

**PAP*
STAR**

PAPSTAR

**SUSTAINABLE
DEVELOPMENT
GOALS**



Naturally sustainable!

Sustainability Report 2022

Naturally sustainable!

SUSTAINABILITY REPORT 2022 of PAPSTAR GmbH

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The Sustainability Report 2022 of **PAPSTAR GmbH** builds on the 2019-2021 sustainability/progress reports and relates to the completed year 2021 (basis for the statistical evaluation procedure). In addition, it focuses on additional activities and projects in the interests of sustainability for the period up to 30 September 2022.

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“We are fully committed to Agenda 2030”

Even though they happened a full year ago, in retrospect the floods of 14/15 July 2021 were without doubt the most serious disaster ever to affect the entire Eifel region, our workforce and our company. Words were sometimes inadequate to describe the personal tragedies and the extent of the devastation.

However, in those difficult times, which were also affected by the pandemic, we were privileged to experience a new form of reassurance, with a widespread sense of solidarity giving us new courage. We tackled challenges we had never imagined and mastered them with an almost indomitable spirit of togetherness.

For example, we spontaneously supported the many areas affected by the flood disaster in the Eifel and along the Ahr with disposable tableware for the helpers and victims and with donations (*editor's note: 25,000 euros each for the neighbouring municipalities of Kall and Schleiden*).

However, we also greatly appreciate the tireless efforts of our staff, for example in the exhausting clean-up work in the warehouse, or in dealing with the backlog of orders accumulated due to the flood damage. In spite of the limited time available we were able to restore our full operational capacity without delay.



What made us particularly happy and proud, however, was everyone's readiness to help, which became almost a matter of course – from voluntary work to donating part of their wages or giving up days of holiday. This is exactly what makes **PAPSTAR** so special.

We are in the midst of a paradigm shift towards a sustainable economy. Resolve, credibility, transparency. Sustainability is a challenging marathon that has to be tackled and run with determination. It also requires patience and a focus on the essential milestones that need to be set for individual sustainable transformations.

For this reason I would like to warmly recommend this Sustainability Report 2022, which for the fourth time in a row since 2019 documents the steady progress of sustainable development within our company **PAPSTAR**.

With best regards and in the spirit of an innovative future,

Bert Kantelberg
CEO PAPSTAR GmbH and
Member of the PAPSTAR Holding AG Executive Board
October 2022

WE SUPPORT



For the future and more concrete design of our sustainability strategy as well as the establishment of the necessary detailed initiatives and objectives, as an extension of our previous sustainability efforts we have now aligned ourselves with the Agenda 2030 adopted by the United Nations, and are accordingly guided by the UN's 17 Sustainable Development Goals (SDGs).

As a signatory to the United Nations Global Compact (UNGC), we feel particularly committed to the globally defined goals of Agenda 2030, and have long based our business operations on the ten principles of the Global Compact. It will be especially important for us all, i.e. the worlds of politics, society and business, to make rapid progress together in order to meet all the related challenges and, last but not least, to live up to our responsibility towards the generations that will follow us.

Bert Kantelberg | Andreas Köller
The Management: **PAPSTAR GmbH**

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The three central pillars of the PAPSTAR sustainability strategy

by Andreas Köller

In terms of intergenerational justice, all stakeholders in society have the duty to contribute to the protection and preservation of a healthy environment worth living in.

The numerous global challenges such as a shortage of resources, ongoing climate change or social inequalities in many countries of the world require every company to integrate sustainability as a central objective. Sustainability is essentially becoming a necessary feature of the decision-making process within politics, society and, of course, business.

In our opinion it is necessary to work together with all stakeholders to bring about a transformation in terms of the climate, resources, and social and geographical conditions in order to protect our environment and create the basis for securing the future of our company. We at **PAPSTAR** have therefore made it our goal to anchor sustainability as the core message of our

brand. Sustainability is an essential requirement of our business model.

A driving force within the industry

Against this background we are constantly looking for new alternatives and types of material for our products as part of the design of our product range. The focus is on the use or application of renewable raw materials in order to accelerate a turnaround in terms of resources. Another objective in terms of this transition must be to develop our business model in the direction of material flow management concepts which represent a closed loop. In the best case scenario we will create closed-loop concepts that go hand in hand with the provision of secondary raw materials and thus also contribute to local climate goals. Our aim is to be a significant driver of this closed-loop approach within our industry.

Climate protection and social responsibility have long since become an essential guiding principle for action in



our daily work and along the entire value chain. With regard to the necessary climate transition, for example, carbon neutrality in our activities (see explanation on Page 18) is a clearly defined goal.

CSR (corporate social responsibility) audits along our supply chain are an essential tool for positively influencing a social turnaround beyond our own corporate boundaries.

The three pillars shown below therefore determine our sustainability strategy and orientation in the following five fields of action: **employees, products, the environment, networks** and **processes**:



Implementing innovations in products and materials



Creating sustainable business models in the interests of a closed-loop economy



Promoting climate responsibility and sustainable value chains

“SDGs set new standards for responsible and future-oriented corporate governance!”

by Andreas Köller

The SDGs, the United Nations’ Sustainable Development Goals, act as a central compass for society, politics and business when it comes to pooling all their potential in order to meet current challenges together.

They therefore also set new, but above all essential, standards for responsible and future-oriented corporate governance, standards which we are committed to. We are convinced that a

consistent orientation towards these goals will not only accelerate our further sustainable development, but at the same time offer us the opportunity to generate and promote innovations and to open up new fields of business.

With the scientific support of Prof. Dr. Torsten Weber (Professor for Sustainability Management) from the CBS International Business School, Cologne, we have determined the relevance of the SDGs for our business activities in the form of a materiality analysis, taking into account their respective influenceability.

The result of this joint analysis and evaluation process was the materiality matrix presented below. It illustrates the objectives to be pursued with high priority from the company’s point of view, taking into account the extent to which they can be influenced.

It goes without saying that as a signatory to the United Nations Global Compact (UNGC) we are committed to all 17 SDGs! At the same time, however, the matrix shows the specific SDGs that we have identified and which we will pursue with top priority.



5 High

Materiality matrix and derivation of SDG priorities for PAPSTAR

Mapping the SDGs in the form of a materiality analysis is a key tool for clearly identifying and designating relevant sustainability issues. In addition to standard aspects such as relevance to stakeholders, when creating a matrix the **PAPSTAR** project team also decided to take into account the company’s ability to influence the individual SDGs.

Potential for influence by PAPSTAR

1 Medium



1 Medium

Relevance for PAPSTAR stakeholders

High 5

“Awareness and a focus on action for sustainable business operations were present at PAPSTAR from the very beginning!”

As part of its all-round orientation PAPSTAR has, with scientific support from Professor Dr. Torsten Weber, determined the relevance of the Sustainable Development Goals (SDGs) to all its business operations, taking into account their individual influenceability in the form of a materiality analysis.

In this interview the well-known expert in sustainability management talks about the initial situation he found at **PAPSTAR**, the process that has been driven forward together, the existing defined guidelines and the relentless current paradigm shift towards a sustainable economy.

Professor Dr. Weber, you have been integrated by PAPSTAR into a follow-up project which – as Agenda 2030 – focusses on the UN’s 17 sustainable development goals aimed at creating a better future. Why is this approach important in terms of creating globally sustainable structures, and how can their growing relevance be explained?

The topic of sustainability is considered ‘high priority’ by many people on our planet, but unfortunately they often equate it with climate protection ‘only’. However, sustainability means much more than this, and its complexity can’t be broken down to just a single topic. On our earth, everything is interconnected. We are taught this by nature itself, which consists of interlocking ecosystems. It is no different with the actions of human beings: social aspects, the economy that ensures our prosperity and, last but not least, the environment, in other words currently the very important issue of climate protection, are also interrelated and strongly interdependent.

The SDGs provide a meaningful structure based on 17 categories that are intended to be the same for people in all parts of the world. They offer companies like **PAPSTAR** the opportunity to

position themselves even more distinctively, to open up new business fields and accordingly to contribute more to sustainable development. Actions and activities thus become more measurable and comparable across individual countries, business sectors and companies, so that concrete targets and commitments can be derived in the individual categories to create a more sustainable world.

You have accompanied the process at PAPSTAR from a scientific point of view. How can the individual steps be defined, and what starting position did you find?

The topic of sustainability has been at the centre of our society since 2019 at the latest. Due not least to widespread publicity in the media, there is simply no getting around this topic – regardless of whether we are talking about politics, consumer issues or, in particular, companies. At **PAPSTAR** I observed that corporate sustainability must have had a high significance even before that time, and awareness of the importance of sustainable business practices was present from the very beginning. More than this, **PAPSTAR** has been implementing sustainable approaches broadly and substantially for years, even though in many areas there are of course still further potentials and associated



At the CBS International Business School **Prof. Dr. Torsten Weber** is passionate about the topics of sustainability and innovation management.

Since 2020 the 45-year-old has also been the co-founder and scientific advisor of the “Sports for Future” initiative, which uses the unifying power of sport in connection with the German Bundesliga teams Werder Bremen and TSG Hoffenheim among others, as well as individual athletes such as Fabian Hambüchen, to help meet the challenges of the climate crisis.

Professor Dr. Weber is a frequent guest and speaker at conferences and events both in Germany and abroad, as well as contributing to German media as a panelist on the topic of sustainability.

In July 2021 he published his latest book as co-author (with politician Caroline Bosbach) on predictions relating to a sustainable society, which reached the top of the rankings in Germany.

Last but not least, Torsten Weber acts as a consultant on sustainability issues and, as a businessman himself, founded a start-up for sustainable lifestyle products in October.



PAPSTAR SOLUTIONS

As **PAPSTAR** is convinced of the "system solutions" approach, in April 2019 **PAPSTAR Solutions GmbH** was founded as a spin-off. This company has not only taken over the distribution (including technology) of organic converters (composting machines), but also offers consulting services ranging from the supply of sustainable products to optimal solutions for waste disposal.

challenges to be met. The foundation and establishment of a separate organisational unit, **PAPSTAR Solutions GmbH**, which strongly promotes the principle of closed-loop solutions, is just one example of a truly goal-oriented approach.

It has been possible to build on this basis in our collaborative process. With the help of scientific approaches and the SDGs as a framework for orientation it has been possible to derive relevant sustainability topics and back them up with concrete sub-goals. Above all, a materiality analysis carried out together with us was an important tool for identifying and sharpening the relevant sustainability themes at **PAPSTAR**. In the course of this, concrete impact KPIs (key performance indicators) were also formulated. This makes it easier to track, evaluate and measure the company's own activities in relation to the SDGs. Overall it has been possible to jointly derive further concrete measures in terms of sustainability, which **PAPSTAR** will implement in the coming years.

Symbolically PAPSTAR stands for disposable products in three product categories, which tend to carry with them certain premature reservations. How do you assess the current disposable versus re-usable discussion?

The question is by no means easy to answer, especially since we still have a lot of work to do in all areas where disposable and re-usable products are applied. In fact, the decision in favour of one or the other approach has to be made individually – many factors as well as the issue itself play a role. Let's look at the use of re-usable cups. How often do they have to be washed? How much energy and water does this consume? How far is the transport route to the reprocessing location or to the dishwashing equipment? How high are the CO₂ emissions caused by this transport by lorry? How many cups can't be re-used, and how many new ones have to be produced from mostly petroleum-based plastic? These questions and

many other factors which have to be considered, such as hygiene and safety, lead me to the conclusion that for each event or sporting occasion it should be decided individually what the best overall approach is in terms of sustainability.

Comprehensive sustainability is the declared goal – as also taught by the SDGs discussed here. In the final analysis it is about finding closed-loop solutions so that resources are not wasted and valuable materials are re-used or remain in a recycling loop.

We are in the midst of a paradigm shift towards a sustainable economy. Sustainability is the absolute megatrend today. Looking to the immediate future, where is the journey heading and what coming development can be predicted from your well-founded point of view?

The Ukraine conflict, the related energy crisis, the post-Covid phase, a severe



With scientific support from Professor Dr. Torsten Weber and Patrick Becker (THE SEVENTEEN GmbH), as part of its further sustainability focus a **PAPSTAR** project team has aligned itself with the 17 goals for a better future known as the United Nations' Agenda 2030.

shortage of raw materials and uncertainties about availability: forecasting is currently influenced by powerful external events and uncertainties. The subject of sustainability, which is often still perceived as a luxury in many places, is being pushed to the back of the corporate agenda. The fact is, however, that the climate crisis will continue unabated and the achievement of concrete climate goals does not allow for a pause. Some of the tipping points have already been reached and the ecological damage is hardly reversible. The issues of water scarcity and the loss of biodiversity will also continue to gain importance in the coming years and present us with major challenges.

All of us must therefore not allow the issue of sustainability to lose momentum. My advice can therefore only be that every company should incorporate the objectives of sustainability into the core of its business operations. This step is indispensable for purely economic reasons alone, especially since consumers are becoming increasingly

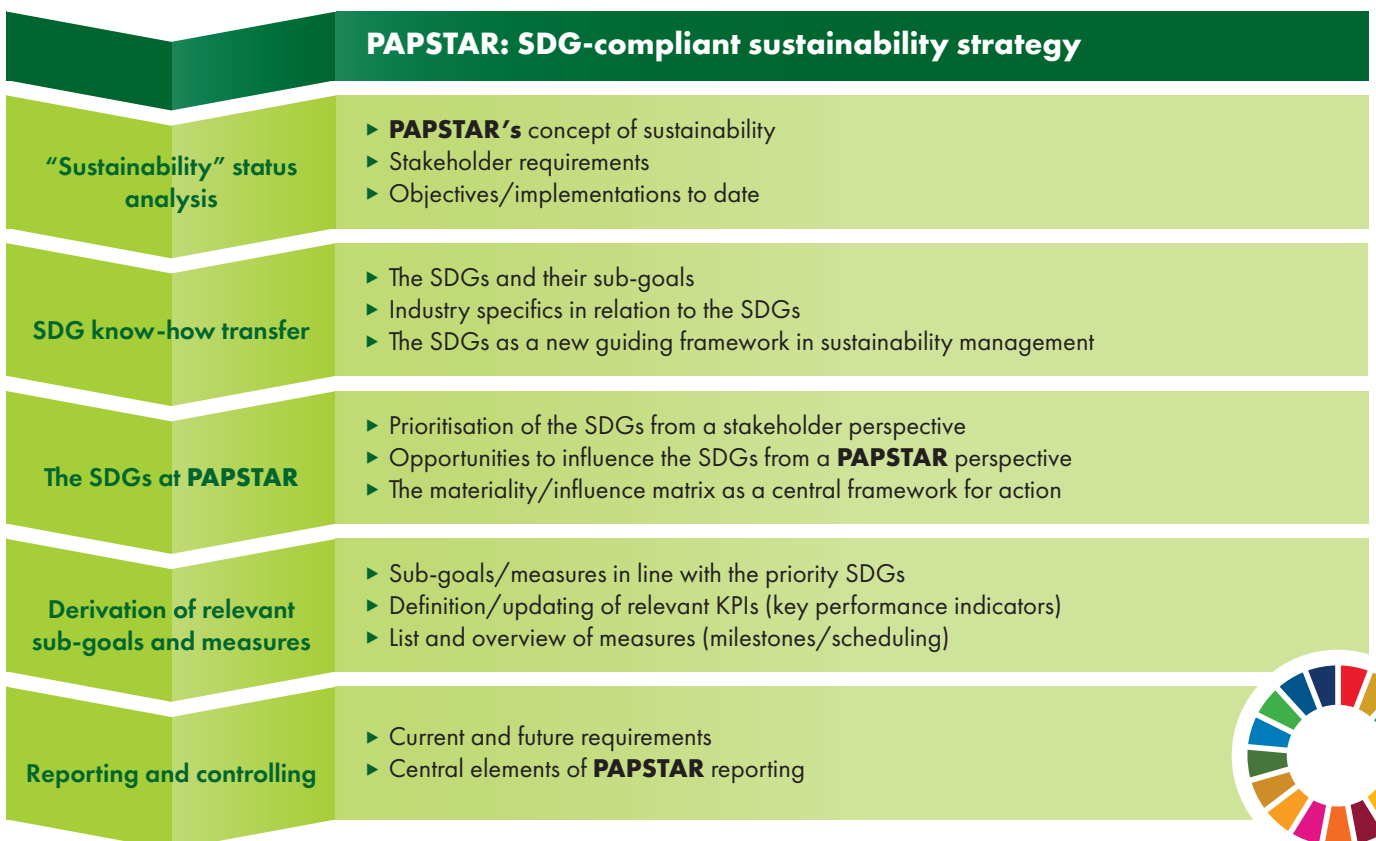


For Professor Dr. Weber sustainability in practice means finding closed-loop solutions so that resources are not wasted and valuable materials can be re-used.

aware of the issue and will punish non-sustainable companies even more severely in future. In closing I'll even go one step further and predict that companies which fail to prioritise and substantially address the issue will

disappear from many markets in the next few years.

The interview was conducted by Bernd Born.




The 17 Sustainable Development Goals

The 17 Sustainable Development Goals (SDGs), which guide PAPSTAR's further sustainable development, are political goals set by the United Nations (UN) to ensure sustainable development worldwide at the economic, social and environmental levels. They came into force on 1 January 2016 for a period of 15 years (until 2030) and apply to all countries. The official English title is "Transforming our world: the 2030 Agenda for Sustainable Development (short: Agenda 2030)".

 <p>1 NO POVERTY</p>	<p>GOAL 1</p> <p>End poverty in all its forms everywhere.</p>	 <p>2 ZERO HUNGER</p>	<p>GOAL 2</p> <p>End hunger, achieve food security and improved nutrition and promote sustainable agriculture.</p>
 <p>3 GOOD HEALTH AND WELL-BEING</p>	<p>GOAL 3</p> <p>Ensure healthy lives and promote well-being for all at all ages.</p>	 <p>4 QUALITY EDUCATION</p>	<p>GOAL 4</p> <p>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.</p>
 <p>5 GENDER EQUALITY</p>	<p>GOAL 5</p> <p>Achieve gender equality and empower all women and girls.</p>	 <p>6 CLEAN WATER AND SANITATION</p>	<p>GOAL 6</p> <p>Ensure availability and sustainable management of water and sanitation for all.</p>
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p>GOAL 7</p> <p>Ensure access to affordable, reliable, sustainable and modern energy for all.</p>	 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>GOAL 8</p> <p>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.</p>



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



GOAL 9

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

10 REDUCED INEQUALITIES



GOAL 10

Reduce inequality within and among countries.

11 SUSTAINABLE CITIES AND COMMUNITIES



GOAL 11

Make cities and human settlements inclusive, safe, resilient and sustainable.


12 RESPONSIBLE CONSUMPTION AND PRODUCTION



GOAL 12

Ensure sustainable consumption and production patterns.

13 CLIMATE ACTION



GOAL 13

Take urgent action to combat climate change and its impacts.

14 LIFE BELOW WATER



GOAL 14

Conserve and sustainably use the oceans, seas and marine resources for sustainable development.


15 LIFE ON LAND



GOAL 15

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

16 PEACE, JUSTICE AND STRONG INSTITUTIONS



GOAL 16

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

17 PARTNERSHIPS FOR THE GOALS



GOAL 17

Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development



sdgs.un.org/goals





Employees

3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



It is not only with our products, for example in the areas of disposable tableware and body protection, which primarily serve the hygiene and safety of our customers, that we can make a direct contribution to preventive health care.

We assume this responsibility within our entire supply chain and especially towards our employees. This responsibility is reflected not least in the continuous provision of apprenticeships in a total of nine vocational fields.

We keep our promises! A family fair instead of an advent celebration

by Bernd Born

When a promise becomes a matter close to the heart! Because that is exactly what it was for PAPSTAR CEO Bert Kantelberg when, on 21 May 2022, the advent market planned for December 2021 and cancelled at short notice for Covid reasons was made up for, so to speak – by an intergenerational family fair with over 500 guests who were all in high spirits.

“The cancellation of the Advent market was very difficult for me at the time, even though there was no alternative,” says Bert Kantelberg, adding: “I was all the more pleased that in the spring, with beautiful weather and a magnificent maypole, we were able to thank all our employees and their families for their extraordinary commitment in challenging times when we were faced with Covid and the flood disaster.”

For one day the large car park in the warehouse area was transformed into a “fairground” with drinks and stylish street food stalls, lots of fun and games (including a giant slide, children’s merry-go-round, a test your strength attraction, throwing of cans and arrows, football darts, hammering nails into a board, a hot wire buzzer and a popcorn machine) as well as a DJ – and everything, as the Eifel locals say, “für ömesöns” (for free).

“It was really great!” – at least that was the unanimous opinion we heard in the days that followed. What made us particularly happy was the fact that so many colleagues – whether from the warehouse or the office – accepted the management’s invitation together with their partners and children. **PAPSTAR** has always been a real “family affair”!



“A big thank you goes to the management and the organising team: the event lacked nothing, it was a really great day! Our little ones had lots of fun with the child-friendly attractions, so that my wife and I once again had the opportunity, long missed as a result of Covid, to talk extensively and in a totally relaxed way with colleagues, friends and other families.”

Matthias Nagler
software engineer
PAPSTAR GmbH



PAPSTAR – the family fair in May 2022



A safe working environment and health care

by Andreas Köller

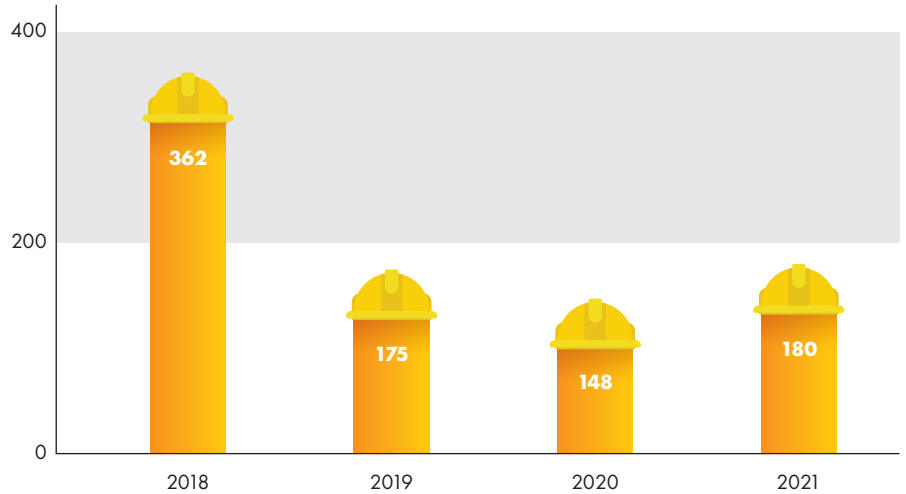
Promoting a safe and healthy working environment is of fundamental importance to PAPSTAR. For this purpose, the working environment and workplaces are evaluated both by internal interdisciplinary working groups and by external third parties so that we can drive forward constant optimisations.

In doing so, we go far beyond our legal obligations by identifying potential hazards in the workplace and initiating appropriate protective measures. For example, so-called "safety walks" take place additionally and regularly in all areas of the company and by trained personnel. This enables us to identify potential risks at an early stage or, in the best case, to eliminate them completely as a preventive measure. We aim to establish a strong safety culture in the company and strive for certification in accordance with SA 8000 (*editor's note: international standard for the improvement of working conditions for employees*) by 2026.

Examples of preventive measures already taken:

- Introduction of regular safety walks
- Personal protective equipment
- Use of safety cutter knives
- "Resilience" training for managers

Accident-related days of sick leave



- Cooperation with health insurance companies in the context of training courses in the workplace

Although the number of days lost due to accidents in the workplace increased slightly in 2021, a significant overall improvement has been achieved in recent years.

However, prevention to maintain the health of our employees must also be reflected beyond the boundaries of the company. Against this background, in close cooperation with a local gym we offer our employees a regularly changing range of health and sports courses (cardiovascular, back, etc.). The response has been positive – we are seeing steadily growing numbers of participants.



*"In energy-sapping times during the reconstruction work after the flood disaster, the two latest preventive offers for the employees of **PAPSTAR GmbH** were a real revelation to us. With the two new courses in cycling and back fitness we have, so to speak, entered a new era for our gym. Many thanks to **PAPSTAR**, this is what real and long-lasting partnership is all about!"*

Henning Förster
Manager
aktivpark Kall



Our objectives

- Excellence in occupational safety and health protection to reduce accident-related absenteeism and sickness rates.
- Promoting a healthy lifestyle and encouraging **PAPSTAR** employees to increase their sporting activities and ensuring their long-term individual health.
- Expanding participation in a stable social health and hygiene infrastructure through **PAPSTAR** products.
- Increasing awareness of health and safety issues among our suppliers with a focus on their employees

Fit for the future through in-company training

by Andreas Köller

In-company training as a central pillar for a promising future – this principle applies equally to us as a company and to all those who decide to train with us in our company. For decades we have offered a wide range of apprenticeships in both the technical and the commercial sector.

It is always our endeavour to retain all employees who have started their career with us in the medium term and to offer them additional opportunities for further qualification. A training plan tailored to the individual field of employment and development is a central instrument of personnel development.

We currently offer training in nine vocational areas:

- Industrial clerks
- Office management assistants
- E-commerce clerks
- IT specialists for system integration
- IT specialists for application development
- Freight forwarding and logistics services clerks
- Warehouse logistics specialist
- Warehouse clerks
- HGV drivers

In order to be able to continue to rely on highly qualified employees in times of a shortage of skilled workers, we offer the

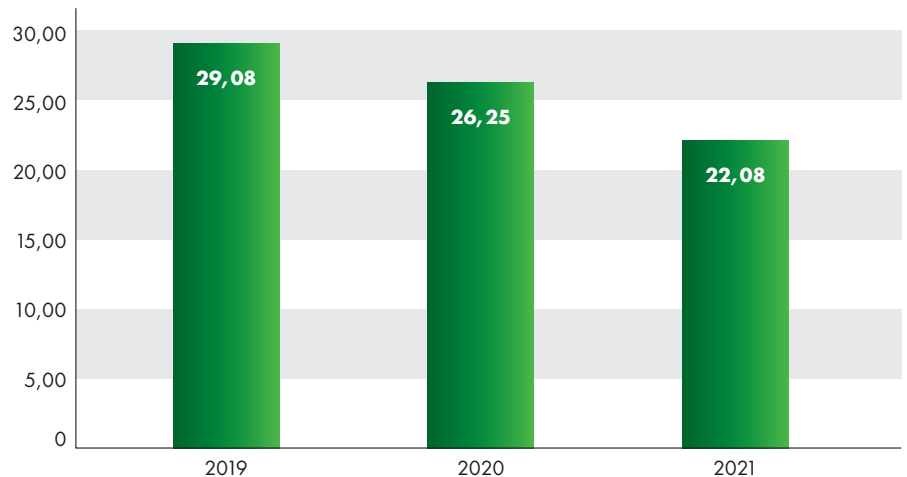
*"I have been working for the company since I started my training as an industrial clerk in 2016. It is well known that **PAPSTAR** prepares its apprentices intensively and in a future-oriented manner for the successful completion of their training. The training process was crucial for me in completing my apprenticeship with the grade "very good".*



*Immediately after my apprenticeship **PAPSTAR** then made it possible for me to study for a part-time BA degree in "Management & Digitalisation". I also received full support during my studies, so I found the dual studies to be free from stress. I'm very grateful to the company for enabling me to gain extensive knowledge and experience both in the theoretical area and in practice. I can definitely recommend a career with **PAPSTAR!**"*

Mark Svionder, Controlling, PAPSTAR GmbH

Apprenticeships on an annual average



combination of on-the-job practice and study/training (dual system/dual study). In addition, we promote on-the-job studies for our employees as part of the

company's continuing education programme.

The above chart shows the number of apprenticeship places made available in recent years – it should be noted that fluctuations naturally result from medium-term personnel planning.

Don't forget the selfie:

Elenia Ohlinger, 2022 top graduate as industrial clerk, with Diana Wassong, Head of Training for Commercial Apprenticeships.



www.papstar.com/en/carrier



Company bike leasing with job bikes (JobRad) – this is how it works ...

by Bernd Born

The offer of “company bike leasing” for the entire workforce is in great demand with the HR department (55 contracts in total) and is used with enthusiasm.

Here’s a practical example: Jörg Jenke, system engineer in the **PAPSTAR** IT department, chose his preferred bike, a practical cargo bike, from a specialist dealer (also possible online). **PAPSTAR**



“Job bikes attract skilled workers, keep employees fit and protect the environment.”

www.jobrad.org

leases the bike and hands it over to the employee, in this case Jörg. He rides it whenever he wants – to work, in everyday life or during his holidays. And with the “company bike paid for by salary deduction” scheme he saves up to 40 percent compared to the conventional purchase of a bike or three-wheeler.

Free support services from the family cooperative

The service organisation Dienstleistungs-Genossenschaft Eifel eG (DLG Eifel for short) is an association of Eifel businesses, of which co-founder PAPSTAR is also a member.

As a participatory organisation the regional network, consisting of a total of 56 member companies with more than 3,700 employees, offers the opportunity

to actively become involved in cross-company cooperations and to exchange ideas in the areas of human resources management, health, digitalisation, equal opportunities & diversity, as well as knowledge & expertise.

The affiliated family cooperative “Familien-genossenschaft der Regionen eG”, is now a partner focussing on the balance between family/care and work. On the

Wir sind Mitglied



topic pages of the family cooperative, employees of the member companies and their families can access easily understandable information (with many checklists, databases and links) on the topics of becoming parents, being parents, health insurance, health, severe disability, care/dementia, household and for specific life situations. In addition, there is the possibility of individual counselling sessions.

4 QUALITY EDUCATION



Our objectives

- To remain a strong and reliable regional partner in vocational education and training; to continue to promote this (wherever possible)
- Promotion and intensification of a sustainable **PAPSTAR** corporate culture as well as the company’s core values
- Increased education and material knowledge relating to **PAPSTAR** products aimed at know-how transfer to promote sustainable consumption (in particular also anti-littering)
- Promotion of knowledge in the catering/HORECA-field on sustainable topics such as the application of closed loop solutions



Products

Sustainable consumption is a central theme in our alignment with the UN Sustainable Development Goals (SDGs). As the interface between production and the consumer we have a significant influence on sustainability in action – especially in the context of our ongoing product range design.

Innovations in materials – right up to date: products made of grass paper or the use of agricultural residues as raw materials are constant tasks in product group management aimed at the sustainable further development of our product range. Environmental and social aspects are given equal consideration as central benchmarks.

Large parts of the product range bearing the **PAPSTAR** brand – around 75 percent of our articles – are already made from renewable raw materials (wood and fresh fibre cardboard, palm leaf, bamboo, sugar cane or corn starch).

We are aware of the fact that the provision of sustainable product alternatives must be accompanied by transparent



communication in order to decisively drive forward the use of sustainable product alternatives and solutions. Ultimately, positive environmental impacts and saving of resources will only be significant if sustainable product range innovations achieve a high market penetration. The provision of information for customers and consumers, the training of our own employees and the targeted use of our advertising measures, right up to the sustainable certification of product lines, are essential determining factors.

Sustainable consumption as a central topic also affects the areas of product carbon footprint (PCF*) and repackaging of products, as well as the general fight against littering – the careless disposal or dumping of waste in public spaces.

The *PCF is the carbon footprint of a product. The basis for the calculation is the Greenhouse Gas Protocol Product Life Cycle Accounting and Reporting Standard, which sets clear criteria for this. The PCF usually considers at the life cycle of a product from production and logistics to disposal.

Product certifications highlight environmental responsibility in practice

by Anne Köhn

In the spirit of our sustainable alignment, we began to design our product range correspondingly more than ten years ago. Product certifications are of particular importance in this context. The requirements that have to be met sharpen existing company processes in terms of qualitative, environmental and social criteria – not least through their consistent monitoring.

In addition to the increasing demand from customers, sustainable certifications of product lines are forcing their successive expansion within our product

range. The international product chain certification of the Forest Stewardship Council® (FSC®) serves as an illustrative example in this context. **PAPSTAR** has been FSC®-certified since 2011 and now has around 1,800 FSC®-certified articles in its extensive range.

This certification underscores our environmental responsibility at the product level. The products originate from sustainable forest management and ensure the responsible use of natural resources as well as the protection of all the relevant habitats. In addition, compliance with



“The Forest Stewardship Council® (FSC®) is a global, not-for-profit organization dedicated to the promotion of responsible forest management worldwide. FSC® defines standards based on agreed principles for responsible forest stewardship that are supported by environmental, social, and economic stakeholders.” (...)

The FSC® label indicates that the material used comes from responsibly managed forests. (...)



The mark of responsible forestry



The majority of all **PAPSTAR** products are made from renewable raw materials.

social criteria is verifiably checked and ensured throughout the entire certified value chain and production chain.

In particular, in addition to the obligatory services to ensure environmental criteria, the currently applicable international FSC® standard places a stronger focus on the verification of so-called "core labour standards"* at the certified companies and their service providers. In this way we actively contribute to compliance with minimum requirements regarding responsible, humane treatment of employees within the entire value chain.

Our certified articles made from materials sourced from responsibly managed forests are primarily those made from pulp, paper or wood – for example, napkins, paper plates and

cutlery, but also ice cream cups, cupcake holders, table runners, pizza boxes and other packaging such as burger boxes.

All FSC®-certified products from **PAPSTAR** bear the FSC® label together with the licence number assigned to our company. Using this licence number, the consumer can track the company's certification via the official FSC® database and thus check the environmental and social responsibility of the individual product.

*** FSC® core labour requirements** "International Labour Organization (ILO) generic criteria and indicators that are (...) covering fundamental principles and rights at work: freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced or compulsory labour; the effective abolition of child labour; and the elimination of discrimination in respect of employment and occupation."

www.papstar.com/en/about-papstar/certificates-and-awards



Our objectives

- Expansion of the proportion of sustainable **PAPSTAR** products and ranges, with a focus on the use of renewable raw materials/recyclability of the products
- Further analysis and optimisation of product and shipping packaging with regard to sustainable criteria
- Promotion of sustainability aspects within the value chain, especially with regard to ecological and social criteria at our manufacturing partners.



The environment



We are convinced that the responsible use of resources to protect the environment and the climate is a central task that all business operators must face up to. A necessary condition for this is to constantly measure the environmental performance of the company and – if possible – to continuously improve it.

We do this by means of an environmental management system in accordance with DIN EN ISO 14001, with which we have been tracking our environmental performance for optimisation purposes since 2010. Consumption values for electricity, gas and fuel are systematically recorded so that appropriate measures can be taken to reduce them.

Corporate carbon footprint reduced by 8.21 percent

Our site-related corporate carbon footprint (CCF, Scope 1, 2 + 3) has become a fixed parameter of our environmental management. The greenhouse gas footprint resulting from this survey serves us above all to identify individual significant emission sources in order to narrow down current fields of action on this basis.

In this way specific measures can be taken to further reduce operational greenhouse gas emissions and their

- Scope 1:** covers the direct release of gases that are harmful to the climate in the company itself
- Scope 2:** covers the indirect release of gases harmful to the climate by energy suppliers
- Scope 3:** covers the indirect release of gases that are harmful to the climate in the upstream and downstream supply chain

effectiveness can be checked. This approach enabled us to reduce our CCF in 2021 by around 8.21 percent (327 tonnes of CO₂ equivalents, CO₂e) compared to the baseline year 2020.

At the same time we monitor and analyse the development of our environmental indicators at the consumption level, in particular our main energy sources of electricity, gas and fuel, which are shown below.



Avoid – reduce – offset

The **PAPSTAR** environmental management philosophy is based on these three elements. In close cooperation with ClimatePartner and the resulting support of the “Wind energy Sidrap/Indonesia” climate protection project, which is certified according to international standards, **PAPSTAR** offsets unavoidable greenhouse gas emissions both for its cardboard product ranges and for the company site in Kall (North Rhine-Westphalia).

ClimatePartner ID:

14403-2002-1001

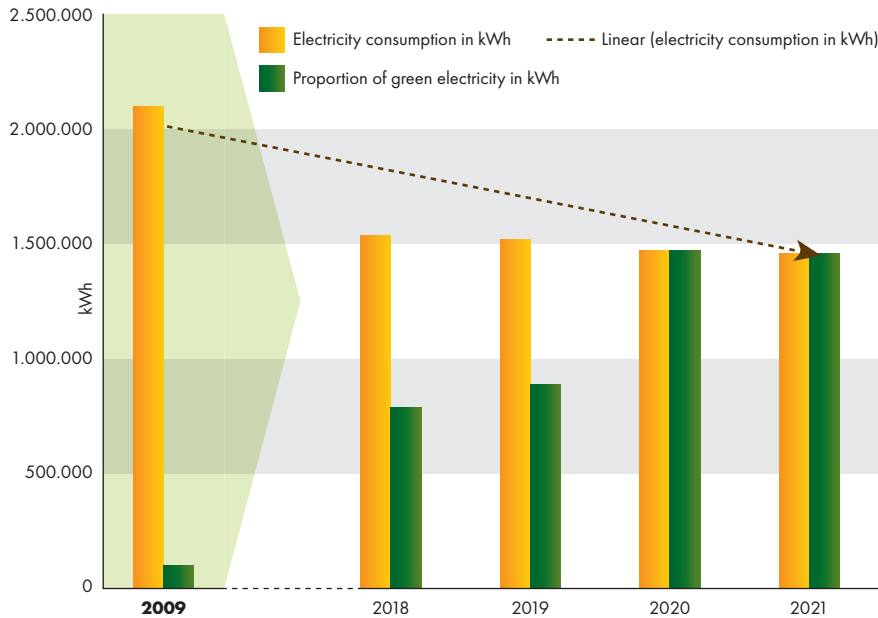
Total CO₂ equivalents offset by PAPSTAR since 2020:

8,587 tonnes

Green electricity from regional hydropower

Optimised warehouse logistics, state-of-the-art technology and raising awareness among the workforce can continue to be

effective levers for reducing our electricity consumption. And this against a background of already certified high energy efficiency.



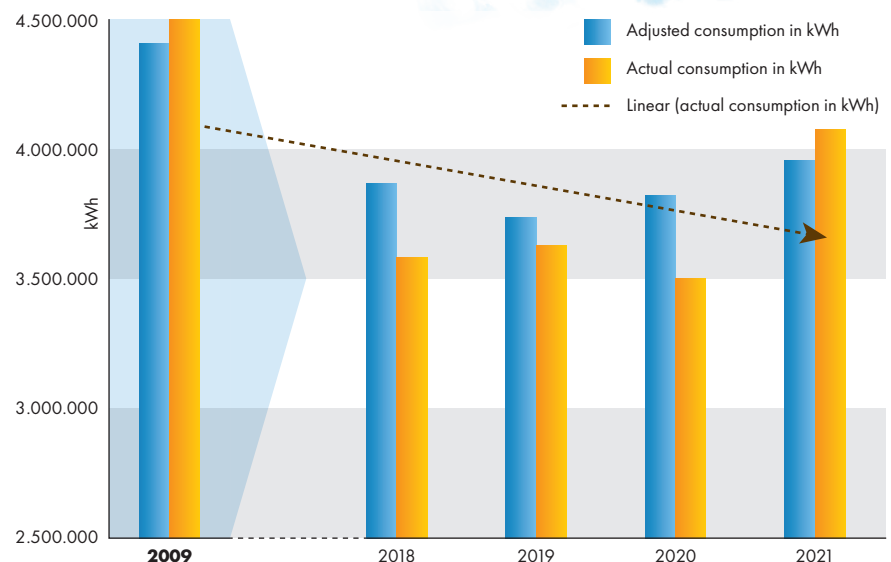
Actions taken so far have resulted in a current electricity consumption of less than 1.5 million kWh (kilowatt hours). Starting from around 2.1 million kWh (2009), a considerable reduction has thus been achieved to date. Compared to the previous year, a further reduction of 0.91 percent was recorded in 2021, which is probably due to the option of mobile working, among other things. The entire electricity requirement continues to be covered entirely by green electricity from regional hydropower.

Conversions for heat efficiency

How can even more gas be saved in everyday operations? This question is currently being addressed by all market players without exception, because the answers to it have simply become a matter of survival.

A constant reduction in gas consumption to cover heating requirements is becoming increasingly difficult due to a strong dependence on the weather. High warehouses with occasional open loading and unloading gates also allow thermal energy to quickly rise without being used. We have been able to counteract this to some extent by means of various conversion and heat efficiency measures and have been able to reduce our consumption enormously over the last few years. In 2021 this increased after adjustment for weather conditions by 3.54 percent (actually: 16.35 percent) compared to the previous year.

This can be explained in particular by changes in heating times and periods. Compared to the previous year, the significantly colder month of April had a particular impact, as the heating remained on and ran almost continuously due to the low outside temperatures.



Consumption values remain at a low level

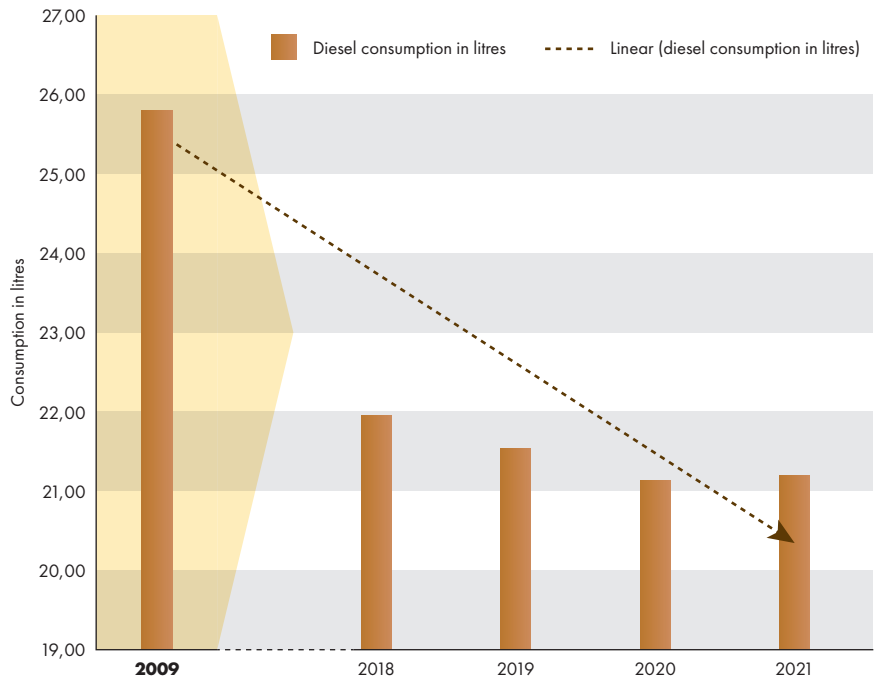
As an objective, the efficient use of resources is clearly reflected in our average fuel consumption. This has now settled at a very low level of around 21.20 litres per 100 kilometres (as in 2021).

Factors such as technology and load volume, distance, weather conditions and also driving style play a significant role. Minor fluctuations can therefore also be due to changes in drivers. In the year under review some drivers retired and others joined the company. Training on driving behaviour was therefore continued and intensified for these new colleagues.

We are committed to maintaining the efficiency already achieved and, if possible, to increase it further by

focusing on continuity in the area of training, by using the latest technology and by keeping the capacity utilisation of our vehicles at a high level

(2021: 70.78 percent). In addition, we continue to take an interest in the latest developments in the field of alternative fuels for logistics.



www.papstar.com/en/logistics-and-service/transport-and-fleet



Close-to-nature plans for the PAPSTAR company grounds



Christina Bosse from Kall chose the spacious **PAPSTAR** company grounds around the headquarters building for her practical graduation project (qualification as a natural gardening professional – see: www.naturgarten-akademie.org).

We believe that the preservation of biodiversity and climate protection go hand in hand and are mutually dependent. Biodiversity and water consumption are therefore essential elements of our holistic approach to sustainability. In order to do justice to this in the spirit of SDG 13, we have also made the topic of biodiversity concrete and thus firmly anchored it in our strategic sub-goals.

In 2022 an initial concept for “close-to-nature company grounds” was developed in cooperation with a budding local natural garden expert. In addition to a site plan and planting

layout, the concept also contains a cost calculation and a maintenance plan for the first two years. The implementation of individual elements of this concept will be examined in the context of the flood protection measures still to be carried out at our site.



www.papstar-storyteller.de/naturgarten-akademie-1

Projekt: Naturnahes Firmengelände
 PAPSTAR GmbH
 Daimlerstr. 4-8
 53825 Kall
 Planung: Christina Bosse
 Maßstab: 1:333



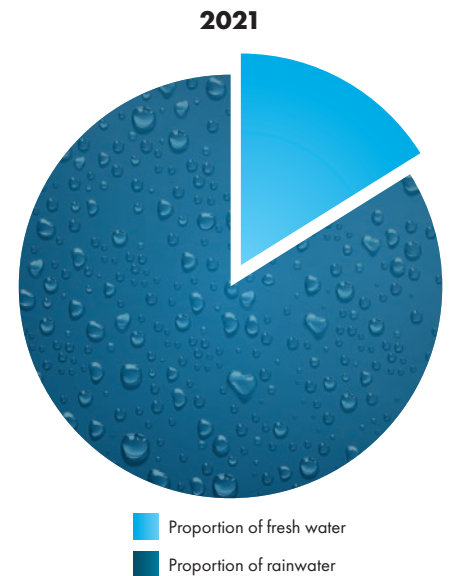
Resource-saving approach to vehicle washing

By means of our catchment basin and the treatment of rainwater we can largely avoid the use of mains water for vehicle washing. In 2021 the proportion of mains water was only around 16.07 percent.

However, this proportion is also heavily dependent on the weather with regard to the availability of rainwater. In this

country, too, extended periods of heat and drought are becoming more frequent, which means that it is not always possible to collect and store rainwater.

In order to conserve water reserves in the long term, vehicle washing is then temporarily suspended and only carried out in extreme cases.



Collection of waste by type supports recycling concepts

Our operational waste management at the Kall site plays a special role in ensuring the efficient use of resources. Regarding used materials not as waste in themselves but as a valuable resource and collecting them by type as far as possible, enables them to be recycled and re-used in the manufacture of new products. In addition, this kind of awareness conserves resources as a whole.

The main waste categories generated at our site are cardboard and paper as well as plastic film and residual waste, although we are making every effort to



consistently increase the proportion of recyclable waste through suitable container solutions and employee training.

In 2021 this proportion amounted to around 63.94 percent. In addition there is used cardboard, much of which is collected and shredded on site as a substitute for bubble wrap as filling material for parcels to protect their contents during transport. Further less-frequently occurring materials that are nevertheless recycled include spent batteries, toner cartridges and fluorescent tubes, as well as end-user packaging waste from the recycling bin.

Texts and graphics: Anne Köhn



Our objectives

- Substantial reduction in the consumption of all major energy sources (gas, electricity and fuels), including continuous improvement of our greenhouse gas footprint
- Continuous increase of the proportion of energy from renewable sources up to a share of 100 percent of our main energy requirements
- Efficient use of resources (savings) and continuous reduction of our ecological footprint
- Increasing biodiversity at our Kall site (as far as technically and economically feasible)



Networks



Finding and promoting innovative new approaches in the interests of sustainable development is by no means something that you can do on your own. It is necessary to combine forces in a targeted manner, to encourage and strengthen partnerships and to cultivate a trusting, open relationship both within the company and beyond its boundaries.

We believe that identifying innovative new solutions – for example electricity management concepts, a more sustainable alignment of our supply chains or our regional contribution to a sustainable overall direction – can only succeed if we learn from our existing and also new network partners and share know-how with all business stakeholders.

Support in supplying Ukrainian refugees



Jointly launching the aid transport to Cluj-Napoca in the context of a press event: Linda Mai, the energetic Chairperson of the Blue-Yellow Cross – German-Ukrainian Association, and Cologne’s Head of Social Affairs Dr Harald Rau.

by Bernd Born

The “request for support” sent by Frederik Schorn as the Special Projects Officer in the office of Cologne’s Mayor Henriette Reker was less than 12 hours old when PAPSTAR CEO Bert Kantelberg immediately got involved, logging into the merchandise management system in person to make available paper plates and cups as well as disposable cutlery (knives, forks, spoons) worth a total of 25,000 euros.

Only 48 hours after the email, the goods arrived at the warehouse of the “Blue-Yellow Cross – German-Ukrainian Association” (www.bgk-verein.de) in Cologne’s Marktstraße, from where they were distributed on two aid transports (see press release on Page 24). The volume: 18 pallets, 483 boxes, 15 cubic metres, 2630 kg.

“For us it went without saying that we would support the people in Ukraine and also the many thousands of war refugees from the country in the best possible way,” says Bert Kantelberg, adding:

“With this in mind we have also promised Mayor Reker and the City of Cologne our further support within the scope of what we can do.”



PAPSTAR lorry driver Patrick Noack loaded almost 15 cubic metres for the “Blue-Yellow Cross” association – the unloading was carried out communally.

Relief transports to Katowice and Cluj-Napoca



The City of Cologne responded to requests for assistance from its twin cities of Katowice (Poland) and Cluj-Napoca (Romania) with two relief transports. For this purpose, on 28 April 2022 and 4 May 2022 one lorry each travelled from the Blue-Yellow Cross camp in Raderberg to Katowice and to Cluj-Napoca. Both cities have taken in

several thousand refugees each due to their geographical proximity to Ukraine.

The goods transported include non-perishable foodstuffs such as sauerkraut and red cabbage, disposable cutlery, paper cups and plates, nappies, blankets, bed linen, drugstore items and much more. In putting together the transports the City of Cologne used two lists of required

goods drawn up by the two partner cities. All of the relief goods were donated by companies. Those contributing included **PAPSTAR GmbH**, J. & W. Stollenwerk oHG, dm-drogerie-markt GmbH, Procter & Gamble Manufacturing GmbH and Handelshof Köln Stiftung & Co. KG.

(Official press release of the City of Cologne)

“We will decisively support the active development of our region!”



Companies from the Euskirchen district set an example: Frank Kolvenbach (right, Managing Director of **PAPSTAR Solutions GmbH**) on the podium of the “Euskirchen District Sustainable SME” future forum.

by **Andreas Köller**

A new economic development concept for the district of Euskirchen has set itself the target of making our commercial location a nationwide model region for sustainable business by the year 2030. Robust growth, employment and innovation potential is to be tapped in the medium to long term by means of

a transformation across the whole of society towards sustainability.

The scope of action is broad and diverse, ranging from sustainable and resource-conserving business practices

Setting the pace in terms of sustainability: the Euskirchen district aims to become a model region nationwide – with 100 climate-neutral companies by 2026

Kölner Stadt-Anzeiger / Kölnische Rundschau
6 September 2022

to the creation of sustainable business models and products, skills-promoting working environments and facilities that will attract the next generation of skilled workers.

This change can only succeed through regional networks and cooperation in which all stakeholders from society, politics and business play a part. **PAPSTAR** is involved with full commitment and participated in the first future forum on “Sustainable SMEs”. We will continue to support, promote and accompany the active development of our region in the future.

[www.papstar-storyteller.de/
zukunftsforum-kreis-euskirchen](http://www.papstar-storyteller.de/zukunftsforum-kreis-euskirchen)



“With its product philosophy PAPSTAR meets all the criteria of a future-oriented closed-loop economy!”

PAPSTAR has been working with expert Joachim Böttcher for a long time in the development of material flow management concepts for disposable products made from renewable raw materials in order to launch the best possible closed loop solutions, as required of all economic players in the “Green Deal”.

“In the course of our test series with used disposable material from **PAPSTAR** we were able to establish that with the appropriate pre-treatment, an excellent quality of vegetable carbon can be produced from it,” says Böttcher in the interview. In general the 59-year-old argues for a new understanding of the closed-loop economy and innovative forms of cooperation among companies, municipalities, institutions and agriculture.

Mr Böttcher, you support PAPSTAR in designing recycling concepts for disposable products made from renewable raw materials. Up to now, after use these have been regarded as waste and disposed of. Why do you see a significant need for change here and what is required above all?

We urgently need a new, overall systemic understanding of the closed-loop economy. It is true that the German government introduced the first draft of a closed-loop recycling law back in 1994, which at the time was perceived as almost revolutionary in Europe. However today, almost 30 years after the introduction of the

closed-loop economy in Germany, it is a sobering fact that despite numerous amendments to the law and the passion for waste separation that is said to exist among German citizens, such an all-round closed-loop economy has not yet been achieved.

We can no longer afford this in the future or even at the present day. As a result, in Germany and many other industrialised countries World Overload Day, i.e. the day in the year on which statistically all the natural resources for an entire year of the country in question have already been used up, is moving ever closer to the start of the year. Despite these very serious global limits and the resource problems that inevitably accompany



Joachim Böttcher is a founding shareholder and technical director of ricion AG (Regeneration in Cycles is our Nature) as well as an international expert, among other things as a lecturer at Rome’s Libera Università Maria Ss. Assunta, specialising in regional material flow management with a focus on water management, vegetable carbon and Terra Preta as well as regenerative agriculture/land use.

them, we continue to produce huge amounts of waste. And that is precisely why we urgently need this new understanding of the closed-loop economy!

Why don’t we make use of nature’s recycling systems that have been functioning for millions of years? There is no waste here. And yet nature is not especially frugal, as can be seen in the example of blossoming fruit trees, which unfold with their full splendour and energy. At the same time, however, nature is extremely efficient. Everything moves in a permanent cycle. We urgently need a new product and material philosophy that on the one hand relies as much as possible on natural or renewable raw materials and at the same time keeps an eye on future recyclability, i.e. their re-use after the original application of the product. Since in many respects our planet has already more than exhausted its capacities and



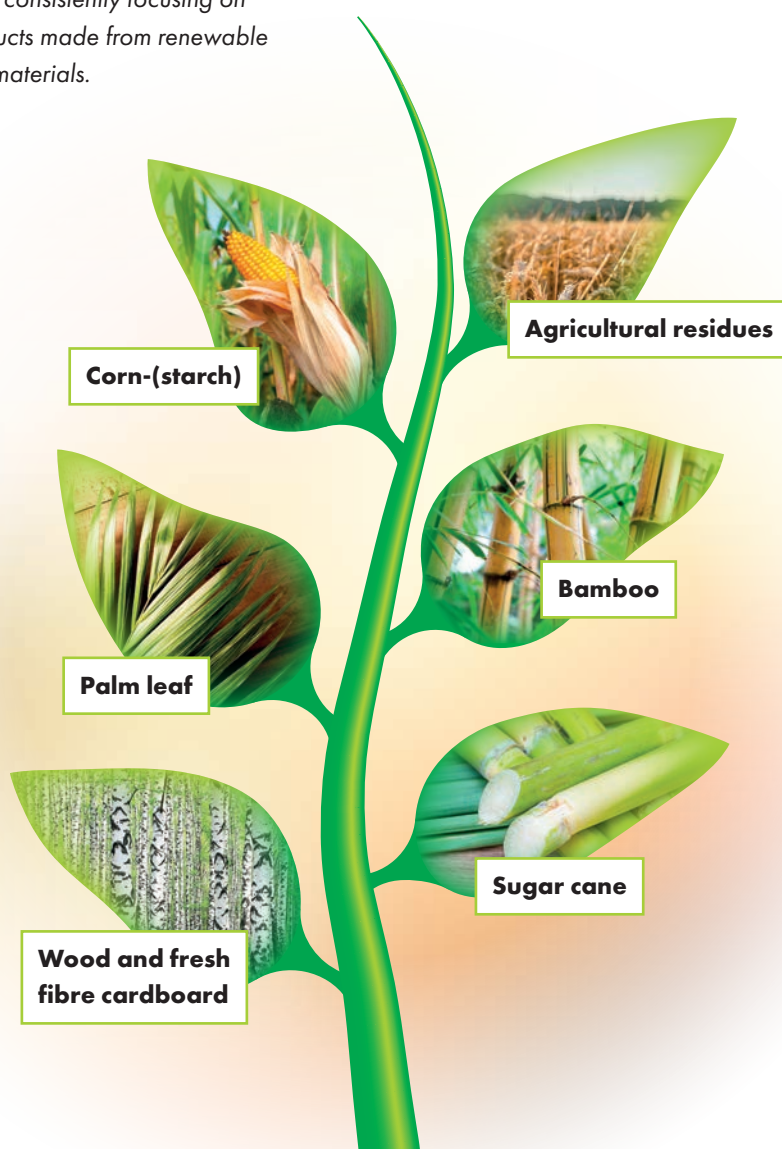
Joachim Böttcher advocates a new approach to the closed loop economy, using nature as a model.

thus a comprehensive regeneration of its natural systems will be necessary, we should go even further in the future recyclability of 'used' products.

The goal should be the so-called 'upcycling' of products in the sense of comprehensive, closed-loop material flow management. This means that used products are upgraded in terms of materials or energy in the subsequent use cycle, which helps us, for example, to regenerate the natural systems of climate, soil, water and biodiversity.

With its product philosophy **PAPSTAR** meets all the criteria of a future-oriented closed-loop economy! With the appro-

*With the introduction of its "pure" range, **PAPSTAR** has since 2008 been consistently focusing on products made from renewable raw materials.*



priate processing technology the company's used disposable products, which are manufactured consistently from renewable raw materials, are ideally suited for recycling – even for upcycling. In order to make this possible, in addition to an alignment with modern, forward-looking recycling processes and technologies, it is also necessary to create appropriate and adequate legal foundations. In my view this is an essential prerequisite for clearing the way for a long overdue, systemic all-round closed-loop economy. There is one key success factor here that has often been given far too little attention in the past. Specifically, I mean cooperation or new forms of collaboration between companies, municipalities, institutions and agriculture. New approaches could be taken in the areas of know-how exchange, production, recovery,

recycling and upcycling. There are often undreamt-of potentials and synergies that can be exploited in the interests of a regional closed-loop economy. A good example is the cooperation between **PAPSTAR** and ricion AG.

"In particular, more targeted funding channels are needed!"

From your point of view, how would you describe the cooperation with PAPSTAR and where do the biggest challenges lie in the context of the future development of solutions?

The cooperation with **PAPSTAR** is really special. Personally, I am impressed by the company's genuine, deeply rooted approach to sustainability. This is not just about producing high-quality recyclable disposable products from renewable raw materials and marketing them.

PAPSTAR has set itself much higher goals in terms of a forward-looking closed-loop economy, and now wants to implement them consistently and transparently. In addition, there is a distinctive willingness to innovate and perseverance, which are necessary in the search for new sustainable solutions.

When I was able to visit the company site in Kall for the first time, I was very positively surprised at how deeply the company had already familiarised itself with the subject of material flow processing for disposable products. Suitable processing technologies were researched and months of tests were carried out on site. The subsequent in-depth cooperation, in which we were allowed to arrange further test series and a concept study on the exploitation of the used disposable materials, turned out to be extremely constructive and goal-oriented.

From the very beginning it was noticeable that the management and all the staff with whom we had and still have dealings in the course of our cooperation are fully committed to the company's



Bowls made of palm leaf.

sustainability approach. I find your question about the greatest challenges to developing solutions for the future so interesting, because I myself have been involved in this for over 30 years. I have been and still am deeply involved in the development of key technologies in the area of a whole-system recycling economy – for example in urban water management. In the process, I have always been amazed at the unexpected resistance and hurdles that were suddenly placed in our way, even though a particular concept or process had already proven itself scientifically

and in practice. In my experience, one of the greatest challenges is to bring the legal framework into line with the possibilities that are already available.

Only if this is ensured will we be able to sufficiently accelerate the necessary forward-looking innovations in the closed-loop economy. In addition, we need more targeted funding channels to pave the way to a circular economy of the future for bold pioneering companies or business cooperations that show the willingness and perseverance for far-reaching change projects.



Terra Preta provides especially sustainable soil improvement using organic vegetable carbon. The organic matter in the soil is increased and ensures long-lasting soil fertility and healthy plant growth.

The Terra Preta project: vegetable carbon from biomass

You and PAPSTAR are working, among other things, on the subject of vegetable carbon from biomass. Why do you see a promising approach here in terms of material recycling for PAPSTAR's products?

I have been working on Terra Preta, one of the world's most fertile man-made soils, since 2005. A past advanced civilisation of the indigenous people had left these black soils with their extraordinary properties on large areas of the Amazon region. Today we know that Terra Preta was made from vegetable carbon and organic household waste. Its extraordinary fertility is based on the combination of vegetable carbon and a special biological process, which, however, can't be compared with conventional composting.

From today's perspective, two aspects are particularly exciting. Firstly, despite a large population density in the settlement areas with over 20 million people, the advanced civilisation of the Indios did not produce waste, but already practised a forward-looking closed-loop economy with upgrading and regeneration of the soils. Secondly, it is precisely the process described above that we can use today to actively counteract many pressing problems worldwide, such as soil degradation, food shortages, biodiversity loss, water pollution and the climate crisis.

In the course of our test series with the used disposable material from **PAPSTAR** we were able to establish that, with the appropriate pre-treatment, an excellent quality of vegetable carbon can be produced from it. In the light of current events, it should be particularly emphasised that, if suitable carbonisation processes are used, energy in the form of heat or even synthesis gas can be obtained in addition to the vegetable

carbon. In particular with regard to our subject of a sustainable closed loop economy, the recycling of used disposable material for the production of vegetable carbon is highly ingenious, as several synergies arise here. Firstly, the exothermic carbonisation process takes place in the absence of air at temperatures between 600 and 800° Celsius, so that complete sterilisation of the disposable material is more than guaranteed. Secondly, about 50 percent of the input material is converted into vegetable carbon, which consists of over

90 percent carbon and will last for several centuries. In the process, the other 50 percent is converted into biogas, which generates heat for its own process as well as for additional heating needs. Because half of the input biomass is converted into stable carbon with special properties, the carbonisation process with single-use material can be described explicitly as 'climate-positive', whereas the otherwise usual waste incineration would have fully released the carbon contained in the biomass as CO₂ again.

In the next step, high-quality soil substrates for agriculture and horticulture can be produced from the extracted vegetable carbon. This effectively promotes the generation of humus in agriculture, while significantly reducing the known negative effects of the application of agricultural fertilisers such as nitrate leaching or nitrous oxide emissions. Substrates based on vegetable carbon increase the water storage capacity of agricultural soils, which is urgently needed especially in times of prolonged drought. In horticulture, the use of vegetable carbon can significantly reduce the use of peat. This means that in both agriculture and horticulture, the use of vegetable carbon has additional climate-friendly effects.

Finally, I would like to thank those responsible at **PAPSTAR** for their commitment and the consistent implementation of the sustainability goals they have set themselves on the way to a future-oriented closed-loop economy. We look forward to our continued cooperation.

The interview was conducted by Andreas Köller.

According to Joachim Böttcher, the use of vegetable carbon can effectively promote the development of humus in agriculture.



17 PARTNERSHIPS FOR THE GOALS

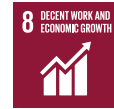


Our objectives

- Stronger positioning as a partner organisation and solution provider for sustainable events and catering
- Analysis and promotion of relevant sustainability topics (especially in the Eifel region)
- Expansion of a stable partner network on current sustainability challenges from an economic, scientific, political and consumer perspective



Processes



With increased producer responsibility, companies are obliged to consider the life cycle of their products, i.e. from design, packaging and distribution to taking back or appropriate disposal/recycling.

The clear objective is to initiate a functioning closed loop economy in order to conserve resources and the environment. At **PAPSTAR** we are convinced that the necessary change in

business models holds considerable opportunities for our company. In addition to this need for change, which is partly politically motivated, consumers are also demanding sustainable overall concepts. In recent years we have therefore developed various recycling solutions (zero waste – using bio-converters, organic waste of plant origin and disposable products made from renewable raw materials; maize cup and paper cup recycling) for our products.

PAPSTAR recycling loop I (Zero Waste)

With our “pure” assortment line, for more than a decade the selection and provision of products in line with ecological criteria and made of sustainable materials has been the central focus of the development of our product range.

However, our company is going even further in order to be able to meet the self-imposed requirement of implementing sustainable, closed-loop solutions for products and packaging together with our customers. After several pilot projects aimed at composting and recycling, with scientific support **PAPSTAR** has succeeded in designing a recycling loop for its products and has ensured that sustainable disposable tableware used at events can be recycled.

For example, plates, cups or cutlery made from renewable raw materials such as cardboard, paperboard, wood, sugar cane, palm leaf or agricultural residues (product line “pure”) are shredded in a bio-converter (composting machine) and then sterilised. Due to its high cellulose content, the output material can be used at a nearby cardboard factory for the production of

new products (such as wrapping cardboard for use as an intermediate layer in the packaging industry).

PAPSTAR Solutions GmbH thus offers customers such as restaurants,

caterers, hotels and canteens (as well as companies in the field of large-scale events) a hygienic and sustainable system solution from a single source.



www.papstar.com/en/solutions/zero-waste

PAPSTAR recycling loop III (Paper Cup Recycling)

Recycling is the process of reprocessing discarded recyclable materials into a new product. The original product is “destroyed” in this process, but the recovered recyclable material is used to make new products. And that’s how it also works with the classic paper cup.

Raw material The paper cup made of FSC®-certified (Forest Stewardship Council®) fresh fibre cardboard does not require any coating and is therefore ideally suited for paper recycling.

Emptied of residues The only condition is that the used cups are emptied of residues. Cups and

packaging are considered to be empty when they are optimally exhausted, i.e. free of drops in the case of liquid products, scraped clean in the case of paste-like products and free of particles in the case of powder-like products.

Disposal The used cups are taken back in the same way as they were delivered – each in cartons (stacked or crumpled) and in an environmentally friendly rotary-system (outward and return loads, so that no additional trips are necessary and no unnecessary CO₂ emissions are produced).

Another, often preferred option is direct contact with the locally or regionally based disposal service provider, with **PAPSTAR Solutions GmbH** assuming responsibility for the coordination.

Recycling The sorted collected cups are finally transported in a logistically efficient way to the nearest paper factory/ recycling centre, where they are getting a second life. Paper fibres can be recycled ten to 25 times. With each recycling process the fibres shorten until they can finally no longer combine to form paper. Recycled paper is mainly used to make magazines and newspapers, exercise books, printer paper or packaging papers such as cardboard boxes.



www.papstar.com/en/solutions/paper-cup-recycling

Texts and graphics: Bernd Born and Yvonne Reidt



Our objectives

- Promotion of future-oriented new product developments/material innovations, especially in the context of holistic sustainable approaches and the integration of multiple sustainability aspects (CO₂, water, biodiversity, etc.).
- Development of tailor-made recyclable material flow concepts in connection with the use of our products; securing the further use of raw materials for our products and initiating a resource turnaround
- Promotion and establishment of innovative and sustainable events as a full-service provider (**PAPSTAR Solutions GmbH**)



Selection of measures across our key SDGs



planned
 started
 in progress
 well-advanced
 completed

Status of implementation



Implementation of a management system in accordance with SA8000 (safety culture system)	
Ergonomics in the workplace and annual inspection by external third parties (examples: ergonomic chairs in the offices and one height-adjustable desk per department)	
Provisions of health promotion measures and courses for all employees	
Supplier CSR audit with focus on occupational health and safety	
Regular analysis and programme development with the Institute for Workplace Health Promotion (BGF)	



Maintaining a high level of apprenticeship places in the various occupational fields	
Launch of social initiatives and raising awareness of sustainability issues among personnel and the general public	
Provision of information and communication campaigns to promote sustainable consumption	
Establishment of an in-house PAPSTAR Academy for knowledge transfer and coordination on the subject of sustainability in the catering and hospitality industry	
Implementation of a consulting service together with The Seventeen GmbH (Prof. Dr. Torsten Weber, Patrick Becker)	



Founding of our organisational unit " PAPSTAR Solutions GmbH "	
Development and mapping of material flow and recycling concepts for different types of materials	
Raising awareness and encouraging suppliers (creating incentives) to develop innovative products, packaging and concepts	
Development of a PAPSTAR beacon project "The Event of the Future" (fair, sustainable, digital)	



Increasing the annual sales of products made from renewable raw materials (including the "pure" product line)
Continuously increasing the CO ₂ -neutral provision of goods to customers (own transportation and external service providers)
Substitution/conversion of types of material used as packaging components
Listing/substitution of products from finite resources (including action plan)
Design of a flagship recycling strategy for each type of material

Status of implementation



Increasing energy efficiency (including fleet: eco-training, use of the latest EURO6 standard vehicles, telematics system, measures to reduce wind resistance, route optimisation)
Procurement and increase of the proportion of renewable energies at our company site
Reduction of our CO ₂ impact in accordance with the three pillars of "Avoid – reduce – offset"
Creation of a plan of action to increase biodiversity at the Kall site as well as saving water as far as economically and technically feasible
Continuous development of the existing environmental management system DIN EN ISO 14001
Efficient operational waste management system



Involvement in a regional and political context (for example, holding stakeholder forums on sustainability topics in the Eifel region)
Consultancy unit for regional stakeholders on the topic of sustainability
Intensification and expansion of economic partnerships for the joint provision of innovative closed-loop concepts and material flow solutions
Establishment of a research cooperation expressly concerning the SDGs and their effectiveness in German SMEs in the context of "company commitment to the SDGs"





About PAPSTAR

Health is everything that matters. It pushes us forward, provides the strength we need and inspires our creativity. The aim is always to stay healthy. Best possible hygiene standards and a strong sense of safety also help to achieve this target. In this case, there is a great deal about the use of disposable tableware – today more than ever!

High-quality products, which are made of cardboard and paperboard, have always been one of the strengths of the **PAPSTAR** brand, which has its origin in the cardboard factory founded by Oswald Matheis in Schleiden-Olef in 1873. A lot has happened since then. Today, with over 1400 members of staff and international locations as well as sales and marketing partners in many

other countries, the company based in the northern Eifel region is considered to be one of the leading suppliers of disposable tableware and service packaging in the industry.

PAPSTAR proves its responsibility for people, nature and the environment by using renewable raw materials as well as a constant monitoring and advancing of several business processes with regard to ecological, social and economic aspects.

Thereby, the company settles a clear statement in order to improve its products

and measures continuously and consistently with a sustainable background.

Awards such as the Green Brands seal, the admission into the select circle of the German "Brands of the Century", or also the climate neutrality label which is awarded by ClimatePartner, are all clear indications which confirm the company's own claim and, in conjunction with holistic corporate communication, sharpen **PAPSTAR**'s brand profile.

[www.youtube.com/
watch?v=3ctQTWWxr6M&t=12s](https://www.youtube.com/watch?v=3ctQTWWxr6M&t=12s)



PRODUCT RANGE

PAPSTAR has listed more than 5,000 consumer articles, divided into three categories: disposables and packaging, table and room decorations as well as hygiene, care and cleaning products for household, professional kitchens and geriatric care.

The company produces and distributes these products all around the world. About 200 suppliers belong to the total portfolio. This also includes three production companies from the **PAPSTAR**-Group: RICK Produktion GmbH and the Dutch Conpax B.V. which are specialised in the raw materials of paper, cardboard and paperboard and Paper Print Converting GmbH in Austria which is the main supplier for high-quality napkins, tablecloths and table runners with **PAPSTAR**'s own label "ROYAL Collection".



PAPSTAR mainly supplies the points of sale: cash & carry markets, self-service department stores, consumer markets and supermarkets as well as specialised wholesalers.

Huge parts of the range under the product line "pure" are made of renewable raw materials, are biodegradable and even compostable.

[www.youtube.com/
watch?v=xxp1ubLqggg&t=6s](https://www.youtube.com/watch?v=xxp1ubLqggg&t=6s)



Logistics and service

Our sophisticated logistics and service concepts enable **PAPSTAR** to ensure that its entire product range is available at all times – everyday and throughout Europe!

The central and high-bay warehouse conveniently located on the company's 130,000 square metre premises has over 70,000 pallet storage spaces and an additional 100,000 carton storage spaces at its own disposal.

Commissioning processes, which are handled full automatically for the most part, with up to three quarters of a million pick and pack procedures per month ensure that **PAPSTAR** is always able to handle all types of orders and shipments "just in time"; from parcel shipments, general cargo up to full truck loads from its own vehicle fleet.

"Logistics Excellence" enables **PAPSTAR** also to provide made-to-measures concepts for companies linked in partnership, whose flow of goods can be ideally integrate into our own distribution channels.

Up to date online information and management systems open up completely new opportunities for intelligent and networked solutions. Hazardous goods handling or MHD and batch management with completely visible traceability, especially for medical products: Logistics 4.0 "made by **PAPSTAR**" is characterised by the fact that digitalisation always combines



efficiency in the supply chain with resource conservation.

The innovative company is also professionally positioned in the e-commerce sector for constantly optimise all online sales channels.



[www.youtube.com/
watch?v=hHk17zP5_Jo](https://www.youtube.com/watch?v=hHk17zP5_Jo)

Solutions

The challenges we face for a green future are extensive: **PAPSTAR** sets a good example in this field and accompanies the complete "life cycle" of its products in order to provide them a second life.

In addition to the consistent utilisation of renewable raw materials – also with regard to product developments, which are requested by customers – the range of services provided

by **PAPSTAR Solutions GmbH** includes sustainable recycling concepts in the sense of the cradle-to-cradle principle.

It also retains the exclusive distribution rights for "Oklin" brand bio-converters and provides detailed and individual advice from the supply of goods to an environmentally correct waste

management system within the meaning of a modern value-added chain.

PAPSTAR is thereby dedicated to an innovative and future-relevant business field created around closed recycling cycles, which is unique in this form in Germany and sets the benchmark for the industry.



[www.youtube.com/
watch?v=FdgZkYppEXI&t=14s](https://www.youtube.com/watch?v=FdgZkYppEXI&t=14s)



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1873 Founded as Pappenfabrik Oswald Matheis in Schleiden-Olef (origin of **PAPSTAR GmbH**)


1,400 employees Europe-wide

approx. 5,000 products in three product groups

9 locations and sales partners throughout Europe


Distribution area
Europe-wide

approx. 55% proportion of products in the range with eco-labels/seals

130,000 m²
area of the company premises in Kall (North Rhine-Westphalia)


Company location Kall (North Rhine-Westphalia)



91% proportion of permanent employees

42.1 years average age of employees

38% employees with more than 20 years of service




100% green electricity

A climate-neutral location since **2020**

21.2 litres average fuel consumption per 100 kilometres (lorry)

above 70% vehicle fleet capacity utilisation

Corporate carbon footprint **8.21%** lower (2021 compared to 2020 at the Kall site)



70,000 pallets and **100,000** carton storage spaces in the central warehouse

approx. 750,000 picks per month

approx. 25,000 orders processed monthly

Delivery of **approx. 20,000** shipments per month

New website reflects innovative lead

by Bernd Born

More modern, more informative, clearly structured, fresh and friendly, customer-oriented and of course responsive: at the beginning of the year the new PAPSTAR website papstar.com saw the light of day in the digital world.

Apart from a general adaptation to new technical standards, the main reason for the relaunch can be found in the content. For over a decade now **PAPSTAR** has been pursuing an active corporate policy aimed at promoting the environment and sustainability, and no longer sees itself "merely" as a sales company and consequently as a distributor of disposable products that are valuable from a hygienic and safety point of view, but also as a solutions provider for a green future. The company designs material flow management concepts to ensure a closed-loop economy for its products.

Overall the internet presentation makes an impact with its distinctive, consistent structure and comprehensible usability. Design highlights and useful cross-references help visitors find their way around and quickly guide them to the content they are looking for.

The triptych as a symbolic centrepiece

Together with the points of "Range and product groups" and "Logistics and service", which also define the navigation structure, this important innovative edge (Solutions) forms the core of the new website. For this purpose an image showcase in the form of a dynamic triptych has been created. This results in a harmonious overall picture and by means of a mouse-over effect literally offers space to develop. The well-structured and appealing home page is intuitively designed and invites the user to discover the world of **PAPSTAR**. The newly produced image film is integrated in this. Appropriately themed excerpts from it can also be found on the main sub-pages.

"Mobile-first" approach

Overall the internet presentation – implemented by the nearby Euskirchen agency "uspect" – stands out for its distinct, consistent structure and comprehensible usability. Design highlights and useful cross-references

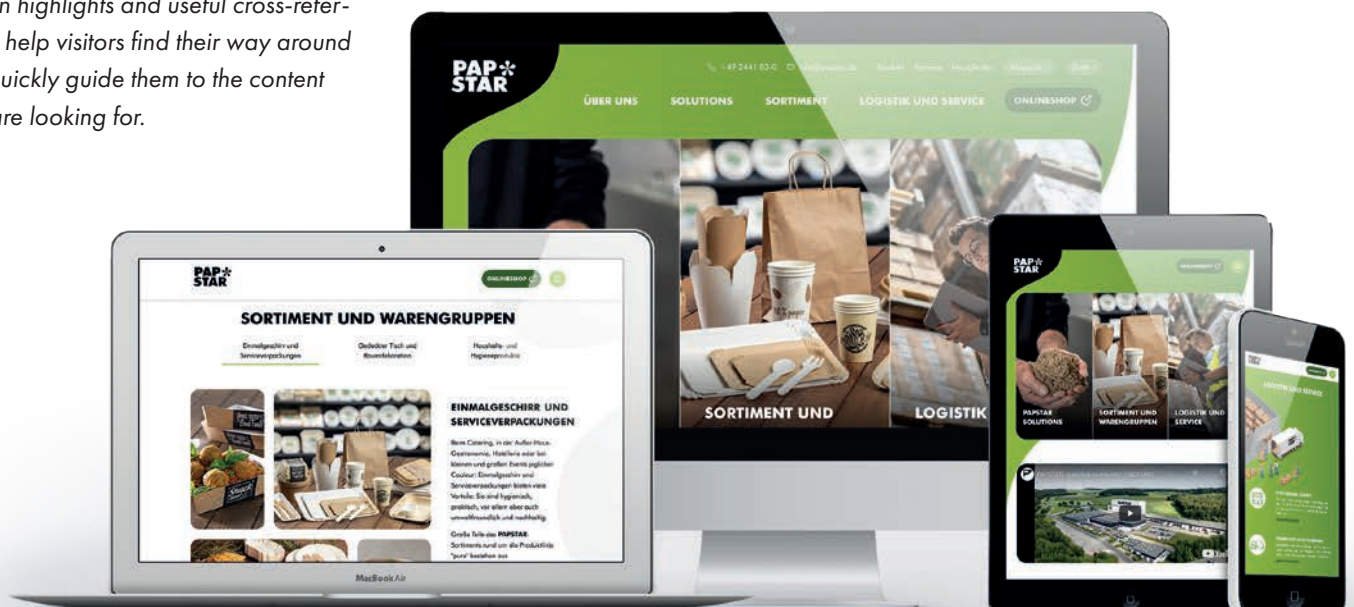
help visitors find their way around and quickly guide them to the content they are looking for. In line with the "mobile first" approach, this also applies to the smartphone display. Like the online magazine **STORYTELLER**, the brand-new **papstar.com** website uses the latest TYPO3 version, which guarantees optimal performance.

A well-developed identity and sustainable values

"We are convinced that the new corporate website expresses our well-developed identity and our vision of sustainable values," says Bert Kantelberg, CEO of **PAPSTAR GmbH** and Member of the Board of **PAPSTAR Holding AG**: "In addition, it succinctly sums up our strengths in an understandable way and presents us as a future-oriented company where the focus is on people."



www.papstar.com/en/



True natural talents.



Versatile, robust, uncoated and recyclable. Our „paper cups“ are also true naturals, especially when it comes to sustainability. For a more responsible approach to the environment and resources. More about the recycling loop: www.papstar.com/en/solutions/paper-cup-recycling

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