

Taking responsibility.

Sustainability at Pfeifer & Langen



Pfeifer & Langen



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Enjoy variety



Dear readers,

sustainable business is a core value for Pfeifer & Langen, and one that we have been pursuing since our founding in 1870. For us, everything revolves around the domestic beet from which we produce regional sugar. Today's world is marked by profound events. Dealing with geopolitical challenges, disrupted supply chains, the accompanying energy shortages and high energy costs are all in focus. In addition, regulatory requirements are increasing. The EU Commission has proclaimed the Green Deal. One component is the Farm-to-Fork strategy. This programme for the future is demanding and requires immense efforts from all actors in its implementation.



f. l. t. r.:

Michael Schaupp, Uwe Schöneberg, Martin Vesper

Regardless of all current adversities, we want to be part of the solution. As a family business with a long tradition, we are addressing issues to shape the future in a sustainable way. With the adoption of our Sustainability Strategy 2030, we have taken a big step forward.

We are actively shaping the transformation of the food industry and, to this end, are strengthening our multi-layered, future-oriented investments. We are committed to the Paris Climate Agreement and thus support the goal of limiting global warming to 1.5 degrees. Reliable political framework conditions and fewer bureaucratic hurdles are important prerequisites on this path. "Taking responsibility." is the headline of our new sustainability report. For us, this is both a claim and an obligation. We act for the future of all of us, for

the environment, for our employees and for our company. This report shows how advanced our family business is on key sustainability issues and why sugar beet products not only stand for a future-oriented and sustainable nutrition, but also offer solutions in the sense of a circular economy.

We wish you an exciting read!

Pfeifer & Langen at a glance

For over 150 years, our Cologne-based family business has been synonymous with sugar and sugar specialities made from the local sugar beet.

Our products are manufactured throughout Europe in state-of-the-art facilities and with innovative processes.

*What drives us every day:
The aspiration to make good things even better.
Together with our partners, for our customers.*



Our company in figures (2022)



24 locations
in
9 countries
(in Europe)



3,272
employees*



over **1.5 billion €***
turnover



over **1.8 Mio. t**
of sugar*
(2022/23 campaign)



around **12.6 million t***
of sugar beet
(2022/23 campaign)



several **100**
different sugar varieties



around **11,750***
beet growers



Founded in
1870

*Proforma presentation incl. the 50 percent joint venture in Ukraine

Towards the future

Our Sustainability Strategy 2030



VISION

We stand for future-oriented, sustainable nutrition and offer solutions in the sense of a circular economy with our products from sugar beet.



MISSION

We are actively shaping the transformation of the food industry and thus bear responsibility for the sustainable development of the world.



We develop solutions and contribute to growing sufficient quantities of beet in the regions even more sustainably.

ECONOMIC



We operate in a circular manner and continuously reduce our environmental footprint in compliance with the 1.5 degree target.

ECOLOGIC



We use sustainability as a differentiator in a changing food behaviour and competitive environment.

SOCIAL



We see people as the basis of our corporate sustainability.

Sustainable Development Goals (SDGs): 11 of particular relevance

The SDGs are an essential part of the 2030 Agenda for Sustainable Development, which was adopted by the member states of the United Nations in 2015. The goals are intended to lead to more environmental and climate protection, prosperity, social justice, self-determination and peace worldwide by 2030.

The SDGs are structured into 17 goals. In this report, we show in the respective chapters what Pfeifer & Langen contributes to the achievement of the SDGs. For this purpose, we have analysed which of the 17 SDGs are of particular relevance to our business activities.



 **The 11 SDGs that primarily guide us are also part of our sustainability strategy**

	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 	7 AFFORDABLE AND CLEAN ENERGY 
8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	13 CLIMATE ACTION 	15 LIFE ON LAND 



Sustainable sugar beet cultivation

For a transformation with a sense of proportion

Sustainable food production also includes sustainable agriculture. Together with our beet growers, we are actively working on efficient solutions to make sugar beet cultivation even more sustainable.



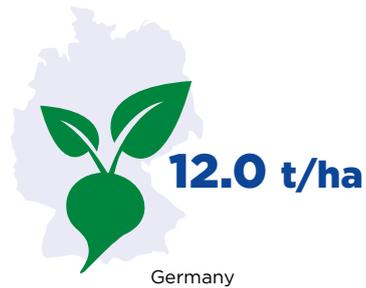
Our Sugar Beet Agricultural Information Service (LIZ) in Germany and Poland

The LIZ cultivation advisory service is a fixed pillar in Pfeifer & Langen's sustainability management. It offers many decision-making aids and advises beet growers both personally on site and digitally on all aspects relating to sugar beet. This means that the best cultivation measure can always be carried out at the right time:



We have been a member of the global Sustainable Agriculture Initiative Platform (SAI Platform) since 2023. The SAI Platform aims to make agricultural practices more sustainable.

Average sugar yields in Germany, Poland and Ukraine (2022/2023 campaign)



Mineral nitrogen fertilisation Pfeifer & Langen Germany (kg/ha)



Source: Surveys on "Production Technology 2011-2021", Institute for Sugar Beet Research (IfZ), Göttingen.

Less fertilizer

Our digital programmes "LIZ Dungpro" and "LIZ Npro" help to apply fertiliser in a targeted manner and adapted to the needs of the sugar beet.



Application maps

In cooperation with service providers, we plan digital application maps for fertilisation. They provide an overview of the nutrient status of the arable land. Based on this, fertilisers can be applied specifically according to nutrient requirements. This counteracts an undersupply and oversupply of fertilisers in the fields.

We rely on chopping robots for autonomous weed control.



Camera-assisted weed control

Since inadequate weed control can lead to high yield losses, we are working on future-oriented solutions:



Spot-spraying trials

Weeds and field crops are identified in milliseconds by high-resolution cameras. The crop protection product is therefore only applied to the place where it is needed.



Chopping and chopping belt spraying systems

Together with various partners, we are testing camera-supported chopping and chopping belt spraying systems. Mechanical or mechanical-chemical weed control can save herbicide expenditure by up to 50%.



Chopping robot

Together with Farming Revolution, we are developing an app-controlled chopping robot for autonomous weed control. With the help of a camera, the robot recognises the weeds and removes them mechanically using a chopping technique. The aim of the project is to regulate weeds in a targeted manner, thereby saving on chemical pesticides and manual work steps.

Monitoring against leaf diseases

Together with the beet growers, the beet growers' associations, and the official advisory services in our growing regions, we have been carrying out leaf disease monitoring for more than 20 years. At around 130 locations, sugar beet is examined once a week during the summer months for the occurrence of important beet leaf diseases such as *Cercospora beticola* and *Ramularia beticola*. The data is digitally recorded and evaluated so that an overview of the occurrence of leaf spots in the respective cultivation regions is possible at any time. Based on this data, plant protection measures can be carried out in a targeted and needs-oriented manner.

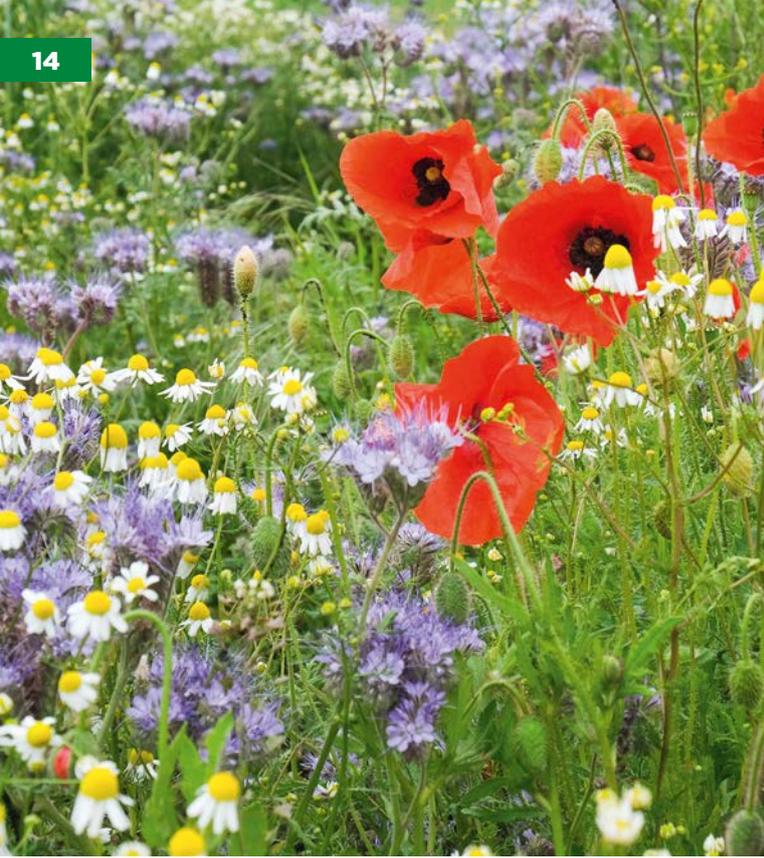
In addition, we are testing further supplements to classic chemical crop protection:

- ➔ Selection of suitable varieties
- ➔ Testing of prognosis algorithms for diseases and pests
- ➔ Tests on the fungus *Metarhizium*, which is effective against pests

Outlook



In light of climate change and the associated weather extremes, we are committed to new, efficient breeding methods. They increase crop yields, minimise pesticides and fertilisers and thus conserve natural resources.



Our “FlowerBeet” Project

The “FlowerBeet” project is investigating whether an infestation of aphids in sugar beet can be controlled by beneficial insects such as ladybirds, lacewings, hoverflies, and ichneumon wasps, thus minimising the use of insecticides. Especially the early infestation with aphids, combined with the transmission of yellowing viruses, leads to considerable yield losses in sugar beet cultivation. Five-metre-wide flower strips are planted in beet fields or at their edges. This is intended to specifically promote beneficial insects for aphid control as well as biodiversity in the agricultural landscape. The main components of the flowering strips are native plants such as cornflower, corn poppy, marigold, and red clover. These plant species attract beneficial insects early in the year.

By 2024:

Flower strips at 20 sites in the Rhineland



The project takes place in cooperation with the Centre for Biodiversity Monitoring and Nature Conservation Research (ZBM), the Institute for Sugar Beet Research (IfZ), the Rhineland Beet Growers Association (RRV) and the Plant Protection Service of the North Rhine-Westphalia Chamber of Agriculture.



We promote biodiversity

It is not only the beet fields that contribute to strengthening biodiversity, but also various projects at our sites:



Breeding place for the peregrine falcons

Since April 2022, we have been promoting the development of the population of peregrine falcons around Lage in cooperation with the foundation "Pro Artenvielfalt". The 30-metre-high silo on our factory premises is ideally suited for this purpose, as it offers opportunities for a free approach and is thus an ideal breeding ground.



Always upstream

Together with the city of Lage, we are planning to renew a fish ladder in the river Werre. This hydraulic engineering facility will enable fish to easily overcome barriers during their migration.



Eldorado for water birds

At the Könnern site, we support the monitoring of resting waterbirds that have found a habitat in the area of our storage and safety ponds.



Colourful and useful

Also, in Könnern, we have created a 2000 m² flowering meadow on the site. This creates habitat and promotes biodiversity.



We are thinking of bees

In addition to pollen and water, a bee colony also needs a permanent supply of energy-rich food. For this purpose, we offer beekeepers an extensive range of bee sugar products.



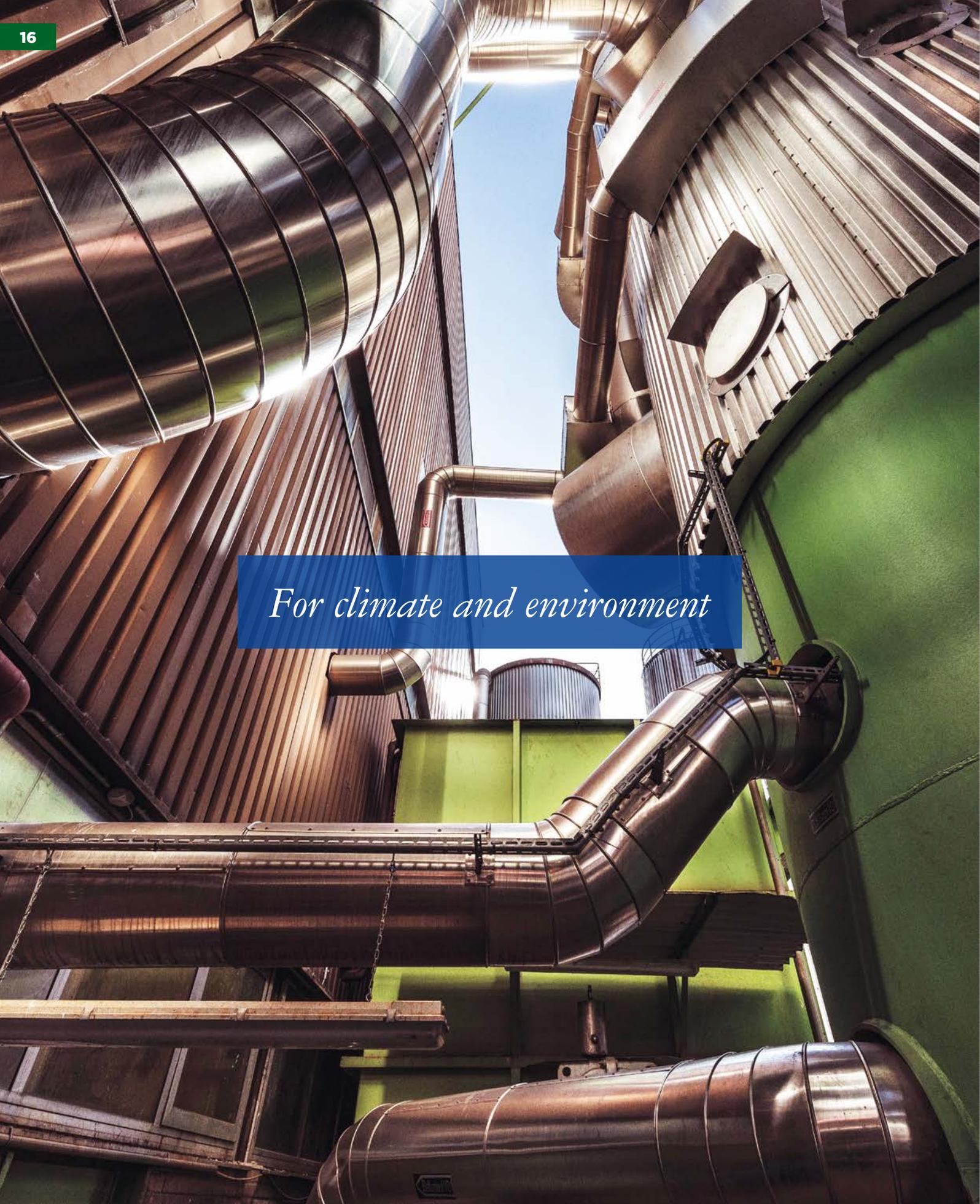
SDG 2: Regional sugar beet cultivation contributes to food security. We provide targeted advice to agriculture to increase productivity.



SDG 13: We work on measures to further develop climate protection in agriculture.



SDG 15: Together with our beet growers, we focus on sustainable, future-proof agriculture and contribute to biodiversity and landscape protection.



For climate and environment

Our path to climate-neutral sugar production

Our aim is to operate in an environmentally friendly manner over the long term. By 2040 at the latest, we want to produce in a climate-neutral manner and cover our energy needs entirely from renewable resources. To achieve this, we are investing in new technologies.

Corporate carbon footprint determined

In 2022, we have had our company’s carbon footprint (CCF) calculated for Germany and Hungary for the first time for the 2021 financial year. The calculation is based on the international standard of the Greenhouse Gas Protocol (GHG) and considers the three system boundaries Scope 1, 2 and 3:

- ➡ **Scope 1:**
Direct greenhouse gas emissions
- ➡ **Scope 2:**
Indirect greenhouse gas emissions from externally generated energy
- ➡ **Scope 3:**
Other indirect greenhouse gas emissions

Our commitment to the Science Based Targets initiative (SBTi)

Pfeifer & Langen has committed in 2022 to set company-wide emission reductions in the short term in line with climate science according to the SBTi. As a result, limiting global warming to 1.5 degrees is decisive for us.



The SBTi is a joint initiative of the Carbon Disclosure Project (CDP), UN Global Compact (UNGC), World Wide Fund for Nature (WWF) and the World Resources Institute (WRI).

In addition to energy savings, we are strategically focusing on renewable resources and thus on the combination of biomass, wind, and sun in order to be able to produce in a climate-neutral manner by 2040 at the latest.

CO₂ emissions at the German production sites

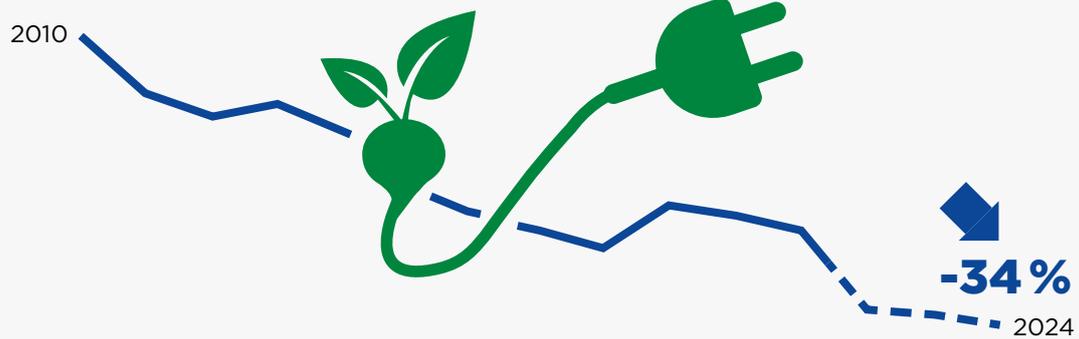
tons CO₂/a



Due to the geopolitical situation, we had to resort to available energy sources at short notice in 2022, which meant that our CO₂ emissions in 2022 were higher than planned.

Reduction of energy consumption at the German production sites

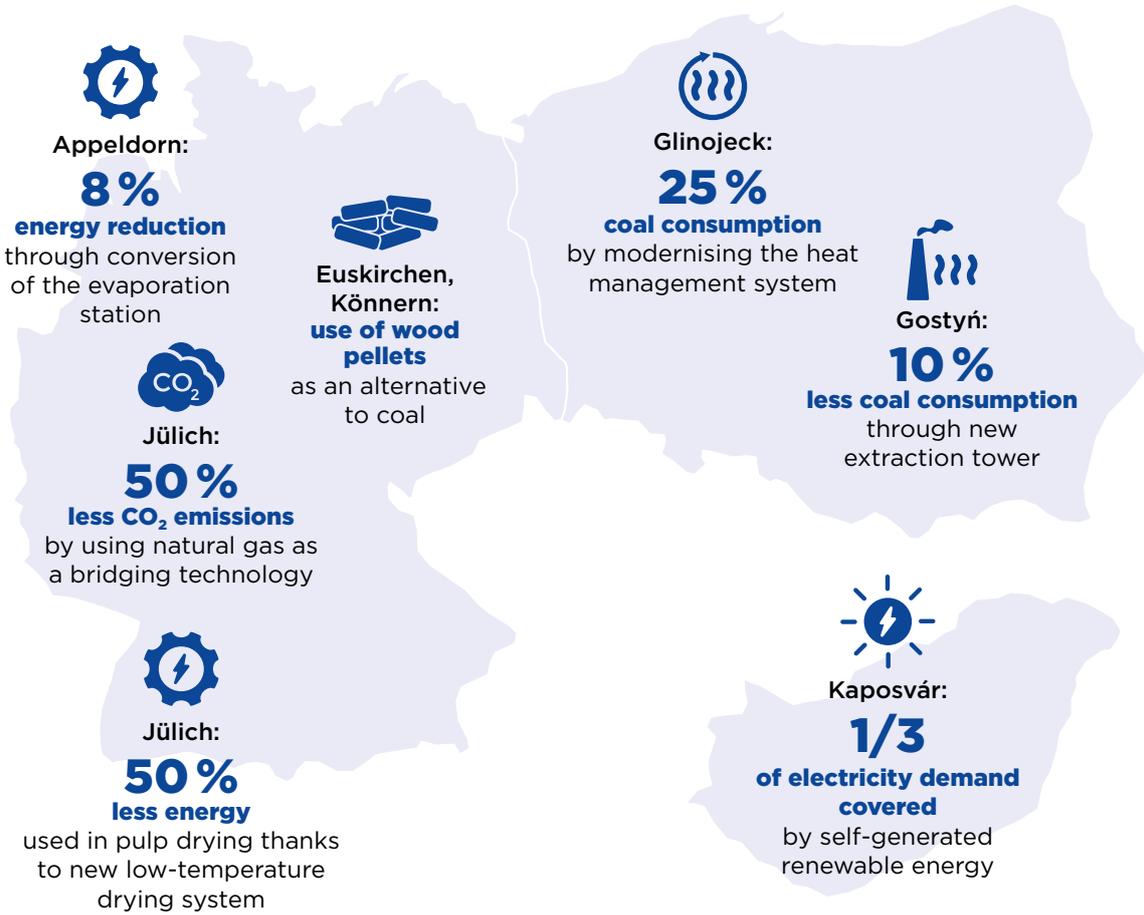
kWh/t sugar



While the amount of sugar produced increased in 2021, the specific energy consumption per tonne of sugar produced in the German production plants continued to fall.



Leading the way: our activities since 2021

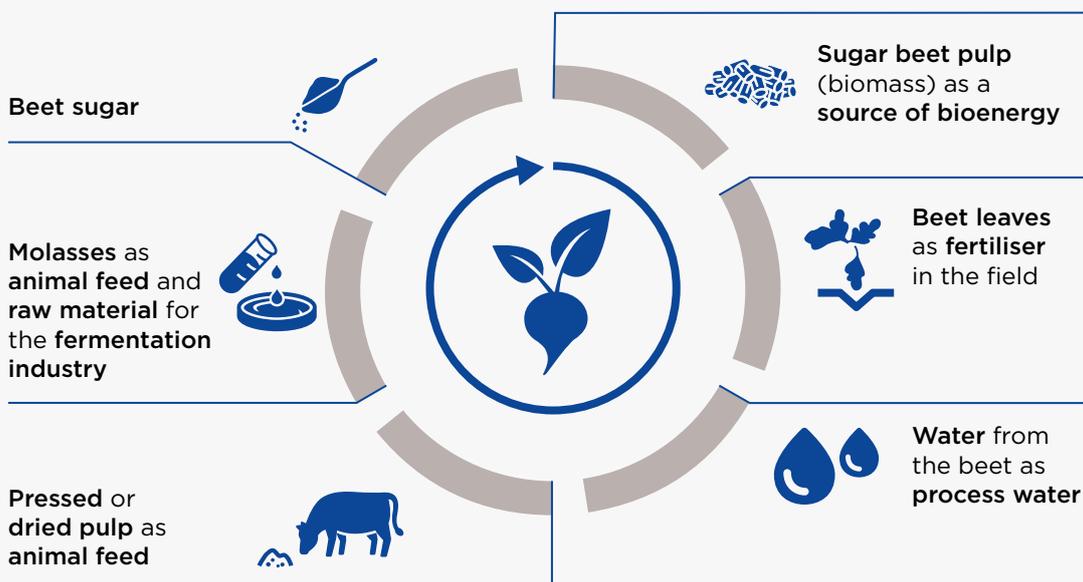


Use of own biomass as an energy source

Pfeifer & Langen's decarbonisation strategy is based on the use of its own biomass, which is inevitably produced in the process. Part of this sugar

beet pulp is used as a tried and tested carbohydrate-rich animal feed. The other part will be converted into bioenergy in the future. This energy is sufficient to supply the respective site with energy.

Maximum efficiency in the circular economy through 100% recycling of our sugar beet:



How our sugar is made.



How sustainable our beet sugar is.

The water balance in our sugar factories is positive because we extract more water from the beet than we consume in total.



Beet transport by rail in Könnern

Optimising logistics

We are also constantly reducing emissions in logistics: In the 2021 and 2022 campaigns, the first step was to transport more than 44,000 tonnes of sugar beet by rail. This reduced the number of truck transports and the associated fuel consumption.

Könnern 2021+2022:

44,000 t
of sugar beet transported via rail

= 636,000 km
saved by truck

To avoid empty kilometres in our sugar transports, we are further optimising our truck logistics with our new Transport Management System (TMS).

For our final product, we rely on intermodal transport whenever possible. In particular, we have increasingly used rail transport for our deliveries to Romania since 2021.

From 2023:
Transport of sugar between
Jülich and Elsdorf sites using
**biogas-powered
trucks**

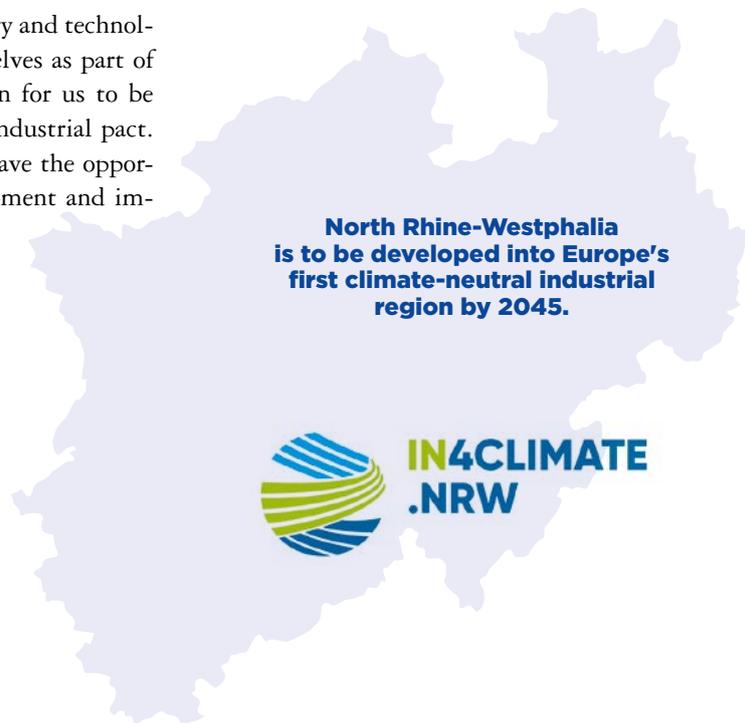


Our expertise for a climate-neutral industrial region North Rhine-Westphalia

In order to shape the process of transformation towards climate neutrality, the state government has concluded the Industrial Pact for Climate Neutrality and Competitiveness with around 20 industrial companies and 11 industry and technology associations. Since we see ourselves as part of the solution, it was a great concern for us to be among the first signatories of the industrial pact. As part of the core team, we now have the opportunity to contribute to the development and implementation of solutions.



Further information on the Industry Pact can be found here on the website.



SDG 6: Water is precious and must not be wasted. We can use the water from the sugar beet for our production process.



SDG 7: To achieve the climate goals, we rely on sustainable energies and thus on the combination of biomass, wind, and sun.



SDG 9: By investing in modern and promising technologies and the resulting improved resource and energy efficiency, we contribute to sustainable industrialisation.



SDG 12: We live a circular economy and work in a resource-conserving way. Sugar has an unlimited shelf life and thus contributes to avoiding food waste.



SDG 13: We reduce our ecological footprint. Be it with the modernisation of plants or the use of alternative energy sources.

Outlook



Könnern: 2024

Replacement of **60,000 t**
coal with wood
pellets



Środa: in 2024 we will
commission a new,

gas-fired
combined heat
and power plant



Lage + Euskirchen:
examining the installation of

modern,
efficient drying
systems



Środa, Gostyń und Miejska Górką:
by building boiler houses fuelled by
natural gas, CO₂ emissions can be
reduced by

about 40 %
in the future



Locations in Germany, Poland
and Hungary: we install

photovoltaic
systems

to supply our own electricity



Polen: over

30 %
energy savings
by 2030 (reference year 2021)



In Germany: examining the
construction of
wind turbines



Środa und Miejska Górką:
Construction of
biogas plants
in planning



“Our aim is to produce the most innovative and sustainable sugar packaging in the German market.”

Claudia Keutgen
Project Engineer Finishing and Packaging Europe
Pfeifer & Langen Germany

“In Slovenia, more and more customers are looking at our commitment to sustainability. That is why we consciously focus on sustainable beet sugar according to REDcert2. Already today and so also in the future.”

Nino Križe
Sales Manager
Pfeifer & Langen Slovenia



“I am pleased that we have carried out a large number of big and small projects over the last few years and have thus achieved a continuous improvement in energy efficiency. Currently, further measures are being planned and implemented, which will lead to halving our current CO₂ emissions within the next 2 years.”

Maximilian Harff
Team Leader Environment/Health/Safety
Pfeifer & Langen Germany





“Local sustainability is important to us: in Poland we have launched our new CSR programme Good Activities, in which we fund projects around the sugar factories that take care of local culture, sports and education. Regional institutions and initiatives can apply to us for this, so that we have been able to launch several successful projects so far.”

Paweł Maciejewski
Sales & Marketing Director
Pfeifer & Langen Poland

“As part of the Pfeifer & Langen family in Hungary, we also set ourselves ecological and social goals that exceed those of the legislator. In addition to the continuous expansion of our own PV system, the promotion of non-monetary benefits, such as additional pension provision and health insurance for our employees and much more, is also an important concern for the sustainable future of the company.”

Christopher Schultes
Managing Director Production and Personnel
1. MCM Hungary



“The health of our employees is very important to us. For many years, we have been holding regular health days at our Appeldorn site, which include medical screenings as well as the topics of nutrition and exercise.”

Anne Wermers
HR Business Partner - Appeldorn site
Pfeifer & Langen Germany



Towards the future – together

As a family business with over 150 years of tradition, we bear a special responsibility towards our employees. Especially in times with many different challenges, people need a corporate culture that builds on trust, offers appreciation, and allows freedom to create.

Being successful together

Together with our employees, we shape the future of Pfeifer & Langen, ensure good framework conditions and offer an exciting and attractive working environment.



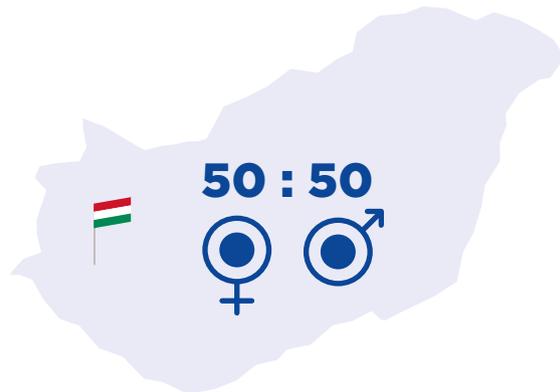
We are a reliable employer and always pursue the goal of “every employee in the right place”. We offer a wide range of training courses for needs- and goal-oriented further development. This gives our employees the opportunity to expand their competence profile, build on their own strengths and share personal experiences with each other.



We also think about the future when it comes to education. We work closely with schools and universities, offer internships, vocational training and the possibility of dual studies.

In addition, we are actively involved in career exploration days such as “Girls’Day” for more women in STEM professions and “Boys’Day”.

We promote diversity within our company – our Hungarian location is a pioneer in this area.



Our occupational health management (OHM)

In the course of health promotion, we sensitise our employees to health-promoting behaviour and implement accompanying measures, because they are the key to our sustainable success:



Digital health portal BIGBalance

Do something for your own health at any time. This is what the platform of the company health insurance fund “BIG direkt gesund” provides. The offer includes a health check-up, prevention courses and coaching as well as access to the online fitness portal Cyberfitness with various sports courses to follow at home.



Healthy throughout education

This seminar series is offered in three workshops over the entire education period. It covers the topics of movement and ergonomics, stress management and relaxation, and healthy nutrition.



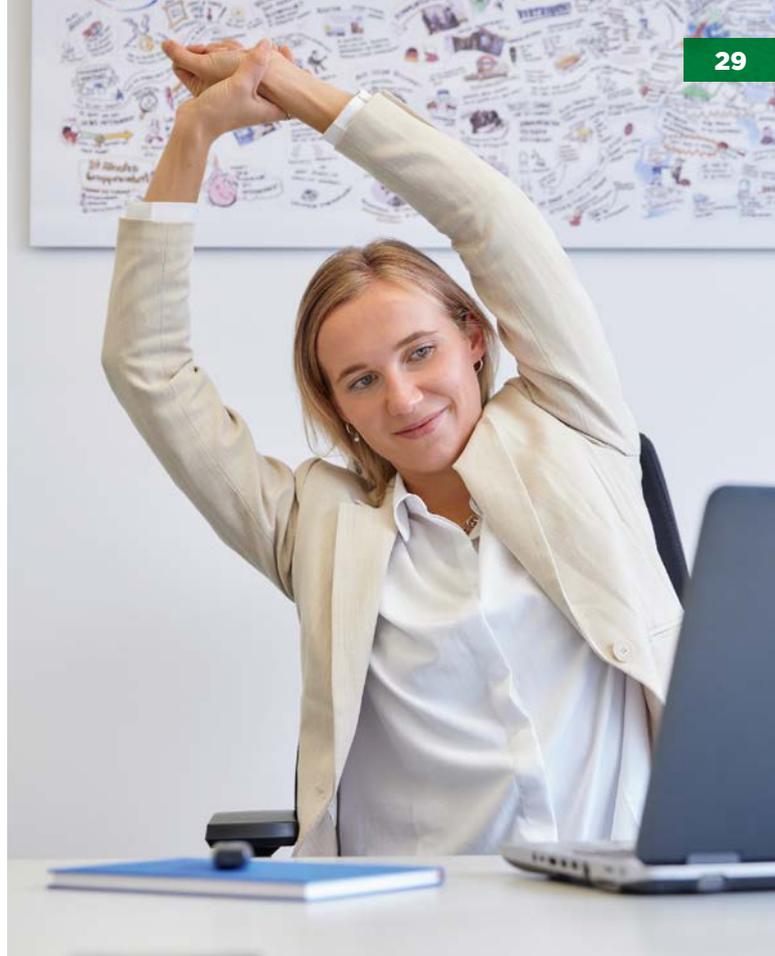
In-house fitness

Regular fitness boxing training sessions, i.e. boxing training without an opponent, are provided at our location in Elsdorf. The focus here is on building up optimal physical fitness in combination with endurance, strength and reaction.



Health days

We use our site-specific health days to educate and raise awareness among the employees. The offers vary and range from medical advice to healthy nutrition, exercise, and sport to dealing with psychological stress at the workplace.



Medical care

Our company medical service offers regular consultation hours, provides a wide range of vaccinations, and takes care of continuous occupational health screening.



Compact seminar on shift work

This event deals with topics such as sleep and relaxation, leisure time and exercise or healthy nutrition to get through the demanding shift work well. The seminar is organised on an individual basis for each site in cooperation with the OHM team and the company health insurance fund "BIG direkt gesund".

Co-entrepreneur model for occupational safety

In 2021, we conducted a survey on occupational safety as part of the so-called co-entrepreneur model (MuM) to optimise our occupational safety system and further reduce the number of accidents. Occupational safety was also a focus of the co-entrepreneur model in 2022. Significant successes have already been achieved here.



Target 2023:

Reduce
occupational accidents
by 50 %

Commitment at our sites

Participation in regional events

We are present at events such as “Tag der Landwirtschaft” in Lage and “Knollenfest” in Euskirchen. We support the “Kinder in Not e.V.” association and the emergency shelter of Caritas.

Cooperation with schools

The cooperation network “KURS” turns schools and neighbouring companies into learning partners who cooperate with each other. We have been participating in this educational initiative at the Euskirchen and Jülich sites for several years.



Polish support programme "Good Activities", support for the construction of nesting boxes

TAFEL  **For the local people**
We donate sugar to the food banks in Germany and beyond. For example, our Dutch site in Lelystad supports the non-profit organisation VOEDSELBANKEN.

Technisches Hilfswerk  **Tackling together**
As a result of the flood disaster in 2021, the idea of a longer-term cooperation with “Technisches Hilfswerk” arose at the Euskirchen site. True to the motto “We help each other and tackle things together”.

 **Cycling for climate and exercise**
Together with “Landessportbund North Rhine-Westphalia”, we got on our bikes. 68 employees covered around 60,000 km in the process. An achievement that benefits both health and the environment. A success, and at the same time an incentive to use the bicycle more often in the future.

Supporting good ideas
In 2021, our Polish locations launched their own “Good Activities” support programme – the aim is to support those who make a sustainable contribution to their region. The first projects, such as the construction of nesting boxes for birds or the promotion of regional youth sports, have already been successfully implemented.



SDG 3: We bear a great responsibility towards our employees. One component of this is our occupational health management (OHM).



SDG 5: We are committed to ensuring that all people have equal opportunities in the world of employment.



SDG 8: We pay attention to the occupational health and safety of our employees and create the best possible working conditions.



SDG 10: We are strictly against discrimination in any form.



Polish support programme "Good Activities", support for regional youth sports



Reliable supply chains

Transparency creates trust

Always keeping an eye on the entire supply chain is important for us in terms of responsible action. We evaluate not only beet procurement, but all our suppliers – whether in technical purchasing or beyond.

Entrepreneurship, innovative spirit, and humanity are values that guide us and form the foundation of our corporate culture. From over 150 years of experience, we know what is important to be successful together with our partners: responsible cooperation and consistent action that not only looks at itself, but also sees the other party.

principles and to act accordingly. Regular monitoring and appropriate documentation as part of our due diligence management ensure this for us. If violations are identified, they can be reported anonymously via our web-based complaints procedure (BKMS® system).

Our sustainable procurement policy

All procurement processes throughout the company are the focus of our attention. Based on the fundamental principles of the ILO (International Labour Organization), the UN Guiding Principles on Business and Human Rights, the UN Global Compact and the OECD Guidelines for Responsible Business Conduct, our Sustainable Procurement Policy outlines a framework for action in purchasing processes.

Our Code of Conduct (CoC)

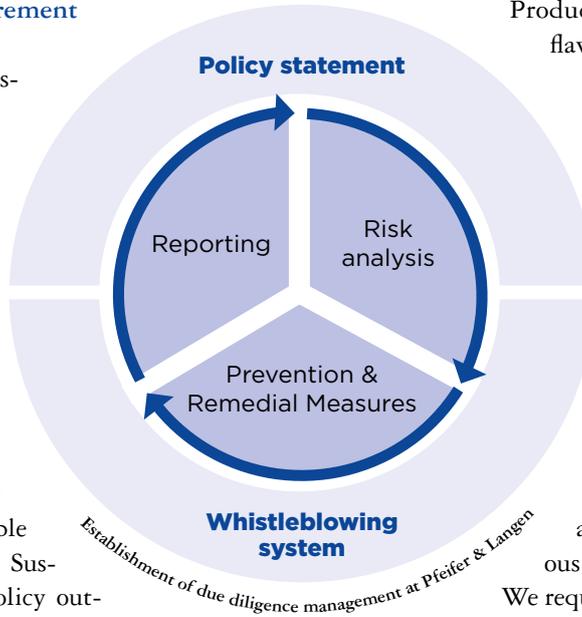
The CoC forms the basis for our business activities. We expect all suppliers to feel committed to our

Our risk assessment

Products and services must be flawless in terms of our risk assessment on human rights and environmental issues. For us, fair competition is a fundamental principle. This includes strict compliance with competition and antitrust laws and no acceptance of corruption. Of course, we condemn any form of discrimination, and we also strictly reject precarious or hazardous employment.

We require compliance with social standards and collectively agreed wages.

In this way, we are in line with our own values and sustainability goals in terms of a responsible supply chain.





Social-ethical audits according to SMETA

We have been a member of the global online platform SEDEX (Supplier Ethical Data Exchange) for many years. Through SEDEX, we provide our customers and business partners with transparent information about our social and ethical corporate processes.



The 4 pillars according to SMETA

- Working conditions
- Health and safety
- Business ethics
- Environment

Through regularly conducted SMETA audits (SEDEX Members Ethical Trade Audit), we have our business practices reviewed according to the “4-pillar” measure. In addition to our German and Polish sites, the Radechiw site in Ukraine was verified in 2021.

In 2023

SMETA auditing
will also take place for the first time at our
Hungarian site in Kaposvár.



Making sustainability performance measurable

Since 2017, we have participated annually in the EcoVadis ranking. EcoVadis is a global cloud-based platform for assessing the sustainability performance of companies.



The 4 areas of EcoVadis

- Environment
- Labour and human rights
- Ethics
- Sustainable procurement

The methodology is based on international CSR standards such as the Global Reporting Initiative, the United Nations Global Compact and ISO 26000.

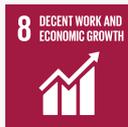
Our goal for Germany 2023 is to

**reach the
silver level**

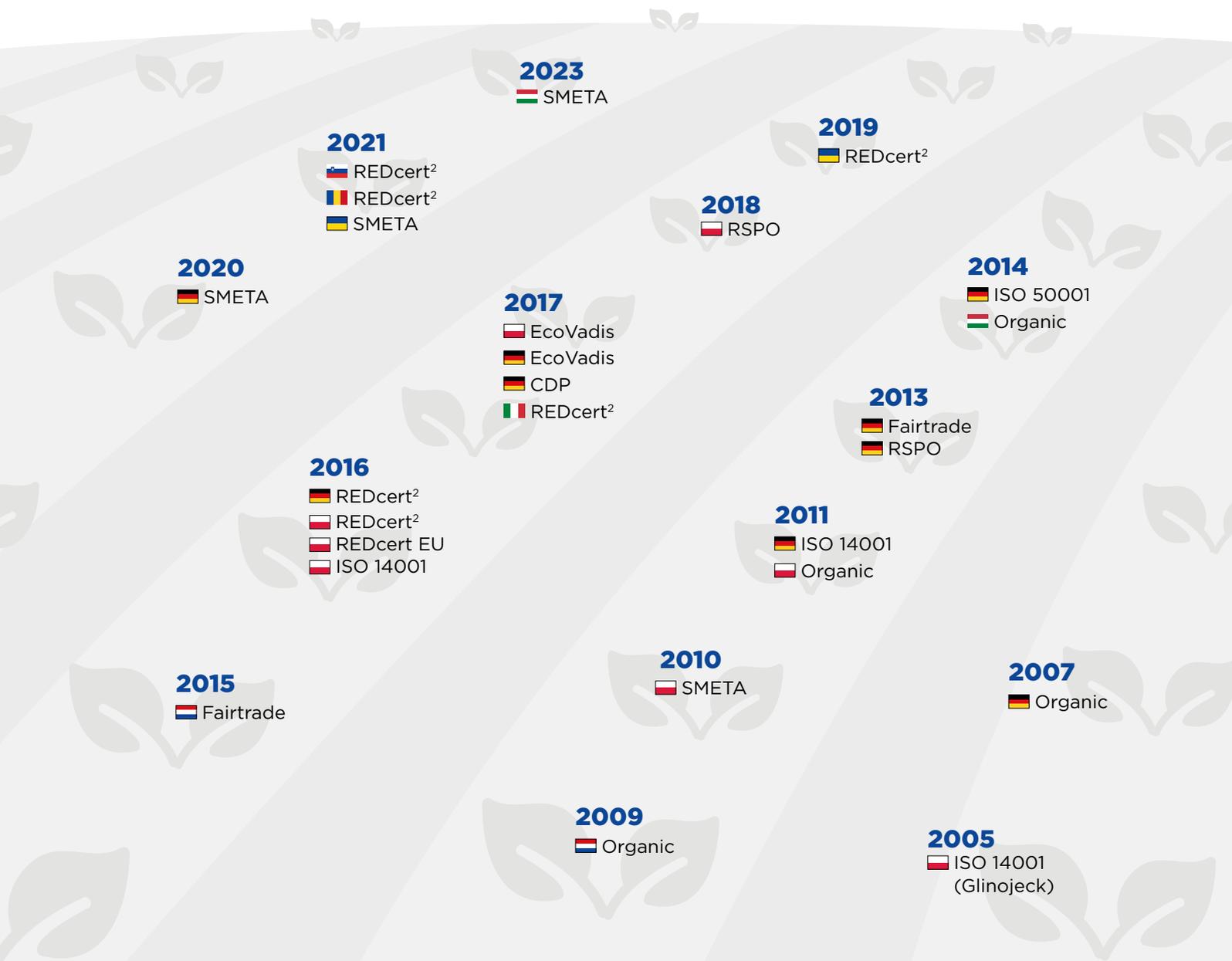


External validation

Various certifications are another important building block within our European sustainability and due diligence management. In recent years, we have continuously expanded corresponding certifications along our value chain.



SDG 8: Within our sphere of influence, we are committed to working only with suppliers who respect human rights.





Resource-saving packaging

As little and as environmentally friendly as possible

Our favourite is “unpackaged”. Even today, most of our products are delivered to our customers loose in silo and tanker trucks. But it is not always possible to do without packaging. Here we try to reduce as much as possible and use recyclable materials wherever possible.



Paper from sugar beet pulp
Our paper-based primary packaging comes 100% from sustainable forestry or agriculture.

As of 2023, we will start packaging our beet sugar in paper with 20% beet pulp

This fast-growing pulp is a by-product of sugar production and is therefore a sustainable complement to wood fibre.

Paper with 20% sugar beet pulp




New paths for the Diamant spreader
Together with our colleagues in Hungary, we have sustainably developed the packaging for our decorative snow spreader. By using only plastic monomaterials for the decorative snow and iced sugar shakers, we can guarantee better recyclability in the future. In addition, this means that we can dispense with aluminium lamination for the iced sugar shaker.



Conversion to mono-material
In Hungary we are planning to change the packaging foils of our products from PET/PE (polyethylene terephthalate/polyethylene) to the more easily recyclable and thinner PP monomaterial (polypropylene).



Reductions can also be made on a small scale
In Poland, we will no longer use plastic lamination on the inside of our 5g paper sachets.



Optimisation of the foil bag
We were able to reduce the foil content of the Polish diamond iced sugar by 20%.



Icing sugar sacks made from monomaterials

By the end of 2023, we will change our icing sugar bags in Poland. In doing so, we will dispense with plastic liners and thus with 100 % film. In the future, the iced sugar sacks will only be made of mono-material and will therefore be much easier to recycle.



Big Bags Recycling Project

Together with a partner, we accompany trials with big bags made from recycled, reprocessed plastic materials.

From 2023, our big bags will consist of 30 % of recyclate

This recyclate is obtained from the recycling of used big bags, also from Pfeifer & Langen batches.



Optimisation of stretch film

In Jülich, Könnern and Euskirchen we will optimise the use of stretch film for securing pallets and loads.

Initial tests show potentials of approx. 30 % film savings

In Wevelinghoven, we are examining the use of paper as a substitute for stretch film.



SDG 12: Most of our sugar is delivered to our customers in loose form. Where packaging is necessary, we use recyclable materials.



Outlook

By 2024, we will use 100% recyclable packaging in Germany.

From 2025 onwards, we will only use mono-material for products that enter the market. Because the purer the material used, the better it can be recycled.





Enjoy variety

Sustainable nutrition with beet sugar

Sustainable nutrition means enjoying food diversity while not excluding any nutrient. With our products and our targeted communication, we provide education for consumers, politics, and science.

The facts speak for our beet sugar



What must a food offer you?

Food as a profession of faith

Food is not only pleasure, diversity and individuality. Religion is also reflected on the plate. In Judaism and Islam, for example, the special diets “kosher” and “halal” are firmly established. These foods must be produced and prepared according to certain rules.

By carrying out kosher and halal audits, we ensure that our beet sugar meets the standards for these diets.



2023: External audits at the German sites for the first time to have halal conformity verified by third parties

Beet sugar or alternative sweeteners – who is convincing when it comes to sustainable nutrition?



Alternative sweeteners are intended to replace conventional sugar. These include agave syrup, date syrup, coconut blossom sugar, rice syrup and birch sugar (xylitol).

Are alternative sweeteners healthier?¹



Alternatives are often described as healthier because they contain vitamins and minerals. The following examples show what they really consist of:

Coconut blossom sugar (25 g)



0.6% Vitamin C
0.3% Magnesium } Percentage coverage of the daily requirement

Agave syrup (25 g)



< 0.1% Potassium and Magnesium
0.2% Iron } Percentage coverage of the daily requirement

Alternative sweeteners do not make a significant contribution to the supply of vitamins and minerals at usual consumption levels. Furthermore, they are metabolised in the same way as conventional sugar.



Our beet sugar as a component of a sustainable diet.

Comparison of calories²

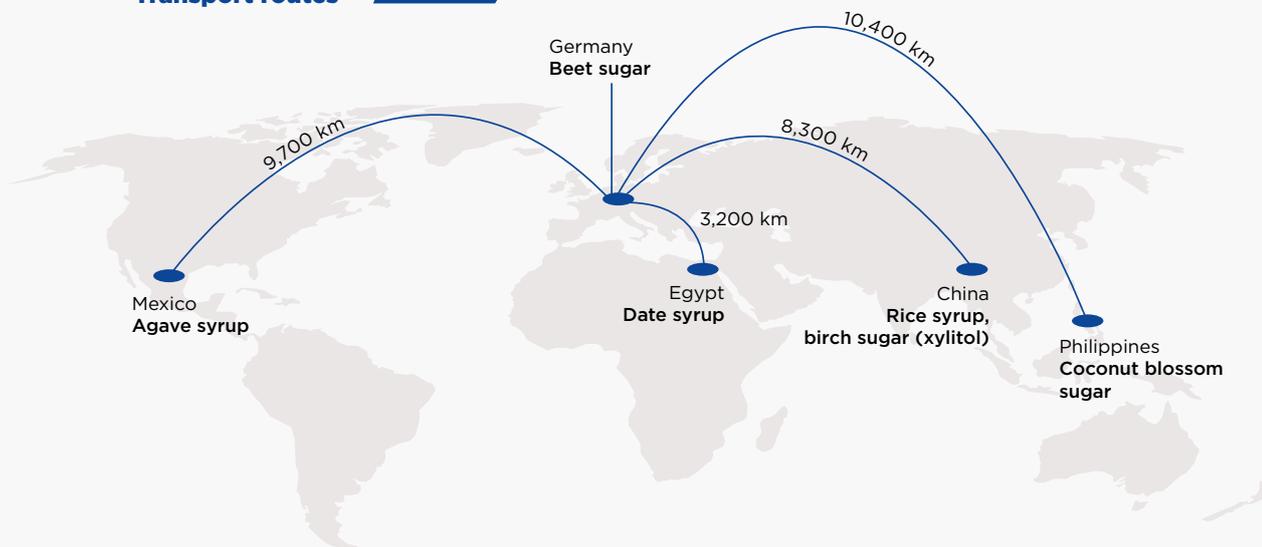
Sweetener	kcal/100 g dry substance
Beet sugar	400
Agave syrup	392
Coconut blossom sugar	395
Date syrup	394
Rice syrup	392

➔ Calorie contents hardly differ.



Here you can find our factsheet "Beet sugar vs. alternative sweeteners".

Transport routes³



Social and environmental aspects of alternative sweeteners.⁴



- ✓ Social standards are often insufficient.
- ✓ The high demand for agave syrup leads to deforestation and a loss of biodiversity.
- ✓ Dates and rice require a lot of water for cultivation (artificial irrigation).

1 DGE Presseinformation: DGE betont Bedeutung wissenschaftlich fundierter Ernährungsempfehlungen, 01/2020; <https://www.lebensmittelklarheit.de/informationen/kokosbluetenzucker-viele-versprechungen-wenigebeweise>, 25.06.2021; www.vital.de/gesunde-ernaehrung/zuckerfrei-leben/kokosbluetenzucker-als-geeigneter-zuckerersatz-122.html, 03.05.22; www.fitnessletter.de/kalorien/agavendicksaft/, 17.05.2022; aid Infodienst: Zucker, Sirupe, Honig, Zuckeraustauschstoffe und Süßstoffe, 2014.

2 Source: www.alnatura.de/de-de/produkte/, 17.05.2022.

3 Source: aid Infodienst: Zucker, Sirupe, Honig, Zuckeraustauschstoffe und Süßstoffe, 2014.

4 Dr. Bäuerlein, Brigitte: Der Zuckerkompass – So gefährlich ist Zucker wirklich, 2022; www.quarks.de/gesundheit/ernaehrung/darum-ist-agavendicksaft-gar-nicht-so-gut/, 12.05.2022; <https://utopia.de/ratgeber/wie-reisanbau-funktioniert-und-seine-folgen-fuer-das-klima/>, 12.05.2022; <http://www.oeko-fair.de/clever-konsumieren/essen-trinken/datteln2/der-dattelanbau/wasserverbrauch2/bewaesserung>, 12.05.2022.

Conclusion:

Sustainable nutrition takes into account the entire value chain from cultivation to customer. In addition to health aspects, ecological and social criteria are also evaluated.

Contrary to consumer expectations, alternative sweeteners are not healthier or lower in calories compared to beet sugar.

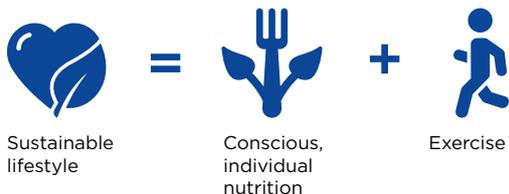
Overall, beet sugar is clearly ahead:



- ✓ shorter transport distances
- ✓ social and fair conditions for farmers
- ✓ sustainably certified
- ✓ better environmental and climate balance

Study disproves myth of diabetes type 2 as “sugar disease”

In common parlance, diabetes mellitus type 2 is often referred to as “diabetes” - and thus misleadingly brought into a direct physiological connection with sugar in the diet. A review published in the European Journal of Clinical Nutrition in March 2022 presents the connections between sugar intake and type 2 diabetes. The authors analysed various systematic reviews and meta-analyses with the conclusion that the intake of sugar from the diet has no direct influence on the development of diabetes. Current scientific evidence clearly indicates that excessive energy intake followed by excessive increase in body fat are most important for the development of type 2 diabetes.



Source: Veit et al.: The role of dietary sugars, overweight, and obesity in type 2 diabetes mellitus: a narrative review, 2022

Our engagement in the field of science:



Member of the Berufsverband Oecotrophologie e.V. (VDOE)



Member of the Research Group of the World Sugar Research Organisation (WSRO)



SDG 12: With our communication activities, we are focusing on more education about our regional beet sugar as part of a sustainable diet.

Outlook



Nutrition policy is only sustainable and effective if it addresses the problem at its core. This is why we will continue to advocate for science-based nutritional expertise combined with more physical activity.



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