Investing in Better

Sustainability Report 2021

Close the Loop | **Work Smarter** | **Act Responsibly**

Our business is becoming more sustainable every day, and this is just the start. **We plan to keep on Investing in Better for many years to come.**

Keep up to date

in /company/klockner-pentaplast

🐦 @kpGroup_

✉ sustainability@kpfilms.com

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Welcome to our 2021 sustainability report

We are investing our time, focus and energy in becoming a better, more sustainable business.

Our broad and ambitious sustainability strategy, 'Investing in Better', comprising three clear objectives, has set us on an exciting new path, and we are already making progress.

An introduction from our CEO

Eighteen months ago, we set out a bold and ambitious sustainability strategy – 'Investing in Better', comprising four clear objectives. While the continued disruption wrought by the COVID-19 pandemic, amid several other factors, meant that 'business as usual' has been difficult to achieve during this period, we have remained firm in our commitment to sustainability, and to meeting our objectives.

I'd like to begin by thanking the kp team, our customers and our suppliers for their continued support on the sustainability agenda. Their hard work means that kp leads in the use of recycled content at scale, and that we've been able to develop numerous innovative, next-generation sustainable products, including applications in highly regulated spaces such as pharmaceutical packaging.

For example, this year we've used 23.3% PCR material in our packaging and have also ramped up our circular Tray2Tray® initiative – an industry leading example of 'closing the loop'. Further highlights include achieving 24% reduction in our scope 1 and 2 emissions and continued success with sustainable product innovations, including kpNext® R1, the first blister pack designed to be easily recycled by consumers along with other PET packaging. Additionally we are investing further in our ability to handle post-consumer recycled content, particularly in the USA where we have

announced a multi-million-dollar production expansion to our Beaver facility in West Virginia. This investment will enable us to offer the award-winning kp Elite® protein trays, which are made using up to 100% recycled PET. We have also launched our sustainable procurement programme, given the increasing importance of collaboration across our value chain.

kp's purpose – to deliver the sustainable protection of everyday needs – means that we incorporate sustainability into everything we do; it's integral to how we operate and to the products we make. However, we know that there is more work to be done, and that it can't be done alone. All of our functions and sites around the world are committed to doing better, as are our partners across the value chain, including customers and suppliers.

We will live up to our commitments by ensuring that sustainability is ever more firmly embedded in how we do business, and by working with others to drive greater transparency across the industry and to address global challenges.

Scott Tracey, CEO

A word from the VP Sustainability

Over the past year, we all continued to adapt to working in new ways, and adjusted to further disruption in the global economy. Even so, the need to act on climate change has never been more clear, and the concept of the circular economy has continued to gain ground among different industries and governments around the world.

As interest in sustainability continues to grow, we have remained focused on the issue. We maintained our Gold rating on EcoVadis, even as that standard becomes more rigorous, and we have embraced our 'Investing in Better' strategy by embedding sustainability across the business and scaling up several key initiatives.

For example, we've seen consistent growth in our use of post-consumer recycled (PCR) material, which now stands at an industry-leading 23.3% across all of our plastic packaging, and we have now reduced our CO_2 emissions by 24% versus 2019 levels.

Looking ahead, we are entering a critical phase. And despite the many challenges we all face today, we are excited to be working hard to meet our ambitious 2025 goals.

Yui Kamikawa, VP Sustainability

Three clear objectives & ten ambitious targets

Investing in better

Objective 1:

Close the Loop

By 'closing the loop' we will reduce waste, and do more with less. We will use more recycled material, close the packaging loop and take every opportunity to make our packaging recyclable.

Target I
We will use at least 30% post-consumer recycled material in our packaging.
🕐 *End of 2025*

Target II
At least 30% of the post-consumer recycled material in our packaging will be from kp Tray2Tray® initiative.
🕐 *End of 2025*

Target III
100% of our packaging will be recyclable.
🕐 *End of 2025*

Objective 2:

Work Smarter

We have a responsibility to use as few resources as possible, as efficiently as possible. That's why we are focused on using less energy, cutting carbon emissions and ending landfill.

Target I
We will increase energy efficiency by 17% against a 2019 baseline. 🕐 *End of 2025*

Target II
We will reduce Scope 1 and 2 emissions by 50%, and by 2030, Scope 3 emissions by 20% per tonne of raw materials, against a 2019 baseline.
🕐 *End of 2025* / 🕐 *Beginning of 2030*

Target III
We will send zero waste to landfill or incineration without energy recovery*.
🕐 *End of 2022*

* Where legislation allows.

Objective 3:

Act Responsibly

Acting responsibly at all times is a cornerstone of our culture. And in the future, we will do even more to keep our people engaged, while we become a safer and more diverse company.

Target I
We will reduce our lost-time accident rate to zero.
🕐 *End of 2025*

Target II
The percentage of women at management levels at kp will exceed 30%. 🕐 *End of 2025*

Target III
Our employee engagement score will improve to over 80%. 🕐 *End of 2025*

Target IV
100% of kp plants will complete at least one impactful community project annually, doubling that by the end of 2025.
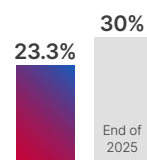🕐 *End of 2022* / 🕐 *End of 2025*

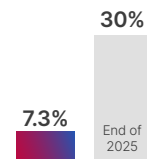**Our objectives and targets** (continued)

Progress in 2021

Close the Loop

Target I
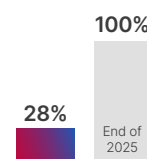**Use more recycled material**

% PCR in our packaging

23.3% **30%** End of 2025

Target II
Close the packaging loop

% PCR content from Tray2Tray® material

7.3% **30%** End of 2025

Target III
Make all of our packaging recyclable

% of packaging designed for recyclability

28% **100%** End of 2025

■ **2021** progress   ■ **Target** see chart for year

Work Smarter

Target I
Improve energy efficiency

% increase in energy efficiency

2% **17%** End of 2025
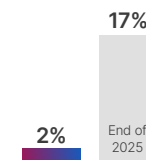
Target II
Reduce Scope 1, 2 and 3 carbon emissions

% Scope 1 and 2 emissions reduction

24% **50%** End of 2025
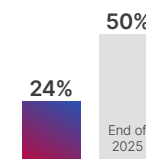
% Scope 3 emissions reduction

7.9% **20%** End of 2029
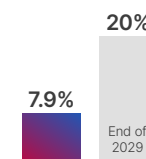
Target III
Stop sending waste to landfill

% waste kept out of landfill or incineration without energy recovery

86% **100%** End of 2022
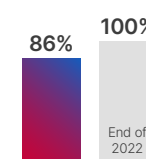
Act Responsibly

Target I
Eliminate lost-time accidents

Lost-time accident rate

0.33 End of 2025

0
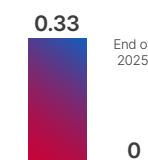
Target II
Become more diverse

% women in management roles

23.9% **30%** End of 2025
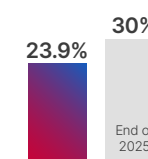
Target III
Engage employees better

% employee engagement score

75% **80%** End of 2025
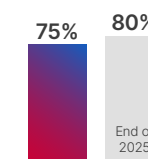
Target IV
Make a difference in our communities

% of plants with at least one impactful community engagement project p.a.

On hold in 2021
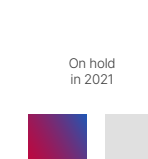
About us

Our experts create innovative films and trays that protect medication and medical devices, keep products safe, help avoid food waste and preserve the integrity of countless durable products.

We offer more than 8,000 customers an extensive portfolio of high-quality plastic packaging and related solutions. We hold leading positions in global market share in our product segments across both of our divisions: Pharma, Health & Protection and Durables (PHD), and Food Packaging (FP).

Our global presence

31 plants in **18 countries** across **5 continents**

Europe
19 locations

Asia & Australia
4 locations

The Americas
8 locations
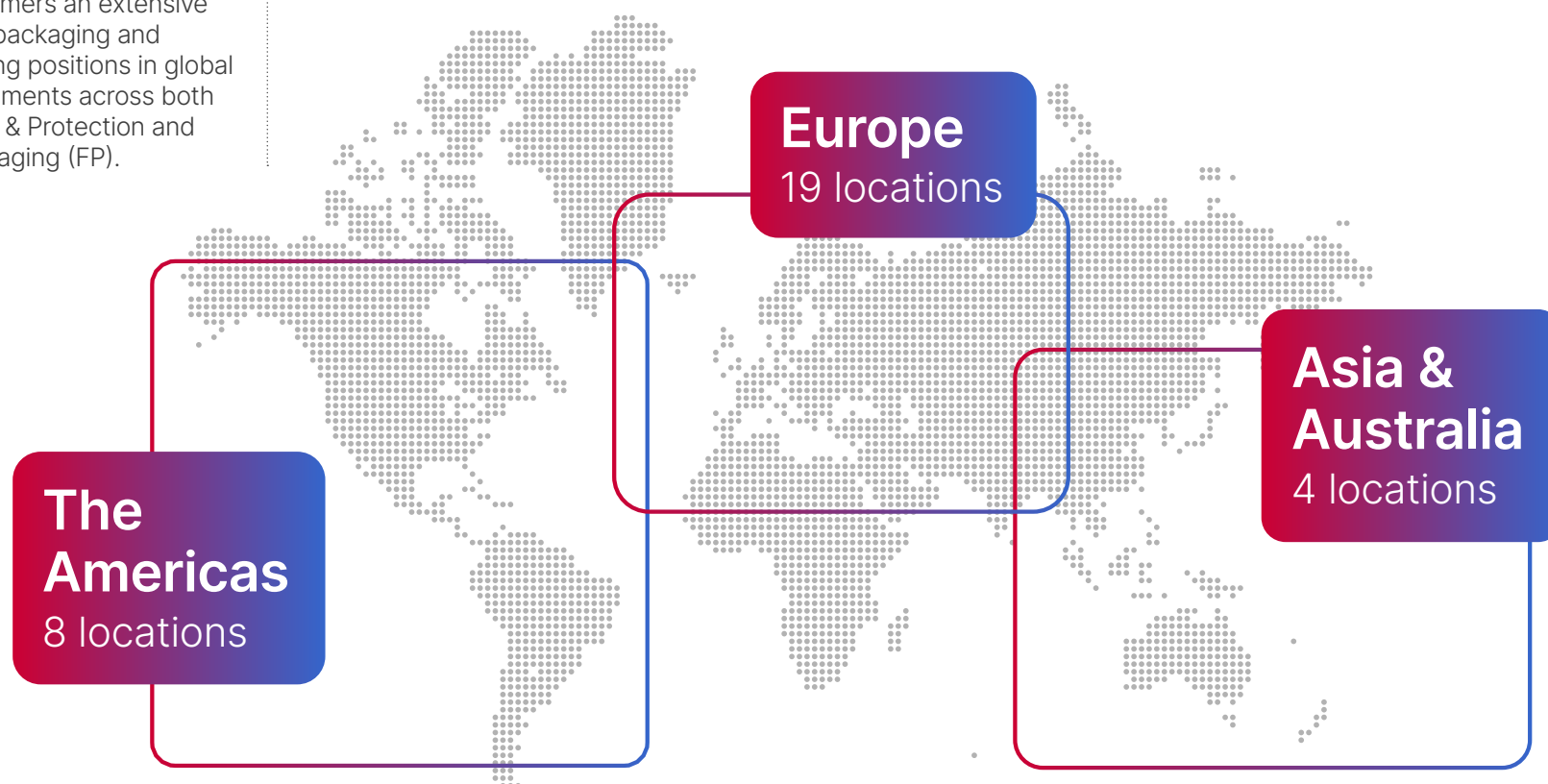
Our two divisions

Food Packaging

We offer sustainable packaging solutions, enhanced shelf life and consumer safety, and unique design attributes.

Pharma, Health & Protection and Durables

We offer enhanced consumer safety and shelf life, paired with high-quality aesthetics and sustainability.

How we are governed

kp's leadership team is responsible for the overarching development of our policies, and for ensuring that the business implements and respects those policies. Design, implementation, oversight and reporting are led by our VP Sustainability.

Our 'Investing in Better' strategy sets out kp's sustainability targets for 2021 and beyond. We seek to report back on our journey annually, in a transparent way.

In 2021, we set up a Sustainability Committee which is responsible for overseeing the implementation of sustainability initiatives and policies, including the three 'Investing in Better' objectives and ten underlying targets. The Committee is chaired by the VP Sustainability and includes the full Executive Leadership Team. The Committee meets every quarter, and reports progress to the full Leadership team regularly.

This Committee is supported by sub-groups focused on our three main objectives: 'Close the Loop', 'Work Smarter' and 'Act Responsibly'. Each of these workstreams includes the relevant internal stakeholders, and is chaired by the Sustainability team.

Under the sub-group Act Responsibly, a Committee for Diversity, Equity and Inclusion, chaired by the CHRO and Chief Compliance Officer and General Counsel, meets bimonthly and oversees the execution of the DE&I strategy.

A dedicated sustainability budget is in place to cover GHG management, and is used to fund initiatives which will further our sustainability objectives. Some of our energy management initiatives are covered under our operations budget.

Sustainability Committee

CTO   kp Executive Leadership Team

↓

VP Sustainability

↓

Workstreams

Close the Loop   Work Smarter   Act Responsibly
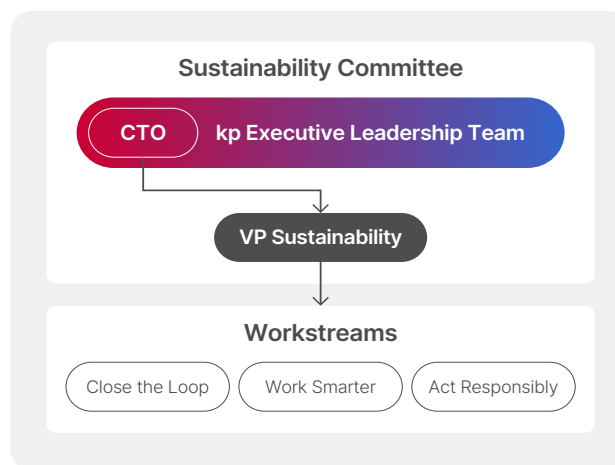
Recognition

We have retained our Gold EcoVadis rating for a second year. Our score has improved, putting kp in the top 3% of plastic product manufacturers assessed.

GOLD 2022 ecovadis Sustainability Rating

As of November 2021, kp ranked sixth out of 96 companies assessed in the Containers and Packaging sector.

SUSTAINALYTICS a Morningstar company ESG INDUSTRY TOP RATED 2022

Our production process

Raw materials → Processing → End markets

Polymer resins

Stabilisers

Additives

Masterbatches

Adhesives

Compounding & Customer Specific Formulations

Calendering

Extrusion

Coating
Embossing
Laminating
Sheeting
Slitting
Stretching
Surface treatments
Thermoforming

Pharma, Health & Protection and Durables

Food Packaging

Primary stages

Secondary stages[1]

1. Various processes may be necessary for the same product.
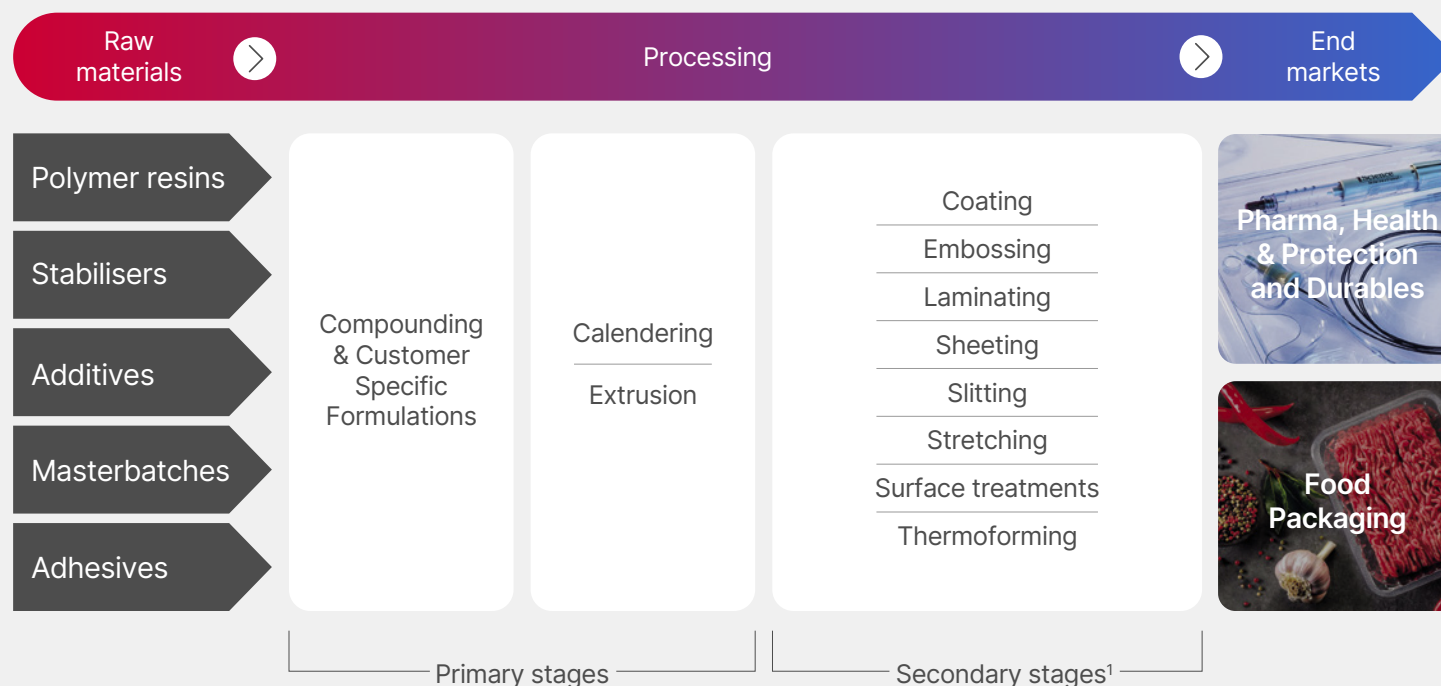
Our core production process is shared across both divisions

We use state-of-the art equipment at our manufacturing plants to make primarily rigid plastic film products for conversion and thermoformed trays. Nearly all our film formulations are developed in-house.

Our role in the value chain

Impacting factors and influences:

- Availability of raw materials, energy and technologies, required specialists
- Pricing, regulatory frameworks, investor expectations
- Complexity of customer needs and geographical distribution

– Suppliers
– Innovation partners
– Universities

Raw materials, engineering, design

Processing & converting

– Employees
– Regulators
– Communities
– Customers

Product end-of-life treatment

End user (retail and consumer)

– Recyclers
– Authorities
– Local communities
– Regulators

– Customers
– Regulators

Impact levers:

- Active engagement and partnering with customers, suppliers and logistic partners
- Continuous integration of sustainability credentials into kp
- Responding to customer needs and global footprint

Our track record of innovation

PET first used
We began to use PET instead of other materials

kp Elite®
Our lightweight trays, made with up to 100% recycled PET

Award-winning
Stretch PO flexible film scored 20/20 for recycling by Interseroh

ShoreCycle®
Card film, films produced with ocean-bound recovered material

kp MonoSeal®
Fully recyclable mono PET rigid film for form, fill and seal applications in fresh food

kpNext®
Recylable PET blister film
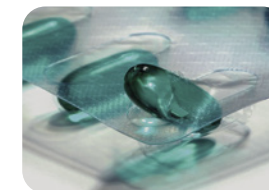
2000 ——————————————————————————————————————— **2021**

Pentaform® SmartCycle®
rPET used for the first time

kpVantage®
Our first vinyl-free pharma solution based on PET

kp Infinity®
Fully recyclable expanded PP trays

Pentalabel® SmartCycle®
Recyclable labels launched in Europe
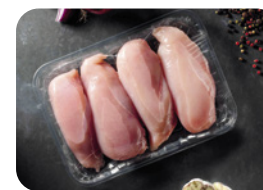
kp Tray2Tray®
Global initiative to create true food tray circularity, using recycled tray flake instead of bottle flake

kp Zapora®
Innovative padless tray technology

Investing in Better
means we will...

Close the Loop

Overview →

Our response →

Our management approach →

We want to see the materials in our products become part of the circular economy, so we design them with the whole life cycle in mind.

Alignment with the UN Sustainable Development Goals

3 GOOD HEALTH AND WELL-BEING

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

14 LIFE BELOW WATER

Our priorities

- Using less virgin raw material, using more post-consumer recycled material

- Encouraging consumers to recycle more, working with others to improve infrastructure and incentives

- More of our products specifically designed to be recyclable and to weigh less, while complying with regulations and delivering superior performance

Overview

All packaging must be designed to eliminate waste, to enable the circulation of materials, and to serve its purpose without polluting the planet. Despite significant positive progress in many areas, we recognise that global plastic resource management is still far from circular. 'Closing the loop' at the right scale demands a high degree of collective action on policy, regulation, consumer education and municipal infrastructure.

The OECD Global Plastics Outlook concludes that population growth and higher disposable income helped to double plastic production to 460 million tonnes[1] betwe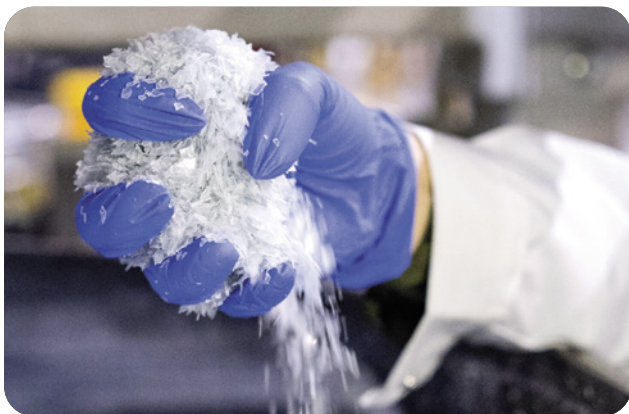en 2000 and 2019. However, only 14% of all plastic packaging is currently collected for recycling after use, and there is evidence that a significant amount of plastic escapes into the environment. There is clearly a need for better waste management that can enable a fully circular economy.

Industry is working hard to prevent the billions of items of packaging ending up as pollution, and we recognise this is a problem that can only be solved collectively. At kp, we have a responsibility to be part of the solution, in collaboration with others, including manufacturers, customers, governments and consumers.

To increase the rate and cost-effectiveness of recycling, we must establish and maintain partnerships with other stakeholders in the value chain. In parallel, we must respond to systemic issues such as consumer behaviour, energy, greenhouse gas emissions, and employment patterns. In Europe, for example, we are seeing an increase in regulation to improve compliance and performance in such areas. Globally, we believe that effective regulation is a fundamental part of the system that will deliver a circular economy.

"For many years, we have focused on using more post-consumer recycled (PCR) plastic and less virgin material in our products, while ensuring that they continue to meet our customers' expectations and preventing food waste.

Given the appetite from the entire industry and its customers for more sustainable solutions, PCR material is now a valuable and relatively rare commodity. That's why we are actively working to reclaim as much plastic as possible, through initiatives like kp Tray2Tray®."

Carla Alves, Group Procurement Manager RPET Europe

1. https://www.oecd-ilibrary.org/environment/data/global-plastic-outlook_c0821f81-en

Target I. Use more recycled materials

Using more recycled materials

The use of recycled materials is critical to unlocking a truly circular economy. To make that happen, we need constant and accessible supplies of recycled raw materials – yet these only become available if infrastructure for collecting, sorting and recycling is in place for consumers and others to use.

While most PCR material can be used by industry somewhere, the requirements of the food and medical sectors are particularly stringent. We have been using post-consumer recycled PET (rPET) for nearly two decades to produce high-quality products that meet global safety standards and consumer expectations. In 2021, 23.3% of the inputs in our plastic packaging comprised PCR polymers (2020: 21.5%) – some of which originates from our circular Tray2Tray® initiative – which equates to just over 130,000 tonnes.

This is an achievement; the market for PCR material is highly diversified. Large operators have direct access to higher quality waste streams but, overall, availability is constrained by low collection rates and growing demand from an increasing number of end-users. Availability has also been affected by the pandemic, transport disruption, and geopolitical events in 2022. Consequently, PCR is a scarce, increasingly expensive commodity. Additional price volatility arises from the imposition of single-use plastic and virgin content-focused taxes by various governments.

To mitigate these issues, our focus is the kp Tray2Tray® initiative (see p23 for more detail) which can help us meet regulatory and customer expectations while responding to potential reductions in availability of PCR flake. In addition, we are helping to maximise use of PCR content in our products by investing in super-cleaning technology in our US and EU operations and by adopting digital marking.

Despite the challenges we have faced during the past two years, we have been able to supply our customers continuously. Our procurement teams account for inherent and emerging risks to supply, and when possible seek to source locally to help keep costs stable.

23.3%
PCR material in our packaging

The benefits of plastic

No other material can match plastic's unique benefits.

Of course, we understand that plastic is a by-product of the fossil fuel industry, and that we must work hard to get the maximum benefit from every bit of plastic produced, while minimising carbon emissions. That means recyclability, lightweighting and using recycled materials are critical, and it's why we are focusing on Closing the Loop.

- Plastic safeguards and extends the life of medicine, prevents children from accessing products and keeps medical devices sterile
- Preservation of food freshness during distribution, in stores and at home, helping to avoid food waste
- Plastic acts as a hygienic barrier, protecting drugs and food against moisture, microorganisms, gases and extreme temperatures
- Strong, durable and light, when compared with common alternatives
- Potential to be recycled multiple times, creating a valuable raw material for more packaging and products
- Versatility, adaptability and flexibility; plastic can become any size or shape, and is easy to print on
- Relatively low carbon emission intensity, when compared with common alternatives

Target I. Use more recycled materials (continued)

Expanding the use of PCR material in the USA
We are adding an extrusion line and two thermoformers to our US operations. This opens up 15,000 tonnes of new capacity to produce sustainable healthcare and food packaging for the North America market. Our commitment to rPET remains, despite tough market conditions. The extrusion line will support product lines such as kpNext® recyclable pharmaceutical blister films, and SmartCycle® recyclable label and consumer packaging films. The thermoformers will produce kp Elite®, the award-winning, 100% recycled, mono-material protein trays which are themselves easy to recycle.

Switching our UK rigid film customers to rPET
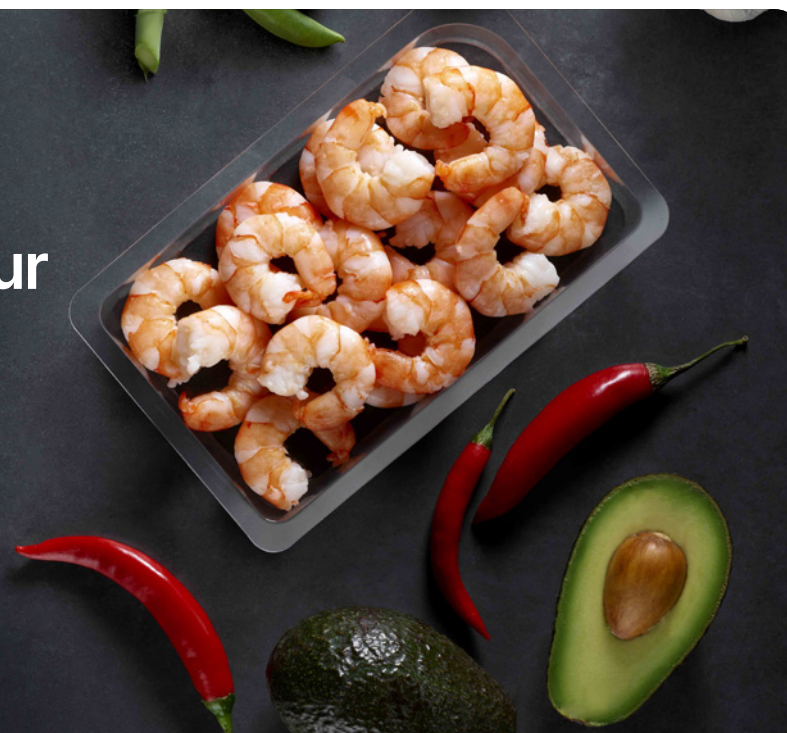
In early 2022, we moved all food packaging rigid film customers in the UK to kp SmartCycle® base products. kp SmartCycle® rigid films for food packaging contain a minimum of 30% to 100% post-consumer recycled PET trays and bottles, from a sustainable source certified by EuCertPlast.

This offering is good for the customer, the consumer and our bottom line. Doing this helps our customers meet EU legislative requirements relating to minimum levels of recycled content, and gain exemptions from certain plastic levies.

Meanwhile, In North America, kp SmartCycle® is already the standard in our product range, as many customers source rigid PET film from kp with a minimum declared PCR content of 50% and 100%.

Security and transparency are provided by our SAP traceability and the external RecyClass (in the EU) certifications.

Our offering is good for the customer, the consumer and our bottom line.

Target I. Use more recycled materials (continued)

Improving recyclability in Peru with PepsiCo

Our recyclable SmartCycle® label films are boosting the amount of post-consumer recycled material available for reuse. For example, using these films enables PepsiCo to offer consumers in Peru the convenience of recycling a PET bottle and label together, along with their other 'RIC 1' recyclable products.

Furthermore, local recycling centres can also increase their PCR output by avoiding the costly process of de-labelling.

This new project, using kp's crystallisable PET label films on PepsiCo's Gatorade® brand sports beverages, utilises film from our Gendorf site and will expand to North American facilities by the end of 2022. Other SmartCycle® label film sampling programmes are ongoing worldwide.

Using these films enables PepsiCo to offer consumers in Peru the convenience of recycling a PET bottle and label together.

Target II. Close the packaging loop

Circularity at work

We're closing the packaging loop by recycling our own food trays and rigid film to make new trays and film of the same quality, again and again – we call this process our 'Tray2Tray®' initiative.

We work hard to source recycled materials in sufficient volumes and to meet specific purchasing specifications covering the percentage of mono-material contents, presence of non-compatible polymers, and viscosity. Historically, our main source of these recycled materials (in the form of rPET) has been recycled bottles rather than trays. Given that certain market pressures can affect the availability and cost of such material, we constantly seek to diversify our recycled material sources by working with the wider industry.

However, thanks to kp Tray2Tray®, our plastic trays and rigid films can now come back time and again as safe, protective, fully recyclable food packaging trays, in a fully closed loop.

This is as far from single-use as you can get, and the possibilities are endless. In 2021, 7.3% of our recycled material was from kp Tray2Tray® (2020: 3%), and the number of trays we recycled jumped from 115 million to 600 million.

By the end of the year our run rate equated to 10.2% of material coming from Tray2Tray®, equivalent to 800 million trays. Of course, this required solid supply partnerships in different countries and regions, as well as supplier engagement and cooperation with all of our sites in the UK, European Union and Turkey.

"

Having collaborated with recyclers to develop new technology, we saw a step change in the incorporation of tray flake during 2021. Our dedication and effort across various European sites are proving that a closed loop is really possible."

Samuel Pardo, Senior Innovation Manager, Food Packaging Division

7.3%

of our recycled material already came from Tray2Tray® (2020: 3%)

Tray2Tray®

Target II. Close the packaging loop (continued)

kp Zapora® padless tray technology improves recyclability

Our product designers, in collaboration with Swansea University, have worked out how to deliver high-quality fresh protein packaging while doing away with absorbent pads and their adhesive, both of which have the potential to contaminate material streams. This helps improve the operation of kp Tray2Tray®, as obtaining high-quality flake becomes easier, and more can be included in our mix.

kp Zapora® is cleaner and more convenient for the end consumer to recycle at home. The trays are already made using up to 100% recycled PET in a mono-material which is available to packers globally. Removing the pads means greater process efficiencies, and easier handling for recyclers.

In 2021, we produced kp Zapora® at three manufacturing sites, with expansion in the pipeline to meet the demand; it is also available in kp Elite® and our Mono rPET trays.

kp Zapora® won two global awards in 2021: a WorldStar Award from the World Packaging Organisation and a PAC Global Award in the category 'Best in class for Package Innovation Sustainable Design'.

Adam Barnett, President of the Food Packaging Division said: "With eco-taxes and new legislation on the horizon, the time for change is now. kp Zapora® is just one of many products in kp's portfolio that are striving to be the best sustainable options for fresh food."

Zapora®

Target II. Close the packaging loop (continued)

RecyClass certification across FP sites in Europe

'RecyClass' is a recycled plastics traceability certification which proves that we are transparently and reliably calculating pre- and post-consumer material shares. This benefits the customer, and enables us to offer reliable data to governments when they calculate plastic taxes.

The certification is in place at four sites in Spain, Italy, the UK and Portugal, covering seven products, including kp Tray2Tray®, kp Elite® and kp Eternal® trays, and the SmartCycle® range.

In line with the requirements of European Standard EN 15343:2007 Plastics Recycling, a RecyClass audit covers the origin, physical traceability of recycled plastics, at different stages of the value chain, ultimately resulting in a report of the verified percentage.

This traceability verification means reliability and transparency, and it applies through the value chain – including compounders, converters, blow moulders and brand owners.

Read more at **www.recyclass.eu**

In Europe[2] in 2020, one million tonnes of trays reached store shelves. However, research indicates that only 208,000 tonnes were then sorted for recycling. To improve this ratio, we know further action is required, such as:

- Increasing volumes from recyclers by encouraging investment in dedicated recycling lines
- Stimulating additional demand from our customers and retailers for recycled content from pots, tubs and trays

The PET tray recycling market continues to grow, so we can expect to see expanded collection and sorting, delivering more bales of material. Our work with the entire value chain is helping to generate demand and ensure a constant supply, the success of which depends on suppliers providing kp with adequate quality tray flake, on recyclers maintaining their investment in tray recycling, and on customer demand at the right scale.

Awards

FOOTPRINT awards 2021 WINNER

Footprint Award
Sustainable Supplier of the Year

LIDER PACK Packaging & PLV AWARDS
GANADOR EDICIÓN 2021

Liderpack
Best Food Packaging Awards

2. The EU27 states plus Norway, Switzerland and the UK

Tray2Tray® content roadmap

2022 **15%**
2023 **20%**
2024 **25%**
2025 **30%**
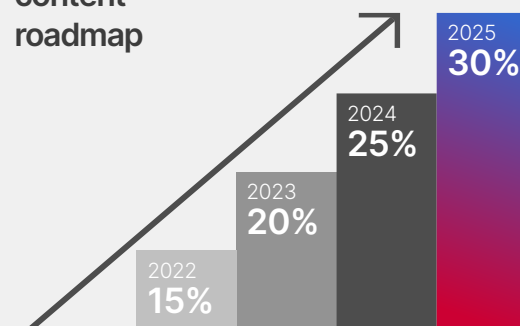
We are currently on target to meet our 2025 goal, achieving 7.3% from Tray2Tray® in 2021, and we are working hard to derive 15% of our PCR plastic consumption from pots, tubs and trays by the end of 2022.

Target III. Make all of our packaging recyclable

Recyclability

A circular economy cannot exist unless products are designed accordingly. Good design means a highly effective product with sustainable features and options, that incorporates a substantial amount of recycled content.

We design and manufacture sustainable solutions that protect products for daily use, such as blister packaging for pharmaceuticals and food packaging for fresh food. We understand our responsibility to promote a circular economy: plastic is a valuable raw material, especially in medical secondary (outer) packaging, where current regulations allow the use of PCR content, for example in vaccine cradles.

Our design principles embrace sustainable outcomes. This fact is critical to the success of 'Investing in Better'. At kp, creative, collaborative research teams and packaging experts invent and test tomorrow's products and solutions, from pressure-sensitive labels to shrink sleeves. Innovation is of course vital across kp: our Food Packaging (FP) division constantly improves the attributes of its trays, while across every division our films feature product formula innovations that better meet the requirements of customers and the needs of the end user.

kpNext® R1 is more recyclable than ever before

kpNext® R1 is the world's first and only blister pack made entirely of PET, which can be recycled in the PET recycling stream known as RIC 1[3].

Pharmaceutical blister packaging is typically produced from complex materials which prevent recycling. However, kpNext® R1 allows pharmaceutical companies to use existing tools and equipment without sacrificing speed or increasing costs. kpNext® R1 allows consumers to separate blister packs and conveniently recycle them. kpNext® R1 can also be a way of incorporating recycled content, closely monitored in line with regulations relating to different regions and applications. Pharmaceutical companies are to perform extensive testing and qualification to ensure end user safety.

kpNext® R1 was launched globally in August 2021, and has attracted interest from several global brands. The product has certificates of recyclability in Europe where the technology for collecting and sorting is more advanced. Now, we are introducing our next sustainable barrier material – kpNext® RB5. This is a polypropylene version that can be recycled via the RIC 5 stream.

3. The Resin Identification Code (RIC) was created in 1988 for workers in the plastic and recycling industries to sort and recycle plastics more efficiently.

28%
of our packaging portfolio is recyclable

Read more about how we innovate on page 10 and on our website at www.kpfilms.com/en/about-us/innovation

Target III. Make all of our packaging recyclable (continued)

More recycled content in films for consumer products

We are continuing our work to replace virgin resin with certified post-consumer recycled resins in our consumer packaging films. By doing so, we further strengthen the after-market use of PCR material, creating market demand, which in turn justifies the need for recycling and collection systems – promoting a circular economy.

Major consumer brands want to promote a sustainability message, and PHD SmartCycle® consumer films help them do that. The films are recyclable, and contain between 20% and 100% post-consumer content – an easily understood message for consumers.

Our thermoforming films remain best-in-class solutions for deep draw, high clarity, and sustainability benefits.

Read more at **www.kpfilms.com/en/consumer-packaging/pcr-films-for-sustainability**

Changing consumer behaviour is a vital piece of the circular economy puzzle, as described in the case study overleaf. Ultimately, packaging must meet technical requirements, but it must also be easy to recycle. And once consumers recycle a product, fresh thinking and innnovative solutions are required to facilitate the flow of materials.

In order to track progress on this goal, recyclable packaging must meet recognised and accepted design standards for recyclability. At this point, design standards for recyclability become vital. Organisations such as RecyClass, APR, CEFLEX and Petcore, among others, publish standards to help ensure that all products are designed for recyclability – when appropriate collection, sorting and recycling infrastructure is in place. Key to such guidance is the recognition of a well-known trade-off in packaging: that enhanced recyclability, or reduction of materials, cannot come at the expense of protecting the product.

In 2021, we assessed the recyclability of our packaging portfolio, based on our sales volumes, to be 28% (2020: 24.2%), up six percentage points since 2019. Recyclable alternatives exist for 12 of our 19 listed product categories, and customers continue to demand more. We are simplifying our range of materials, and using materials that are easily recyclable where possible.

While a true circular economy requires changes to infrastructure and behaviour in combination with sustainable design, there is also a need for ongoing collaboration. We must work with the supply chain to create demand, and with governments and private waste collectors to ensure investment in infrastructure. Our suppliers, for instance, continue to invest in chemical recycling, a technology which kp fully endorses and is actively evaluating for multiple market segments.

"

It's critical for our industry to help our customers and partners become more sustainable and circular. That's why kp is consistently innovating with the aim of making our packaging more recyclable. We continue to work closely with the recycling industry to understand their requirements."

**Tina Jächel,
Product Manager, Pharma**

Target III. Make all of our packaging recyclable (continued)

Major UK retailer switches to kp Infinity®

Many retailers now offer their customers more sustainable protein options than ever before – and they require truly sustainable packaging to match. Packaging used at in-store meat and fish counters must be lightweight, will typically include an in-line padder for protection, and must be fully and easily recyclable.

Supplied from our St Helens plant, kp Infinity® ticks all the boxes for a major UK retailer, one of our key customers. No additional recycling infrastructure is required, and the project supports the business' ambition to remove, reduce, reuse and recycle plastics.

Using kp Infinity® recyclable expanded polypropylene trays means that our customer now uses 1,000 tonnes fewer packaging annually, cutting CO_2e emissions by 2,659 tonnes.

Target III. Make all of our packaging recyclable (continued)

HolyGrail 2.0 invisible recycling technology, sorted.

Better sorting of packaging waste means better recycling rates and greater volumes of recycled content, particularly rPET.

That's why the European Brands Association and the Alliance to End Plastic Waste are collaborating on the HolyGrail 2.0 project. HolyGrail 2.0 seeks to prove the viability of digital watermarks for accurate sorting of packaging waste.

Digital watermarks are invisible, thumb-nail sized markings covering the surface of a consumer goods packaging unit or label. They can carry information which is detected and decoded by a high resolution camera on the moving sorting line. Important benefits include highly accurate sorting, better quality recyclate, data collection and communication with customers, which all contributes to a more circular economy.

Modern sorting equipment currently relies on near infra-red (NIR) and visible light to identify polymer types, but it can be hampered by the high speed of the material recovery lines, and by damaged or dirty bottles. A pilot sorting machine


by Pellenc ST at I/S Amager Ressourcecenter in Copenhagen is being used to test the new digital watermark system. As part of the trial, both kp's FP and PHD divisions sent watermarked packaging samples for testing. The result: in excess of 95% recognition of the various packaging types.

Speeding up adoption of the technology is now the main challenge. HolyGrail 2.0 is being tested in France, Germany and Denmark and elsewhere by regional recycling facilities and global brands; partners include SUEZ, PreZero, Indorama, Tomra/Borealis/Zimmermann and Paprec.

PHD division focus: our PHD division regularly provides labels for food products, and uses invisible watermarks in label artwork in collaboration with specialist ink and converting partners. A sample under test incorporates our Pentalabel® SmartCycle® technology, featuring recyclable crystallisable PET and washable inks. The sleeves for the bottles were applied using the shrink tunnel in our Gendorf iCenter.

Food Packaging division focus: our FP division uses the technology to improve the recyclability of food packaging. For example, we need to show the European Food Safety Authority (EFSA), using verifiable processes, that at least 95% of PCR comes from food packaging applications. The improved sorting enabled by digital watermarks allows clearer separation of multimaterials and mono-materials, of recyclables and compostables, as well as coloured or clear packaging.

Using a meat tray and sushi lid, we have completed work to ensure the markings do not inhibit product visibility while allowing sufficient 'signal' transmission to the specialised detection equipment. We also report that the experience of the consumer – an important factor for recyclables – remains unaffected. Next, we will test the system reliability, scale-up the project and work with retailers and packers to launch watermarked thermoform packaging.
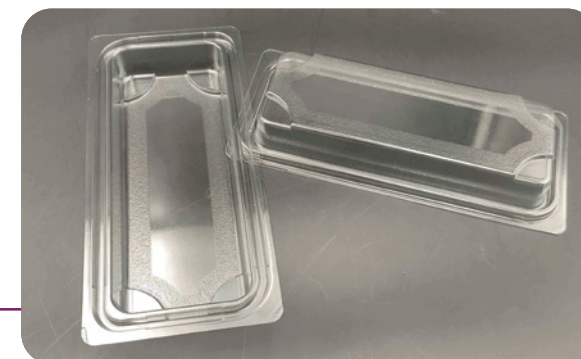
Closing the loop: our management approach

At a global level, kp's strategic production and innovation operations are managed and implemented under the supervision of an owner, a sponsor and a finance manager. This means careful project delivery, tracking and reporting of progress on a monthly basis.

In 2021, we ran 15 sustainability-related strategic initiatives which we consider to be 'business transformative' and which would have a positive impact on the ten 'Investing in Better' goals (see page 3). All of these initiatives account for the requirements of our Risk Management framework, the relevant market opportunity assessment, our manufacturing standards, our Code of Business Conduct, and product stewardship regulations (such as REACh). Development and delivery procedures are subject to our Quality Assurance framework, while data on post-consumer resin used to manufacture packaging products is subject to external assurance.

Using more recycled material and increasing packaging recyclability
Our innovation and production management teams apply the well-known 'stage-gate' process, which incorporates sustainability criteria such as recycled content, recyclability and material choice. They engage with key customers to run tests and welcome input from other stakeholders such as suppliers, industry bodies and regulators.

kp has been using rPET for nearly two decades, and PCR usage is reviewed by plant and by type of material on a monthly basis by our core team of experts. Our product development pipeline comprises several sustainability innovations, with a particular focus on the PHD segment and recyclability. These projects are closely monitored and are driven by our innovation experts.

Extensive collaboration and engagement with customers is fundamental to our approach, as is our work with organisations such as the European Brands Association, the Alliance to End Plastic Waste, and the Ellen MacArthur Foundation.

kp Tray2Tray®
This relatively new initiative is strategically important, driven by our leadership team, and run in close collaboration between innovation and procurement managers.

Resources attached to the initiative include employees across our operational, commercial, regulatory, quality, engineering and marketing functions. A steering committee meets regularly to discuss progress and to address site-level considerations.

Engagement with suppliers is extensive – for example, in each EU country there is a wide variety of sorting rules, waste streams, facilities and technology to which we must adapt. By doing so, we can support each supplier to secure access to flake for kp Tray2Tray®. We also engage with retailers and packers with the aim of creating demand for the critical mass of material we require.

Additional information is available on risk, quality and certification at **www.kpfilms.com/en/sustainability**

Investing in Better
means we will...

Work Smarter

Overview →

Our response →

Our management approach →

We want to play our part in tackling some of the big environmental challenges the world faces today. Reducing resource use, cutting emissions and avoiding landfill helps us do that.

Alignment with the UN Sustainable Development Goals

Our priorities

- More energy-saving projects delivered by our Global Energy Taskforce, more renewable electricity

- Reducing greenhouse gas emissions using a climate science-based approach in line with the 2015 Paris Agreement

- Improved process efficiency and waste management help kp towards zero waste to landfill or incineration without energy recovery

Overview

The latest science endorsed by the United Nations states that the world should limit global warming to 1.5°C[1], rather than the original 2°C agreed in Paris in 2015. To do this, the world must arrive at peak greenhouse gas (GHG) emissions sooner rather than later. Timing is critical: earlier action has a greater impact. The science of climate change is now well established – we understand that all organisations must act now to mitigate its impacts.

"

Focusing our efforts in becoming more efficient and reducing our GHG emissions is key to our strategy. However we know we can't achieve this on our own and we are thankful for our dedicated colleagues as well as to further collaborate with our customers, suppliers and the industry."

**Aida Cierco,
Group Sustainability Senior Manager**

Through innovation and technology, industry has an opportunity to mitigate the negative impacts of climate change, as described in the latest scientific report from the IPCC[2]. When we switch to energy sources free of fossil fuels, we are playing a small part in minimising the risks associated with climate change such as extreme weather events, wildfires, ocean acidification, flooding, and heat-induced health impacts. And for kp, investing in energy efficiency and renewable energy today avoids greenhouse gas emissions now and in the future; that's why it is the basis of our strategy.

Working smarter also means we must seek to avoid generating unnecessary waste, and that we must recycle or repurpose any remaining scrap material. Worldwide, each of us produces an average of 0.74 kilogrammes of waste per day, and while high-income countries only account for 16% of the world's population, they generate about 34% of its waste[3].

Despite these numbers, it is estimated that around 3.5 billion people lack access to the most elementary waste management services[4]. And while recycling is starting to affect virgin plastic use in some parts of the world[5], poor waste management is still creating significant pollution.

For business, working smarter creates and protects value for customers, employees and investors. Strong governance and smart leadership assess risks over the longer term, and adapt ahead of time through transformative business change. Our approach is to respond proactively to projected disruptions to natural systems or economic models.

1. http://ipcc.ch/report/sr15/
2. https://www.ipcc.ch/ for the Sixth Assessment Report (AR6)
3. https://datatopics.worldbank.org/what-a-waste/trends_in_solid_waste_management.html
4. Global Waste Atlas http://www.atlas.d-waste.com/
5. https://emf.thirdlight.com/link/n1ipti7a089d-ekf9l1/@/preview/1?o

Target I. Improve energy efficiency

Improve energy efficiency

Building on our strong track record, we aspire to be leaders in energy management. A wide range of initiatives are now in place across our operations to monitor energy, use less and find alternative, renewable sources. We aim to do more with less, and understand that the most sustainable energy is the energy you don't use in the first place.

Accordingly, we have a global Energy Task Force in place, which works to continually adjust and upgrade existing manufacturing systems, and to install new equipment where needed.

Throughout 2021, we ran more than 150 energy-saving projects – a significant increase from 2020. These included changing the way we use compressed air, and changes to our cooling, insulation and lighting approaches. All of this work is underpinned by energy and environmental management systems across the business.
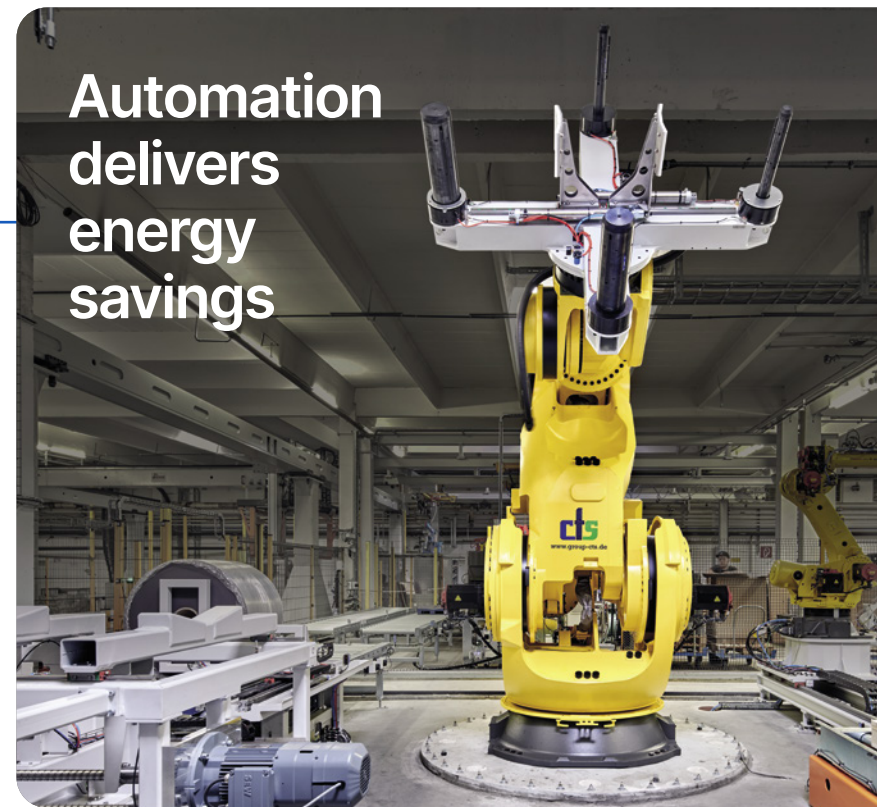
−2%

reduction in energy use per ton of production vs. 2019

By the end of 2021, we recorded a 3% reduction (23,926 MWh) in total energy consumption since 2019, equivalent to the annual electricity use of 6,500 typical European homes[6].

Regarding energy use per unit, our 2021 global production volumes were 1.6% lower, and we consumed 749,935 MWh (2020: 760,402 MWh). Despite an overall reduction, energy use per tonne of output has remained broadly flat since last year. When adjusted for the influence of external temperatures, we calculate a small reduction (0.35%) in energy used per tonne of product processed, building on the progress made in 2020. Lower production volumes lead to higher energy intensity figures, as baseload consumption remains more or less constant. We continue our focus on fighting the 'Battle of the Baseload', a major campaign covered in our 2020 report.

6. 3.7 MWh is typical consumption for typical European home. See source: https://www.odyssee-mure.eu/publications/efficiency-by-sector/households/electricity-consumption-dwelling.html

Automation delivers energy savings

Technology and innovation make for efficiency gains. In Featherstone (UK), Suzhou (China), Gebze (Turkey) and Montabaur (Germany) we logged 1,200 MWh energy savings in 2021 by using new control systems. In Featherstone, we installed compressor automation, shutting them off when not required, while at Suzhou we automated the chiller plant.

Retrofitting improved components also provides substantial efficiencies: at Montabaur a new electric calender heating system was installed, with an optimised heating station, new valves and a controlled heating system. The project took our engineers six weeks to install, and saves 600 MWh of electricity each year.

Target I. Improve energy efficiency (continued)

Savings from recirculating heat

Smart thinking means not wasting anything, including heat. At Pontivy in France we installed a heat recovery system on a PVC extruder. The savings arise because we no longer have to heat ambient air used in the process; air is instead captured from the extruder, a hot part of the process. Similarly, at our sites in Eastern Europe, we capture waste heat from compressors and reuse it earlier in the process, instead of using fossil fuel to generate heat at the air intake. Combined, these projects saved 10 MWh of energy in 2021.

Looking forward, our improvements will focus on core extrusion, calendering and thermoforming processes, incorporating shut-downs, insulation and machine set-point benchmarking.

Of course, energy efficiency can only take us so far in reducing emissions, because we will always need energy to make our products – that's why we are also investing in renewable energy.

For more on how we manage energy, see page 34.

"
The acute nature of the global energy crisis means that we must reflect on the importance of managing energy and reducing carbon at kp. It's critical that we realise our ambition of achieving the lowest possible energy use, while generating more energy from renewable sources. The team is on a mission, with new projects, innovations and opportunities ahead."

**Ethan O'Brien,
Group Energy Manager**

Target II. Reduce Scope 1, 2 and 3 carbon emissions

Reduce Scope 1, 2 and 3 carbon emissions

Most of kp's greenhouse gas (GHG) emissions come from upstream suppliers' resource extraction and manufacturing operations, the transportation and processing of our products once they leave our sites, and business travel – these are our 'Scope 3' emissions. GHG emissions also arise indirectly from energy we purchase (Scope 2), as well as from direct energy we use (Scope 1).

Our GHG emissions targets, set in 2020, align with the goal of limiting global warming to 1.5°C. Our targets cover all three GHG emission scopes and were formally approved by the Science Based Targets initiative (SBTi[7]) in September 2021.

We aim to reduce Scope 3 GHG emissions per tonne of raw materials by 20% by 2030, against a 2019 baseline. Our goal focuses on the purchased goods to make our products, the subsequent processing of the products, and end-of-life treatment. This requires an increase of recycled material inputs and other 'low embodied carbon' materials, as well as increasing the recyclability of our products.

In 2021 we achieved a reduction of 7.9% in Scope 3 emissions per tonne of raw material versus our 2019 baseline. While some of the reduction can be attributed to an improvement in emission factors, our work in purchasing more recycled materials, increasing other 'low embodied carbon materials' and our supplier engagement activities aimed at reducing the carbon intensity of the plastics industry, will drive the performance forward.

Please see pages 19–23, for more on how we contribute to the circular economy, and page 51 for more on our supplier engagement programme.

7. SBTi provides the most widely used method of calculating and communicating a target in line with the goals of the Paris Agreement – to limit global warming to well below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C: https://sciencebasedtargets.org/

Our goal is to halve Scope 1 and 2 emissions by 2025, against our 2019 baseline. We are half way there: at the end of 2021, we had reduced them by 24%. By the end of 2021, our 3% reduction in total energy consumption (since 2019) was matched by a 3% reduction in Scope 1 and 2 emissions. While some of the reduction can be attributed to an improvement in grid emission factors, our work on energy efficiency and renewable electricity are the two fundamental programmes which drive our success in reducing GHG emissions.

24%
reduction on Scope 1 and 2 emissions vs 2019

kp GHG emissions breakdown by Scope

1% Scope 1

8.7% Scope 2

90.3% Scope 3

Klöckner Pentaplast | Sustainability Report 2021

Introduction   Close the Loop   **Work Smarter**   Act Responsibly   Governance and Approach   ‹ 29 ›
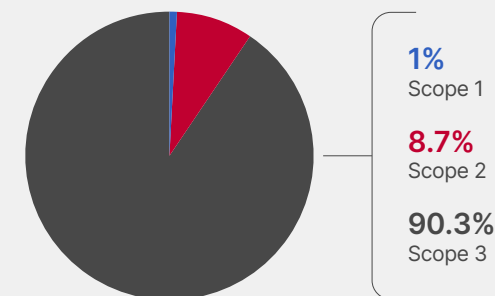
Target II. Reduce Scope 1, 2 and 3 carbon emissions (continued)

By the end of 2021, 28% of our electricity was generated from renewable sources (2020: 25.6%). We have effectively more than doubled our use of renewable energy since 2019 in order to meet our GHG reduction target. All the electricity we use in the UK, Poland and Spain is renewable, as certified via a mix of Guarantees of Origin certificates (GOs) and International Renewable Energy Certificates (I-RECs).

In 2021, 15 sites were reviewed for the installation of on-site solar energy systems, with big plans for implementation company-wide in 2022 and beyond.

Progress on solar energy in Rayong, Thailand

We are taking a phased approach to rolling out solar energy in Rayong, Thailand. Phase one of the work took place in 2020, with panels installed that generate 25 kW of electricity. In 2021, as part of Phase 2, a 325 kWp solar system was installed which began generating electricity in October 2021. This is expected to generate 468 MWh, equivalent to 2.5% of plant consumption, reducing annual GHG emissions by 234tCO$_2$e. Phase 3, due to be commissioned later in 2022, will increase the amount of energy generated from renewable sources at the Thai site to 7.1%. The benefits are clear: more renewable energy and fewer greenhouse gas emissions.

28%
of our electricity is
from renewable sources

Target III. Stop sending waste to landfill

Stop sending waste to landfill

Any by-product that leaves our sites and yet isn't part of finished goods is considered site waste. We've found that much of this waste can be a useful resource, however, and that's why – in addition to the environmental benefits – we minimise, reuse and recycle waste to divert it from landfill.

We are increasing the number of sites that send zero waste to landfill. At the close of 2021, 15 out of 29 kp sites globally were designated as 'zero waste to landfill and incineration without energy recovery', as a result of our Zero Waste programme (2020: 11). The cohort now includes sites in Thailand and China. In many cases, going 'zero waste to landfill' can be challenging – particularly where there is limited local recycling infrastructure or support services. Our progress in this area is thanks to the leadership of our local teams, who often deliver robust action plans to overcome challenges. We also operate two sites where unfortunately local regulations still require the use of landfill – therefore these sites are not in the scope of our goal.

In 2021, we continued to send 80% of our waste for recycling, 14% to landfill, and 6% to incineration with energy recovery. Overall, our waste increased by 9.2% since 2020, the result of including new data on stored waste at some locations. Waste sent to landfill comprises general waste and small amounts of hazardous waste, which is always handled in accordance with regulations.

In 2022, most waste arising from manufacturing, such as plastic scrap, packaging by-products, wood and wrappings, is recycled. However, some general waste is still either sent to a waste-to-energy plant, or to landfill.

15
'zero waste to landfill' and 'incineration without energy recovery' sites

Using less raw material in Suzhou, China

Our Suzhou site in China achieved zero waste to landfill more than three years ago. Strong local municipal waste services, and effective sorting systems led by our teams on site, made the difference. In 2021, we found additional ways to reduce material consumption – for example, each time we purge the extruder we consume four to six tonnes of raw materials, including c. 20% virgin polymer. Now, we are using around two tonnes of ground transparent by-product for the purging process instead of selling it as scrap. Doing this helps us reduce material costs and increase recycled content. In 2021, we reduced the raw material requirement for purging by 17.2 tonnes.

Target III. Stop sending waste to landfil (continued)

kp Gebze achieves zero waste to landfill

The kp Gebze team is proud to be 'zero waste to landfill' since July 2021.

The zero waste to landfill and incineration programme at the Turkish site began in 2020. Three colleagues championed the effort, who subsequently trained our production and catering teams, our suppliers and our waste contractors. On production lines, waste management is now far more efficient, and in offices specific bins are used for various day-to-day waste, while in the canteen all food waste is minimised.

Key to the initiative's success is waste stream analysis, clear action planning, standardised waste separation processes, a good level of understanding among the team, and making the switch to a new waste contractor.

All materials are now sent for recycling. Most (82%) are easily sorted and separated, but more complex materials, such as glues and composites, are sent to incineration with energy recovery (15%). All organic waste from the canteen is used for animal feed (3%).

The site is regularly carrying out internal audits to ensure that waste is sorted properly, and to assign any actions that might be required. The Turkish government has also formally recognised our zero waste performance.

Gebze waste analysis

15%
Waste-to-energy

3%
Animal feed

82%
Recycled
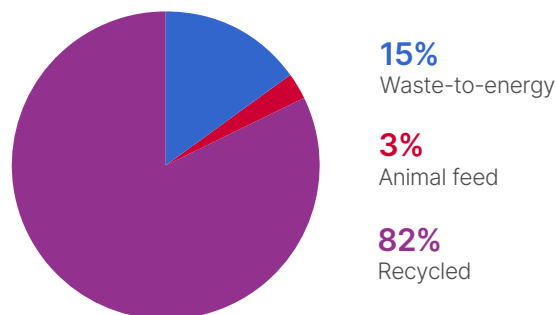
At site level, we analyse waste streams, volumes and disposal routes. Action plans, performance monitoring and reporting are all present on site to drive waste reduction and achieve zero waste to landfill. In 2021, we switched to new waste contractors in Southern Europe and North America, as the previous contractors were unable to offer zero landfill solutions. New providers are now being selected entirely because of their ability to offer zero landfill solutions.

So far, six plants have been participating in Operation Clean Sweep®, a global campaign dedicated to helping every plastic resin-handling operation achieve zero pellet, flake and powder loss. Going further, our 'Product Wheel' initiative also helps to reduce process scrap: by the end of 2021 it represented 0.5% of total production tonnage, down from 3.6% in 2020.

New providers are now being selected entirely because of their ability to offer zero landfill solutions.

Water stewardship in 2021

We recognise that water is a scarce resource, and our approach to managing resources includes water as a core component. Water availability is affected by many factors, including climate change, and today there are a growing number of water-stressed regions where environmental and social impacts can be negative and significant[8]. Access to good quality freshwater is fundamental to an equitable society, and worldwide, around 12% of all water withdrawals are used by industry[9].

8. World Meteorological Organization (WMO) 2021 https://public.wmo.int/en/resources/united_in_science
9. https://www.unwater.org/water-facts/scarcity/ and page 23 in Summary Progress Update 2021: SDG 6 — water and sanitation for all (July 2021)
10. Water is considered to be "freshwater". For water withdrawals, sites are reliant on the use of invoices and meter readings. For water discharges, sites are also reliant on the use of invoices and meter readings. For those sites without discharge meters or invoicing, estimates have been used for discharge volumes.

In this context, we actively track and monitor several KPIs to drive water stewardship. In our materiality assessment, which formed the basis of our strategy, water stewardship was ranked as a low priority so we have not set an enterprise-wide goal. However, we continue to engage on this topic and continued to apply good practice in 2021.

We do not use significant volumes of water because our manufacturing processes are not water-intensive. At our sites, water is mainly used for cooling hot machine processes; using water in this way rather than electricity actually generates fewer GHG emissions. When water is needed, it is used efficiently with minimal impact on our host water catchments and local communities.

Typically, kp factories are connected to municipal water supplies, and discharge to municipal systems; they generate very little industrial wastewater. Before discharge, we monitor and treat wastewater to ensure the appropriate quality for release, in line with all regional or local regulations. Given the nature and amounts of discharge we have not developed a Group-wide water quality standard. Therefore, we do not report wastewater discharge quality annually at a Group level.

We adopt a precautionary approach to water risk management, and water use is part of our site Environmental Management Systems.

Impacts relating to withdrawal, consumption and discharge are particularly important in water-stressed areas. Our water risk assessment is guided by a combined water stress index based on the WWF's Water Risk Filter and WRI's Aqueduct tool. All sites have a water management plan in place, adapted to local conditions. We received no fines for water-related non-compliance in 2021.

Of the three million cubic metres of water withdrawn by kp in 2021, 2% was within locations with high or extremely high baseline water stress in South America, Asia and Europe where five of our 31 sites are located: Changzhou, Cotia, Gebze, Bertinoro, and Suzhou. Our water programme in 2021 maintained our focus on managing any supply at risk of disruption, and ensuring smart use of water through sharing of best practices. Our aim is to improve water conservation in all high-stress regions by effectively managing our process water systems, machine settings, and employee behaviour, as well as setting a standard water efficiency metric suited to individual site conditions and infrastructure.

Water use (cubic metres)[10]	2021
Water withdrawn	3,065,305
Discharged water	2,593,616
Water consumed	472,689

Investing in Better: water stewardship 2021 (continued)

Recycling river water in Gendorf

One of several new energy and water efficiency projects at our Gendorf site in Germany is focused on improving the sustainability of the site's water cooling system.

Each year the site draws 2.6 million cubic metres of water from the nearby River Alz. We use it to cool machinery, and 99% of it is returned directly to the river, while 1% is consumed on site in manufacturing, cleaning and sanitation before being sent to our wastewater treatment plant. Water quality and temperature are tested to ensure regulatory compliance.

The factory is part of Bavaria's oldest chemical industry park, so the system is constantly under review to ensure it is operating sustainably.

Each year the site draws 2.6 million cubic metres of water from the nearby River Alz. We use it to cool machinery, and 99% of it is returned directly to the river, while 1% is consumed on site in manufacturing.

Working smarter: our management approach

Each site systematically manages its environmental management, energy management and quality processes to ensure compliance with regulations, and with our own policies (see page 31 of our 2020 report). Five sites are certified to ISO 50001, ten to ISO 14001 and one to EMAS level. Project POLARIS helps reduce waste through quality management across all areas of the business, underpinned by the kp Quality Standard across all sites. We continue to monitor Scopes 1, 2 and 3 GHG emissions in line with the GHG Protocol and ISO 14064.

Our global Energy Task Force is supported by a clear executive mandate, capital investment, governance instruments and internal reporting. Each site has developed a tailored energy action plan aligned with local energy costs and regulations.

An Energy Toolkit is used in tandem with energy workshops to produce improvements but notably to deliver our 'lean, clean, green' programme to decouple increased production from increased energy use. The logic is simple: use less to be lean, invest in efficient clean tech, and go for greener, renewable

Lean

Clean

Green

power. The Energy Toolkit guides site managers on 200 energy management techniques for processes such as extrusion and thermoforming, compressed air, cooling systems, vacuums, motors and drives, drying systems, heating systems, and lighting.

There are, of course, some challenges related to achieving our energy reduction target. For example, our energy efficiency metric relates usage to volume and weight of product processed, and we rank each plant by the energy intensity of individual processes and produce a simple score for the plant so that we can benchmark sites and plan improvements. However, customers naturally encourage us to produce increasingly thinner and lighter products over time – which will affect our ability to meet our target, and true progress on energy savings may therefore not be accurately reflected in the headline numbers.

Meanwhile, our Zero Waste programme aims to reduce waste generated on site and to find the best end-of-life options. The programme is governed at executive level by the Head of Group Business Excellence and led at site level by a Safety, Health & Environment Manager who reports local data to the Group Business Excellence team to track progress. Performance

data via a waste stream analysis show waste to landfill, incineration or recycling. Each site's team reviews monthly audit data to evaluate waste management effectiveness and improvement plans to help meet the zero landfill target.

In 2021, kp was selected as one of three finalists for the Energy Institute's Energy Management Award. This award recognises organisations that have improved their energy efficiency performance through the design and implementation of materials, systems, software and supply chains. The Institute recognised our:

- Clearly defined strategy for reducing energy use and measuring performance
- Realisation of reduction targets and a demonstrable benefit to business operations
- Management commitment
- Employee engagement

https://www.energyinst.org/whats-on/search/ei-awards

Investing in Better
means we will...

Act Responsibly

Overview →

Our response →

Our management approach →

Acting responsibly means making it our highest priority to ensure that everyone is safe at work. It means creating an environment where everyone feels a sense of community and belonging, and in which they are empowered to contribute based on their diverse backgrounds, perspectives and talents.

Alignment with the UN Sustainable Development Goals

Our priorities

- Embedding a safety-first ethos and expanding our 'We Care' management system to non-manufacturing assets, supported by more rapid observation-based risk assessments

- Employee engagement, regular interaction between leadership and employees, boosted by acting responsively

- Making a positive impact on local communities, with ongoing commitment to doing more

Overview

While Close the Loop and Work Smarter provide significant benefits to the business, we also seek to achieve equivalent benefits from healthy employees, fair employment terms, community goodwill and the absence of discrimination. A safe and productive culture in the factory and in our supply chains, governed effectively, allows us to remain both compliant and commercially successful.

Success happens when business openly welcomes the best people regardless of gender, age, ethnicity or ability.

The International Labour Organization (ILO) estimates that each year around the world there are at least 1.9 million fatalities and 90 million disability-adjusted life years (DALY) from exposure to 19 major occupational risk factors. They also estimate that 360 million occupational accidents, which result in more than four days' absence, occur each year.[1]

Meanwhile, discrimination is still frustratingly common in the world of work. Whatever the systemic cultural, historic or social reasons for this, it violates basic human rights, accentuates social inequalities and has wider social and economic consequences.

The ILO also reports that, following an analysis of data over the past two decades or so, an increase in female employment is directly related to promoting economic growth at a national scale[2]. Success happens when business openly welcomes the best people regardless of gender, age, ethnicity or ability.

Acting responsibly also means extending our values, ethics and performance standards into our supply chains. Suppliers are critical contributors in our journey to become more sustainable in terms of regulatory compliance, world-class sustainability practices, risk management and engagement.

Beyond the factory gate, community investment and engagement help us to understand local community issues and find ways to solve them, making us a more valuable corporate citizen and reinforcing our social licence to operate. We are more likely to succeed when we are part of healthy, prosperous communities that in turn provide businesses like ours with talent, skills, goods and services.

1. https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_819705/lang--en/index.htm
2. Based on an analysis of data from 186 countries for the period 1991-2017; please see https://www.ilo.org/global/about-the-ilo/%20newsroom/news/WCMS_701767/lang--en/index.htm

Target I. Eliminate lost-time accidents

Eliminate lost-time accidents

A state of zero-harm results from the control and elimination of risk. Our culture at kp is symbolised by safety, quality and moral integrity. As well as complying with our Group Risk Assessment Standard[3], assessments of risk should also be meaningful to employees, thus leading to better engagement and a learning process.

In 2021, safety performance was generally consistent across all operations, with no fatalities. Across all kp sites, 31% of them achieved zero-harm status (2020: 25%). Our occupational health and safety management system, 'We Care', covers all 31 manufacturing sites, and is being expanded to cover non-manufacturing assets.

While our lost-time accident (LTA) rate remained at 0.33 (2020: 0.33), we achieved an all injury rate (AIR) of 1.57 (2020: 2.52), and a total recordable injury rate (TRIR) of 0.75 (2020: 1.10). While the rates show good progress, we still recorded 20 lost-time accidents and we are focusing on a number of areas to control this, such as forklift safety, lock-out/tag-out (LOTO), machine safeguarding, and knife usage.

We are improving risk identification and mitigation across all manufacturing operations, and we have introduced a new forklift standard (see page 39).

Furthermore, the number of observation-based, 30-second risk assessments completed in 2021 reached 748,334 by the end of the year (2020: 467,031). More assessments signify a better level of awareness, which in turn helps to improve underperforming sites and maintain our safety culture. Meanwhile, 'near miss' data from across kp also help us to manage and mitigate risk as we progress to our goal of zero lost-time accidents. We recorded 46,258 near misses in 2021 (2020: 12,392).

0.33
lost-time accident rate

3. GRP-HSE-036 – Risk Assessment Standard

Target I. Eliminate lost-time accidents (continued)

Taking the Risk Assessment Challenge

Who can take the prize for the best risk assessment? That's what our PHD division set out to establish in 2021 with the Risk Assessment Challenge.

The two main goals of the Challenge were to increase daily risk awareness and engage everyone to identify and mitigate risks.

The contest focused on how best to capture and rank all risks associated with specific tasks (as opposed to general work areas) covered by kp's Operational and Maintenance processes. The ultimate goal was better risk identification and control. Points were gained for various achievements in the Challenge, such as 'Best Mitigation Control', or 'Most Risk Assessments Conducted by Team'.

The overall learning was that a sub-standard risk awareness or low attention to detail could easily lead to a serious incident in any of our sites. PHD identified over 15,000 risks and mitigations from our production teams, and our Thai site in Rayong was the overall winner of the contest with a 90% participation rate, 52 employee awards, and 1,270 risk mitigation measures created. We plan to repeat the exercise in 2022.

PHD identified over 15,000 risks and mitigations from our production teams, our Thai site in Rayong was the overall winner of the contest with a 90% participation rate, 52 employee awards, and 1,270 risk mitigation measures created.

Target I. Eliminate lost-time accidents (continued)

Forklift trucks and pedestrian hazards

We recorded two forklift truck (FLT) incidents in 2020, so in 2021 we produced a new global standard specifically to manage FLT risk[4]. A risk-based hazard identification study looked at FLT alternatives, physical barriers around FLT operations, and pedestrian proximity detection systems. We evaluated the risk on all kp sites, and through 2021 our internal audit function checked that the requirements of the global standard were being met. At the same time we included this topic in our weekly HSE calls.

The new FLT standard is informed by, and benchmarked to, our best performing sites, and sets requirements for operating areas, the machines themselves, procedures and training. So far, five of the 11 sites audited are fully compliant with the standard, with the remainder due for completion in 2022. We are also investing in new state-of-the-art FLT equipment which should further mitigate safety risk.

"

Pedestrian-vehicle segregation has been a key part of our safety journey in the UK. We are designing out risk and working hard to eliminate the severe impacts from such accidents."

Andy Yates, Operations Director, Trays North

A safety culture has to be instinctive, a natural reflex to stay safe and keep everyone else safe, too. This means moving people from a reactive state (we do it because we're told to), to one where safety is a habit, an unconscious part of life. This habit, once learned, should persist through operational change, recruitment, career changes and even into retirement.

Meaningful risk assessment is key to developing this habit (see the Risk Assessment Challenge case study on page 38). Assessment helps build a learning environment which encourages both hazard identification and incident reporting. In 2021, our safety training covered all key technical elements of We Care, such as hazard identification, risk assessment and incident investigation, as well as occupational health services and the kp Ethics Hotline.

4. Group standard GRP-HSE-012 – Fork Truck and Pedestrian-Vehicle Segregation Standard, supported by gap analysis, training and audit template documents

Target I. Eliminate lost-time accidents (continued)

We continue to provide occupational health services, and in 2022 we are focusing on working at height, our new material stacking and storage standard, and knife safety. As the impact of the COVID-19 pandemic continued to be felt during 2021, the senior kp leadership team continued to monitor the situation and offer guidance on hygiene and social distancing to prevent transmission.

Constant engagement at Cotia, Brazil

Our Cotia site's excellent safety record stems from the ability of the site management team and all employees to deliver core standard requirements. These include 30-second assessments, near-miss reporting, People Activity Safety Audits, tool-box talks, and 'gemba' walks emulating the Japanese approach of close dialogue between middle management and shopfloor employees.

Engagement from leadership is a starting point. 'Walking the talk' signifies belief and involvement, as well as confidence in the site's volunteer safety champions. Cotia also demonstrates the importance of consistent and accurate near-miss reporting. This comes up every week during the 'Wednesday Gemba safety walks' which offer coaching on specific safety risks, accompanied by best practice sharing and alignment with the site's core values.

Engagement at Cotia also means celebrating significant milestones, maintaining morale, and responding to sentiment revealed via surveys. During 2021, Cotia's intensified focus on safety was recognised and validated in employee insight surveys.

Target II. Become more diverse

Become more diverse

Everyone at kp contributes value to the business by putting their various experiences, perspectives and talents to work. When we harness all of these contributions we encourage individual personal achievement along with excellent business performance. As our mission statement says, we are making kp a place where everyone respects and values everyone else for who they are, what they bring and how they contribute to the mutual success of our global team. We want the most talented candidates to choose kp, and we understand that treating people in an open, equal and inclusive way helps us to achieve this.

To improve kp's diversity we are improving in the following areas:

- A culture of communication, education and conversation
- Recruitment free from discrimination, and greater inclusiveness
- Career opportunities equally available to all
- Retention of the best people, regardless of gender or background
- Closing the gender pay gap throughout kp

At the end of 2021, women made up 22% of our workforce, with a slightly higher proportion at management level of 23.9% (2020: 22.8% and 23.6% respectively). There were no reported incidents of discrimination during 2021.

We continue to encourage more women to join the manufacturing and plastics industries, and to rise to become managers. Our talent acquisition strategy and processes have been improved to facilitate hiring more women and applicants from diverse backgrounds. We are improving our succession planning through better internal candidate evaluation, while the new kp Women's Network offers peer support and coaching. We continue to develop and implement internal training to educate everyone on the importance and value of Diversity, Equity and Inclusion (DE&I).

Following the COVID-19 pandemic, many companies are seeing a shift in working patterns. Part of our response to this is the development of a Flexible Working Policy, launched in 2022, which helps all colleagues to achieve a good work-life balance.
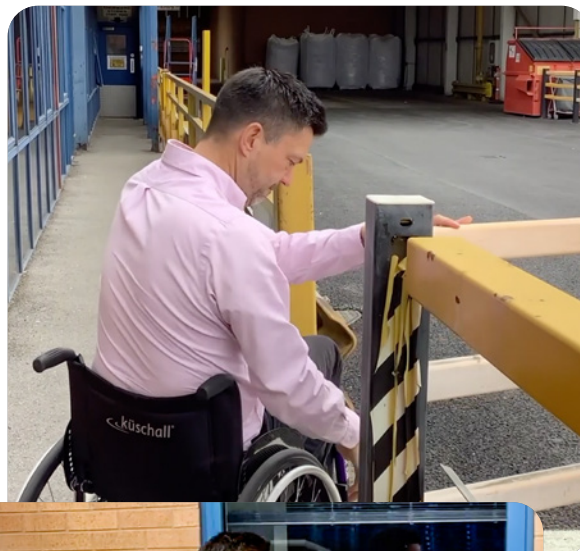
23.9%
women in management roles

Target II. Become more diverse (continued)

kp Ability initiative ramps up

Around 15% of the global population – around one billion people – are classed as disabled. Of course, if we truly want the best people to choose kp, we cannot afford to miss out on this many talented people. Therefore, all of our sites must be physically accessible to all, and every colleague must understand and accept the importance of such accessibility.

In common with many industrial sites in the UK, kp's buildings were built before the Equality Act was in place, and are therefore not always as accessible as they should be. This year, we launched the kp Ability initiative to fix the problem.

Site assessments and education are the starting point. Pilot assessments have been done at Featherstone and St Helens in the UK, accompanied by 'Walk In My Shoes' events with management teams to explain the initiative. Overall, feedback was positive, and all those who took part in the exercise expressed increased empathy and understanding of the challenges that disabled employees face.

The kp Ability Employee Resource Network (ERN) is replicating the 'Walk In My Shoes' event across all kp sites, supported by training. See more at **#WeThe15** or at **www.wethe15.org**

> "For me, what's most important right now is that we have an open dialogue so we can learn together as we build truly inclusive workplaces across our organisation. One of our strategic priorities is to be an employer of choice; without fostering a diverse organisation we cannot achieve this."

**Gayle Stocks,
Group Business
Excellence Manager**

Target III. Engage employees better

Engaging employees

Across all functions, our people are the engine that powers our performance, and so it is vital for that workforce to be highly engaged with their work.

To create a highly-engaged workforce, we offer fair and flexible employment terms, practise open communication, and find local solutions to local concerns. Support is available to all employees through wellbeing programmes, employment benefits, representation, training and education.

75%
employee engagement score in last survey

Our Insights survey
History shows us that ingenuity and collaboration make kp different, and that such engagement needs the right conditions to grow.

The employee Insights survey is one way of monitoring those conditions, and in 2021, 70% of our colleagues participated (2019: 53%). The survey returned the same engagement score of 75%, during a year with ongoing pandemic disruption. While the next survey is due late in 2022, we continue to put improvement action plans in place across kp. We held a very successful Employee Engagement competition in early 2022 to help us monitor progress and recognise achievements.

This allowed us to share best practice throughout the organisation and continue to close the gaps shown in the 2021 survey.

Responding to what employees tell us
Colleagues want evidence that action follows employee engagement, specifically in areas such as open communications, careers and opportunities, wellbeing, work-life balance and stress.

The Insights survey showed that colleagues wanted better communications, in multiple languages and delivered 'live' with management on a regular basis.

'Town Hall' meetings are direct and open, and have proved very successful, particularly in communicating our business strategy and performance updates. We also regularly share site-based engagement action plans, resulting in some significant changes and ways of working for some sites. Our kp newsletter is available in many languages, while the company intranet continues to improve as a key source of information, with a major update due in 2022.

We continue to work on a new Talent Management Framework for kp, including clearly defined job descriptions and clear career paths for different categories of employees. Supporting programmes will provide consistent leadership and management training at all levels. The first programme, Developing Horizons, for first line managers (team leaders and supervisors), is being run across kp in 2022.

When we take action, we communicate it using a range of channels, from bulletins to 'You told us, we've done it' stickers.

Target III. Engage employees better (continued)

Diversity, Equity and Inclusion Training

This year, we introduced a range of training initiatives to support our Diversity, Equity and Inclusion strategy and to help us to understand culture, different perspectives, and how we receive information in our day-to-day lives from friends, parents or media, for example.

The training will also explore the impediments to under-represented, but no less qualified, groups entering the industry. We will always hire the best, and such education helps to refine our processes. Awareness is positive, but we want to identify practical initiatives that align with business objectives.

Recognising great outcomes is a key part of the engagement equation – our 'FARU' recognition programme continues as a way to recognise outstanding employee achievements in 'living' our values of Focus, Accountability, Respect and Urgency.

Continuous improvement is also important. A key focus area for us in the next year is investing in better ways to enhance employee health and wellbeing. This is intended to manage stress levels, but also to foster mindfulness, resilience and physical wellbeing. We plan to build on this work throughout 2022.

Better engagement and connectivity

The rise of mass remote working means that engagement via a screen is now normalised. Feedback from the kp 2021 Employee Engagement Insights Survey indicated that there was a need for new communication channels, so we invested in screens, computer kiosks and email system access at all manufacturing sites.

This means smarter sharing of resources in real time, and live streaming of 'Town Hall' meetings, enabling senior leadership engagement to be more efficient. So far, there are 40 units in place in the USA, Asia and Europe, which are supported by translated materials as required.

Example content includes health and safety newsletters, compliance summary videos, local news and activities.

Target III. Engage employees better (continued)

Relaunching kp Academy

kp Academy

Our Learning Management System – the kp Academy – is accessible to all and has been updated and improved. The ultimate aim is to provide positive and fulfilling learning and career development outcomes for employees. The system is now easier to use, and is accessible remotely. It includes licensed learning materials (to watch, read, listen to and practise), is accessible via the intranet and an app, and has been re-organised and laid out in a user friendly way.

kp Academy is an excellent tool to engage employees on mandatory training, as well as personal development. In the first eight weeks after its re-launch in 2021, we saw 1,000 more page views than normal, and 730 visits to the new platform. The next steps are to keep up the momentum, and ensure access to all via the upgraded communications and kiosk workstations on our sites.

Wider employee development

During 2021, we improved our performance management process and rolled out new supporting documentation and training.

In addition to the relaunch of kp Academy, we released a mobile app for our HR system which enables employees to access both their personal records and kp Academy.

Looking to the future, we understand the importance of creating competitive apprenticeship and graduate programmes which will generate a pipeline of future leaders for kp. We already have a very effective Apprenticeship Programme in Germany, which we are seeking to adopt in other countries.

"

Every kp employee makes a significant contribution to the organisation every day; their strengths and behaviours embody our core values. Our people matter and we need to listen to them to build a positive culture. We continue to invest time and resources to make kp an even better place to work."

**Fran Galbraith,
Group Talent & Development Director**

Target IV. Make a difference in our communities

Make a difference in our communities

We have 31 sites, and so we interact with 31 very different local communities. We strive to make an impact locally, because we know that businesses thrive when they're part of a healthy community.

Each of our sites evaluates appropriate and relevant community investments, which feed into kp Community, our new global outreach programme. It brings together kp employee volunteers and community members on local projects designed to reduce social disadvantage and promote environmental protection. The aim is to bring benefits to our host communities and to generate positive impacts from our presence. Regrettably, the pandemic delayed the kp Community launch, and it is now planned for later in 2022. Existing charitable donations continue, including to the Red Cross and charities providing relief in Ukraine.

Circularity is my bag

A project run at our Totoral site in Argentina demonstrates well the potential of even small-scale efforts to design a circular economy.

Polymer resin is delivered to site in huge bags that are reused by the supplier. However, if damaged, they are now re-manufactured into backpacks for employees and local schools. The project created three jobs in the local community, and unusable resin bags are kept out of landfill. Future plans include wider distribution, and any revenue from the project is donated to local causes.

Rescue effort in Germany

The flooding in summer 2021 near our Montabaur site in Germany was catastrophic. Entire towns, train lines and roads were swept away and resettling and rebuilding will take years. Twenty of our colleagues responsible for fire control at our site immediately took part in the rescue operations in the town of Ahrweiler nearby.

The team spent 48 hours in the region rescuing people, pumping out cellars, and clearing up. Their efforts won them (and the shift managers who adapted to their absence) a well-deserved FARU award. Our FARU recognition programme allows us to thank and recognise our employees who demonstrate outstanding achievement in 'living' our values: Focus, Accountability, Respect and Urgency. As part of our kp Community outreach, we are encouraging charitable contributions via a partner organisation, matched by kp.

Acting responsibly: our management approach

Safety

Our occupational health and safety (OHS) management system, known as 'We Care', covers all employees and contractors, and is being refined to cover activities at customer sites, too.

Our hazard identification, risk assessment and incident investigation processes are highly developed. We have two approaches: (i) a static assessment for each machine or task; and (ii) a dynamic assessment based on behavioural safety of every individual at every level of seniority. Employees must perform a 30-second risk assessment and are subject to observation and appraisal by the safety leadership team; we review the process via performance against specific KPIs on a monthly basis. Process quality and staff competencies are assured through our performance appraisal and total quality management systems.

Any improvements arising are fed back into the occupational health and safety management system. Workers can report work-related hazards anonymously via our Ethics Hotline. Any incident, such as a first aid, lost-time or recordable accident, is formally investigated and the result is reviewed by the site HSE manager and shared and validated by the We Care Community, while near-miss accidents are managed and investigated at local level.

All new recruits, including temporary staff and contractors, receive induction training on safety as it relates to our standard operating procedures (SOP) document. Validation of the training is performed through the People Activity Safety Audits (PASA).

Diversity

We collect and report a wide variety of data on diversity, including our gender pay gap, which we report publicly in all countries where we are legally required to do so. We have put in place a new HR dashboard for tracking the effectiveness of the approach to delivering our Women in Management goal, and our related aim regarding new hires. In addition, a Diversity, Equity and Inclusion core team is now in place to support action and coordinate overall direction of the work.

Anti-discrimination is embedded in our Code of Business Conduct and Ethics, which all kp employees have signed. Should the need arise, we have the kp Ethics Hotline in place.

We will continue to evolve and improve our reporting in this area more widely in the future, although we are restricted in a number of countries regarding the data we are permitted to collect.
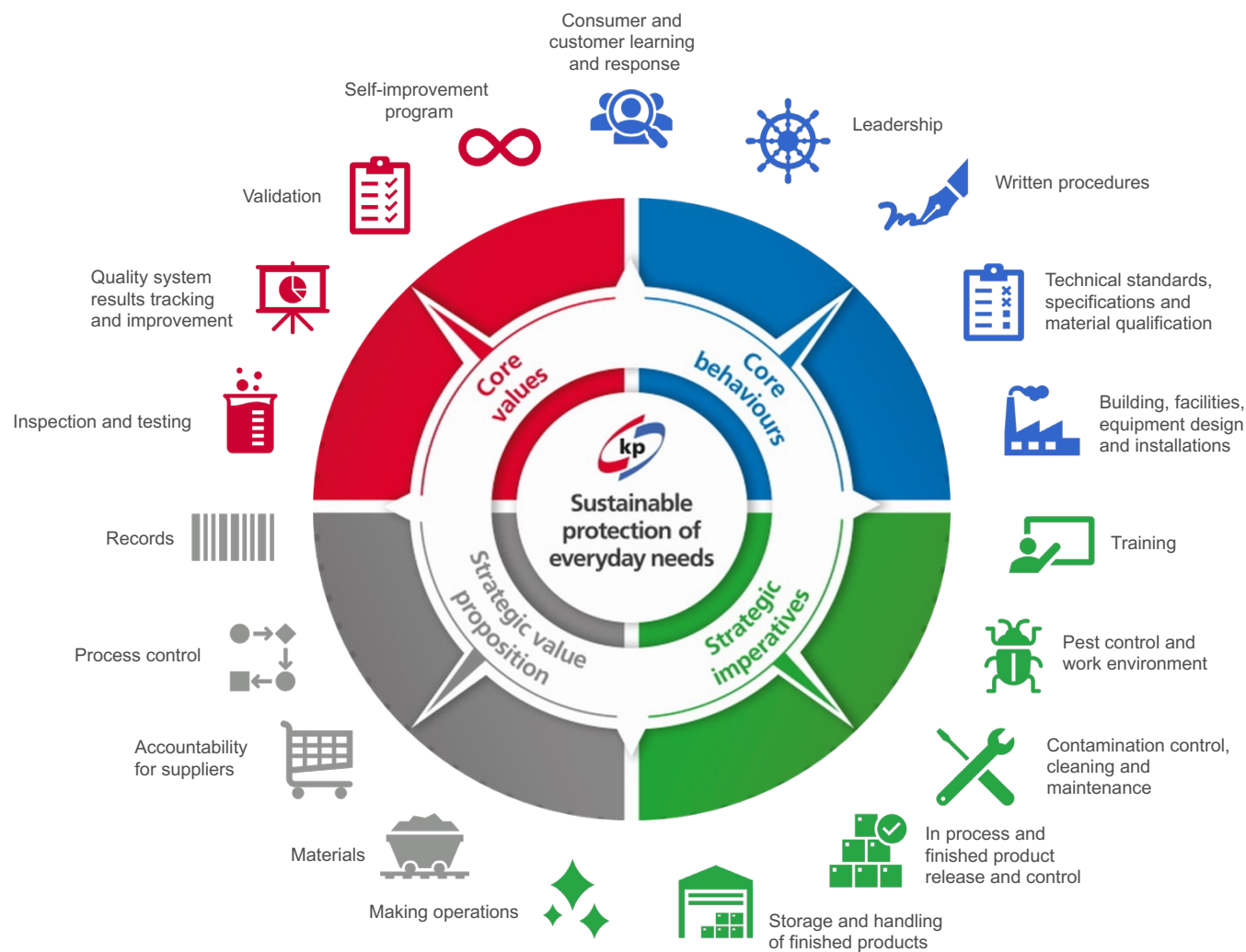
Benchmarking the kp quality system

A quality management system delivers improvements across all areas of the business, including on many sustainability issues. kp's quality standard, and accompanying assessment protocol, help measure quality performance across all of our sites, but we are going further: a baseline POLARIS assessment was completed at 27 of our 31 sites in 2021. This constitutes a real boost for customers, our bottom line, human productivity and eco-efficiency.

POLARIS seeks quality improvements through systematic analysis, improvement plans, tools, templates and training, all relating to the kp quality standard, which was initially developed to ensure that we far exceed external standards and benchmarks.

The four remaining sites were assessed in early 2022. We will also apply the process to divisional and corporate business support functions.

Governance and Approach

Corporate governance at kp →

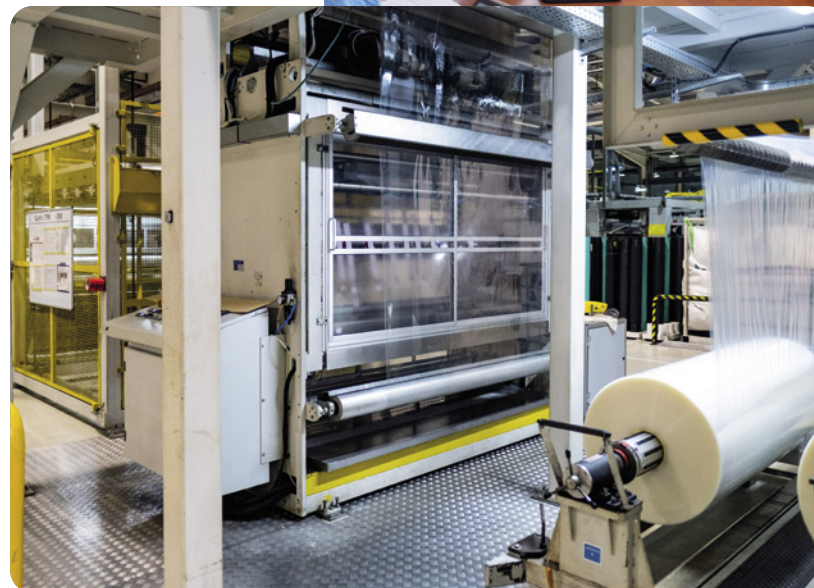Supply chain and responsible procurement →

Stakeholder engagement →

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Corporate governance at kp

We are committed to the highest standards of business conduct and corporate governance. Our internal systems help ensure compliance with the highest standards of health and safety, quality, product safety and sustainability. Transparency is second nature to kp, customers are often on site to view production and quality standards in action, for example. Such individual customer engagement is vital to maintain trust, and to uphold our own Code of Conduct. On top of adhering to official standards and certifications, we rigorously apply our own standards to help distinguish us from our competitors.

Code of Business Conduct and Ethics
All employees must understand and comply with our Code. It is available in 15 languages on our intranet and covers topics such as Conflicts of Interest, Bribery & Corruption, Competition & Fair Trading, Ethical Production & Supply Chain Practices, and Modern Slavery & Child Labour. Updates to the Code are approved by the Board of Managers. Training is provided through a variety of channels about adherence to the Code, and how to report any potential violations or improvements via a line manager, the Compliance Officer or the confidential and toll-free kp Ethics Hotline available 24/7 (operated by trained specialists). Reporting in good faith comes with a guarantee of no retaliation or adverse outcome.

Ethics, integrity and anti-corruption
Our global corporate Anti-Bribery & Corruption Policy commits kp to operating in accordance with the highest standards and relevant laws, such as the UK Bribery Act 2010, and the US Foreign Corrupt Practices Act 1977, wherever we do business. The Policy guides employees on risks described in the Klöckner Pentaplast Code of Business Conduct and Ethics on terminology such as kickbacks, gifts and entertainment, government officials, or red flags. Potential violations are reported using the same procedure as for the Code.

Plastics tax project
In 2022 and 2023, plastic taxes based on virgin plastic content will be introduced in UK, Spain and Italy. We are studying the impacts in order to forecast taxes to be paid and claim exemptions for products with adequate recycled content. We engage with customers and the marketplace on such regulatory changes on a regular basis. Please see page 18 for more on RecyClass, the traceability audit.

External relations, advocacy, outreach, engagement
As part of our external corporate engagement, kp is regularly involved in policy development on topics such as the EU Single Use Plastics Directive and the UK plastics tax, among other topics. We are also members of trade bodies that collectively present industry views, and we work with not-for-profits, such as the Ellen MacArthur Foundation. This work assists our wider horizon scanning on circular economy policy goals. Concrete outputs of our outreach efforts include innovation process efficiency, skills and materials sorting technology.

Additionally, we work with external ratings EcoVadis and Sustainalytics, and we are building on our achievements from 2021 to improve our ratings further in 2022.

Management systems
The principal systems at kp sites are ISO 50001 energy management and ISO 14001 for environmental management. Our multi-site Group certification approach supports how we deliver our 'Investing in Better' strategy.

For our policies, and additional information on governance, please visit **www.kpfilms.com/en/sustainability/governance-ethics**

For details of our tax governance please visit **www.kpfilms.com/en/sustainability/tax-strategy**

Supply chain and responsible procurement

Sustainability impacts – both positive and negative – can occur throughout a product's value chain. For example, plastic packaging waste and pollution control are a shared responsibility of retailers, waste contractors, consumers, manufacturers, trade bodies and governments. See page 9 for our place in the value chain for packaging.

The supply chain for plastic packaging is attracting intense scrutiny (see page 12) from various groups, focusing on polymer producers and packaging manufacturers. Our response, embedded in our 'Investing in Better' strategy and our values, is our programme in responsible procurement and supplier engagement.

Policies and engagement
We use a complex supply chain of over 10,000 suppliers worldwide. Suppliers are critical to our 'Investing in Better' strategy. We expect enhanced sustainability performance from them, beyond compliance, delivered collaboratively using a continuous improvement ethos. Our Sustainable Procurement Policy (2021) is core to this and aims to:

- Inspire our partners to reach beyond compliance with regulations and act in accordance with the principles of the International Labour Organization (ILO), the UN Global Compact (UNGC) and the UN Universal Declaration of Human Rights
- Adhere to the highest standards of economic, social, ethical and environmental practice
- Identify and manage procurement risks
- Engage with suppliers and other relevant stakeholders to maintain sustainable performance.

Supporting this, our Supplier Code of Conduct is designed to ensure better performance in the supply chain in key areas such as labour conditions, safety, environmental impacts, conflict minerals, and governance, for instance.

In 2021, we stress-tested our procurement processes to ensure resilience in the face of supply chain challenges such as shortages, logistics back-logs, force majeure events, and new inflationary pressures. During the year, the focus for kp was promoting our Supplier Code of Conduct to help assure compliance, risk assessment, and engagement with suppliers in high-risk categories.

Communicating with over 10,000 supply partners is clearly a challenge, so in 2021 we used our online procurement platform to confirm that targeted suppliers had accepted and understood our Supplier Code of Conduct. By the end of 2021, suppliers representing 58% of procurement spend had acknowledged and agreed to the kp Supplier Code of Conduct. We are expanding the procurement platform to assist our due diligence in the areas of human rights, conflict minerals diligence and GHG management.

In 2022 and 2023, we will be accelerating action in responsible procurement even further, including a planned supplier conference with critical executive meetings, in which sustainability and the UN SDGs will feature as a key agenda item. Suppliers representing nearly half (45%) of our procurement spend are expected to participate.

Supply chain due diligence and risk
Following our Supplier Code of Conduct, we strengthened how we monitor our suppliers' adherence to our standards. Having more than 10,000 suppliers makes it necessary to prioritise in order to have an impact.

In 2021, we partnered with Verisk Maplecroft to conduct a risk assessment of suppliers and contractors, a process which included 28 risk criteria covering Environmental Protection, Human Rights, Child Labour, Occupational Health and Safety, Modern Slavery, Anti-discrimination, and Political Risk. The outcome was a profile of high-risk suppliers from whom we expect self-assessment followed by third-party audit on performance in specific areas. Follow-up assessments, along with corrective action (as appropriate), will follow in 2022 and 2023.

Supplier carbon footprint
In 2021, we expanded our analysis of the Scope 3 GHG emissions attributed to raw materials procurement. We mapped materials with the most significant GHG impact, and where they were sourced. We identified 45 suppliers that contribute a meaningful share of our upstream Scope 3 emissions. We are working with the most significant ones on projects to reduce emissions in the following areas:

- Developing and selecting alternative materials compositions, and weights
- Encouraging energy efficiency projects to reduce suppliers' Scope 1 and 2 emissions
- Increasing the amounts of recycled polymers

Transparency and ratings
At kp, we use the external rating assessment provided by EcoVadis to evaluate sustainability performance improvement. While we achieved Gold status in 2021, we continue to develop our responsible procurement and we incentivise our suppliers to use EcoVadis too. By the end of 2021, 47.5% of our raw materials spend had been assessed by EcoVadis. We look forward to further participation by our direct and indirect suppliers.

Stakeholder engagement

Sustainability is a team effort, and so kp has signed up to a number of voluntary commitments, collaborative initiatives and trade association memberships.

WE SUPPORT

UN GLOBAL COMPACT

As of June 2022, we are excited to join the network of businesses suporting the United Nations Global Compact. The goals of the UNGC align very well with the mission and purpose of our business and our commitment to sustainability at kp, and we look forward to working together to help solve many of the challenges that we face today.

Doing our part to support sustainable development

The Sustainable Development Goals (SDGs) were launched by the United Nations in 2015 with ambitious targets to address major global issues – from ending poverty to tackling climate change.

Not every company or organisation can be expected to influence all 17 goals. However, here at kp we have identified the 13 key areas where we believe our people, our expertise and our sustainable portfolio of products can have the greatest impact – by preventing food waste, delivering medication and protecting the integrity of countless products.

1 NO POVERTY

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

17 PARTNERSHIPS FOR THE GOALS

Stakeholder engagement (continued)

kp has signed up to a number of voluntary commitments and collaborative initiatives

ANZPAC Plastics Pact

CEFLEX

Circular Plastics Alliance

HolyGrail 2.0

New Plastics Economy – EMF

NEXTLOOPP

Plastics Europe

UK Plastics Pact

Our trade association memberships

- Asociación Nacional del Envase de PET
- Associação Portuguesa da Indústria de Plásticos
- Asociación Española de Industriales de Plásticos
- The Association of Plastic Recyclers
- The Australian Institute of Packaging
- Australian Packaging Covenant
- British Plastics Federation
- Elipso
- European Plastics Converters
- Federazion Gomma Plastica
- Food Marketing, Inc
- Foodservice Packaging Association
- Incpen
- Industrievereinigung Kunststoffverpackungen e.V.
- IVK Europe
- National Association for PET Container Resources
- OPRL – On-Pack Recycling Label Ltd
- PAC Packaging Consortium
- Packaging Federation
- Petcore
- PET Sheet Europe
- Polish Union of Plastics Converters
- Polymer Comply Europe
- RECOUP
- Vinyl Films and Sheets Europe

About this report

This report provides relevant information for our stakeholders to form an opinion on the impact of our business on the environment and society, as well as the impact of sustainability risk and opportunity on our business.

Scope

The performance information and data in this report relate to all assets under the control of kp. Where possible, we provide historic data for comparisons. The reporting period is the calendar year 2021. Unless otherwise stated, we report data for our operations on a 100% ownership basis. Data is reported using the metric system and Euros. Unless otherwise stated, all workforce data is limited to permanent and temporary employees. We declare no significant restatements since the previous report.

Material topics

The report provides details of performance relating to topics that are material to our business; it has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option. In addition, its preparation is informed by the principles of integrated thinking articulated by the Value Reporting Foundation[1]. While we are not explicitly mapping the content to the Sustainable Development Goals (SDGs) in the report, our contribution to them can be found on page 52, and on our website[2].

In this report, a material sustainability topic is one that reflects kp's most significant environmental, social and governance impacts, or one that could substantively influence the assessments and decisions of our stakeholders. The content of this report is shaped by a materiality assessment, which identifies and evaluates the most relevant sustainability topics for our business and our stakeholders during the previous year and on a five-year time horizon into the future.

Our materiality process comprises three steps: identification, prioritisation and validation. We identified a full list of topics in 2020 that was then evaluated by internal experts. No formal external stakeholder engagement was carried out as part of this process; however, it was informed by a substantial series of interactions, such as customer collaborations, interviews with senior management, an employee feedback survey, ongoing discussions with investors, working with associations, regulatory engagement, and rating agency consultations.

This involved more than 30 inputs, such as non-governmental organisation (NGO) reports and media reviews, as well as peer and customer reports relating to impacts within kp and the plastic packaging sector. This led us to prioritise 11 sustainability topics, organised into three thematic areas:

- Products & customers: Recycled material inputs, Closed-loop packaging, Recyclability.
- People & communities: Health & Safety, Diversity, Equity & Inclusion, Employee engagement, Community involvement.
- Responsible operations: Energy efficiency, Renewable energy, Greenhouse gas (GHG) emissions, Waste.

In the validation phase, the results of the materiality assessment were reviewed by members of our leadership team and other senior managers. We continue to seek external input through the year to inform our materiality assessment of impacts in our value chain. This report has been reviewed and approved by kp's leadership team.

Management approach

Information about how we manage our material topics is indicated in the report, with detailed supporting policy documentation available on our website[3]. Supporting information on site certifications, risk management, and audits are also available online. Readers can find additional supporting publications on our website, including our 'Investing in Better' document and mandatory statements such as our gender pay gap report and modern slavery statement.

Assurance

External assurance is used for certain data listed in the 'selected information' paragraph of the assurance statement provided by our external assurance provider, please see page 55.

Data disclosures

Data relates to 2021 performance unless otherwise stated. Key data points are found in the relevant chapters, with supporting tables and charts, as well as the GRI index.

1. https://www.valuereportingfoundation.org
2. https://www.kpfilms.com/en/sustainability/Contributing_to_UN_SDGs
3. https://www.kpfilms.com/en/sustainability/governance-ethics

Assurance statement

Independent Limited Assurance Report to the Directors of Klöckner Pentaplast

DNV Business Assurance Services UK Limited ("DNV", "us" or "we") were engaged by Linpac Group Holdings Ltd. to provide limited assurance to Klöckner Pentaplast ("kp") over Selected Information presented in the kp Sustainability Report 2021 (the "Report") for the reporting year ended 31st December 2021.

Our Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information is not fairly stated and has not been prepared, in all material respects, in accordance with the Criteria. This conclusion relates only to the Selected Information, and is to be read in the context of this Independent Limited Assurance Report, in particular the inherent limitations explained overleaf.

Our observations and areas for improvement will be raised in a separate report to kp's Management. Selected observations are provided below. These observations do not affect our conclusion set out above.

- The 'Progress in 2021' section found on page 4 of the Report is a useful summary of the ten key objectives that underpin the 'Investing in Better' sustainability strategy. We recommend that in future Reports, kp continues to develop and enhance the dialogue associated with these objectives, which will become critical as the deadline year approaches.
- We observed robust processes and systems for compiling Scope 1 and 2 Greenhouse Gas (GHG) emissions data. Calculation methodology was applied appropriately, consistently and with a robust quality control process in place. For the first time, energy intensity was also calculated with a 'degrees days' factor applied, to normalise the impact of outside temperate on building heating demand. We recommend kp continues to transparently report this metric, alongside the non-adjusted figure, to allow for more comparable trends year on year.

- Diversity data is collected through one system for all employees. A consistent employee grading and classification system is applied, with local HR management responsible for data quality. We recommend an internal 'basis of reporting' document is developed for this KPI to ensure kp maintains a record of how the KPI has been calculated and to maintain consistency in reporting progress year on year.

Selected information

The scope and boundary of our work is restricted to the key performance indicators included within the Report (the "Selected Information"), listed below:

- Scope 1 GHG emissions (tonnes of CO_2e)
- Scope 2 GHG emissions, market and location based (tonnes of CO_2e)
- Energy use intensity (kWh per tonne)
- PCR in our packaging (%)
- Women in management roles (%)

To assess the Selected Information, which includes an assessment of the risk of material misstatement in the Report, we have used kp's reporting criteria (the "Criteria"), which can be found in the About this report section on page 54 of the Report.

We have not performed any work, and do not express any conclusion, on any other information that may be published in the Report or on kp's website for the current reporting period or for previous periods.

Our competence, independence and quality control

DNV established policies and procedures are designed to ensure that DNV, its personnel and, where applicable, others are subject to independence requirements (including personnel of other entities of DNV) and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. Our multidisciplinary team consisted of professionals with a combination of environmental and sustainability assurance experience.

Inherent limitations

All assurance engagements are subject to inherent limitations as selective testing (sampling) may not detect errors, fraud or other irregularities. Non-financial data may be subject to greater inherent uncertainty than financial data, given the nature and methods used for calculating, estimating and determining such data. The selection of different, but acceptable, measurement techniques may result in different quantifications between different entities.

Our assurance relies on the premise that the data and information provided to us by kp have been provided in good faith. DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

WHEN TRUST MATTERS
www.dnv.co.uk

DNV

Assurance statement (continued)

Standard and level of assurance

We performed a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 revised – 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' (revised), issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance.

DNV applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2015 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement; and the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. We planned and performed our work to obtain the evidence we considered sufficient to provide a basis for Our Conclusion, so that the risk of this conclusion being in error is reduced but not reduced to very low.

Basis of Our Conclusion

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information; our work included, but was not restricted to:

- Conducting interviews with kp management to obtain an understanding of the key processes, systems and controls in place to generate, aggregate and report the Selected Information;
- Reviewing processes and systems for preparing site level data consolidated at Group level, we were free to select sites and the selection criteria was on the basis of materiality;
- Performing limited substantive testing on a selective basis of the Selected Information to check that data had been appropriately measured, recorded, collated and reported;
- Reviewing that the evidence, measurements and their scope provided to us by kp for the Selected Information is prepared in line with the Criteria;
- Assessing the appropriateness of the Criteria for the Selected Information; and
- Reading the Report and narrative accompanying the Selected Information within it with regard to the Criteria.

DNV Business Assurance Services UK Limited
London, UK
23rd June 2022

Responsibilities of the Directors of kp and DNV

The Directors of kp have sole responsibility for:

- Preparing and presenting the Selected information in accordance with the Criteria;
- Designing, implementing and maintaining effective internal controls over the information and data, resulting in the preparation of the Selected Information that is free from material misstatements;
- Measuring and reporting the Selected Information based on their established Criteria; and
- Contents and statements contained within the Report and the Criteria.

Our responsibility is to plan and perform our work to obtain limited assurance about whether the Selected Information has been prepared in accordance with the Criteria and to report to kp in the form of an Independent Limited Assurance Conclusion, based on the work performed and the evidence obtained. We have not been responsible for the preparation of the Report.

DNV Business Assurance

DNV Business Assurance Services UK Limited is part of DNV – Business Assurance, a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance.

www.dnvgl.co.uk/BetterAssurance

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DNV

GRI index

Topic	Effective date	GRI ref	Disclosure title	Page ref	kp comments
GENERAL DISCLOSURES					
GRI 102: General Disclosures – Organisational profile	2018	102-1	Name of the organisation	–	Klöckner Pentaplast Group. Read more about our organisation at **www.kpfilms.com/en**
	2018	102-2	Activities, brands, products and services	–	Read more about our activities, brands, products and services at **www.kpfilms.com/en**
	2018	102-3	Location of headquarters	–	Corporate office located in London. Registered office in Luxembourg. **www.kpfilms.com/en/contact-us/our-locations**
	2018	102-4	Location of operations	–	Read more about our operations at **www.kpfilms.com/en/contact-us/our-locations**
	2018	102-5	Ownership and legal form	–	Kleopatra Holdings 2 S.C.A, registered in Luxembourg; investment manager: Strategic Value Partners LLP, London, UK.
	2018	102-6	Markets served	5-6, 8-9	Read more about the markets we serve at **www.kpfilms.com/en**
	2018	102-7	Scale of the organisation	5	Read more about our scale at **www.kpfilms.com/en/about-us**
	2018	102-8	Information on employees and other workers	4, 9, 41	*(see table below)*
	2018	102-9	Supply chain	51	
	2018	102-10	Significant changes to the organisation and its supply chain	2	No significant changes in the reporting period.
	2018	102-11	Precautionary principle or approach	19, 23, 25, 32	
	2018	102-12	External initiatives	52-53	
	2018	102-13	Membership of associations	53	Read more about our memberships at **www.kpfilms.com/en/sustainability/memberships**
GRI 102: General Disclosures – Strategy	2018	102-14	Statement from senior decision-maker	2	
	2018	102-15	Key impacts, risks and opportunities	3-4, 23, 32, 34, 47, 54	
GRI 102: General Disclosures – Ethics and integrity	2018	102-16	Values, principles, standards and norms of behaviour	50	
	2018	102-17	Mechanisms for advice and concerns about ethics	50	
GRI 102: General Disclosures – Governance	2018	102-18	Governance structure	7, 50	Read more about governance at **www.kpfilms.com/en/sustainability/governance-ethics**
					Read more about our leadership at **www.kpfilms.com/en/about-us/ceo-management-team**

Table for 102-8:

	Asia	EMEA	North America	South America	Total
Female employees	132	891	162	36	**1,221**
Male employees	379	2,988	749	200	**4,316**
Total employees	511	3,879	911	236	**5,537**
The total number of employees includes 227 temporary employees	13	201	8	5	**227**

GRI index (continued)

Topic	Effective date	GRI ref	Disclosure title	Page ref	kp comments
GRI 102: General Disclosures – Stakeholder engagement	2018	102-40	List of stakeholder groups	9, 54	
	2018	102-41	Collective bargaining agreements	–	Pharma, Health & Protection and Durables – 4 of our 10 manufacturing sites are subject to collective bargaining or tariff agreements and around 1,100 employees are covered by such agreements (47% of the workforce). Food Packaging – Employees at manufacturing sites comprise the majority of our workforce; 14 of our facilities recognise collective bargaining and approximately 2,150 employees are covered by such agreements (67% of the workforce).
	2018	102-42	Identifying and selecting stakeholders	23, 50, 54	
	2018	102-43	Approach to stakeholder engagement	12, 23, 43-44, 50, 54	Read about our sustainability strategy **www.kpfilms.com/en/sustainability/kp_Investing_in_Better_Brochure_2021.pdf**
					Read our Group sustainability policy **www.kpfilms.com/en/sustainability/kp_Group_Sustainability_Policy.pdf**
	2018	102-44	Key topics and concerns raised	43, 54	
GRI 102: General Disclosures – Reporting practice	2018	102-45	Entities included in the consolidated financial statements	54	
	2018	102-46	Defining report content and topic boundaries	54	
	2018	102-47	List of material topics	54	
	2018	102-48	Restatements of information	–	We restate our waste data for 2020
	2018	102-49	Changes in reporting	54	
	2018	102-50	Reporting period	54	
	2018	102-51	Date of most recent report	–	20 July 2021
	2018	102-52	Reporting cycle	–	Annual
	2018	102-53	Contact point for questions regarding the report	Inside front cover	
	2018	102-54	Claims of reporting in accordance with the GRI Standards	54	
	2018	102-55	GRI content index	57	
	2018	102-56	External assurance	55-56	
Topic Specific Disclosures					
ECONOMIC					
GRI 205: Anti-corruption	2018	205	Management approach disclosures	50	Read more about our governance **www.kpfilms.com/en/sustainability/governance-ethics**
	2018	205-2	Communication and training about anti-corruption policies and procedures	50-51	
GRI 207: Tax	2021	207	Management approach disclosures	50	Read more about our tax strategy **www.kpfilms.com/en/sustainability/tax-strategy**
	2021	207-1	Approach to tax	50	Tax strategy refers to the UK jurisdiction. Read more about our tax strategy **www.kpfilms.com/en/sustainability/tax-strategy**

GRI index (continued)

Topic	Effective date	GRI ref	Disclosure title	Page ref	kp comments
ENVIRONMENTAL					
GRI 301: Materials	2018	301	Management approach disclosures	4, 7, 12, 23, 50, 55	
	2018	301-2	Recycled input materials used	–	PIR (post-industrial recycled content): 14,452 tonnes PCR (post-consumer recycled content): 134,023 tonnes In the scope of the PCR calculation, we include all products from our FP division, and we only include our packaging products from our PHD division and as such all durable products (e.g. flooring, construction, etc.) are out of scope.
	2018	301-3	Reclaimed products and their packaging materials	16-18	
GRI 302: Energy	2018	302	Management approach disclosures	4, 7, 25, 34, 50, 55	
	2018	302-1	Energy consumption within the organisation	26	(see table below)

KPI name	2020	2021
Energy intensity[1] per tonne	1,116.0 (External temperature-adjusted using 'degree days') 1,115.7 (non temperature-adjusted)	1,111.0 (External temperature-adjusted using 'degree days'[2]) 1,118.0 (non temperature-adjusted)
Total energy consumption (MWh)	760,402	749,935
% of renewable electricity[3]	25.6%	28%
Breakdown of different fuels (MWh)	**Electricity:** 658,443 **Natural gas:** 61,952 **Steam:** 28,443 **Compressed air:** 1,937 **Propane:** 1,509 **Solar energy:** 23 **Diesel:** 8,095	**Electricity:** 653,178 **Natural gas:** 61,565 **Steam:** 25,191 **Compressed air:** 1,671 **Propane:** 1,708 **Solar energy:** 112 **Diesel:** 6,510
Reduction of energy consumption (MWh)	12,956	10,467[4]

1. Measured in kWh consumption per tonne processed, including: electricity, natural gas, steam, compressed air, diesel, propane. Degree day methodology is used to correct the annual heating energy consumption with regard to external temperatures. Calculations are governed by the Global Energy Taskforce KPI Toolkit. Energy consumption outside the organisation is measured within our Scope 3 GHG analysis of emissions upstream and downstream. Boundaries for the calculations: all factories globally.
2. Both the temperature adjusted and non-adjusted energy intensity metrics are reported for transparency. The temperature adjusted metric is used in tracking against a corporate 'Investing in Better' target.
3. Energy Attribute Certificate (EAC) Purchasing and on-site generation. We use a mixture of Guarantees of Origin (GOs) and International Renewable Energy Certificates (I-RECs) covering UK, Poland, Germany, Spain, Thailand (on-site solar system).
4. Total energy consumption 2021 compared with total energy consumption in 2020.

GRI index (continued)

Topic	Effective date	GRI ref	Disclosure title	Page ref	kp comments
GRI 302: Energy (continued)	2018	302-3	Energy intensity	26	See data in the table above. Details on temperature-adjusted methodology: weather conditions influence the variability of energy use in kp buildings, particularly the thermal energy (natural gas, fuel oil) used for heating buildings. Accurate energy analysis depends on the use of widely-available 'degree days' data (from DegreeDays.Net) to understand the true energy efficiency. Degree day analysis is a way of analysing how much energy (gas or electric) is consumed or used in relation to the ambient outside air temperature. The approach: a heating degree day (HDD) is calculated by subtracting the average daily temperature in a given location from your chosen base temperature (15.5°C), multiplied by the number of days. Heating degree days have been calculated and used to guide energy consumption for all kp sites where thermal energy is used. Adjustments are done individually on a site-by-site basis to take into account the impact from local conditions.
	2018	302-4	Reduction of energy consumption	26, 27	See data in the table above.
	2018	302-5	Reductions in energy requirements of products and services	13, 21	
GRI 303: Water and Effluents	2021	303	Management approach disclosures	32	
	2021	303-1	Interactions with water as a shared resource	32, 33	While two percent of our water requirements came from locations defined as water-stressed, our formal water risk assessment (page 32) has not revealed any significant negative water-related impacts from kp operations. We recognise that water is a scarce resource, and that access to good quality freshwater is fundamental to an equitable society. We continue to monitor the case for water-related management targets in the context of public policy and local catchment conditions. Page 33 provides an example of how we manage water. We interact with various stakeholders in our approach to water and share best practices across the Group.
	2021	303-2	Management of water discharge-related impacts	32	We discharge to municipal systems and our sites generate very little industrial wastewater. We do not currently report the municipal minimum standards set for the quality of effluent discharge.
	2021	303-3	Water withdrawal	32	While we only source from municipal systems, we anticipate reporting more detail in future relating to sources, locations of water-stress, freshwater, and water quality.
	2021	303-4	Water discharge	32	While we meet all required compliance limits, including on priority substances of concern, we anticipate reporting further detail in future on discharge destination, effluent quality, and water-stress environments.
	2021	303-5	Water consumption	32	We provide initial data on consumption and anticipate reporting in detail in future on water-stressed locations, water storage, and data processes.
GRI 305: Emissions	2018	305	Management approach disclosures	4, 7, 25, 34, 50, 55	Greenhouse gases included within the boundary: Included greenhouse gases are CO_2, CH_4, N_2O, HFCs, PFCs and SF6. Greenhouse gases have been calculated in CO_2e. Emissions from biologically sequestered emissions have not been included. Organisational boundary: This report takes the operational control consolidation approach. All Scope 1, 2 and 3 emissions from operations over which Klöckner Pentaplast has operational control. Most emissions factors that are used to convert activity data (e.g. kWh energy or passenger kilometres travelled) are taken from the 'UK Government GHG Conversion Factors for Company Reporting', published by BEIS and Defra each year. Emissions from electricity use are estimated using 'location-based' and 'market-based' approaches. For the location-based approach, the average emissions factor for the country is used, applying country-specific emissions factors published annually by the International Energy Agency (IEA). The alternative 'market-based' approach refers to renewable energy certificates (given zero emissions), and where no supplier-specific data is held, factors published for residual emissions.

GRI index (continued)

Topic	Effective date	GRI ref	Disclosure title	Page ref
GRI 305: Emissions (continued)	2018	305-1	Direct (Scope 1) GHG emissions	28
	2018	305-2	Indirect (Scope 2) GHG emissions	28
	2018	305-3	Other indirect (Scope 3) GHG emissions	28, 51
	2018	305-4	GHG emissions intensity	28
	2018	305-5	Reduction of GHG emissions	29

kp comments

Scope	Category	2019 tCO$_2$e	2020 tCO$_2$e	2021 tCO$_2$e
1	Natural Gas	12,414	11,391	11,276
	Own delivery fleet vehicles	6,712	7,572	5,191
	Refrigerants	1,774	1,873	2,723
	Diesel	2,705	2,195	2,002
	Production Gas	513	518	404
	Propane	301	316	370
	Sub total	**24,418**	**23,865**	**21,967**
2	Electricity (location-based)	246,121	209,154	203,219
	Electricity (market-based)	261,869	223,036	193,880
	Steam	4,957	4,910	4,301
	Sub total (location-based)	**251,078**	**214,064**	**207,520**
	Sub total (market-based)	**266,826**	**227,945**	**198,181**
1 & 2	**Total Scopes 1 and 2 (location-based)**	**275,496**	**237,929**	**229,487**
	Total Scopes 1 and 2 (market-based)	**291,244**	**251,810**	**220,148**
3	Category 1: Purchased goods and services	1,629,336	1,636,179	1,492,125
	Category 2: Purchased capital items	18,510	18,273	21,620
	Category 3: Fuel and energy-related activities (location-based)	65,471	60,633	80,570
	Category 3: Fuel and energy-related activities (market-based)	57,803	53,934	51,254
	Category 4: Upstream transport & distribution	107,490	91,928	89,073
	Category 5: Waste generated in operations	3,214	4,090	4,458
	Category 6: Business travel	6,467	2,248	3,049
	Category 7: Employee commuting	4,039	2,519	2,746
	Category 9: Downstream transport & distribution	223,735	265,866	268,663
	Category 10: Processing of sold products	134,269	122,741	117,094
	Category 12: End-of-life treatment of sold products	13,583	10,716	9,226
	Sub total (location-based)	**2,206,115**	**2,215,193**	**2,088,625**
	Sub total (market-based)	**2,198,446**	**2,208,493**	**2,059,309**
1, 2 & 3	**TOTAL (location-based)**	**2,481,610**	**2,453,122**	**2,318,112**
	TOTAL (market-based)	**2,489,690**	**2,460,304**	**2,279,456**

GRI index (continued)

Topic	Effective date	GRI ref	Disclosure title	Page ref	kp comments
GRI 306: Waste	2021	306	Management approach disclosures	4, 7, 25, 34, 50	
	2021	306-1	Waste generation and significant waste-related impacts	30-31	
	2021	306-2	Management of significant waste-related impacts	12-13, 16, 34	Read more about our environmental management **www.kpfilms.com/en/sustainability/risk-management-systems**
					Read about our waste related R&D projects **www.kpfilms.com/en/about-us/innovation**
	2021	306-3	Waste generated	–	
	2021	306-4	Waste diverted from disposal	–	
	2021	306-5	Waste directed to disposal	–	

KPI name	2020		2021			
	Total kg	%	Hazardous	Non-hazardous	Total kg	%
Waste to energy (WTE)	2,816,646	6%	65,782	3,363,909	3,429,691	6%
Recycled	39,971,843	80%	88,030	43,102,018	43,190,048	80%
Landfill	6,935,149	14%	704	7,664,369	7,665,073	14%
Total	**49,723,637**	**100%**	**154,516**	**54,130,296**	**54,284,812**	**100%**

GRI index (continued)

Topic	Effective date	GRI ref	Disclosure title	Page ref	kp comments
SOCIAL					
GRI 401: Employment	2018	401	Management approach disclosures	4, 7, 43, 45, 47, 50	
	2018	401-1	New employee hires and employee turnover	–	**New hire rate** At Group level, the rate in 2021 was 14.56% (2020: 11.3%), the charts show the spread of age at recruitment for men and women in the four global regions last year. **Global attrition** Our Group-level turnover rate in 2021 was 17.3% (2020: 12.97%). The charts show the spread of turnover for different age groups of men and women across the four global regions.
	2018	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	–	There is a standard portfolio of benefits offered to each permanent kp employee in the US regardless of the site. However, some of the sites in other countries offer different benefits to the employees based on the site in which they work and not based on the country in which they are located. Part of this is due to whether or not the site was a Linpac or a kp site when the two companies merged. Some of the countries do not offer benefits to new hires because the insurance is provided by the local governments. In these countries, kp pays a portion of the employees' cost of the benefits offered by the government. The benefits offered to permanent employees are listed below. • Medical Insurance • Dental Insurance • Life Insurance • Accident Insurance • Disability Insurance • Retirement/ Pension Account • Paid Time Off/Sick and Vacation Time
	2018	401-3	Parental leave	47, 50	At kp, the female return-to-work rate is 54% (2020: 62%), with a male rate of 103% (2020: 98%). The total numbers of female and male employees entitled to parental leave in 2021 were 836 and 3183 respectively (2020: 750 and 3,000). The number of females and males who took it in 2021 were 57 and 69 respectively (2020: 76 and 78). The female and male totals returning to work and still employed 12 months after returning were 23 and 63 (2020: 48 and 75).

GRI index (continued)

Topic	Effective date	GRI ref	Disclosure title	Page ref	kp comments
GRI 402: Labour/Management Relations	2018	402	Management approach disclosures	4, 7, 43, 47, 50	
	2018	402-1	Minimum notice periods regarding operational changes	–	Before making operational changes that could substantially affect our employees, we provide a period of notice outlining the proposed changes. The minimum period and provisions for consultation and negotiation are specified either in the collective agreements or in the local laws. On average, the minimum notice period is 41 days.
GRI 403: Occupational Health and Safety	2018	403	Management approach disclosures	4, 7, 36-37, 47, 50, 55	Read our Health and Safety Policy **www.kpfilms.com/en/sustainability/kp_Group_Health_and_Safety_Policy.pdf**
	2021	403-1	Occupational health and safety management system	47	Our HSE management system 'We Care' has been updated through 2021. It covers every kp employee and contractor working in our operations and supporting functions. It is being expanded to cover commercial functions at kp and off-site. Group-wide, 31 sites (100%) are covered by the system. Read more about how we act responsibly **www.kpfilms.com/en/sustainability/Investing_in_Better/Act_Responsibly**
	2021	403-2	Hazard identification, risk assessment, and incident investigation	37, 47, 50	
	2021	403-3	Occupational health services	47	In line with EU law and other host country laws, we manage safety in a way that identifies and seeks to eliminate hazards and minimise risks. Our We Care system is designed to ensure the quality of safety and workers' access to information and support regarding safety at work.
	2021	403-4	Worker participation, consultation, and communication on occupational health and safety	47	Over 90% of our sites have a Safety Steering Meeting where worker consultation and participation takes place. Any formal request relating to safety is made (from a regulator or union, for example), it is managed by the H&S Committee, with specific participation from employees' representatives. All learning on safety is shared across all sites, while safety topics are identified and communicated on a monthly basis, and displayed either on monitors on-site, at the canteen or via newsletters. The site and divisional senior management teams communicate the 'zero harm' goal and status via newsletter and video. For unionised plants, the representatives of the workers are consulted on any new rules before implementation.
	2021	403-5	Worker training on occupational health and safety	47	
	2021	403-6	Promotion of worker health	45, 47	There are various ways worker health is promoted, e.g. our Code of Conduct, our sustainability policies and site-level communication. We also exercise proportional disciplinary action for any transgressions of safety and health rules, the outcomes of which are shared to help avoid them happening again. Read more about governance and ethics **www.kpfilms.com/en/sustainability/governance-ethics**
	2021	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	47, 50	As a result of the formal risk assessment process, near miss or injury investigation, any corrective action to either mitigate or remedy the risk is considered, and deployed as appropriate.
	2021	403-8	Workers covered by an occupational health and safety management system	47	All legal requirements are monitored, complied with, and audited to ensure every worker has adequate attention in case of work-related injuries or illnesses. Employees travelling abroad are covered by specific insurance programmes.
	2021	403-9	Work-related injuries	37	
	2021	403-10	Work-related ill health	40	

GRI index (continued)

Topic	Effective date	GRI ref	Disclosure title	Page ref	kp comments
GRI 404: Training and Education	2021	404	Management approach disclosures	7, 43, 45, 47-48, 50	Training and development are key parts of our Employee Value Proposition, which is designed to attract, grow and retain the best talent in our industry. To manage this successfully, we depend on our online kp Academy to improve skills, standards and values. Other management tools included in the training syllabus are the kp Code of Conduct, as well as policies on cyber-security, data privacy, health & safety, the environment and diversity. Read more on working at kp at **www.kpfilms.com/en/careers**
	2021	404-3	Percentage of employees receiving regular performance and career development reviews	–	In 2021, 845 management grade employees (15.3%) out of a total of 5,537 employees across kp (including temporary employees), received performance and career development reviews (2020: 711, 12.8%); male/female breakdown remained stable compared with 2020 (76.2% male, 23.8% female). These figures are from our human resource information system for management grades only in managerial, technical and senior administrative functions. We do not track performance and career development reviews centrally; this information is held and managed locally.
GRI 405: Diversity and Equal Opportunity	2018	405	Management approach disclosures	4, 7, 36, 41, 47, 50, 51	Read more about the working environment **www.kpfilms.com/en/careers**
	2018	405-1	Diversity of governance bodies and employees	4, 41	Read more about the senior leadership team **www.kpfilms.com/en/about-us/ceo-management-team**
GRI 406: Non-discrimination	2018	406	Management approach disclosures	4, 7, 36, 41, 47, 50-51	Read more about the working environment **www.kpfilms.com/en/careers**
	2018	406-1	Incidents of discrimination and corrective actions taken	41	
GRI 413: Local Communities	2018	413	Management approach disclosures	4, 7, 41, 46, 47	
	2018	413-1	Operations with local community engagement, impact assessments, and development programmes	46	As a result of the effects of the pandemic through 2021, we continued to limit our community initiatives in line with local restrictions despite gradually increasing levels of access and freedom of movement.
GRI 416: Customer Health and Safety	2018	416	Management approach disclosures	7-9, 47, 50	Read more about medical packaging films **www.kpfilms.com/en/pharma-medical/medical-device-packaging-films**
	2018	416-1	Assessment of the health and safety impacts of product and service categories	–	All (100%) of our significant product and service categories are assessed for health and safety impacts as part of our product design and manufacturing quality processes.

Glossary

Circular economy/circularity: an economic system aimed at eliminating waste and depletion of resources. Circular systems employ reuse, sharing, repair, refurbishment, remanufacturing and recycling to create a closed-loop system.

High-density polyethylene (HDPE): a thermoplastic polymer produced from the monomer ethylene. It is commonly recycled, with the number '2' as its resin identification code.

Life cycle assessment: a method for assessing environmental impacts associated with all the stages of the life cycle of a commercial product, process or service.

Plastics: synthetic or semi-synthetic materials that use polymers as a main ingredient.

Polyethylene terephthalate (PET): the most common thermoplastic polymer resin of the polyester family; used in fibres for clothing, containers for liquids and foods, and thermoforming for manufacturing, and in combination with glass fibre for engineering resins. PET has a resin identification code of 1. Prime uses for recycled PET are polyester fibre, strapping and non-food containers. Mechanical recycling of PET is very common. Chemical recycling of PET will become cost-efficient only in high-capacity recycling lines.

Polymer: a natural or man-made material comprising molecules made up of many repeating units that provide strength and other properties expected of everyday objects such as plastic packaging.

Polyolefin: a type of polymer produced from a simple olefin (an alkene) as a monomer. For example, polyethylene is the polyolefin produced by polymerising the olefin ethylene.

Polyvinyl chloride PVC (vinyl): widely produced synthetic plastic polymer, in rigid and flexible forms, used for making various products, from drainpipes to packaging.

Post-consumer waste: waste produced by the end-consumer of a material or commodity. Post-consumer waste is distinguished from pre-consumer waste which is the reintroduction of manufacturing scrap (such as trimmings) back into the manufacturing process.

Thermoforming: a manufacturing process where a plastic sheet is heated to a pliable forming temperature, formed to a specific shape in a mold, and trimmed to create a usable product such as a tray or film.

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