Diversity within our staff not only leads to inspiration – it also fosters innovation. Which is why diversity is not only about employing members of staff from 30 different countries, but also creating teams together spanning all ages and genders. Of course, we continue to work on a balanced number of women and men, such as with workshops within the scope of our Female Empowerment program.

Inclusion

Zentis allows people with disabilities to have a permanent employment opportunity. These employees have been integrated within existing working groups for many years. Whenever possible, we customize the workstations and working time models – in collaboration with the representative for disabled employees, the works council and the company doctor.

On top of this, in cooperation with Lebenshilfe Aachen, we enable disabled people with no real long-term chance for employment on the main labor market to have a structured job within the environment of our confectionery production.

Company perks

With their engagement, flexibility and passion for innovation, our employees make a significant contribution to our company's success. For this reason, we offer additional perks not stipulated in the standard tariff-based contract, such as 30 days of paid vacation, special annual allowances, vacation money, a company-based pension scheme, and various company arrangements in the areas of professional further development, the work environment and health.

To ensure balance between employees' work and private lives, we offer flexible working models such as part-time and temporary part-time hours. Parental leave is also very popular. Also within the reporting period, a child-friendly parent-child office was set up. What's more, various programs allow our employees to benefit from our company's success, with bonuses and other non-cash perks.

Remote working

In so far as it is possible to organize, our employees also work from home or remotely. During the Covid pandemic, entire departments were able to successfully work remotely in order to keep ongoing processes running. Based on this positive experience, and together with the works council, we have agreed to expand the existing setup. This means that employees will also have the option to regularly work remotely even after the pandemic has passed.

Number of employees	2016/2017	2018	2019	2020	2021
Remote working	90	124	164	323	333

Water dispenser

To reduce the use of reusable, and especially disposable, water bottles, all departments within the company have been equipped with their own water dispenser. Employees can enjoy free filtered and cool water, either with or without bubbles.

Company supplementary health insurance

Since mid-2020, the Zentis Group has offered its employees in Germany the option of a company supplementary health insurance, the costs for which are paid entirely by the employer. All employees have a personal health budget for their health expenses that would normally not be paid by the standard government-based health insurance, such as eyeglasses, medical aids and medicines as well as the costs for dentures or oral treatment.

Qualifications and staff development

To face all the challenges across all departments in the best way possible, our employees not only need the required specialist know-how – they must also have a repertoire of personal and methodological competencies. Within the scope of our qualification strategy, all of our employees have access to a comprehensive catalogue of further training opportunities, which is published by the Learning & HR Development department. This is supplemented by specialist training and seminar courses, which are defined in line with the target group and in cooperation with the respective specialist department. Our further training offers are evaluated on a regular basis.

The key topics of our qualifications strategy

At the end of 2020 and the start of 2021, we launched an onboarding software to integrate all new employees into our company even better and faster, and to make for an optimal onboarding experience. In addition to all the essential information (e.g. articles about new products, information about sustainability at Zentis, where to go and whom to report to on the first day of work), which the new employees received through an online portal, we would like to provide the specialist departments with a clear overview of all the tasks to be completed. This includes, among others, the onboarding plan, the provision of uniforms for wearing in the commercial-technical areas and, in particular, the feedback talks.

Vocational training

Vocational training, in collaboration with the Chambers of Trade and Crafts and with a focus on the business administration, information technology, industrial-technical and logistics careers, continues to take top priority at Zentis. In 2021, we once again proved through elaborate surveys that we provide outstanding vocational training. For this reason, we again received the BEST PLACE TO LEARN® seal of quality with the grade of "Excellent".



Vocational training	2017	2018	2019	2020	2021
Trainees at Zentis Germany	38	44	47	46	50

We train as needed with the aim to retain the trainee as a permanent employee.

Trainees	2017	2018	2019	2020	2021
Retention rate	64 %	100 %	81.81 %	63.40 %	85.71 %

Management development

Within the scope of our management development, we offer our managers three target-group-specific programs for further training. The combination of various modules supports our managers across all hierarchy levels in successfully mastering all our current and future challenges.

Executive Leadership Program

The Executive Leadership Program was launched in summer 2020 with the aim to support a common understanding of leadership and to establish this in the company. A combination of various modules, the Reverse Mentoring program and the Leadership Lounge enrich personal and professional further development. All division heads at our location in Germany and the management board have gone through the first run of the program.

Industrial-technical management development

The program is geared toward the latest and future department and team heads within the industrial-technical division. Over the course of this two-year program featuring four modules, the key topics of leadership, communication, conflict management and labor law basics are covered. In 2021, 60 employees from the industrial-technical division took part in the program.

Leadership Program

Following a successful pilot phase of the Executive Leadership Program, the most effective tools, methods and technologies were compiled for our Zentis department heads and staff unit members in four modules. The further training Leadership Program started for the first time in spring of 2022.

Balance of male and female managers in middle and upper management:

	2019	2021
Male	74.23 %	71.57 %
Female	25.77 %	28.43 %

Female Empowerment

As part of our FAMOS 2025 strategy, we aim to encourage collaboration within diverse teams at Zentis. In 2021, our focus was on our female employees, with the goal to further increase the percentage of women in leadership positions and as responsible persons for projects. Under the title Female Empowerment, a range of talks and workshops was developed in which all female colleagues can participate.

Talent Management

The Talent Management program is a two-year, international development program in which employees of our foreign subsidiaries can also participate. Employees are coined "talents" when they have the potential to take over challenging leadership or strategic management measures. The essential parts are an individual development plan, the build-up of an international network and the interdisciplinary dialogue among participants as well as with various stakeholders at Zentis.

After the second round of the Talent Management program ended remotely at the end of 2020, the third run started, also digitally, in spring 2021 with a total of 20 potential talents of various nationalities and from different career fields. During the third run, a Reverse Mentoring program took place for the third time with the division heads. What's more, in 2021, a special focus of the Talent Management program was on the development and presentation of new product ideas as well as the setup of potential collaborations with startups.

Annual employee review

The annual employee review is a structured feedback talk that, based on a defined talk guideline, takes place once a year at Zentis. The feedback talks encourage structured dialogue between employees and supervisors by not only taking a look back at the agreements made the previous year, but also at the new goals and development opportunities for the coming 12 months that have been defined together with the employee.

In the administrative departments, the feedback talks are performed with all the employees. In the production and production-supporting departments, the annual employee review takes place up to the level of team head and their representatives. In 2021, about 83% of employees of the intended target group took advantage of the annual employee review.

Additional further training measures

With our open further training offers, we support all employees at Zentis in being able to handle the complex challenges of today's and tomorrow's working world successfully.



Supporting personal and social competencies: mindfulness and resilience, persuasive communication and conflict-solving, methodology competence such as personal agility, efficient office organization and successful moderation of hybrid meetings.



E-learning platform: digital learning that is independent of place and time – also in several languages at times.



Classroom with computer workstations: employees without a computer workstation also profit from our digital learning courses.



Qualifications for moving up the ladder and career-accompanying courses of study.



Job rotation option: the chance to temporarily change the place of work and associated tasks in order to leverage specialist knowledge across departments; employee qualification for new areas of work as well as reinforcement of intercultural collaboration and a culture of feedback.



Language courses during work hours.



IT schoolings from the IT & Digital Transformation division.

Occupational safety

Occupational safety takes top priority in our company, is subject to a comprehensive and easy-to-understand guideline and is discussed and supplemented by the legally stipulated occupational safety committee four times a year.

The most frequent incidents at Zentis are typical for the industry: falls, cuts on fingers and hands, as well as commuting accidents.

Among all employees in Germany, we recorded a rate of 7.1 work incidents for every 200,000 hours worked in 2021. Within the reporting period, no work incidents were recorded that resulted in serious injuries.

To guarantee continuous reviewing and improvement, we regularly perform a risk assessment at all workstations and, if needed, develop measures for reducing risk. Incident surveys, among others, of employees and supervisors serves as the basis for this.

Preventing incidents



Frequent schoolings specially adapted to the various work requirements



Education of production employees on dealing with hazardous materials, forklifts and knives, as well as the use of personal protective equipment (PPE)



Special-knowledge schoolings for team heads and service staff, in part by schooling partners such as TÜV, BGN, BG ETEM, and suppliers of PPE.



Annual schoolings on hygiene

Optimal support and care from our company doctors

Complementing our general measures are our company doctors. They advise us as a company, employees and temporary workers on health topics relevant for work and home. What's more, the company doctors are important consultants when it comes to the process of evaluating risks for company incidents and to preventative measures.



Social engagement

With all our heart

Zentis is closely connected to the Aachen region, as here is where the company's roots are set. Especially the youth and the regional customs are dear to our heart, which is also reflected in our initiatives.

Zentis supports the Aachen Karlspreis, and every year awards the Zentis Kinderkarnevalspreis together with the Aachen Karnevalsverein. Between 2017 and 2020, we offered the Zentis Donnerstag at Museum Ludwig Forum enabling all visitors to visit the museum for free on Thursdays.

The company also participates in the Aachen Ehrenamtspass and gives Aachen's residents who do voluntary work and are holders of the pass a 15% discount at our factory shop in Aachen.

Our trainees' engagement

We would like to encourage our trainees to see the world with open eyes and to offer help to people who need support due to illness, personal tragedies or other circumstances. Which is why the trainees organized a wishing tree activity during Christmas in 2021 for children in the Aachen region affected by the floods. In collaboration with a kindergarten in the especially hard-hit City of Stolberg, the staff donated 40 gifts to affected children, which were then handed out by our trainees at Christmas.

The waffle-baking event, which normally takes place every year, had to unfortunately be cancelled due to the pandemic mandates. But because the trainees had already organized the event, the company jumped in at short notice and donated to the Förderkreis "Hilfe für krebserkrankte Kinder" e.V. project, which was chosen by the trainees. With the donation, targeted treatment measures can be supported for cancer-inflicted children and their families.

Due to the Covid pandemic mandates, some of our social engagement activities could not take place.



Appendix

Ownership structure and legal form

Company structure (as of Dec. 31, 2021)

Parent company: Zentis GmbH & Co. KG, Aachen

Direct shareholdings:

- Zentis Holding GmbH, Aachen, Germany
- Zentis Süßwaren GmbH & Co. KG, Aachen, Germany
- Zentis Ventures GmbH, Aachen, Germany
- Obstbauern Nahrungsmittel GmbH, Aachen, Germany
- Zentis Logistik Service GmbH, Aachen, Germany
- Allfrucht Vertriebs GmbH, Dusseldorf, Germany
- Zentis Hungária BT, Drégelypalánk, Hungary
- Zentis Holding Kft., Drégelypalánk, Hungary

Indirect shareholdings:

- Zentis Beteiligungsverwaltungs GmbH & Co. KG, Aachen, Germany
- Zentis Polska Sp. z o.o., Siedlce, Poland
- OOO Zentis Russland, Moscow, Russia
- Zentis Verwaltungs GmbH, Aachen, Germany
- Zentis Süßwaren Verwaltungs GmbH, Aachen, Germany
- Zentis North America Holding LLC, Plymouth, Indiana, USA
- Zentis North America LLC, Philadelphia, Pennsylvania, USA
- Zentis Fruit Solutions GmbH, Aachen, Germany

Within the reporting period, there were no significant changes to the organizational structure or our supply chain.

Resource-friendly production and climate protection

Our location in Russia was not taken into account when it came to capturing environmental data, as it is a sales location only. Only data for the location in the USA, in Plymouth, Indiana, were captured from 2011 to 2013.

Energy

Energy consumption within the organization

Natural gas in GJ	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany	442,115	433,017	405,220	394,657	441,181	494,988	490,958	458,743	462,429	462,223	462,962
Poland	80,959	83,677	88,009	87,505	80,257	74,362	69,213	72,716	79,064	72,125	80,204
USA	104,405	96,305	110,651	178,720	191,122	184,899	186,092	98,184	112,716	187,397	215,777
Hungary	n/a	34,034	30,922	26,080	24,898	24,847	23,706	27,185	25,631	20,395	27,375

Electricity in GJ	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany*	167,538	154,161	138,513	123,236	96,137	61,164	59,209	58,313	53,405	48,677	52,024
Poland	23,828	24,098	23,885	24,142	23,602	23,211	22,810	24,248	25,695	25,860	25,930
USA	33,196	34,056	38,513	69,522	73,008	71,807	70,569	58,268	60,718	38,926	60,426
Hungary	n/a	9,346	8,124	7,326	6,755	6,578	6,621	7,070	6,414	5,507	5,761

*Germany: Electricity from our own combined heat and power plants has not been taken into account.

Greenhouse gas emissions

Direct GHG emissions (gas [kWh/a] * 228 [g/kWh] / 1,000,000 = CO₂ [t/a])

CO ₂ (t/a)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany	28,228	27,424	25,664	23,848	26,347	31,349	31,094	29,054	29,287	29,274	29,320
Poland	4,295	4,539	4,773	5,469	5,016	4,710	4,383	4,605	5,007	4,568	5,080
USA	6,612	6,396	7,080	10,915	12,393	11,710	11,786	6,218	7,139	11,868	13,666
Hungary	n/a	1,455	1,243	1,652	1,577	1,574	1,175	1,722	1,623	1,292	1,734

Indirect GHG emissions (electricity [kWh/a] * 527 [g/kWh] / 1,000,000 = CO₂ [t/a])

CO ₂ (t/a)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany	30,244	27,359	24,651	21,676	17,008	8,954	8,668	8,536	7,818	7,126	7,615
Poland	4,229	4,277	4,239	4,285	4,189	3,398	3,339	3,550	3,761	3,786	3,796
USA	5,892	6,045	6,835	12,338	12,740	10,512	10,331	8,530	8,888	8,740	8,846
Hungary	n/a	1,376	1,198	1,300	1,119	963	969	1,035	939	806	843

Water

Overall water abstraction according to source

Water from the municipal water supply is used. At all our locations, drinking water must be used. Hungary has its own water well.

Overall water abstraction according to amount

Overall water abstraction in megaliters	2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany	1,019	993	1,005	986	947	913	960	919	853
Poland	281	265	241	233	208	219	254	412	428
USA	272	455	417	392	390	313	387	261	293
Hungary	70	69	59	62	52	53	52	39	49

Waste

Overall weight of waste according to type and disposal method

For the locations in Hungary, Poland and the USA, there is a similar division of the types of waste. As a solely sales location, Russia does not have any relevant food waste or large waste amounts.

Less than 0.1% of the waste is considered hazardous according to the waste catalogue. This includes used oils and solvents. These are therefore collected in the suitable and authorized containers and disposed of in a professional manner. The same can be said for all locations.

Types of waste in Germany

Types of waste in Germany (in tonnes)	2013	2014	2015	2016	2017	2018	2019	2020	2021
Food waste (animal feed / biogas recycling)	4,522	4,181	3,670	4,090	5,142	4,551	4,391	4,222	4,520
Cardboard (recycling)	2,091	2,003	1,876	1,674	1,513	2,378	2,729	2,398	2,783
Mixed packaging (thermal recycling)	2,214	1,742	1,794	1,890	2,295	1,897	1,736	1,871	1,795
Debris (material recycling)	133	122	114	165	294	82	155	435	161
Other	681	663	702	710	727	929	1,268	1,171	1,271

Waste according to region

Waste (in tonnes)	2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany	9,641	8,711	8,156	8,529	9,971	10,540	10,047	9,870	10,530
Poland	1,088	745	610	704	650	582	859	3,843	3,291
USA	1,772	2,948	4,088	1,289	1,279	1,901	1,758	1,604	1,476
Hungary	236	133	116	104	75	117	115	136	73

Information on staff and employees

Definitions:

Staff: A working relationship with Zentis (without any information on the status of temporary worker, trainee or intern)

Employees: Covers all staff, including temporary workers, trainees and interns

Temporary workers: Support for our main employees during peak order times and seasonal changes

Number of employees

	2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany	1,580	1,482	1,449	1,429	1,318	1,302	1,346	1,250	1,291
Poland	316	320	312	306	312	356	375	406	398
USA	283	431	480	468	444	412	348	375	383
Hungary	125	110	99	102	105	92	92	81	73
Russia	50	47	48	49	42	53	51	49	48
Total	2,354	2,390	2,388	2,354	2,221	2,215	2,212	2,161	2,193

Number of hours worked in Germany

Hours worked	2020	2021
Staff	1,592,903.44	1,611,682.61
Employees	1,793,879.40	1,858,379.91

All staff according to work contract and region

		2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany	Permanent	1,210	1,161	1,099	1,092	1,032	1,061	1,089	1,067	1,064
	Temporary	114	78	56	50	94	85	95	75	98
Poland	Permanent	242	247	251	249	265	291	290	318	310
	Temporary	19	20	28	30	16	15	34	39	49
USA	Permanent	n/a	431	478	467	444	412	348	347	352
	Temporary	n/a	0	2	1	0	0	0	0	0
Hungary	Permanent	92	96	89	84	84	79	79	81	73
	Temporary	33	14	10	18	21	13	13	5	1
Russia	Permanent	47	41	45	46	40	45	45	45	45
	Temporary	3	6	3	3	2	1	1	1	1

Fluctuation

A) Number and share of hirings (divided into chosen age group and gender) for Germany

Number and share of new employees in Germany*

Zentis	2014	2015	2016	2017	2018	2019	2020	2021
Total	62	59	58	95	77	93	57	100
Share in % of total	5.0	5.1	5.1	8.4	6.7	7.9	5.0	8.6
Female	15	20	24	28	28	34	19	37
Male	47	39	34	67	49	59	38	67
< 30	29	34	32	45	36	42	16	33
30–50	23	17	20	43	33	41	33	48
> 50	10	8	6	7	8	10	8	16

*Calculation based on the entire number of staff members at the end of the year.

B) Number and share of terminations
(according to chosen age group and gender) for Germany

Number and share of new employees in Germany*

Zentis	2014	2015	2016	2017	2018	2019	2020	2021
Total	117	109	37	30	39	47	77	54
Share in % of total	9.4	9.4	3.2	2.7	3.4	4.0	6.7	4.6
Female	30	14	5	6	21	14	30	21
Male	87	97	32	24	18	33	47	33
< 30	19	13	5	4	14	26	14	15
30–50	57	38	22	21	21	16	40	14
> 50	30	50	6	5	4	5	23	25

*Calculation based on the entire number of staff members at the end of the year.

Incidents and lost days

Our location in Russia was not taken into account when it came to capturing incident data, as it is a sales location only. Only data for the location in the USA, in Plymouth, Indiana, were captured from 2011 to 2013.

Reported incidents for every 1,000 employees

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany	41.1	45.9	42	37.3	40.9	67.9	36.2	51	52	40.2	53.5
Poland	32.9	12	15.4	3.7	10.8	17.9	7.1	22.9	9.3	19.6	13.9
USA	4	7.3	10.7	22.8	13.5	6.6	4.3	14	13	72	30.3
Hungary	n/a	16.5	0	0	26	10	10	10	10	13	13

Lost days (calendar days) for each reported incident

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Germany	17.3	16.4	16.84	20.3	14.9	27.4	15.8	14.5	22.2	22.3	19.3
Poland	58	75.7	27	70	61	17.4	85	34.7	36.7	44.9	63.2
USA	5	24	98.5	51.47	41.38	23.67	11	69.8	111.2	113	2.57
Hungary	n/a	17.5	0	28	13	23	13	19	39	22	7

Injuries are described in the chapter "Employees at Zentis". There were no deaths within the reporting period. Reported incidents are incidents resulting in more than three lost days.

GRI index

General information

GRI Standards	Information	Page	Omission
GRI 102: Organizational profile (2016)	102-1: Name of organization	6	-
	102-2: Activities, brands, products and services	9	-
	102-3: Location of the organization's headquarters	6	-
	102-4: Number of countries operating	8	-
	102-5: Nature of ownership and legal form	6–7, 85	-
	102-6: Markets served	8–9	-
	102-7: Scale of the reporting organization	7	-
	102-8: Information on employees and other workers	76, 91, 92	-
	102-9: Supply chain	37, 44, 45	-
	102-10: Significant changes to the organization and its supply chain	85	-
	102-11: Precautionary principle or approach	4–5	-
	102-12: External initiatives	46–49	-
	102-13: Memberships of associations	46–49	-

GRI Standards	Information	Page	Omission
GRI 102: Strategy (2016)	102-14: Statement from senior decision-maker	4–5	-
GRI 102: Ethics and integrity (2016)	102-16: Values, principles, standards and norms of behavior	50–51	-
GRI 102: Governance (2016)	102-18: Governance structure	7	-
	102-40: List of stakeholder groups	11	-
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GRI 102: Stakeholder engagement (2016)	102-42: Identifying and selecting stakeholders	11, 54	-
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GRI Standards	Information	Page	Omission
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	102-46: Defining report content and topic boundaries	4–5, 10, 13–18	-
	102-47: List of material topics	14–18	-
	102-49: Changes in reporting	13	-
	102-50: Reporting period	10	-
	102-51: Date of most recent report	10	-
	102-52: Reporting cycle	10	-
	102-53: Contact point for questions regarding the report	10	-
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	102-55: GRI Content Index	96–103	-
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GRI Standards	Information	Page	Omission
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	103-3: Evaluation of the management approach	27–29, 37	-

GRI Standards	Information	Page	Omission
GRI 302: Energy (2016)	302-1: Energy consumption within the organization	86	-
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GRI 103: Management approach (2016)	103-1: Explanation of the material topics and their boundaries	27, 30–31, 37	-
	103-2: The management approach and its components	27, 30–31, 37	-
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GRI 303: Water and effluents (2018)	303-1: Interactions with water as a shared resource	30–31	-
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	303-3: Water withdrawal	30–31, 88	-
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GRI 103: Management approach (2016)	103-1: Explanation of the material topics and their boundaries	23, 26, 27, 34–37	-
	103-2: The management approach and its components	23, 26, 27, 34–37	-
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GRI 305: Emissions (2016)	305-1: Direct (Scope 1) GHG emissions	24, 87	-
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GRI Standards	Information	Page	Omission
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GRI 306: Waste (2016)	306-2: Management of significant waste-related impacts	32, 89–90	-
Supplier environmental assessment			
GRI 103: Management approach (2016)	103-1: Explanation of the material topics and their boundaries	39–51	-
	103-2: The management approach and its components	39–51	-
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GRI Standards	Information	Page	Omission
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	103-2: The management approach and its components	83	-
	103-3: Evaluation of the management approach	83	-
GRI 403: Occupational health and safety (2018)	403-1: Occupational health and safety management system	83	-
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	403-3: Occupational health services	83	-
	403-4: Worker participation, consultation, and communication on occupational health and safety	83	-
	403-5: Worker training on occupational health and safety	83	-
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	403-9: Work-related injuries	83, 95	-

GRI Standards	Information	Page	Omission
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	103-2: The management approach and its components	75, 80–82	-
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GRI 404: Training and education (2016)	404-2: Programs for upgrading employee skills and transition assistance programs	80–82	-
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GRI 103: Management approach (2016)	103-1: Explanation of the material topics and their boundaries	39–51	-
	103-2: The management approach and its components	39–51	-
	103-3: Evaluation of the management approach	43, 50–51	-
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GRI 103: Management approach (2016)	103-1: Explanation of the material topics and their boundaries	53, 56–59	-
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GRI Standards	Information	Page	Omission
Customer health and safety			
GRI 416: Customer health and safety (2016)	416-1: Assessment of the health and safety impacts of product and service categories	56–59	-
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GRI 419: Socioeconomic compliance (2016)	419-1: Non-compliance with laws and regulations in the social and economic area	61	-

Thank you

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