



Delivering the future together



Sustainable Development
Report 2022

At Smurfit Kappa, as one of the leading global providers of sustainable packaging, **we are proud to create, protect and care.**

Smurfit Kappa is a business with an essential and enduring purpose – to create packaging solutions that protect what we all care about. This is a role that is lived in our culture and behaviours at all levels and across all areas of our business. It is a purpose that informs our strategic business decisions and actions, now and into the future.

We operate across 36 countries with approximately 48,000 employees in over 350 production sites with a revenue of €12.8 billion in 2022*.

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Delivering a better tomorrow

We are committed to being an impactful business and supporting a greener, bluer planet.

This means doing the right thing for our people, our communities and the environment, through products and processes that make a real difference for our customers and across our entire value chain. True sustainability is end-to-end: from procurement and working with our suppliers, to production and product delivery to our customers. Our economic goals are aligned with our social, community and environmental responsibilities.



Global Challenges

The world is facing critical challenges. With the number of people on the planet continuously rising, the way we live needs to change to secure a sustainable future for all.

As a global community, we need to find solutions to critical issues such as climate change, water scarcity, deforestation and loss of biodiversity, pollution of land and oceans as well as the over-arching challenge of creating a just society.

At Smurfit Kappa, we focus on the social, climate, circularity and forest-related issues where we can have a real, positive impact.

 Read more on [page 20](#)



Our Priorities

As a leading company in sustainability, our ambition of sustainable growth is based on three pillars: Planet, People and Impactful Business.

Our strategic environmental priorities are Climate Change, Forest, Water and Waste. We understand that our success is driven by our highly valued and motivated people, and we ensure the health, wellbeing and safety of our people. We are committed to all of the communities we are part of.

In creating sustainable value for our customers, investors, employees, suppliers and communities, we strive for the highest standards of corporate governance and ethical business conduct. This commitment is instilled across our business, from the boardroom to the factory floor, and throughout our operations and supply chain.



Reporting Transparently

We provide industry-leading transparency and detail to our stakeholders on every aspect of our operations.

This report's contents have been assured by an independent third-party assurance provider with a level of limited assurance.

We have prepared this report in accordance with the GRI Standards. For details, see KPMG's Assurance Statement on page 151.

Leading in Sustainability

Don't take our word for it, take theirs. Some examples of our external recognition:



Our Reporting Suite



To find out more information visit: smurfitkappa.com/sustainability/reporting



Highlights of 2022

€994m

of investments in CO₂ reduction since 2005, including: Nettingsdorf (Austria) bio-boiler, Nuevo Laredo (Mexico) corrugated plant upgrade and Zülpich (Germany) move from coal to natural gas

43.9%

relative CO₂ emission reduction since 2005

23.5%

of management positions across the Group held by women

109,000

people impacted through our social projects in 2022



24%

reduction of waste to landfill from our paper mills since 2013

Game changing packaging innovations with: TechniPaper® AquaStop™

94.3%

of packaging sold as CoC certified



38.5%

of SK Board positions held by women*

* at the time of publication

36.9%

COD reduction since 2005

€26m

of investments in water treatment projects in 2022

2.1%

reduction in water consumption from 2021

1st

paper mill in the world to successfully trial hydrogen energy production





€18.4m

in social investments
2020 – 2022



74

awards for packaging in areas such as innovation, sustainability, design and print, including recognition of SK by Walmart Mexico as sustainable supplier of the year



Continued third party recognition



13.6%
global reduction
in TRIR in 2022

SmurfitKappa
Foundation



€2.7m

in social investments
donated by the Smurfit
Kappa Foundation
in 2022

200

projects in
24 countries since 2012



What We Do

We support our customers' sustainability strategies with our innovative, circular and sustainable packaging solutions

The combination of our global scale in 36 countries in Europe and the Americas, and our integrated model, delivers sustainable and secure supply to our customers, helping them succeed in their marketplace.

We are involved in all stages of our supply chain: we collect and purchase recovered paper and we grow and purchase wood to supply the fibrous raw material our paper mills need to produce a full range of packaging papers. Most of this paper is converted by our corrugated converting plants into corrugated containers, which we then deliver to our customers.



Forests

We own approximately 68k hectares of forest globally, which are FSC® or PEFC certified, promoting economic growth, the protection of biodiversity and ecosystems, and the fostering social equity.

Forests and plantations (hectares)

68,000

Paper

We manufacture a wide range of papers mainly used for packaging purposes. We produced 8 million tonnes of paper and board globally in 2022.

Paper and board mills

35

Packaging

We design, manufacture and supply paper-based packaging to package, promote and protect our customers' products. In 2022, we manufactured 12.6 billion square metres of corrugated packaging and have key supply positions in solidboard, folding carton, and bag-in-box markets.

Converting plants

243

Recycling

We provide recycling solutions to ensure our customers' corrugated packaging and paper is recycled responsibly, efficiently and reliably. We handle 8 million tonnes of primarily post-consumer recovered paper each year across the globe.

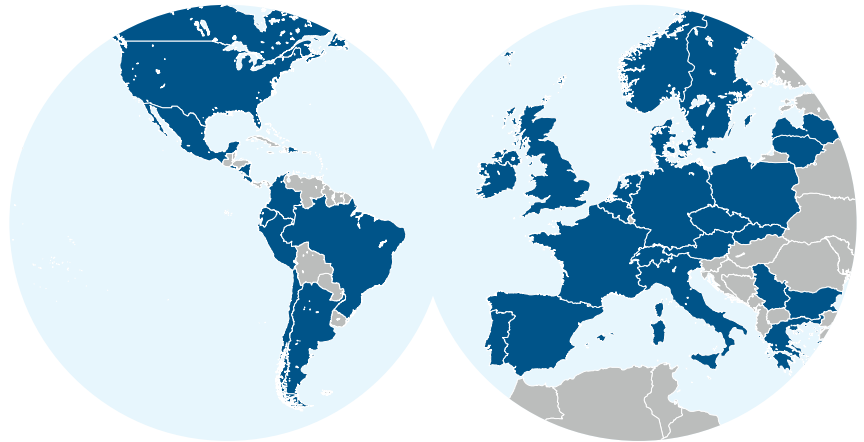
Recovered paper depots and forestry operations

46

Our Scale and Geographic Diversity

Our large manufacturing footprint provides us with a clear point of differentiation because the corrugated packaging market is a localised market and therefore converting plants need to be close to customers (within 300 kms). Our unique global footprint makes us well placed to reliably and sustainably deliver on our customer requirements.

In 2022, we manufactured 7 million tonnes (12.6 billion m²) of corrugated packaging, using most of the 8 million tonnes of containerboard produced within our own mill system.



What Sets Us Apart

Our innovation

To cater for growing global demand, we constantly update our unrivalled portfolio of sustainable paper-based packaging solutions with market-leading innovations.

Our truly circular business

We handle 8 million tonnes of primarily post-consumer recovered paper each year. We reuse or recycle side streams, power our business with renewable energy where possible and find smarter ways of saving energy.

Our data

We use data to drive sustainable improvement, whether through our InnoTool suite to drive carbon reduction and customer supply-chain efficiencies, or our own process improvements.

Our delivery for all stakeholders

We focus on long-term ambition with action today, this is backed up by 16 years of reporting, independently assured since 2009. This continues to be recognised externally: our CO₂ emission reduction target is approved by the SBTi.



Our integrated model

Our vertical integration drives efficiency, security of supply and enables sustainability across the entire value chain.

Our people

Through our commitment to diversity and equality, we create a working culture in which every member of our 48,000 strong team feels engaged, that they belong and are appreciated as they are.

Our global reach

Our global reach enables us to leverage our solutions and their impact at scale across our operations and customer base.

Our strong governance

We have sustainability embedded throughout our capital structure and senior management long-term incentive plans, with strong Board oversight through its Sustainability Committee.

Our Innovative Products

We create innovative and sustainable solutions for our customers

We deliver smarter sustainable solutions to our customers in three ways: innovation in our processes, innovation through the supply chain and innovation in packaging solutions.

DESIGN2MARKET
FACTORY

Danone – Alpro brand Eliminated shrink film with Design2Market Factory Europe

Danone approached Smurfit Kappa looking for a solution without plastic for its Alpro aseptic brick packaging. They were previously using a tray with shrink film to transport the products and displayed the same tray without shrink film on shelf. Key elements in the brief for the new Alpro brand packaging solution were to eliminate plastic, ensure supply chain consistency and enhance the on-shelf experience.

Our designers created a new wraparound for Danone utilising the digital technology and production expertise at the Design2Market Factory, the fastest way to launch new packaging. The project took only 80 hours to complete and is expected to deliver to Danone Alpro brand 798 tonnes of eliminated shrink film plastic per year, which equates to over 1,800 tonnes of CO₂ avoided yearly. In the second phase, the portfolio was simplified to use one brown paper with a one colour design, and from more than a hundred different artworks to only a couple of artworks, creating an optimised portfolio with a 90% reduction in storage keeping units.



798

tonnes of plastic expected to be eliminated

“The in-house expertise and tools available in Smurfit Kappa for the creation and validation of a new box design enabled us to speed up the process, and allow the Alpro brand to deliver on our consumers’ increasing preference for plastic-free packaging.”

Jasper Vandenbogaerde
C&P Productivity & BCP Project Manager, Danone

e-Hug Designed to Protect Spain

A Spanish drink producer came to us with a request to develop a more sustainable solution to ship individual glass bottles. The previous packaging consisted of an outer box, that was filled with a selection of plastic material, such as bubble wrap and polystyrene in order to protect the single bottle during shipment.

Our design team created a solution in which all the plastic-based protectors were replaced with a single piece of flexible corrugated material which can be adapted to different bottles by adjusting the pressure exerted on them. The idea of the design is to provide a solution that stabilises the bottle inside the box, as well as to protect it by creating air pockets around it, all achieved by a simple and economical, 100% recyclable mono-material structure. In addition to offering excellent product protection and being easy to recycle, the new design creates a great unboxing experience.



100%
recyclable

Keep Closing it Sustainable and reusable pallet box for Česká pošta Czech Republic

Česká pošta is the state-owned postal company in the Czech Republic. After experiencing an increase in costs, product breakage, and a reliance on plastic, Česká pošta came to Smurfit Kappa for our packaging and supply chain expertise.

With the customer's requirement to move from a reliance on a pallet cage or stretch-foiled pallets solution, our local team created a reusable mono-material paper-based pallet box design that is sustainable, sturdy, and recyclable. The key design features consider reuse and allow for an easy transition from flat packs to the pallet box for transporting parcels and being returned to flat packs. The smart lock at the corners ensures the box can be opened and then closed securely up to 14 times, remaining closed when required for transportation.

This pallet box, designed for industrial use, delivered a transport and storage cost saving after use of 95%.



95%
transport and storage
cost saving

Our Innovative Products continued



Art in Piece Differentiation by Design Brazil

Art in Piece is a company passionate about championing causes, such as the work of artists, non-governmental organisations ('NGOs'), sustainability, and the environment. They deliver collectable decoration pieces through puzzles designed by artists. Art in Piece wanted to replace their two different packaging models with just one and were looking for a more sustainable solution that also offered a cost-benefit.

Collaborating with the customer, our design team created a single box that could be used as both a gift and transport packaging, and included an all-important differentiated design, contains reduced packaging materials and is fully recyclable. It was essential that the new box engaged even more with the end consumer and told the story of Art in Piece, with an enhanced unboxing experience.

“The fact that Smurfit Kappa believed in the project and looked at it through a different prism impressed me. In addition, the packaging is modern, sustainable, decorative, and disruptive.”

Paulo Cescon
Co-founder of Art in Piece

Jean Bouteille

Bag-in-Box® in refill systems

France

Jean Bouteille are pioneers in the zero waste transformation for the liquid products sector. The company was looking for a reliable, sustainable and hygienic solution for its in-shop refill products. The company was able to save more than 450g of plastic compared to the brand's bottles, by using Smurfit Kappa Bag-in-Box® in the refill systems in 1,700 partner outlets in more than 35 countries.

Jean Bouteille develops product-branded refill equipment by using various Bag-in-Box® formats fitted with suitable taps. The Bag-in-Box® solutions offer a long shelf life for a product and meets the needs of the refill business with a vacuum bag that can be separated from the corrugated box and further recycled in respective recovery streams leading to no packaging waste.



“Smurfit Kappa Bag-in-Box® is our partner in our big ambition to make reuse the new standard of consumption and bring zero waste into every room in the house.”

Gérard Bellet
founder of Jean Bouteille



60%

reduction in energy consumption



450g

reduction of plastic packaging per 10 litres



CoolER.Tray Solution

Parametric design with a difference

Argentina

CoolER.Tray is a corrugated cardboard tray created with 100% recycled paper. It was designed to cool and pack the spreadable cheese, and replace the plastic trays from the start of the process so that one packaging solution can take the trays into the cooling chamber and through the production line.

We developed a pyramidal base that creates air channels which improves cooling times and reduces energy consumption by up to 60%.

The products are boxed and palletised only once, and by replacing the plastic trays we eliminate a step in the filling line, optimising the logistics of the product and providing a 100% recyclable and biodegradable solution.



Delivering on our sustainability strategy beyond the short-term

Tony Smurfit
Group Chief Executive Officer

2022 was a year of extraordinary circumstances, but one which I am proud to say was another highly successful year for the Smurfit Kappa Group.

Our performance, delivered against an increasingly challenging backdrop, reflects the ongoing benefits of our investment programme together with our customer-led innovation and sustainability initiatives. SKG's integrated model together with our geographic footprint continue to deliver for all stakeholders.

Delivering for all Stakeholders

With the world experiencing once-in-a-lifetime floods, droughts and record-breaking temperatures together with a global energy crisis, I am pleased that the Group has continued to deliver on our sustainability strategy, not just in our delivery in 2022 but also in our planning and actions beyond the short-term.

We have continued to deliver and invest in the future. In 2022, we invested close to €1 billion to support our customers and capitalise on long-term sustainable growth drivers. We also continue to make progress towards our sustainability goals with investments to reduce our carbon footprint, reduce our impact on the environment and help our customers achieve their own carbon reduction and sustainability goals.

We are immensely proud of the work of the Group and its employees in supporting many different social programmes across the world. Additionally, we continue to invest in the communities in which we operate through programmes in health, education and environmental protection while our employees devote time and energy to social projects.

We see how diversity, inclusion and equality are urgent issues for global society. Smurfit Kappa is committed to being an employer of choice for today, and tomorrow, engaging our employees, and providing a safe place to work in a global, culturally diverse and inclusive organisation, where people can achieve their full potential and that is at one with the communities in which we are located. With our ambitious plans for ID&E at the forefront of our minds, we have been on an accelerated journey to step change many of the initiatives within our EveryOne programme which is covered both in this Sustainable Development Report and our 2022 Annual Report.

Towards the end of 2022, we saw the introduction at scale of some of our innovative, sustainable packaging solutions, replacing rigid plastics and appearing on many of the world's leading retailers' shelves, something that the retailers themselves were immensely proud of. By producing a product that is renewable, recyclable and biodegradable, actually recycled, and made in an increasingly sustainable manner, our innovative solutions have continued to deliver for our customers and their sustainability goals.

Since we started reporting on our corporate sustainability journey 16 years ago, we have been focusing our efforts on delivering a positive impact for our customers, our other stakeholders and playing our part in having a positive impact on the planet. Our stated ambitions and specific and measurable goals continue to underpin our leadership in sustainability.

The Year's Sustainability Highlights

As detailed throughout this, our 16th Sustainable Development Report ('SDR'), the Group's purpose to create, protect and care, continues to drive change, nurturing a greener and bluer planet through the three key pillars of Planet, People and Impactful Business.

In this SDR, Smurfit Kappa reports continued progress in reducing our fossil CO₂ emissions intensity having reduced its emissions by 43.9% by the end of 2022, compared to its baseline year 2005. This marked a 4% improvement year-on-year, leaving the Group well on its way to reach its 2030 target of a 55% reduction, in line with the EU Green Deal and another step forward on our journey to net zero.

The Group published a significant disclosure consistent with the Task Force on Climate-related Financial Disclosures ('TCFD') recommendations in its 2022 Annual Report, including a comprehensive top-down identification and process review of climate-related risks and opportunities, and an evaluation of the potential impact on Smurfit Kappa assets from physical and transition risks under different climate scenarios.

In June, the Group reached another important milestone with the completion of a €11.5 million, energy project at its Zülpich paper mill in Germany, which is expected to significantly reduce the mill's CO₂ emissions by 55,000 tonnes, or 2%, of the Group's emissions.

Following on from the €134 million installation of a bio-boiler at the Group's Nettingsdorf paper mill in Austria, which reduced emissions by 40,000 tonnes annually, the mill launched a sustainable district heating project in August. The production process will generate up to 25 megawatts of heat that will save approximately 21,000 tonnes of CO₂ while also providing heat to local businesses and schools and benefit 20,000 homes across three communities.

In September, the Group was proud to participate in a world first for a paper mill, where hydrogen was successfully trialled in our paper mill in Saillat, France. This project highlights both the importance and benefit of a collaborative approach to our collective net zero challenges, a project which included universities, suppliers and was supported by the EU.

In October, the Group announced a US\$100 million investment in a sustainable biomass boiler at its paper mill in Cali, Colombia, which will reduce our global Scope 1 and Scope 2 CO₂ emissions by approximately 6%. This ambitious project is the latest example of the circularity that permeates every aspect of the Group's operations as we find another use for our own organic waste and transition away from fossil fuels.

Also, during the year, SKG was further recognised for its strong ESG credentials and continued improvement by the leading research and analytics company, Morningstar Sustainalytics. Following an analysis of more than 15,000 companies globally, SKG was named as an Industry Top Rated company where it ranked in the top percentile out of 99 companies, in addition to being awarded Regional Top Rated.



Our Better Planet 2050 Targets – The Year's Performance

We continue to make progress on our environmental and social targets. Compared to 2005, CO₂ emissions were reduced by 43.9%, water discharge quality improved by 36.9%. Compared to a 2013 baseline, waste to landfill decreased by 24% and Chain of Custody certified packaging deliveries to customers reached a level of 94.3%, a record for the Group. Our safety performance improved by 13.6% in 2022.

These positive developments are the result of a combination of significant investments by the Group and the relentless dedication of our people.

Group Chief Executive Officer's Statement continued

“By producing a product that is renewable, recyclable, biodegradable, actually recycled, and made in an increasingly sustainable manner, our innovative solutions have continued to deliver for our customers and their sustainability goals.”

Russian Operations

The Group announced on 20 March 2023 that it had completed its exit from the Russian market. The Group had previously announced its intention to exit the Russian market in an orderly manner on 1 April 2022 and subsequently entered into an agreement to sell its Russian operations to local management. Following the approval of the Russian authorities and the completion of all necessary administrative processes, the Group's operations in Russia were sold to local management. The operations included a bag-in-box facility and two corrugated plants in St Petersburg, and a corrugated plant in Moscow.

Smurfit Kappa stands in solidarity with the people of Ukraine and everyone impacted by the totally unjustified attack on Ukraine and its people. The Group is providing, and will continue to provide, substantial humanitarian support for the Ukrainian people. We are also assisting the families of the Group employees and contractors from Ukraine as well as providing products and services to support the relief effort together with financial assistance to a number of aid agencies. We have also partnered with the Red Cross to provide funding to support their vital work.

2023 and Beyond

As demonstrated at COP27 and COP15, and evidenced by a number of reports, the world

needs to take decisive action now, and material change is required to deliver the outcomes that science continues to tell us we have to make. Due to the nature of our business, we are already progressing in many of these critical nature-based areas such as water and sustainable forestry management. We expect this to develop further in 2023.

It is clear that in many of the jurisdictions that we operate in, regulators are looking to introduce legislation to help the world move to a just, low-carbon, circular economy. We believe that our product, given its inherent circular and sustainable nature, positions Smurfit Kappa strongly in the required move to a low-carbon, circular economy, such as transition to bioenergy at our Cali mill in Colombia.

Smurfit Kappa puts sustainability at the heart of how we think and act in everything we do. We focus on long-term ambition coupled with action and delivery today, and I expect 2023 will be another year of progress on our environmental and social targets. By collaborating with our value chain partners and like-minded organisations, we can continue to create greater social, economic and environmental value.

I hope you enjoy reading our 2022 Sustainable Development Report and I look forward to your feedback (sustainability@smurfitkappa.com).

Tony Smurfit

Group Chief Executive Officer
28 March 2023

The Board visited our paper mill in Cali, Colombia.



Case Study

Delivering on the EU Green Deal

In May 2022, Smurfit Kappa Europe hosted a webinar called ‘Delivering on the EU Green Deal’. The purpose of this event was to outline the challenges and opportunities presented by the EU Green Deal and how businesses can adapt to it. The EU Green Deal is an ambitious set of policy initiatives proposed by the European Commission to make the EU climate neutral by 2050. The initiative aims to reduce carbon emissions, promote the circular economy, and create a more sustainable future for Europe. The webinar goal was to provide valuable insights into how companies can reduce their carbon footprint and become more eco-friendly in order to meet their sustainability goals. It also offered practical advice for businesses on how they can make the transition to a greener economy with the help of technology and innovative packaging solutions.

The EU Green Deal is a major policy initiative that has the potential to significantly affect the way we think about packaging. To gain insight into this, an exclusive two-hour customer event was organised to bring together experts and industry leaders. This event provided a

platform for attendees to think about the implications of the EU Green Deal on their businesses and how they can adapt their packaging solutions accordingly. We were delighted to be joined by over 2,000 guests at the virtual event in which we shared our Vision on packaging and the Green Deal.

The event also saw industry expert Dr Dorothy Maxwell, Senior Director of Sustainability at Davy Horizons, explain in detail what the EU Green Deal means, and the implications for our partners, suppliers, and society. Pia Heidenmark Cook also spoke at the event. Pia is a Keynote/TEDx speaker and former Chief Sustainability Officer of IKEA. Pia focused on the practical steps that IKEA is taking to integrate sustainability into its business.

Accompanying the event, Smurfit Kappa published a white paper navigating the opportunities of the Green Deal and our vision for packaging to be truly circular: made from nature, powered by nature, returned to nature.



To find out more information visit: smurfitkappa.com/sustainability/eu-green-deal



Over **2,000** attendees joined to hear about our Green Deal Vision



Continuing to deliver for a better tomorrow

Jørgen Buhl Rasmussen
Chair of the Sustainability Committee

The Board is pleased to see another year of continued delivery across our sustainability goals together with some landmark achievements and investments. The continued delivery of the Group's sustainability strategy against a very challenging global backdrop in 2022 further demonstrates how sustainability is truly integrated across the Group.

Sustainability Committee

As Chair of the Committee, I am pleased to be able to outline in this report the Committee's continued development, their objectives and their activities.

In 2022, we saw a heightened focus on climate, with many parts of the world experiencing once-in-a-lifetime floods, droughts and record-breaking temperatures, together with a global energy crisis. These events all confirm the need for a just transition to a low-carbon circular economy. This was underlined by the recent International Panel on Climate Change ('IPCC') Sixth Assessment report, which confirmed a 'code red for humanity', meaning that we are not doing enough as a society to deliver on our commitments.

Against this challenging backdrop, the Committee is encouraged to see that Smurfit Kappa has continued to deliver on its sustainability strategy, not just in its progress this year but also in its planning and actions beyond 2022.

Society needs to find solutions to critical issues such as climate change, water scarcity, deforestation and biodiversity loss, and pollution of land and oceans, while creating a just, inclusive and diverse society. The Paris Agreement and the UN 2030 Sustainable Development Goals ('SDGs') provide direction on how to resolve these critical issues. This Committee is focused on how Smurfit Kappa can continue to make a positive contribution, which I trust you will see evidenced throughout this report.

Strategic Sustainability Priorities

Driven by our purpose to create, protect and care, Smurfit Kappa Group understands the challenges facing both our business and the planet, and is committed to doing its part in resolving these critical issues. Smurfit Kappa has a product that is naturally sustainable and a process that is increasingly sustainable, driven by a culture with strong values of safety, loyalty, integrity and respect. Therefore, our ambition is to deliver sustainable growth for the benefit of all our stakeholders based on three pillars: Planet, People and Impactful Business. Within these pillars, our People and our Communities, Climate Change, Forest, Water and Waste are the main strategic sustainability priorities.

Strategic Guidance

The Committee is comprised of four Non-executive Directors and is responsible for providing strategic guidance and support to management in the implementation of the Smurfit Kappa sustainability strategy for the benefit of all of the Group's stakeholders.

The Committee has particular regard to the alignment of the Group's sustainability strategy with global best practice. The Board of Smurfit Kappa strives for the highest standards of corporate governance and ethical business conduct, and our aim is to create sustainable value for our stakeholders: customers, investors, employees, suppliers and the communities in which we are privileged to operate.

During 2022, the Board developed a greater understanding of the climate risks and opportunities for Smurfit Kappa, part of which is communicated through the continued evolution of our TCFD disclosure. I am proud to see that the ongoing development of our understanding of climate change is based on data and science with extensive scenario analysis supported by expert third parties. Some of our landmark sustainability achievements have included collaborative projects with participants from across our value chain, a truly open and progressive approach to solving the major challenges facing society.

The Group's highly valued and motivated team are essential to the ongoing delivery of our sustainability strategy, so the health, safety and wellbeing of our people is a key priority for us. With a workforce of over 48,000 people at the end of 2022, fostering inclusion, diversity and equality is also key. In Smurfit Kappa, we strive to create a diverse workplace where everyone can bring their authentic self to work every day. We truly value our diverse mix of people, who add so much value to our organisation. Our commitment also extends to all of the communities we interact with and in which we are located.

2022 in Review

The Group had an active and productive year, completing many projects in its sustainability agenda over the course of 2022, which have been outlined and summarised below and throughout this Sustainable Development Report.

As a Board, we have always understood the importance of maintaining a strong people-centric culture and recognise the value of engaging and listening to the diverse views of colleagues across the global organisation. As Chair of the Sustainability Committee, I am very pleased to report that there was a high level of employee interaction throughout the year. During 2022, we had the opportunity to meet colleagues face-to-face, and we were delighted to be able to do so again, while harnessing the benefits of virtual meetings also.

Open channels of communication and a good pulse on employee sentiment allows us to understand the engagement levels, motivation, trust, and values that our employees feel in Smurfit Kappa.

To ensure the highest levels of positive support and engagement, the Committee engaged with employees across a number of topics. During the year, we regularly reviewed employee sentiment indirectly via people data from employee engagement surveys such as the Inclusion, Diversity & Equality ('ID&E') Discovery survey; we reviewed all feedback on subjects such as ethics and health, safety and wellbeing, while we also took into account employee turnover.

During the year, the Board considered a number of strategic investments including the announcement of the largest CO₂ emission reduction project in the Group's history in Cali, Colombia. This investment of almost US \$100 million in a sustainable biomass boiler will reduce SKG's global Scope 1 and Scope 2 CO₂ emissions by approximately 6%. The Board of Directors visited the site of this investment during 2022 prior to its announcement.

In 2022, SKG reported the highest CoC certification percentage in the Group's history at 94.3%. The Group delivered a 43.9% reduction in CO₂ emissions which reflects both the benefits of our recent investments in the Zülpich mill in Germany and Nettingsdorf mill in Austria as well as the collective efforts across the business. Details of our progress against the targets in our Better Planet 2050 commitments are included on pages 40, 41, 74, 75, 102, 103.

The Committee was pleased to see the continued positive external recognition in 2022. During the year, Morningstar Sustainability awarded SKG both an industry and regional top-rated ranking, this was in addition to an improved score of A- in Climate Change disclosure from CDP and our already leading MSCI score.

Looking longer-term, I was pleased to see the successful completion of the first stage of the hydrogen project at our Saillat paper mill (France) is a world first for a paper mill. This project involves significant collaboration across several industries, academic bodies and research institutes, including: ENGIE Solutions, Siemens Energy, Centrax, Arttic, German Aerospace Center ('DLR'), and four European universities.

During 2022, the Group continued to deliver new innovative products to the marketplace that demonstrably lower our customers' carbon footprint. These, together with the inherent sustainable nature of our product, and our increasingly sustainable operating footprint, position Smurfit Kappa as an integral partner in the delivery of our customers' sustainability goals.

Sustainability Committee Chair's Statement continued

Our Better Planet Packaging initiative also provides us with a key platform for differentiation in a competitive market. Details of some of the innovations and solutions we have provided to customers are included on pages 8-11.

Looking Ahead

The Committee will continue to provide guidance and support to management in the development of the Group's sustainability strategy as the Group continues its sustainability journey in 2023. There are many projects in the areas of Planet, People and Impactful Business which will be delivered in 2023 and beyond.

The Committee is encouraged by the progress the Group has made so far and we look forward to reporting on our continued progress to all of our stakeholders in the years ahead.

Following my appointment as Chair designate of the Remuneration Committee, I will be stepping down as Chair of this Committee at the conclusion of the Annual General Meeting ('AGM') and Kaisa Hietala will be taking over the position.

I will continue as a member of the Committee going forward. I am grateful to have been involved in the formation of the Committee and to lead the Committee as it evolved and developed over the last three years.

I look forward to continuing to work with the Committee under the stewardship of Kaisa. I wish her the best of luck as Chair of the Committee.

Jørgen Buhl Rasmussen
Chair of the Sustainability Committee
28 March 2023

Case Study

First Green Bond Impact Report

In September 2022, Smurfit Kappa published its first Green Bond Allocation and Impact Report, which provides details on the use of the proceeds of its inaugural €1 billion dual-tranche Green Bond issued in September 2021. In accordance with Smurfit Kappa's Green Finance Framework, the proceeds of its inaugural Green Bond were allocated to assets associated with the following two categories:

1. Circular economy adapted products, production technologies and processes and/or certified eco-efficient products (96%).
2. Environmentally sustainable management of living natural resources and land use (4%).

Smurfit Kappa's Green Finance Framework is reflective of the sustainable nature of its business model, with eligibility criteria that span the geographic scope of the Group's operations and take into account its strong circular business practices. This is done by using sustainable raw materials, with post-consumer recovered paper being its main raw material, and implementing circular production processes that are subject to continuous improvement.

Accordingly, Smurfit Kappa's approach to sustainable financing mirrors what the Group is: a global business which places sustainability firmly at the centre of its operating model.

The report highlights the significant steps we are taking to ensure that our sustainability strategy and funding strategy become seamless. By issuing green finance instruments, we are embedding sustainability into our capital structure. The Green Bond Allocation and Impact Report clearly and transparently reflects our sustainability ambitions and the progress we are making.

Circularity is at the heart of our business model and is firmly integrated into our funding strategy. Through our Green Finance instruments, we are giving investors the opportunity to invest funds in truly sustainable business practices. The Green Bond Impact Report is third-party assured and showcases our commitment to end-to-end sustainability and to constantly aligning our economic goals with our social, community and environmental responsibilities, and ensuring compliance through strong governance.



To find out more information visit:
smurfitkappa.com/newsroom/2022/smurfit-kappa-launches-first-green-bond-report



Non-executive Sustainability Committee Members



Jørgen Buhl Rasmussen

Non-executive Director

Biography

Jørgen Buhl Rasmussen is the former Chief Executive Officer of Carlsberg A/S. He served as the Chief Executive Officer of Carlsberg A/S from 2007 until he retired from this position in 2015, having joined the company in 2006.

He previously held senior positions in several global FMCG companies, including Gillette Group, Duracell, Mars and Unilever over the previous 28 years. He is Chair of Uhrenholt A/S and Chair of the Executive Advisory Board in Blazar Capital. He was a Board member of Novozymes A/S from 2011 and Chair from 2017 until March 2023.



Anne Anderson

Non-executive Director

Biography

Anne Anderson is an experienced international diplomat who most recently served as the Ambassador of Ireland to the United States from 2013 to 2017. She joined the Department of Foreign Affairs in 1972 and was appointed Assistant Secretary General in 1991, serving in this post until 1995. She was then appointed Ireland's Permanent Representative to the United Nations in Geneva after which she became Permanent Representative of Ireland to the European Union in 2001.

Following this she was appointed Ambassador of Ireland to France in 2005, where she served until 2009. In 2009, she became Permanent Representative of Ireland to the United Nations in New York. Anne is Chair of the Board of Advisers at the Institute for the Study of Diplomacy at Georgetown University, Washington DC. She is also a Board member of the Druid Theatre Galway.



Kaisa Hietala

Senior Independent Non-executive Director

Biography

Kaisa Hietala spent over 20 years at Neste Corporation, where she was a key architect in the strategic transformation of the company to become the world's largest producer of renewable diesel and renewable jet fuel. She served as Executive Vice President, Renewable Products at Neste Corporation and was a member of the Neste Executive Board

from 2014 to 2019. Prior to this, she held a number of senior positions including VP, Renewable Fuels, Neste Oil Corporation. Kaisa was previously a Non-executive Director of Kemira Oyj from 2016 to 2021 and is currently a non-employee Director at Exxon Mobil Corporation and Non-executive Director of Rio Tinto.



Lourdes Melgar

Non-executive Director

Biography

Lourdes Melgar is an academic and strategic advisor recognised for her expertise in energy, sustainability and governance. As former Vice Minister for Electricity from 2012 to 2014 and Vice Minister for Hydrocarbons from 2014 to 2016, she played a key role in the design, negotiation and implementation of Mexico's 2013 Energy Reform. Previously, as a career diplomat, she held various positions in Mexico's Foreign Service and at the Ministry

of Energy. She is currently a Research Affiliate at the Center for Collective Intelligence of MIT's Sloan School of Management and an Independent Board member, Global Energy Alliance for People and Planet. She currently also is a Board member of Banco Santander Mexico S.A. Lourdes was appointed as an Independent Director of CEMEX, S.A.B. de C.V. with effect from 23 March 2023.

Our Strategy

Taking responsibility and making a positive impact

The world is facing growing challenges. As part of a global community, we have a responsibility to operate sustainably and make a positive impact.

Global Challenges

We have identified four key issues where we can make a difference and contribute to a better future, in line with our commitments to the UN SDGs.

Social Change

Equality, inclusion, diversity, human rights: these are the social themes of today's world. By creating a safe and inclusive culture, by being a good corporate citizen to our local communities, and by supplying essential packaging solutions, we can build a platform that transforms lives, unlocks opportunities and promotes fairness for everyone.

Climate

From changing weather patterns and melting polar ice, to alarming science, the call for action has become urgent. We understand the challenges and the changes that need to be made, and we are strongly committed to making a positive contribution. We are targeting at least a net zero carbon footprint by 2050 for our own activities, and through our sustainable paper-based packaging solutions, we can help our entire value chain reach that 2050 goal as well.

Circularity

As the number of people on the planet continues to rise, there is a greater need for a circular economy. Packaging that is well designed can play a critical role; our innovative and sustainable packaging solutions not only protect goods, but also seek to reduce waste. This, along with our circular processes and improvement in efficiency, help to minimise our use of resources and preserve our planet. Our Better Planet Packaging initiative seeks to proactively replace unsustainable packaging solutions with renewable, recyclable and actually recycled, biodegradable paper-based packaging alternatives.

Deforestation

Tougher questions than ever before are being asked about how we treat our planet. Forests are the world's first line of defence in the fight against climate change and essential to biodiversity. We manage 68,000 hectares of forests and plantations. Sustainable forestry and only delivering certified sustainable products to our customers is one of our top priorities. By being leaders in robust CoC, striking a balance between recycled and sustainably sourced, renewable fibres, we not only create great products, but help conserve our planet's valuable ecosystems.

Our Strategic Priorities



Planet

We use renewable, recyclable, recycled and biodegradable materials to create sustainable packaging solutions. We play a part in ensuring that at their end-of-life, our products are recycled. Our four focus areas are:

Climate Change

➔ Read more on pages 42 to 49

Water

➔ Read more on pages 56 to 61

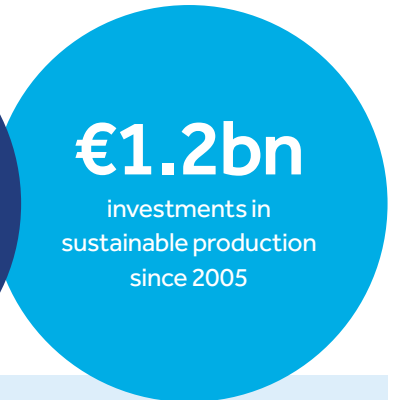
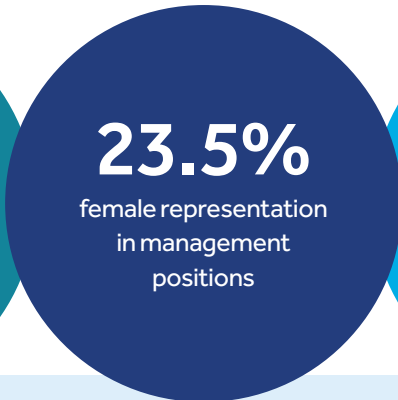
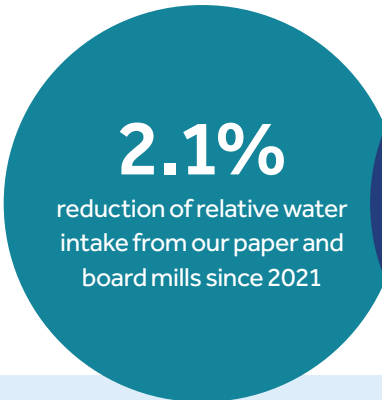
Forest

➔ Read more on pages 50 to 55

Waste

➔ Read more on pages 62 to 67





We respond to these four global challenges through our sustainability strategy based on three pillars: Planet, People and Impactful Business.



People

Having engaged employees is critical for our business. We are committed to providing an inclusive and safe place to work for the talented people in our globally and culturally diverse organisation. Our commitment also extends to all of the communities in which we operate. Our four focus areas are:

People Values

➔ Read more on pages 76 to 77

Health, Safety and Wellbeing

➔ Read more on pages 86 to 91

People Strategy

➔ Read more on pages 78 to 85

Communities

➔ Read more on pages 92 to 97



Impactful Business

Through our activities, we aim to create sustainable value for our customers, investors, employees, suppliers and the communities in which we operate. We do this with the highest ethical business standards. Our three focus areas are:

Innovation

➔ Read more on pages 104 to 107

Sustainable and Responsible Sourcing

➔ Read more on pages 112 to 115

Governance and Human Rights

➔ Read more on pages 108 to 111












Our Strategy continued

Long-term ambition, delivering today

Globally, citizens are asking tougher questions and becoming a strong force in the drive for climate and societal change in recent years. The focus on how we treat our planet, how we create a more inclusive world for everyone and support equality across all communities has never been so high on people’s agendas.

Our Better Planet 2050 ('BP2050') Commitments and Progress

Category	 Climate Change	 Forest	 Water
Targets	Net zero our ambition is to have at least net zero emissions by 2050, with a 55% reduction in fossil fuel emissions intensity by 2030	>95% packaging solutions sold as Chain of Custody certified to customers by 2025	60% reduction in Chemical Oxygen Demand ('COD') intensity by 2025 1% reduction of our water usage intensity annually
Progress in 2022	43.9% reduction in CO ₂ emissions since 2005	94.3% packaging solutions sold as Chain of Custody certified in 2022	36.9% reduction in Chemical Oxygen Demand since 2005 2.1% reduction of our water usage in 2022
Link to Sustainability Strategy			
Link to Sustainable Development Goals ('SDGs')			

➔ Read more on our sustainability strategy and SDGs on **pages 24 to 25**

Key for Sustainability Strategic Priorities


















Planet



People



Impactful Business

 Waste	 Health and Safety	 People	 Communities
<p>30% reduction in waste to landfill intensity by 2025</p>	<p>at least 5% reduction in Total Recordable Injury Rate annually</p>	<p>25% of management positions held by women by 2024</p>	<p>€24 million will be donated between 2020 – 2025 to support social, environmental and community initiatives</p>
<p>24% reduction in waste to landfill since 2013</p>	<p>13.6% reduction in Total Recordable Injury Rate in 2022</p>	<p>23.5% of management positions held by women at end of 2022</p>	<p>€18.4 million donated since 2020</p>
			
		  	 

Our Strategy continued

Delivering for UN Sustainable Development Goals

Our Better Planet 2050 targets focus on our strategic priority areas and are aligned with the UN. By reporting on our progress within the framework of the SDGs, we are supporting a global effort for sustainable development. We believe this focus on our sustainability goals will help us make the greatest positive impact for our planet, our people and for sustaining an impactful business.

Read more about our commitment to the UN SDGs in our SDG report at smurfitkappa.com/sustainability.



Delivering for SDGs ('Goals')

To understand our relevance to the SDGs we have looked at where reducing our footprint has the most material impact and also reflected where building on our positive actions help deliver the most meaningful contribution.

We have defined three categories for our delivery towards the success of the SDGs depending on the impact and contribution we can make.

Smurfit Kappa Impacts

These six SDGs have been identified as the core Goals where Smurfit Kappa has the most potential to influence and add value. Smurfit Kappa has set measurable targets within its impact area for each of these Goals.



Smurfit Kappa Contributes

These four SDGs have been identified as Goals where Smurfit Kappa's activities have a meaningful contribution towards their achievement. We have commitments within our impact area for these Goals but we recognise that a full achievement of these Goals require activities from other sectors in society.



Smurfit Kappa Supports

As a sustainable and responsible business, we support in delivery for each of the SDGs. These seven Goals are important to us through our values and way of working, however, we recognise that Smurfit Kappa alone cannot impact the change needed to deliver on these Goals.



Examples of our Delivery for the SDGs



We Care for our Planet

Our Forestry Operations and our Forest Research Centre in Colombia collaborate with local universities to understand the impacts our sustainable forest management and protected forests have to the ecosystems and biodiversity.

Impacts SDG: 15
Interconnected SDG: 9

➔ Read more on **page 52**



We Care About our People

In our Tijuana corrugated plant we take employee health, safety and wellbeing seriously. A book '100 stories of safety' is a collaborative effort to engage employees to talk about safety at work and home.

Impacts SDG: 3
Interconnected SDG: 10

➔ Read more on **page 91**



We are an Impactful Business

We use data to understand the business challenges we share with our customers. Our e-commerce team used research and insights to solve the void space issue in e-commerce packaging resulting in a truly recyclable and efficient packaging solutions for e-retailers.

Impacts SDG: 12
Interconnected SDG: 9

➔ Read more on **page 105**

Our Strategy in Action

End-to-end sustainability

End-to-end sustainability means using a sustainability lens in everything we do: from sustainable and responsible sourcing of our renewable and recyclable raw materials, to the development of sustainable packaging solutions that help our customers to reach their goals.



1

Sustainable Raw Material

100% of our raw material has a sustainable origin. All our own forests and plantations are FSC or PEFC certified. Recycled fibres make up 76% of our primary raw material, and the balancing 24% are sustainable virgin wood fibres.

Our Impact

We create market demand for deforestation-free products by promoting CoC certification and certified sustainable forest management throughout our value chain.

Packaging sold and certified in 2022

94.3%

2

Circular Paper Operations

We focus on reducing our CO₂ footprint, reducing our water intake, improving our water discharge quality, and minimising the amount of waste sent to landfill.

Our Impact

We invest in best-practice technology in all our operations and specifically focus on reductions that have local and global impacts on CO₂, water and waste.

Investments in sustainable technology since 2005

€1.2 billion

3

Product Design and Innovation

Our approach to innovation is data-driven and focused on solving our customers' challenges, whether through product development and removing less sustainable packaging materials, process improvement, optimising supply chain efficiency or brand enhancement.

Our Impact

We use our InnoTools to deliver low-carbon, circular packaging solutions for our customers to help them deliver on their goals. This facilitates best-practice sharing at scale.

Uses of InnoTools in 2022

160,000

Our circular value chain has a positive impact on the planet, people and business

Key to strategic priorities:

- Planet
- People
- Impactful Business

At every important step in our value chain, we consider where we can have a positive and lasting impact. We are constantly aligning our economic goals with our social, community and environmental responsibilities.

Sustainability is at the core of our way of thinking, affecting the ways in which our business operates, from product inception to final disposal. We recognise the importance of the circular economy through our value chain and collaborate with like-minded organisations to create greater social, economic, and environmental value for everyone that we impact.

Our Essential Products

Packaging plays a critical role in packaged goods' value chains. Looking into life-cycle impacts of the packaging and the products in them, we can reduce the overall environmental footprint throughout supply chains. We use data-driven innovations together with renewable and recycled resources to create purposeful packaging that is fit-for-purpose.

Our Circular Processes

Continual improvement in our processes is at the core of our circular, integrated business, handling over 8 million tonnes of primarily post-consumer recycled paper. Through our holistic approach to product design and manufacturing, we offer packaging solutions that minimise inefficiency and waste in production and at use. Working closely with our suppliers and customers, we design sustainability into every fibre.

Our People and Communities

Our end-to-end approach considers our entire global network. We provide a value-driven culture that attracts top talent and empowers our 48,000 people to reach their full potential in a safe and diverse working environment. Our responsibilities extend to helping local economies and partnering with like-minded organisations to make a bigger contribution.



4

5

6

7

Paper-based Packaging Production

We produce packaging with a high focus on production efficiency, employee safety and wellbeing, and aim to have the lowest possible environmental impact at any site in our global packaging production network.

Our Impact

Health and safety is about individual and collective choices, and our Safety for Life initiative builds a link between choices we make at work to our choices in our personal life.

TRIR reduction in 2022

13.6%

Global and Local Customers

We offer our customers sustainable fit-for-purpose packaging solutions that are renewable, recyclable, recycled and biodegradable.

Our Impact

We educate and inform our customers about sustainable packaging solutions throughout their supply channels.

Participants at our virtual Green Deal event in May 2022

2,000+

Sales Channels

Our products are designed to add value to our customers' value chains, ensuring that their packaged products are delivered, stored, displayed and sold undamaged to the consumer, avoiding waste in the supply chain and catering for legal and consumer demands.

Our Impact

In Germany, our Recycling Dual system enables us to offer a closed-loop approach to our customers' packaging needs. We collect their packaging and bring it back to paper mills as raw material.

Tonnes of paper recycled through Recycling Dual in 2022

18,600

End of Life: Paper Recycling

We are one of the largest actors in the circular economy in Europe and a significant player in the Americas, collecting recovered post-consumer materials at our 44 recycling depots globally.

Our Impact

We participate actively in the recycling of our products. In 2022, we produced 8 million tonnes of paper and on the other side our recycling operations handled 8 million tonnes of paper, making our global used product reclaim rate 100%.

Recycled paper collected in 2022

8m tonnes

Our Strategy in Action continued

Circular, fit-for-purpose and responsible

Our global challenges require a new way of thinking and to create more innovative solutions. Society needs to focus on reducing waste and carbon emissions, preserving biodiversity and ecosystems, and thinking end-to-end. As a society, we must create products and packaging without wasting resources and make them more recyclable, truly recycled, biodegradable and from renewable sources.

We realise that responding to these global challenges is not easy, and we believe paper-based packaging can be one of the answers. As the world's population continues to grow and consumer demand for sustainable packaging increases, we are considering the entire life-cycle of our products so they have a greater impact.

We are committed to evolving our business model with new advancing technologies, to ensure we design our products and develop our processes to be innovative, fit-for-purpose and circular by nature. We follow the guiding principle of waste prevention by closing loops at every stage whether it is material efficiency, CO₂ emissions or smart water stewardship.

Circular by Nature

Our circular model focuses on making a positive climate impact, in terms of reducing both carbon and waste. This starts with our product being circular, as it is made with 100% renewable, recyclable, and biodegradable primary raw material.

With a 100% collection rate and 88% recycling rate in our own mills, Smurfit Kappa's corrugated packaging is highly circular, yet we continually work to improve the recycling and recyclability of our product. Our integrated business model allows us to design material efficiency throughout our processes. We partner with our communities and neighbours to find synergies for further

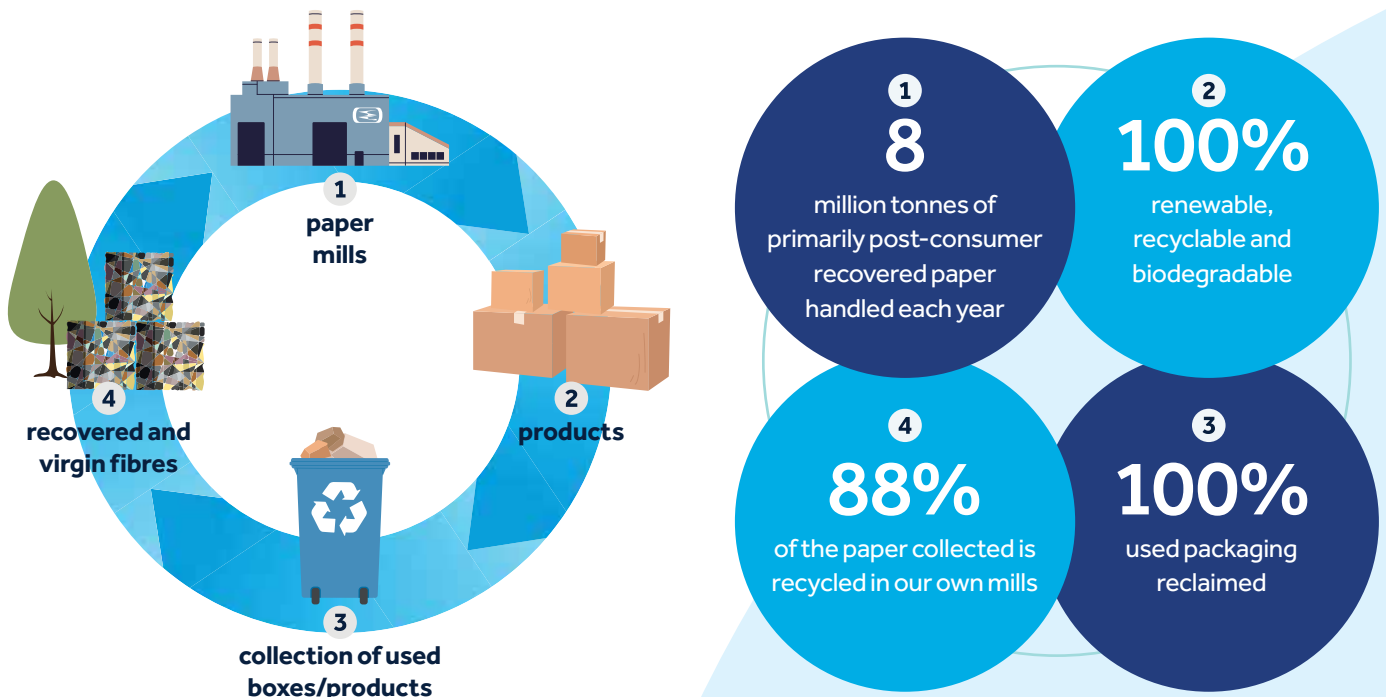
circularity. We seek circular partners in how we source the raw materials, how we create our products, how they are used and what happens when they reach the end of use.

Our Talented People

One of Smurfit Kappa's greatest responsibilities is to the people who work for us. They are at the centre of everything we do.

By providing them with a safe place to work and an inclusive and value-driven culture, we can attract, engage and empower the best talent. We believe that a diverse work culture makes us stronger and more innovative, and our employees feel more engaged and are happier because they understand how their efforts can contribute to our success.

Our Circular Process



Our Respected Communities

Beyond our employees, our responsibilities extend to helping the communities where we are located, by acting as a good corporate citizen. Operating in accordance with the UN Declaration of Human Rights and the Fundamental Principles and Rights at Work is a basic principle.

In addition, by supporting local education, income generation, collaboration and participation, we can strengthen communities.

This is especially true in remote areas with limited opportunities for work.

In the communities where we operate, Smurfit Kappa is focused on breaking the cycles of poverty and dependence with the work we do through the Smurfit Kappa Foundation (the 'Foundation'). During 2022, we redefined the purpose of the Foundation, so in addition to a focus on children, the Foundation has expanded its grant giving to support sustainable projects that positively impact the lives of underprivileged people in the areas of health and nutrition, education and basic care, thus helping to reduce inequalities that exist.

We believe, by working with key organisations in these areas and supporting projects that provide a better start for people, we can break the cycle of poverty.

Together, we are committed to building a better tomorrow.

Our Sustainable Raw Material

We start with 100% renewable and recycled resources. 76% of our raw material is recycled fibre and the remaining 24% comes from renewable, Chain of Custody certified wood. Our timber is often a natural side product – from the woodchips and tops of the trees too small for sawmills, as well as trees that are removed to support healthy growth in the forest. This means that everything is used, nothing is wasted.

Our Circular Operations

We aim to make our operations fully circular. Key to this is minimising waste by finding a use for our side product streams; whether doing so ourselves or in collaboration with regional partners and local communities.

Already more than 50% of these side streams are recovered and recycled for reuse. Paper clippings from corrugating and converting operations are returned to our paper mills, while organic by-products such as wood bark and biogas from biological water treatment are used as biofuel; some water treatment sludges become soil improvers and waste ash can be used in the cement industry.

When it comes to the water we use, we are responsible stewards of this precious resource – recirculating our process waters several times, and investing in best-practice water treatment before it is discharged back to the local water system.

We are also continuously improving our energy efficiency and using more renewable energy to reduce impacts and lower costs – for example, in our paper mills we have achieved a 20.6% improvement in energy efficiency since 2005 and over 50% of the energy produced is now based on renewable energy.

Our Sustainable Finance

Since 2005, we have invested some €1.2 billion to make our operations more sustainable. Of this, some €994 million has been invested in different energy efficiency and CO₂ reduction projects, over €129 million in best practice water treatment systems and almost €98 million in projects optimising fibre use and reducing waste.

Our more recent approach to sustainable finance further integrates the sustainability ambitions at the core of our business model into our funding strategy. As part of this continued commitment, we launched our Green Finance Framework, which reflects the sustainable and circular nature of our business model. This considers our efforts to produce circular products, reuse of recycled paper or certified sustainable raw materials, and to implement circular production processes, which we continuously improve.

A deep understanding of the business environment enables us to increasingly be part of the circular economy and drive sustainability the all areas of our value chain, positively impacting Planet, People, and Impactful Business.

Case Study

Walmart Sustainable Supplier of the Year Mexico

In a country as large as Mexico, it's a huge challenge to collect and process waste for recycling. Unfortunately, a significant amount of waste ends up in landfill, but Walmart and Smurfit Kappa are working to change that.

Sharing sustainable values is the reason why the relationship between both companies has become closer over the years. Smurfit Kappa is committed to minimising our environmental impact and maximising our social contribution while creating value for all our stakeholders. In 2004, Smurfit Kappa became Walmart's waste manager in Mexico. Since then, more than 3,000 stores across the country have been involved in the tailor-made plan, which includes collection, transportation and recycling services.

The success of the partnership was recently recognised when Smurfit Kappa Mexico was awarded the 'Walmart Award for Sustainable Supplier of 2022'.

The partnership continues to evolve and, through seeking to create greater social awareness, and involving Walmart's customers, we are working on a pilot test for a new recycling programme. This will provide facilities for consumers to deposit all sorts of recyclable material including paper, carton, plastic and aluminium.

"We have a close partnership that began more than 20 years ago, with just one store in Mexico City", says Andres Marein Efron, General Manager, Recycling Division in Mexico. "Now it's nationwide, and we are contributing to the sustainability goals of both companies."



Stakeholder Engagement

Stakeholder engagement in sustainable development

Sustainable businesses encourage diverse views, and we provide opportunities for dialogue with the many stakeholders who impact our business. In our experience, this collaboration and our end-to-end approach to sustainability delivers benefits for everyone.

Stakeholders' opinions are essential to how we develop our business. Our key stakeholders are customers, investors, employees, communities and suppliers.

Our Sustainable Value Dimensions

Our size gives us a unique position in our value chain, enabling us to create value for our stakeholders by meeting their sustainability requirements. For example, we help them meet sustainability commitments with CoC certified packaging deliveries, by reducing supply-chain risks, or by transparently measuring and reporting of environmental footprint or social impact, adding to their transparency.

We ensure our stakeholders receive these benefits, from high sustainability standards in our supply chains to helping customers reduce their carbon footprint through right-weighted, fit-for-purpose packaging. We also help customers track the carbon footprint of every box, so they can measure and reduce their own supply chain emissions.

Our Engagement Methods

We know which issues are important to our stakeholders through continual multi-level engagement across our customers, investors, employees, communities and other relevant parties. This engagement includes:

- Organising meetings and round-table discussions on sustainability with our stakeholders;
- Participating in discussions within and outside our industry through our membership of Cepi, FEFCO, the 4evergreen initiative and the World Business Council for Sustainable Development ('WBCSD');
- Participating in CDP, EcoVadis, FTSE4Good and The Supplier Ethical Data Exchange ('SEDEX') surveys, and benchmarking against UN 2030 SDGs; and
- Participating in the development of Forest Certification as a member of FSC and PEFC.

For stakeholders, our holistic approach ensures:

- **Relevance:** Constant dialogue to understand their sustainable business drivers and how we can help expand their capabilities;
- **Influence:** Valuing their opinion, and sharing experience and best practice from working with a wide range of suppliers and customers;
- **Value:** Ensuring we deliver maximum sustainability value by understanding the sustainability drivers throughout our value chain; and
- **Affect:** Sharing knowledge and expertise to increase understanding and find sustainable solutions. We do this through training courses, round-table discussions and meetings, including awards and partnership debates.

How we Engage

How we Include our Stakeholders Across Our Key Focus Areas



Key Activities in 2022

Our End-to-end Sustainability is Supported by:



Circularity

Working with a circular business model means we involve our stakeholders at all stages, and strive to add value to each one.



Inclusiveness

Our approach to our people and other stakeholders focuses on inclusiveness. To deliver innovative and circular solutions, we believe an inclusive approach works best. Employees, customers, investors, suppliers and local communities all have a part to play.



Innovation

Creating a business environment that enables innovation ensures that we and our customers operate at the cutting edge.

The ways in which we collaborate with our stakeholders in our three focus areas: circularity, inclusiveness and innovation

 Customers	 Investors	 Employees	 Communities	 Suppliers
<ul style="list-style-type: none"> Regular business meetings at our Experience Centres Customer conferences WBCSD membership Awards and competitions run by customers Collaboration through the full packaging value chain in the 4evergreen initiative, in collaboration with large fast-moving consumer goods ('FMCG') companies 	<ul style="list-style-type: none"> Investor days and conferences One-to-one meetings ESG ratings by rating agencies Feedback from sustainability analysts Queries directly from investors 	<ul style="list-style-type: none"> MyVoice engagement surveys Global, regional and local learning and development programmes Works Councils Social committees Support to our employees through the Employee Assistance Programme Enable reporting of any possible wrongdoing through the Speak Up service 	<ul style="list-style-type: none"> Initiation of, and participation in, local social activities by members of our workforce Supporting social investment projects by local Smurfit Kappa companies and our Smurfit Kappa Foundation Supporting various Ukraine-focused projects by local Smurfit Kappa operations 	<ul style="list-style-type: none"> Supplier sustainability audits Participating in the development of Forest Certification as members of the Forest Stewardship Council@ FSC@ and the Programme for the Endorsement of Forest Certification ('PEFC') WBCSD membership
<ul style="list-style-type: none"> Packaging solutions that enable safe delivery of our customers' products Packaging solutions that cut waste and improve recyclability 	<ul style="list-style-type: none"> Through our circular business model, lowering costs and increasing efficiency and revenue Delivering a lower-risk profile 	<ul style="list-style-type: none"> We ensure our employees are fully aware of our role within the circular value chain We circulate our talent and ideas across our operations and geographies to ensure we are sharing best practice 	<ul style="list-style-type: none"> We collaborate with our neighbours and communities to find synergies from education to action, such as district heating in Piteå, Sweden and Nettingsdorf, Austria 	<ul style="list-style-type: none"> Sharing our sustainability knowledge Identifying opportunities to increase circularity and add value across the value chain
<ul style="list-style-type: none"> Benefits of our solutions to include all in the value chain 	<ul style="list-style-type: none"> Reduce reputational risk Streamline supply chains to reduce CO₂ emissions and minimise waste 	<ul style="list-style-type: none"> Make employees feel included and appreciated as part of a team We strive to ensure our employees can be their authentic selves at work every day 	<ul style="list-style-type: none"> Share value from Smurfit Kappa business growth with local communities Encourage employee volunteering in local programmes 	<ul style="list-style-type: none"> Wherever possible, procuring products and services from local suppliers Keep finances flowing through local economy
<ul style="list-style-type: none"> Fit-for-purpose, eco-design packaging 	<ul style="list-style-type: none"> Sustainable packaging innovations deliver an attractive return on investment 	<ul style="list-style-type: none"> We reward and recognise innovation amongst our workforce Our talent and development approach supports a culture of innovation 	<ul style="list-style-type: none"> We work with community groups to ensure the work they are doing leaves a lasting legacy and is not just a one-off contribution 	<ul style="list-style-type: none"> Encouraging our suppliers to be innovative about products and processes Helping test and optimise solutions before they go to market
<ul style="list-style-type: none"> SBTi approved Over 160,000 uses of InnoTools to inspire sustainable packaging designs We sold 94.3% of our packaging as CoC certified in 2022 Delivering lower CO₂, recyclable packaging solutions Hosted a customer webinar 'Delivering on the EU Green Deal' for over 2,000 participants 	<ul style="list-style-type: none"> SBTi approved Reporting consistent with the TCFD CO₂ emissions reduction by 43.9% (see pages 40-41) COD discharge reduction by 36.9% (see pages 40-41) Published our first Green Bond Allocation and Impact Report 	<ul style="list-style-type: none"> Cascaded an ID&E survey, which was completed by almost 8,000 colleagues and delivered over 9,000 comments Launched SK RISE, our first female-only development programme Reached a 13.6% reduction on TRIR in 2022 Launched MyHub, our first company-wide Human Resources (HR) Information System to digitise our key HR processes and to give our employees autonomy to plan and manage their careers 	<ul style="list-style-type: none"> €6.6 million in social investments in 2022 (see page 94) 6,300 hours volunteering 109,000 people impacted Made our website more accessible and inclusive for users with disabilities and impairments 	<ul style="list-style-type: none"> 99.8% of our fibre produced and purchased as CoC certified (see pages 40-41) 121 supplier audit activities (see page 114)

Assessing Materiality

Assessing what's important

To understand the sustainability issues most relevant to our business operations and our stakeholders, we conducted a thorough materiality process to assess the issues, the impact we have on them, and that they have on us.

We reassess which issues are most material every three years to ensure our assessment is always up-to-date. Our most recent update was in 2019 and included engagement from across all of our stakeholder groups. By identifying key material issues, focusing on relevant negative and positive impacts, we can ensure that our reporting and commitments focus on those areas we affect.

Taking into Consideration all the Issues

To ensure that our material issues are well formed and relevant, we explore a myriad of internal and external factors. A desk study includes an assessment of internal policies and positions in areas including Environmental, Forest, Health and Safety, and Sustainable and Responsible Sourcing, long-term strategic plans and the Code of Conduct. To understand the broader sustainability context, the external documents reviewed include sustainability frameworks, peers, industry publications and emerging regulation.

Engaging with our Stakeholders

The material issues identified at the research phase are validated through a stakeholder engagement process. We interviewed external stakeholders and offered an online survey to our own employees.

The employee survey covered a representative sample of employees in Europe and the Americas and at all disciplines.

To better understand key sustainability issues and how we can have a greater positive impact across our value chain, we conducted interviews with customers, investors and suppliers.

Aligning to External Frameworks

The materiality process undertaken is based on the globally recognised sustainability framework, Accountability's AA1000 Principles Standard, and aligned to the Global Reporting Initiative ('GRI') framework and other best-practice standards, including CDP, the FTSE4Good Index, the Sustainability Accounting Standards Board and the TCFD.

We have followed the WBCSD SDG roadmap and the GRI and UN Global Compact guidelines to assess the most relevant SDGs to our strategy, and the material issues, including understanding the impacts of our activities.

We chose our most relevant SDG targets based on where we can have the largest impact, either by minimising our negative impacts or by increasing the positive impacts.

We have mapped out our commitments to the SDGs across three levels:

- Smurfit Kappa impacts: We have set measurable targets to achieve the goal.
- Smurfit Kappa contributes: We may have set a measurable target and we have a contribution to deliver towards the achievement of the goal.
- Smurfit Kappa supports: By being a responsible business, we support society to deliver these goals.

The rationale behind each selection has been explained on pages 40-41, 74-75, 102-103.

Working Towards Double Materiality

In 2022, we began our double materiality assessment. This new assessment will form the basis of our reporting in 2023 and beyond.

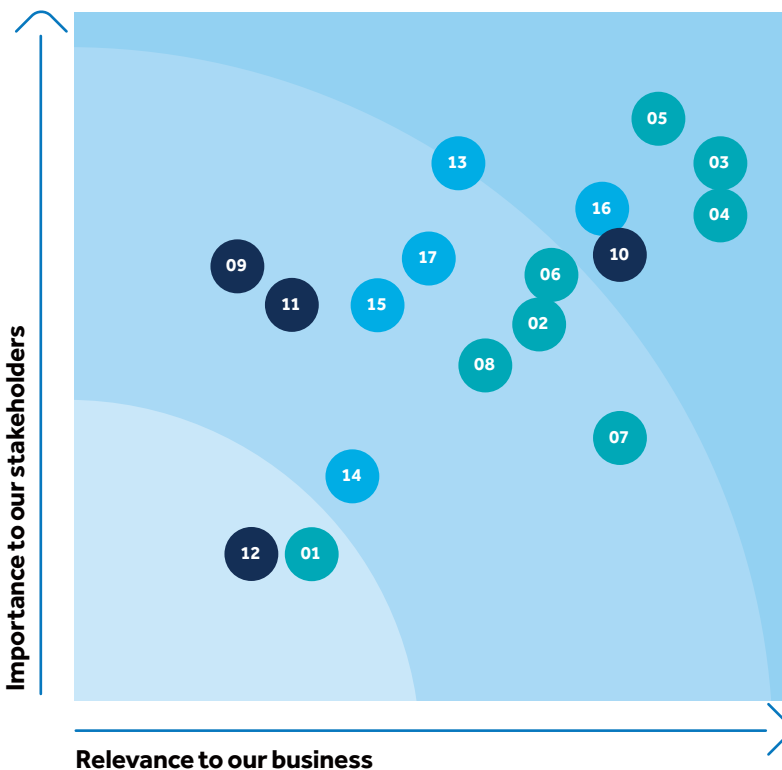
Our Materiality Assessment has Three Stages



Material Sustainability Aspects Through the Value Chain (numbers referring to material aspects below)



Material Aspects Facing Smurfit Kappa (2019 assessment)



Planet (pages 34 to 67)

- 01 Biodiversity
- 02 Circular economy
- 03 Climate change awareness
- 04 Energy use and emissions
- 05 Responsible forestry
- 06 Water quality and scarcity
- 07 Waste to landfill
- 08 Litter on land and in oceans

People (pages 68 to 97)

- 09 Diversity in the workplace
- 10 Health and safety
- 11 Responsible employer
- 12 Community involvement

Impactful Business (pages 98 to 115)

- 13 Customer needs
- 14 Creating economic value
- 15 Ethics and compliance
- 16 High-quality and sustainable products
- 17 Sustainable supply chains

Planet

A greener, bluer planet

For many years, our operations have been designed around a circular business model. This means seeking closed-loop solutions, maximising resource efficiency and minimising waste, including CO₂ emissions. It also means supplying packaging that protects our customers' products and avoids packaging waste and litter. Our ambition is to achieve at least net zero CO₂ emissions by 2050.

24%

reduction of relative waste sent to landfill (since 2013)

43.9%

reduction of relative CO₂ emissions (since 2005)

36.9%

reduction of relative COD in water discharge (since 2005)



Planet

34-67

Climate Change	42
Forest	50
Water	56
Waste	62

Planet continued

Our Planet Key Principles

We operate a circular business model using mostly post-consumer recycled raw material. The virgin fibre raw material we use is renewable and from a sustainable origin. We reuse or recycle side streams and we use renewable energy and strive for energy efficiency where we can. This circular approach increases resource productivity, adding to our competitiveness.

Our circular business model starts with sustainable primary raw materials. Our integrated approach to producer responsibility and paper recycling means that 76% of our raw material is recycled fibre. We use organic by-products as biofuel, circulate our process waters as many times as we can before treating it and returning it to the water system. We collaborate with local organisations to find alternative uses for the rejects we receive with our recovered paper deliveries that we cannot use in our processes.

In our product development phase, we work towards synergies within the whole value chain. For example, by designing mono-material packaging solutions, we create efficiencies in our customers' packaging lines and we improve the recyclability of the packaging after use.

Forests themselves are a closed-loop system, fundamental for local climate and water systems. When managed sustainably, they also provide a renewable source of raw materials for industry, function as a carbon storage and provide employment.

Urgency in responding to climate change continued to be the most important environmental topic in 2022. In its Sixth Assessment Report and related working group reports published in February and April of 2022, the Inter Governmental Panel on Climate Change ('IPCC') confirmed a 'code red for humanity', demonstrating society is not doing enough to deliver on its commitments. The UN's 2030 Agenda for Sustainable Development calls for action via 17 Sustainable Development Goals, and both the Paris Agreement and the EU have set tough carbon targets. By 2030, the Paris Agreement aims to limit climate change to under 2°C, and the European Commission during 2020 set ambitious targets for reducing net EU emissions by at least 55% by 2030 compared to 1990 levels.

Achieving these requires a shift from linear to circular economic models, creating an era of opportunity and a need for innovation. At the same time, all parts of society need to set common targets. With its net zero ambition, Smurfit Kappa is well placed to make these targets a reality and the SBTi validation of our target evidences the robustness of our climate strategy.

We announced our support of the recommendations of the TCFD in May 2020 and we included our first disclosure in the



2020 Annual Report. In 2021 and 2022, we have significantly developed our disclosure as outlined below which is consistent with all the TCFD recommendations and recommended disclosures. In completing the TCFD disclosure, we have provided the recommended disclosures relating to:

- Governance
- Strategy
- Risk Management
- Metrics and Targets

Our TCFD disclosure in full is available in our 2022 Annual Report (pages 68 to 85) and should be read in conjunction with our CDP Climate Change Response made by the Group in 2022. Further information can be found on our website: smurfitkappa.com/sustainability.

Our progress and evolution of reporting consistent with the TCFD recommendations included but was not limited to: a comprehensive top-down identification and process review of climate-related risks and opportunities; in 2022, we commenced a process to complete additional scenario analysis in conjunction with an expert third party with an expectation to have the output data for review in 2023, our plans for beyond 2030 advanced with progress across a number of exciting collaborative projects such as the successful trial of hydrogen in France and the continued investigation of geo-thermal energy in the Netherlands. We expect that certain aspects of our disclosure will further develop and evolve over time.

Circularity has been a key part of our business model since our inception, so we are in the lead as the circular economy goes mainstream.

Our operations in 36 countries, and 357 production sites in Europe and the Americas, influence the entire packaged goods value-chain. We drive positive change from sustainable and responsible raw material sourcing to minimising operational impact and lowering our customers' environmental footprints.

Our environmental sustainability strategy is divided into four main areas: Climate Change, Forest, Water and Waste. These strategic priorities cover the most material environmental aspects in accordance with our business and stakeholders' expectations. They cover biodiversity, the circular economy, climate-change awareness, energy use and emissions, pollutants to air, litter on land and oceans, responsible forestry, water quality and scarcity, as well as waste to landfill.

Risks and Challenges: Limits of Resources

Our challenge is to create value within natural resource limits, maximising resource productivity while minimising our environmental footprint. In 2022, we continued to work on our climate-related risk register. Some of our key risks were published in our Annual Report 2022 on pages 79 to 81.

Climate Change

Climate change is one of the greatest challenges facing society. Our stakeholders are looking for low-carbon alternatives, and therefore we create packaging that is circular by nature and increasingly low-carbon.

Climate change has the potential to impact our business operations in a variety of ways. Extreme weather patterns may affect our operations and supply chain, potentially impacting forests, water, carbon regulation and taxation, and energy availability and affordability.

Forests play an important role in environmental resilience, especially in climate change. We therefore need to promote healthy forests and manage these resources sustainably. Drought, flooding and local restrictions on water usage may limit our access to water, so we continue to conduct water risk assessments at our paper mills.

“Forests play an important role in environmental resilience, especially in climate change. We therefore need to promote healthy forests and manage these resources sustainably.”

Our Progress Against Targets (versus the baseline)

CO₂ Emissions Reduction (%) (2005)



Packaging Sold as CoC Certified (%)



COD Reductions (%) (2005)



Water Intake Reduction (%) (2021)



Waste to Landfill Reduction (%) (2013)



Planet continued

Furthermore, paper manufacturing is energy intensive, with a risk of carbon leakage if emission policies are not consistently applied. We recognise that climate change will only be slowed or stopped by a global low-carbon economy, and as we generate 77% of our revenues in Europe, we fully support the EU Green Deal. However, to retain global competitiveness, there must be safeguards against 'carbon leakage' – firms moving to areas with weaker carbon policies.

The Forest Fibre Industry 2050 Roadmap to a low-carbon bioeconomy shows a CO₂ reduction of 50%-60%, compared with 1990 levels, is possible for our sector, based on available and emerging technologies. To reach a reduction of 80% or more by 2050, breakthrough technologies must be available by 2030. We play our part as a leader in this area, for example by testing new technologies, such as the hydrogen project in our Saillat paper mill in France.

Scarce Resources

Our stakeholders expect Smurfit Kappa to use sustainable raw materials efficiently, especially forests and fibrous raw material. Halting deforestation is a particular concern for businesses supplying consumer goods and food who tackle this issue in their supply chains. Smurfit Kappa commits to only sourcing sustainable wood and fibre.

Packaging recycling and recyclability remain high interests for our stakeholders. Paper-based packaging holds a good position in recycling with its 90.7% collection rates and 81.5% recycling rates in Europe. Smurfit Kappa reaches a level of 100% collection rate and 88% recycling rate. However, the EU Green Deal emphasis on removing litter and plastic waste remains a risk to all packaging products. The European Commission

published its Proposal for the updated Packaging and Packaging Waste Regulation in November 2022 with ambitions to reduce packaging waste through reuse targets for packaging. We believe that the reuse targets should not overshadow the need for fit-for-purpose packaging with science-based benefits to the environment. This is supported by the evidence collected by FEFCO in its three studies on reuse and recycling. The studies showcase multiple hot spots that impact the final environmental footprint of packaging solutions and demonstrate that the standardisation required in reuse systems may be contra-productive for the environment. The FEFCO Life Cycle Assessment ('LCA') study evidences that reuse requires a high return rate before reuse meets the climate impact benefits of the recyclable alternatives. The important role of sustainable and circular packaging as a vehicle to transport, protect and store goods and its role in preventing waste must remain the key focus of regulatory changes which should not create a situation where packaging waste overrules the benefits of packaging.

Water scarcity remains a concern. Freshwater resources are not evenly distributed globally, and human activity is still degrading its quality. Our water risk assessments and other measures confirmed that our mills' water use has no impact on water availability to neighbouring areas.

Opportunities: Embedding Circularity

A part of circularity is knowing the source of our raw materials and returning them to the production cycle. We depend on natural resources, so we aim to make our operations restorative by minimising waste and improving efficiency. We source natural materials responsibly, replacing and reusing

resources and working with our partners to deliver better circular outcomes.

Using renewable wood fibres makes us a part of the biological and technical cycles of the circular economy. The biological cycle is called bioeconomy, and covers production and maximum value-capture of renewable biological resources, including their reuse, recycling and sustainable return through biodegradation. The technical cycle covers the circularity of mainly nonrenewable processed resources. Paper and paper-based packaging are involved in both cycles and move between them.

Part of the Bioeconomy

We also recover paper-based packaging from our customers, making our packaging production part of our product's end-of-life. For us, material efficiency means that we are recycling our fibres as long as possible, practically producing new packaging from old packaging. As a natural, organic raw material, wood fibres do however lose their quality after being recycled. Ensuring sustainably sourced wood fibres are used as part of our packaging solutions means our renewable, recyclable raw material can be sustained into the future.

We exist in both the bioeconomy and technical cycles of the circular economy, making us an efficient user of a sustainable, renewable raw material.

The virgin fibres used by the paper industry are mostly from the removal of young trees to support forest growth, or as by-products from sawmills, both of which are fully renewable, sustainable and reusable.

A total of 76% of our raw material is recycled fibre – the remaining 24% comes from

Case Study

Green City – Celebrating a Century in Belgrade Serbia

To celebrate the 100 years anniversary the paper mill in Belgrade it was of great importance to our local team to involve the community in a special project. The idea to plant 100 trees in Ušće Park was agreed upon.

Aleksandar Lazarević, Sales Manager at Smurfit Kappa, said: "It was important to us that we marked this significant milestone with, and for the

benefit of, our community. We chose the most beautiful park in Belgrade to plant the 100 trees and create an even more pleasant environment to relax and enjoy nature."

Ušće Park is located in the city centre with scenic views of Belgrade's fortress. Combined with the immediate benefit to the community of the enhanced natural space, the tree planting project that was

supported by approximately 30 Smurfit Kappa employees, leaves longer-term benefits as the trees grow and we hope other companies join the initiative.

sustainably managed forests through CoC certified supply chains. Paper-based packaging has the highest recycling rate of any packaging. Trees capture atmospheric carbon, which remains sequestered in our fibres. Forests also contribute to the water cycle by regulating climate and purifying water. They also supply local industry and provide employment.

Smurfit Kappa participates in sustainable forest management through its own 100% FSC or PEFC certified forests and plantations, and by only sourcing fibres from sustainably managed forests.

Closing Loops

We continually work towards material efficiency, and aim to use all our production by-products ourselves, or by finding synergies with neighbours and local communities. Paper clippings from corrugating and converting operations are returned to our paper mills. Organic by-products – wood bark, dust and black liquor – are used as biofuel. We work with local organisations that can use other materials, for example some water treatment sludges become soil improvers in road construction, and waste ash can be used in the cement industry. We also seek alternative ways to treat our rejects from the fibre recovery processes, one of them being palletising the plastic waste for alternative fuels.

We recycle our process waters several times, and invest in best-practice water treatment. Biogases from this become fuel for our Combined Heat and Power ('CHP') plants. At some sites we work with local communities, sending our effluent to local municipal water treatment plants, where it can replace necessary nutrients.

Reducing Leakage

In Europe, paper-based packaging collection rates were higher than for any other packaging material at 90.7% in 2020. Material leakage happens when used products are not being recycled but end up in landfill or as litter.

Paper benefits from being relatively easy for consumers to recycle. We work with municipalities and retailers to collect discarded paper packaging for recycling, and the demand for this is constantly increasing. Our fit-for-purpose packaging avoids over-packaging and waste, and we offer mono-material packaging solutions of corrugated board and paper, facilitating recycling. Eventually it returns to the biological cycle, and if it doesn't return to the

recycling loop, it can either be combusted, releasing only the amount of CO₂ it captured while growing, or it degrades naturally, reducing the environmental footprint of the leakage.

Working with Life Cycle Assessments

The aim of the circular economy and waste hierarchy is to be a resource-efficient and environmentally sound choice hierarchy. To be able to assess packaging solutions, our stakeholders, especially customers and regulators, are interested in LCAs. Smurfit Kappa participates in various LCA projects: as members of Cefi, we take part in the EU Product Environmental Footprint development work, we are an active member in FEFCO projects both by supplying data for the industry LCA studies and by working in a study to understand the corrugated packaging LCA. We also participate in our customers' LCA studies and use our data and tools for our own LCA calculations. All these LCA projects deliver valuable information that is being further used for our product and service development throughout our supply chain.



30
employees supporting the project


100
trees planted

Planet continued

Responding to our Stakeholders

	What We Believe	What Our Stakeholders Expect of Us	Our Commitments
Climate Change	<p>We are tackling our CO₂ emissions by improving our energy efficiency, as well as moving from fossil fuels to low-carbon, renewable and bio-based energy. In addition, we are improving resource efficiency when producing paper products and optimising the use of raw material residual streams, such as black liquor, in bioenergy production. The circular economy is an opportunity for our business as we seek to use resources efficiently, especially in energy production and the creation of innovative packaging solutions. We collect sustainability data on innovation and product design, develop supportive tools and services, and create packaging solutions for customers that lower their carbon footprint.</p>	<p>Paper manufacturing is energy intensive, and our stakeholders, notably customers and investors, expect us to approach climate change responsibly and provide detailed progress reports. However, we can make a significant impact in the value chain through smart packaging solutions that can significantly cut our customers' emissions.</p>	<p>Commitment #1: A 55% relative reduction in Scope 1 and 2 fossil-fuel based CO₂ emissions in our mill system compared with 2005 levels by 2030. Reach at least net zero by 2050 across all 3 scopes.</p> <p>Commitment #2: Collaboration with customers to determine carbon footprints of the packaging life-cycle.</p>
Forest	<p>Promoting sustainable forest management involves managing supplies of sustainable, renewable fibre, while protecting biodiversity and ecosystems as well as creating employment in rural areas. Wood fibres can be recycled at least 8 times and up to 25 times (as per a recent study) when producing paper-based packaging. Using both recycled and virgin fibres in production, we deliver fit-for-purpose packaging with the best overall environmental footprint. We communicate transparently about the sustainable origin of our fibres.</p>	<p>As growing consumption raises pressure on resources, our stakeholders increasingly place value on sustainable consumption, integrity of origin, recycling and avoiding packaging waste. Sustainable forest management and use of recycled fibres are at the core of the expectations for paper-based products.</p>	<p>Commitment #1: All fibre produced and purchased is CoC certified under FSC, PEFC or SFI.</p> <p>Commitment #2: At least 95% of our packaging is CoC certified under FSC, PEFC or SFI, by 2025.</p> <p>Commitment #3: All production sites have FSC, PEFC and/or SFI certified CoC management systems in place.</p>
Water	<p>Over 90% of the water we use is returned to nature in good condition, and the rest evaporates to the air during the process or is bound in the product. We focus our efforts on further improving the quality of water we discharge, decreasing our water intake and understanding the risks associated with water availability and use in the areas where we operate. This strategy positions us well to deliver a positive change to our processes and the environment.</p>	<p>Stakeholders are increasingly requesting information about our responsible water stewardship covering our paper and packaging production as well as our supply chains. Our key water footprint consists of paper manufacturing and forest and plantation management.</p>	<p>Commitment #1: Reduce the organic content of water returned to the environment from our mill plants COD by 60% compared with 2005 levels by 2025.</p> <p>Commitment #2: Perform environmental impact assessments of the water use of our paper mills (where relevant) and develop water usage measurements.</p> <p>Commitment #3: At least 1% relative reduction annually of water intake by our global paper and board mill system with 2020 as reference year.</p>
Waste	<p>We believe the circular economy is the business model for the future, and that we have an important role to play in it. Our products are designed to prevent loss and damage to the consumer goods they protect. Our packaging is produced efficiently and is 'right-weighted' to optimise resource use and minimise waste, and it is made from 100% renewable and recyclable fibres. Once fibres are depleted they are typically used for energy generation or in agriculture.</p>	<p>Reducing and eliminating our customers' product and packaging waste are material issues for our stakeholders, and many of our customers have stated objectives to reduce waste.</p>	<p>Commitment #1: Decrease the waste sent to landfill by 30% per tonne of product produced by our mill system compared with 2013 levels by 2025.</p>

Status key:

Significant improvement needed 

Improvement needed 

On track to achieve target 

Progress Made in 2022	Status	Delivering for SDGs	Scope
<p>Progress made: Since 2005, we have reached 43.9% reduction. In 2021, Smurfit Kappa had its CO₂ target approved by the SBTi.</p>		<p>As an energy-intensive manufacturing business that uses natural resources, Smurfit Kappa has a direct impact on affordable and renewable energy. Through our efforts to reduce the climate impact of our operations as well as our products that can help our customers reduce the climate impacts in their supply chain, we can contribute to global climate action. Smurfit Kappa contributes to the realisation of the following SDG and targets:</p> 	<ul style="list-style-type: none"> This priority area covers energy use, climate change and greenhouse gas ('GHG') emissions. Our reporting covers our operations from gate-to-gate. All CO₂ emissions from our paper and board mills relate to the production of paper and board. Only paper and board production is taken into account, given its fossil CO₂ emissions are 80% compared with our converting operations and its subsequent contribution to fossil fuel CO₂ emissions. The logistics emission reporting is validated annually by SmartFreight Center for assuring that our reporting complies with the Global Logistics Emissions Council ('GLEC') framework model and requirements. As part of the validation process, a gap analysis is performed in order to incrementally improve the data and reporting maturity. We work in line with the requirements from the GLEC framework and to anticipate the future requirements of the forthcoming ISO14083.
<p>Progress made: Our suite of tools that help to determine the carbon footprint of our customers' packaging were used 160,000 times in 2022.</p> <p>➔ Read more on pages 42-49</p>		<p>7.2, 7.3 and 7.A 12.6 13.1, 13.3</p>	
<p>Progress made: In 2022, we continued to produce and purchase 99.8% of our fibres under fibre-origin management systems that are CoC certified. This is within our margin of 1% variation.</p>		<p>As a paper-based packaging company that uses recycled and virgin fibres as its key raw material, Smurfit Kappa has a direct impact on ending deforestation and supporting forest biodiversity and ecosystems. Smurfit Kappa's forestry and sustainable fibre sourcing actions impact the following SDGs and targets:</p>	<ul style="list-style-type: none"> This strategic priority covers forest management, biodiversity, fibre sourcing and the communication of how we use sustainable fibres through certified CoC. Our reporting encompasses all of our own operations and products.
<p>Progress made: 94.3% packaging solutions sold as CoC certified in 2022.</p>			
<p>Progress made: All our production sites are FSC certified and where relevant PEFC and/or SFI certified.</p> <p>➔ Read more on pages 50-55</p>		<p>12.2, 12.4, 12.5 and 12.6 13.1 15.1, 15.2, 15.3, 15.5 and 15.8</p>	
<p>Progress made: Since 2005, we reached a 36.9% reduction, a slight decline from 2021, further explained on page 60.</p>		<p>Water is a critical element in pulping wood and recovered paper fibres and formation of paper. With returning the water back to nature, Smurfit Kappa has a direct impact on clean water resources. Smurfit Kappa's water management practices impact the following SDGs and targets:</p>	<ul style="list-style-type: none"> This priority area covers the water intake and discharge to and from our processes. The data covers all Smurfit Kappa paper and board mills discharging water produced through the production process directly to water bodies. Mills that have their process water treated externally are not included.
<p>Progress made: We completed the water risk assessments at our paper mills in 2021, and in 2022 commenced the second phase of risk assessments covering all of our operations.</p>			<ul style="list-style-type: none"> Only paper and board production is taken into account because this contributes to 95% of all organic discharges and 98% of total water intake. Our target is set against COD in water which is an indicator of the organic content in water.
<p>Progress made: In 2022, we reached a 2.1% reduction of water intake at our paper and board mills compared with 2021.</p> <p>➔ Read more on pages 56-61</p>		<p>6.1, 6.2, 6.3, 6.4 and 6.6 12.2, 12.4 and 12.6</p>	<ul style="list-style-type: none"> As a processor and not a consumer of water, we focus our efforts on further improving the quality of water we discharge, and understanding the risks associated with water availability and use in the areas where we operate.
<p>Progress made: Since 2013, we reached a 24% reduction, a disimprovement from 2021, further explained on page 64.</p> <p>➔ Read more on pages 62-67</p>		<p>As a paper-based packaging company that uses recycled fibres as its key raw material, that produces packaging solutions that are recyclable and recycled, and help to reduce the waste of packaged goods, Smurfit Kappa has a direct impact on responsible consumption and production. Smurfit Kappa's circular business model and packaging design impact the following SDG and targets:</p> 	<ul style="list-style-type: none"> This priority area covers non-hazardous waste (recovered and landfilled) and hazardous waste generated from Smurfit Kappa's manufacturing processes. Our target is set against waste sent to landfill from our paper and board mills per produced tonne of paper. The amount of hazardous waste produced in our production processes is very low and depends on local activities such as construction or change of light bulbs on site. Therefore we have no set target for hazardous waste.
		<p>12.2, 12.3, 12.4, 12.5 and 12.6</p>	

Climate change

Minimising energy use and moving from fossil fuels to low carbon, renewable sources are core elements of our climate change strategy. The strength of our approach is demonstrated through; delivering today (as evidenced in this report), setting independently validated interim targets for 2030 in line with the Paris Agreement, and our long-term ambition of at least net zero by 2050.

Climate change is a reality and one of the greatest challenges facing society. The challenge of achieving the Paris Agreement and the UN 2030 SDGs will require strong and concerted action to deliver on the increasing levels of commitments across all sections of society. We align our climate change strategy with the UN 2030 SDGs 7 (affordable and clean energy), 12 (responsible consumption and production) and 13 (climate action), which are related to climate change.

Our decarbonisation strategy is focused on minimising energy use and moving from fossil fuels to low carbon, renewable sources. We also focus on increasing our own energy efficient production systems, lowering our customers' carbon footprints and decreasing CO₂ emissions in our supply chain, through actions such as transport optimisation. These core elements are all aimed at reducing our fossil emissions in line with the Paris Agreement, reaching at least net zero by 2050. Through focusing on our contribution to these UN 2030 SDGs and our circular business model, we are an efficient user of natural resources such as wood and energy, and this leads to optimal use of residual product streams.

In line with our climate change strategy, we are committed to at least net zero by 2050, and have set interim targets on reducing our Scope 1 and 2 CO₂ emissions per produced tonne of paper by 55% by 2030 from our paper mills.

As part of our Better Planet 2050 initiative, we are committed to reporting consistent with all the TCFD recommendations and recommended disclosures, see the TCFD Index table on page 141 and the complete disclosure in our Annual Report 2022 on pages 68 to 85. Additionally in 2021, we had our CO₂ emissions target validated by the SBTi as being in line with the objectives of the Paris

Agreement and well below 2°C. Our SBTi baseline is 2019 and has a respective intensity target reduction of 37.7% by 2030 for all our Scope 1 and 2 CO₂ emissions. The actions we are taking to deliver on our interim CO₂ emissions target of 55% specific reduction per tonne of paper produced by 2030 complements our validated SBTi target.

In line with the efficient resource use-hierarchy, we only use wood biomass for which no higher value-added purpose exists as fuel and we also use residual products of wood, such as black liquor, to generate energy.

The key focus of our energy efficiency investments is to deliver CO₂ emission reductions; however, we support the EU general energy efficiency target with our target to improve our energy efficiency at least by 1% annually in our global paper mill network.

We started to report on EU Taxonomy in 2021, our second disclosure can be found on pages 60 to 67 in our Annual Report 2022.

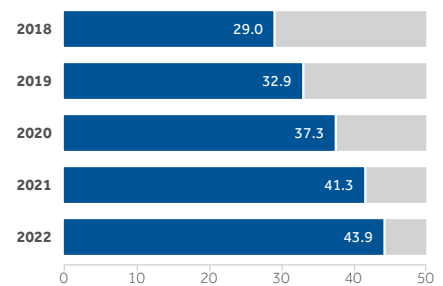
Progress in 2022

We focus on long-term ambition, coupled with action today and we are pleased to report continued delivery and reduction of relative CO₂ emissions from our mills in 2022 of 43.9% against our 2005 baseline.

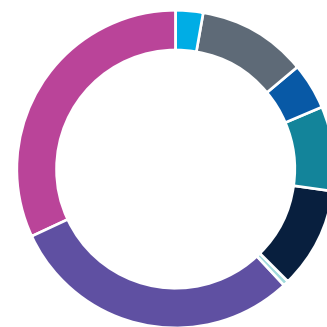
Our global CO₂ emission reduction programme currently covers 100% of our operations with a focus on the paper and board operations that represent 10% of global operations but emit over 80% of our CO₂ emissions.

In 2020, we finalised an evaluation of a suitable CO₂ emission-target for our corrugated operations. Our conclusion is that the current approach to encourage energy reduction and positive climate-related activities are sufficient as the average share of a corrugated site to the Group CO₂ emissions is below 0.5%.

CO₂ Emission Reduction (%) (2005 baseline)



Packaging is estimated to represent only 3% of the carbon footprint in the food product value chain



- Key:**
- Packaging – 3.0%
 - Manufacturing – 6.0%
 - Transport – 5.0%
 - Retail & Hospitality – 9.0%
 - Consumer – 11.0%
 - Post-consumer – 0.5%
 - Imports Production – 32.0%
 - Domestic Ingredients – 34.0%

Source: Data from analysis by WGAP 2020 UK

Energy Efficiency

Further progress in energy efficiency is key in achieving our CO₂ emission reduction targets. Since 2005 we have invested €994 million in more efficient energy-generation, technologies that reduce the use of energy and technologies that recover energy. Examples of this are investments in CHP generation and heat exchangers. These investments have improved overall energy efficiency in our paper mill system by 20.6%.

During 2022 Smurfit Kappa Group delivered a 43.9% reduction of relative CO₂ emissions compared with 2005, some of the key actions are listed below:

- Our Cali mill (Colombia) started to mix biomass in the coal boiler, reducing the CO₂ emissions from coal by 10% year-on-year.
- The energy efficiency improvements in our Coronel Suárez mill (Argentina) delivered an emissions reduction of 6.2% year-on-year.
- The energy recovery in the PM2 in our paper mill Parenco (The Netherlands) saved 13.6% on specific CO₂ emissions year-on-year.
- The rebuild of the multi-fuel boiler in our paper mill Zülpich (Germany) delivered a specific reduction of CO₂ emissions by 21.9%.
- Our Hoya mill (Germany) delivered 3.1% specific CO₂ reduction with a new high efficiency boiler.

These projects are an illustration of our focus on reducing energy, key from both financial and sustainability perspective for our paper and board mills.

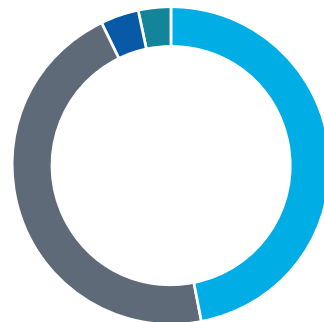
Renewable Energy

To reach our CO₂ emission reduction target, we are moving from fossil to low carbon, renewable fuels. During 2022, our paper mills used 50.74% biofuels, compared with 37.4% in 2005 and 47.01% for all operations in 2022.

Specific to bioenergy, our Nettingsdorf mill in Austria and Piteå mill in Sweden are examples of biofuel-based energy production.

As part of our sourcing strategy for grid electricity, we are shifting to CO₂ neutral energy. Our operations in the Netherlands and the UK moved to purchasing CO₂ neutral energy from the national grid in 2020. In addition our operations in Colombia, Austria, and Chile have also moved to purchasing CO₂ neutral energy.

Direct Fuel Consumption: All operations



Key:

- Biofuels – 47.0%
- Natural gas – 45.9%
- Coal – 4.0%
- Other fossil fuels – 3.1%

Working with our Customers

Using a suite of tools, including InnoBook, Pack Expert, Paper to Box and SupplySmart we work with customers to determine their packaging’s carbon footprint. These tools provide CO₂ emissions data and other information to optimise solutions.

In 2022, our tools were used 160,000 times. Our InnoTools suite of design software also shows customers the carbon footprint for each packaging unit and tracks its development over time. The impact of our Group CO₂ emission reductions are reflected in our InnoTools and also in the CO₂ footprints of our customers.

During 2022 we introduced BPPProgress, a unique Smurfit Kappa tool to help our customers visualise the sustainability performance of their entire portfolio. Using BPPProgress we can track year-on-year the carbon footprint of the total packaging portfolio delivered to a particular customer.

Our Strategy: Scope 1 and 2 Emissions**

In December 2021 our target to reduce our Scope 1 and 2 emissions was validated by the SBTi. In our approach to tackle climate change, we are using less fossil fuel and emitting less CO₂, promoting renewable sources and closing loops to create circularity in our production process.

There are four parts to our CO₂ reduction programme:

Investing in Fossil CO₂ Reductions

- Shifting to low or zero carbon fuels including CO₂ neutral energy sources:
 - Use of biofuels; and
 - Electrification.
- Research and development into new and emerging technologies with controlled trials:
 - Hydrogen, geo-thermal and heat pump technology.

Greening of Electricity Supply

Reducing Energy Use

- Investing in technologies that reduce energy consumption; and
- Re-engineering our processes and implementing smart energy-efficient solutions.

Investing in Efficient Energy-generation

- Investing in highly efficient CHP systems; and
- Improving the efficiency of our existing boilers.

Our Approach – Timelines

Short-term

Acting now with continued year-on-year reductions using best available technology and continuous improvement.

Medium-term

Strategic investment projects to replace high emitting assets, continuous improvement, availing of best available technology, collaboration across the value chain, all leading us to achieve our 55% reduction target.

Long-term

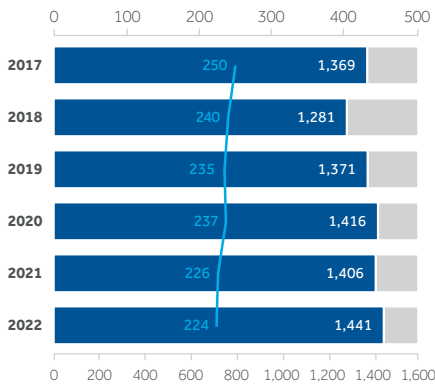
Through collaborative projects, executing controlled trials of new/emerging technology today to understand the feasibility and cost of large-scale implementation beyond 2030.

➔ See our net zero transition plan on pages 44 and 45.

** For Scope 3 emissions reference page 48

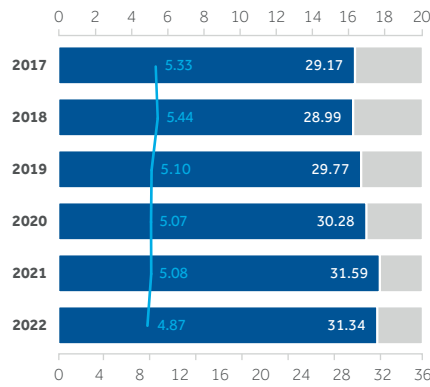
Planet continued

Direct Fossil (Scope 1) CO₂ Emissions: European Mills



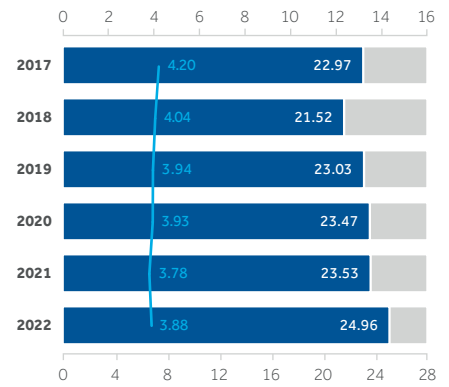
Key:
● Absolute (ktonnes) — Specific (kg/tonne)

Biofuels: European Mills



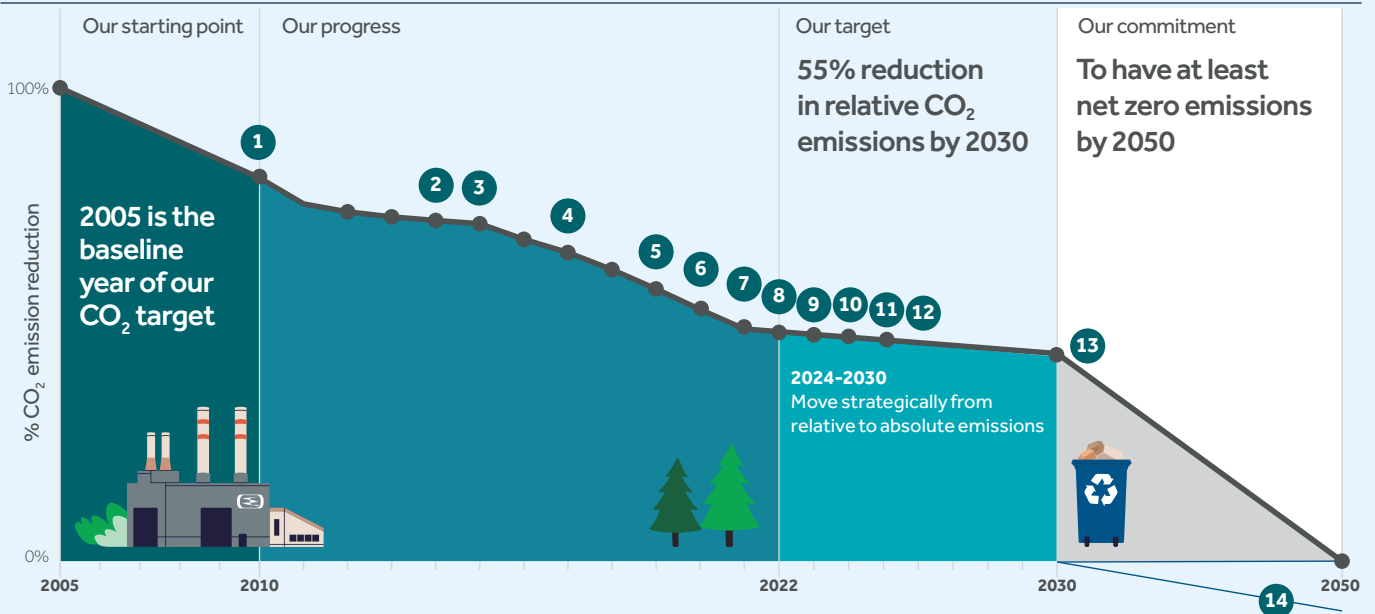
Key:
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Fossil Fuels: European Mills



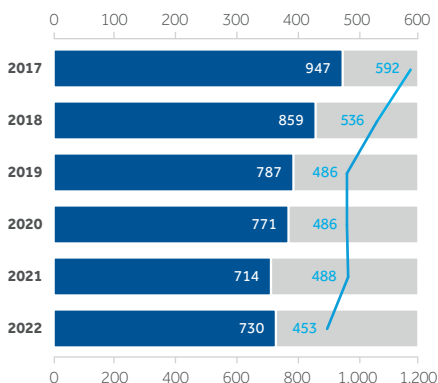
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Our Net Zero Transition Plan



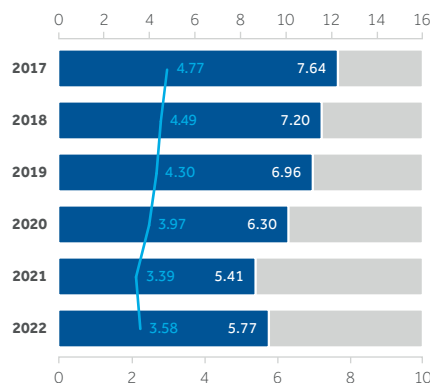
- 1 Set target of 20% reduction in relative CO₂ emissions by 2020 (2005 baseline).
- 2 2020 target of 20% reduction achieved with a 21% reduction by the end of 2013.
- 3 New relative emissions reduction target of 25% reduction set for 2020.
- 4 2020 target of 25% reduction achieved and more ambitious relative emissions reduction target of 40% by 2030 set.
- 5 Approval of €134 million new recovery boiler in Nettingsdorf (Austria).
- 6 Long-term target of at least net zero emissions by 2050 and increased the 2030 emissions reduction target to 55%.
- 7 2021: SBTi approval received for our CO₂ emissions target as being in line with the Paris Agreement and a well below 2°C trajectory. Launched Better Planet 2050 commitments.
- 8 2022: 43.9% reduction in CO₂ emissions. Successfully trialed hydrogen project at our Saillat paper mill (France). Announced a major investment in our Cali paper mill (Colombia) of almost US\$100 million in a sustainable biomass boiler.
- 9 2023: Significant investment in our Hoya paper mill and board manufacturing plant (Germany). A CO₂ emissions reduction of 5,500 tonnes per annum is expected.
- 10 2024: Contribution from a state-of-the-art sustainable biomass boiler at our paper mill in Cali, Colombia which will reduce our global Scope 1 and Scope 2 CO₂ emissions by approximately 6%.
- 11 Reviews of our third party validation.
- 12 Approximately 60 projects identified to implement until 2030 in order to achieve our 55% CO₂ emissions reduction target.
- 13 Scaling new and emerging technologies, as they become available.
- 14 Consideration of residual carbon neutralising solutions to achieve 'at least' net zero by 2050.

**Direct Fossil (Scope 1) CO₂ Emissions:
The Americas Mills**



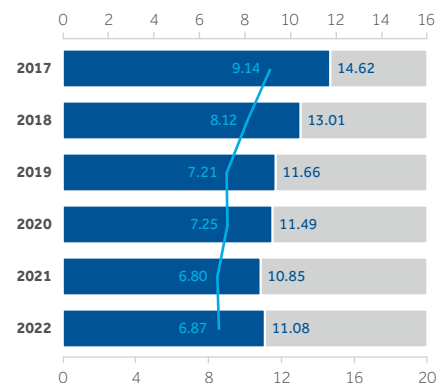
Key:
● Absolute (ktonnes) — Specific (kg/tonne)

**Biofuels:
The Americas Mills**



Key:
● Absolute (PJ) — Specific (GJ/tonne)

**Fossil Fuels:
The Americas Mills**



Key:
● Absolute (PJ) — Specific (GJ/tonne)

Acting Today Across our Value Chain

Scope	Time Horizon*	Action Today
Scope 1 and 2	Short-term	<ul style="list-style-type: none"> Year-on-year reductions towards our targets. In 2022, we achieved 43.9% reduction in CO₂ emissions. Continuous improvement of our operations through the implementation of best operational practices, insulation of pipes, LED lights, monitoring and improving processes, using data, reuse of residual steam to reduce the need for fresh steam, using biogas from water treatment plants, efficiency improvement in operations and energy efficiency. Using Digital Twin technology in our Townsend Hook mill to reduce steam consumption by approximately 5%. Direct drive project in our Wrexen mill which has energy reduction as part of its projects benefits. Nettingsdorf Biomass investment of €134 million completed in 2020 and now achieving its full run-rate of 40,000 tonnes of emissions reduction. Investing €11.5 million in our Zülpich paper mill. A major redesign of the multi-fuel boiler provides a more sustainable fuel source for generating steam and electricity. The investment is set to deliver a reduction of 55,000 tonnes of CO₂ emissions. Optimising starch use in our Hoya mill which requires less steam and energy to dry. Water treatment plant investments in Colombia and Brazil which will help improve our COD (water) and capitalise on biogas from plants (CO₂). Recent greening of energy supply in the Netherlands and UK.
Scope 1 and 2	Medium-term	<ul style="list-style-type: none"> Around 60 projects planned between now and 2030 to deliver our interim target, reducing our emissions by 55% by 2030, including: <ul style="list-style-type: none"> Investing almost US\$100 million in a sustainable biomass boiler in our paper mill in Cali, Colombia which will reduce our global Scope 1 and Scope 2 CO₂ emissions by approximately 6%, planned to be operational by the end of 2024. Controlled trialling of new/emerging technology and feasibility of large-scale implementation: <ul style="list-style-type: none"> Build on learnings from Digital Twin pilot in Townsend Hook Mill (UK); and Collaborative heat pump project in Morava paper mill (Czech Republic).
Scope 1 and 2	Longer-term	<ul style="list-style-type: none"> Controlled trialling of new/emerging technology today for the future: <ul style="list-style-type: none"> The HYFLEXPOWER consortium and SKG successfully completed the first stage of the HYFLEXPOWER hydrogen project, the first in the world for a paper mill and a truly collaborative project including suppliers, academia and government support; and Geo-thermal being explored in our Parenco paper mill in the Netherlands.
Scope 3	Short-term	<ul style="list-style-type: none"> Customers: We have 100's of examples where a collaborative approach has delivered a lower carbon, circular solution, an example, by working together with a customer in Switzerland, we reduced the CO₂ emissions in transport by switching from road to rail delivery. This reduced the transport emissions by approximately 600 tonnes of CO₂. Customers: Developing products such as top-clip and click-to-lock which reduces the carbon footprint of our customers packaging by over 30%. A number of customer examples are outlined in the Annual Report on pages 10 to 13 and in this report on pages 8 to 11. Engagement with Suppliers: In our Sustainable and Responsible Sourcing programme, we audit our suppliers on their energy reduction programmes and participation in commonly accepted best practice and certification schemes such as SBTi commitments and validation.
Scope 3	Medium-term	<ul style="list-style-type: none"> Carrying out a more extensive Scope 3 inventory assessment, supported by GHG training. Considering additional SBTi commitments. Considering Scope 3 targets. Internal: Trialled electric delivery vehicles in Germany and the Netherlands.

* Time-horizons are defined by when we believe they could be scaled, so we are actively exploring and trialling them now but their scalability could be now (short-term), 3-10 years (medium-term) or 10-30 years (long-term).

Residual Emissions: While the Group is focused on its impact on emissions reductions across its value chain, with significant scope well into the future, we acknowledge that as we approach 2050 we may have residual emissions which we cannot eliminate. In the event that this occurs the Group would consider neutralising these emissions through appropriate and credible solutions.

Planet continued

Case Study

Leading the energy transition through innovation

By taking fundamental action that addresses energy use at every level and to reach net zero.

At Smurfit Kappa, we work with dedicated experts who examine our processes with our climate change targets in mind. Our focus is on improving our energy use through efficient production systems, increasing our use of renewables, decreasing emissions in our supply chain, and ultimately lowering our own and our customers' carbon footprints.

Anne Slabbers, Senior Advisor, and Claire Schreurs, Energy & Sustainability Manager, work at our Roermond paper mill, which is an industry leader in circular paper manufacturing. Theo Peulen, Energy Systems Technologist, and Rafael Concepcion, Paper & Production Technology Paper Specialist, both work for our Business Excellence teams in Europe and the Americas respectively, and Jelmer van der Ende works as Environmental Investment Specialist for the Corrugated operations.

Together, they investigate climate-friendly actions at different stages of our value chain.

A Circular Approach to our Operations

“Our business naturally plays a valuable role in a circular economy. The main challenge for recycled mills is the energy transition: how to decarbonise paper production in an energy efficient and cost-effective way. We have developed a roadmap with projects to reach our target in 2030 and will follow up on new developments for the longer term,” explains Anne.

So how can we be better, smarter, and more efficient with our energy to ensure our solutions have the biggest possible positive environmental impact?

We concentrate on four steps: reduce; reuse; efficiency; and renewable sources. “We focus on the first three aspects, and for the remaining energy requirement we want to switch from fossil to renewable sources,” says Claire. Therefore, we are investigating and pioneering alternative energy sources and technologies. By first creating circularity in our energy system, we can be a more sustainable operation.

A Data-driven Approach

To describe their work, Theo and Rafael say, “data sits at the heart of this. We know the status of every machine so we can assess possibilities for improvement. We are constantly following and trialling new climate-friendly technologies to be implemented in our mills. Once an opportunity is identified, there is close collaboration between the plant and wider Smurfit Kappa team to develop a bespoke proposal, cognisant of the local site environment and resources.”



1st
paper mill in the world to successfully trial hydrogen

Left: Construction of Saillat hydrogen power plant
Right: Nettingsdorf Mill, recovery boiler



5%

steam reduction delivered by Digital twin technology

40%

reduction in CO₂ emissions in Nuevo Laredo

40,000

tonnes of CO₂ reduction delivered by new bio-boiler in Nettingsdorf

Reimagining Plants of the Future

One key step in reducing energy demand is through optimisation. By integrating our operations, we can raise production capacity and cut transportation. Our Nuevo Laredo sheet plant in Mexico has become a fully integrated corrugated plant, reducing CO₂ emissions by up to 40% and doubling production capacity.

Additionally, we apply known technology and trial new and emerging technologies. Our Digital Twin project uses virtual reality models to simulate real world functionality, tracking and performing calculations while adjusting processes to design optimal solutions.

“Our former step was integrating three paper machines by reusing residual heat from the two large machines in the small one, which significantly reduced our gas consumption. The next step is a further reduction of our

fresh steam need, and thus gas consumption, by implementing an innovative concept with thermo compressors, steam compressors, heat pumps and/or electric boilers.” says Claire.

“Similarly, by redesigning our boilers, like at our Zulpich paper mill in Germany, we can reduce our CO₂ emissions through an integrated steam reuse system, which optimises energy usage,” says Theo. Our new recovery boiler at Nettingsdorf paper mill in Austria optimises energy recovery from the black liquor from pulp production to boost energy optimisation and cut CO₂ emissions.

“In 2022, we announced on an investment in bioenergy at our Cali paper mill which will help us to reduce our CO₂ emissions by 6%.”

Planet continued

Our Strategy: Scope 3 Emissions

There are three elements to our Scope 3 emissions strategy:

Supplier Engagement

- Reviewing SBTi commitment from strategic suppliers:
 - Expand beyond strategic suppliers in time.
- Sustainable and Responsible Sourcing programme.

Customers Engagement

Better Planet Packaging programme delivering lower CO₂ solutions for customers through:

- Material design;
- Packaging design; and
- Supply chain optimisation.

Transport

- Modal shift: CO₂ reduction by shifting transport from road to lower emission transport models.
- Operational efficiency: CO₂ reduction by optimising transport operations, sources and destinations.
- Fuel efficiency: CO₂ reduction by leveraging new technology, alternative fuels, engine efficiency.

These three elements are supported by our end-to-end approach to circularity.

Scope 3 Emissions

The initial Scope 3 estimates for the Group have been estimated at at 30-39% of our total emissions. This estimate was delivered as a result of our 2021 SBTi submission. Seven categories were considered as contributing to this initial assessment, of which items 1-3 are over 80% of the Scope 3 total.

- 1 Purchased goods and services
- 2 Upstream transportation and distribution
- 3 Fuel and energy-related activities
- 4 Downstream transportation and distribution
- 5 Waste
- 6 Business travel
- 7 Employee commuting

We have continued to keep Scope 3 under review as approaches and conversion factors have evolved. Following on from our SBTi submission and also through continued stakeholder engagement, we commenced a more detailed assessment in 2022 which has been supported by GHG training on best-practice GHG inventory capture. We expect the output of this work to conclude in 2023 and form part of our 2023 disclosure.

Within Scope 3, we actively collect detailed data and report on our emissions from transport applying emission default values, reference models and standards according to the GLEC by Smart Freight Centre. In 2022, we have expanded our transport emission reporting to all of our 36 countries.

Emissions from Transport

Smurfit Kappa is committed to continuously optimise and decarbonise its transportation operation. Therefore, a wide range of initiatives are followed with focus on:

1. **Modal shift:** CO₂ reduction by shifting transport from road to lower emission transport modes. Smurfit Kappa is making use of, and continuously develops, multi-modal transportation, leveraging rail, water and a wide range of multi-modal transport solutions. Access to rail or waterway transportation, is part of our logistics infrastructure investments.
2. **Operational efficiency:** CO₂ reduction by optimising transport operations, increasing load-fill and tonnage per unit, reducing empty mileage, back-loading of trucks to reduce truck movements, supply-chain network optimisation to reducing transport distances between sources and destinations.
3. **Fuel efficiency:** CO₂ reduction by leveraging new technology, alternative fuels, engine efficiency. As Smurfit Kappa mainly operates transportation with third party transport providers the strategy is to mutually set targets and monitoring progress with our external transport partners.

“In 2022, we expanded our transport emission reporting to cover all our operating countries.”

In 2022, we expanded our transport emission reporting to cover all our operating countries. The total transported volume was estimated to be 31 million tonnes. This equates to 644,000 tonnes of CO₂ equivalent using the GLEC framework. Of this, the upstream value chain (see the scope description below) represents 476,000 tonnes of CO₂ equivalent and the downstream transport represents 168,000 tonnes of CO₂ equivalent.

While the transportation of corrugated packaging is mainly by road over shorter distances, for all remaining transport we operate a modal mix of 5% rail, 7% water and 88% road-based transportation. The modal mix is calculated based on shipped volume per mode. Including corrugated transport the total modal mix is at 4% rail, 5% water and 91% road-based transportation.

Scope Statement

The current scope is structured in the following main flows, and transport streams included are outlined in the diagram below.

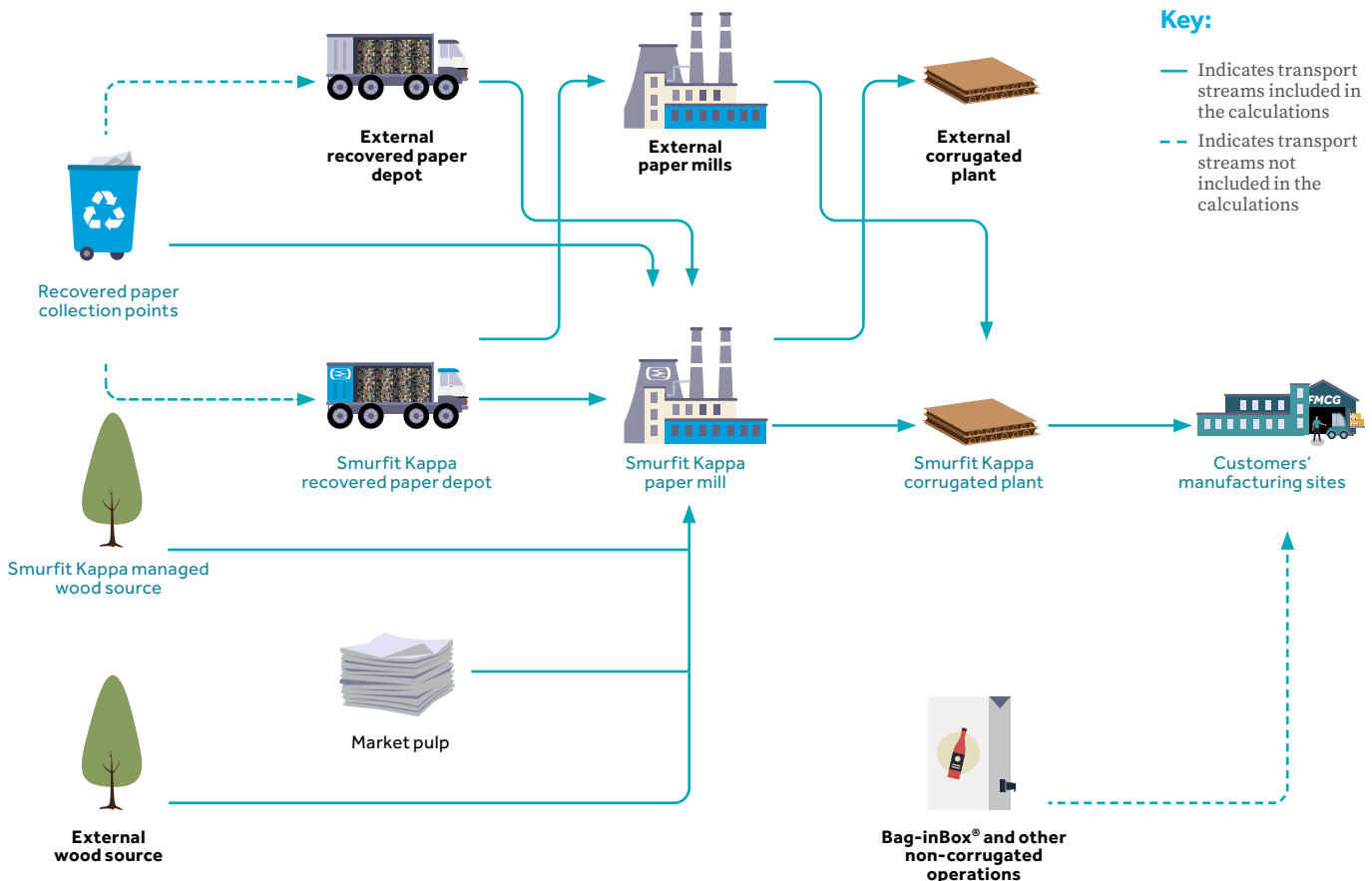
- 1 Transport of wood and wood chips to paper mills
- 2 Transport of recovered paper to paper mills
- 3 Transport of paper reels and solid board sheets from internal paper mills to internal or external Corrugated plants
- 4 Transport of paper reels from external paper mills to corrugated plants
- 5 Corrugated boxes from corrugated plants to Smurfit Kappa customers
- 6 Transport of market pulp and external wood to paper mills

Whilst our initial estimates of Scope 3 is 30-39% of our total emissions, our disclosure here on the total transported volume is more detailed and was estimated to be 31 million tonnes and does not include the following categories:

- **Goods flows:** All material and goods flows beyond the main flows expressed above are out of scope, like transport of raw chemicals, starch, or any other commodity supplies. The magnitude of these remaining raw materials will be estimated going forward.
- **Warehousing:** Any external warehousing operation is currently out of scope. The scope for external European warehouses is estimated at 1.6 million tonnes of paper transport from paper mills to corrugated plants where external warehouse activity applies. This amounts to 24% of flow 4 and 6% of the entire reported volume in scope.

We have included emissions in our transport-related supply chain decisions since 2017. Our strategy focuses on three opportunities to decrease transport emissions: maximising efficiency through payload optimisation and reducing empty mileage; developing a good modal mix of road, rail and water transport; and using less carbon-intensive fuel technologies.

Transport Streams



Planet continued

Forest

Natural fibres are our main raw material, of which 76% is primarily post-consumer recycled fibres. We produce our packaging solutions to meet our customers' performance requirements, which means using recycled, virgin or combination of both fibres in our packaging design. We source all our fibrous raw materials sustainably as CoC certified, including our recycled fibres.

Our raw material is renewable, recyclable, recycled and biodegradable. This makes us part of the circular and bioeconomy, which we have explained in more depth on pages 38-39. We need virgin fibres for food safety and other technical properties of our packaging solutions. As fibres can be recycled between 8 and 25 times (as per a recent study), we also need fresh virgin wood fibres to sustain a healthy fibre-recycling system.

The virgin fibres we use are primarily made of wood for pulp from certified sustainably-managed forests. Smurfit Kappa sustainably manages its own eucalyptus and pine plantations in Colombia which are FSC Certified since 2003, and our forestry operations in Spain and France support small forest owners to manage their forests, certified by FSC and/or PEFC. In Europe, Smurfit Kappa buys most of the virgin fibres it needs from suppliers in: Austria, the Baltic countries, France, Germany, Spain and Sweden.

Our Commitment to Sustainable Fibre

Products delivered to our customers must meet the commitments we make in our policy statements (Forestry Policy, Code of Conduct, Social Citizenship).

We source virgin fibres from certifiably well-managed forests, or at least of non-controversial origin, or certified recycled fibres. All materials must be delivered through a third-party-verified CoC certified supply chain. We accept FSC, PEFC and SFI certified wood, and the CoC systems at our mills and plants also cover recycled fibre consumption.

We regard these certification schemes as the best available means to conserve forests and their biodiversity.

Sustainable Forest Management certification schemes require regular monitoring of the protection of ecosystems and biodiversity. This is being monitored annually on our sites as part of the forest certification audits and auditing by independent third parties applies to our suppliers through the certified CoC.

100% of the wood we use to produce virgin paper or pulp comes, at least, from sustainable non-controversial origin. In 2022, 57% of this wood is from sustainably managed forests certified under the FSC, PEFC and/or SFI schemes and the remaining 43% is from FSC Controlled Wood sources, risk-assessed through our FSC and PEFC CoC system and verified by a third party. 15% of the wood we use originates from our own forests and plantations.

Our objective is to increase certified wood supplies. Low availability of certified wood at competitive prices in the regions where we can economically source our wood supplies is limiting the possibility of increasing certified wood supplies.

The administrative effort to achieve certified CoC status means that it is often not economically feasible for small forest holders to certify their forest holdings, further limiting the availability of certified wood supplies. However, efforts to increase FSC certified supplies have started to have positive impacts on the certified wood volumes in Spain, where we support forest owners, all smallholders, in achieving the FSC certification of their forests. Also, in Sweden volumes could be increased through finding better agreements with forest owners in the region.

Annually, Smurfit Kappa's recycling operations handle some 6.1 million tonnes of recovered paper in Europe, and 2 million tonnes in the Americas. We have a network of 19 recycled paper depots in Europe, and 25 in the Americas, using recovered paper from municipalities, retailers, industries, and our own corrugating and converting operations. All recycled fibre we use is certified CoC.

Chain of Custody

Smurfit Kappa does not source fibre from high deforestation-risk areas, including High Conservation Value areas. Through supply-chain transparency we ensure our sustainability commitments and fibre origins. We use robust monitoring and third-party auditing of our wood and fibre supply chain.

The best practice to deliver our commitments is through CoC certification.

Our complete paper mill system has been CoC certified under FSC and PEFC schemes in Europe since 2010, and under FSC, PEFC and/or SFI schemes in the Americas since 2015. At the end of 2022, 93.0% of our paper was produced as CoC certified, according to FSC, PEFC or SFI standards. The remaining 7.0% are from non-controversial fibres in accordance with FSC Controlled Wood standard, and managed through the mills' CoC certified risk assessment systems.

We have a target to deliver over 95% of our packaging solutions as CoC certified to our customers by 2025 at the latest.

Share of Packaging Products Sold as CoC Certified 2018-2022



Key:
● Smurfit Kappa Group

Our Certified Raw Materials



Key:
● Recycled ● Virgin ● Certified ● FSC Controlled wood

CoC: Proven Trail for Sustainable Fibres

Transparency throughout the supply chain is vital to delivering our sustainability commitments. Robust monitoring and third-party auditing of our supply chain is ensuring sourced fibre complies with our sustainability principles.

Our manufacturing sites are CoC certified, and over 99% of our paper and pulp are sourced through CoC certified supply chains. Our commitment is to deliver over 95% of our sold packaging products as CoC certified.

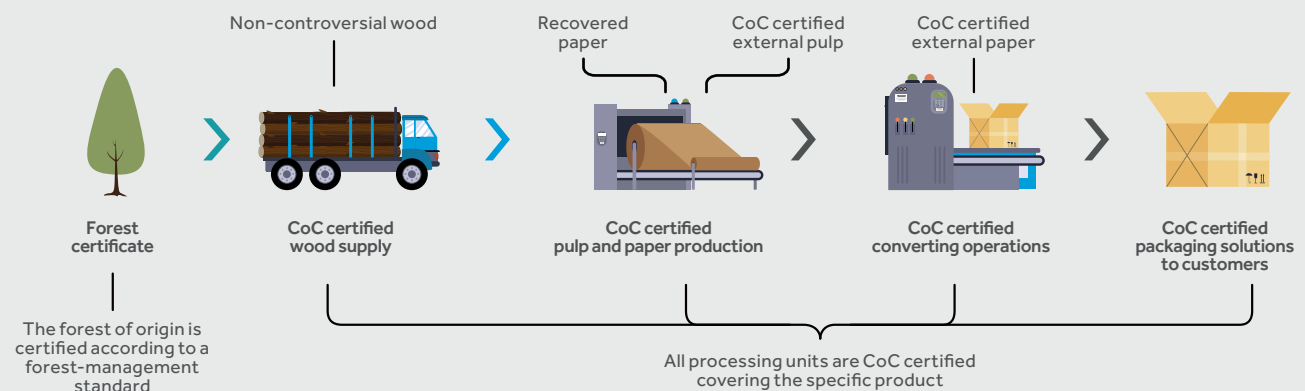
Our definition of sustainable forest management is focused on optimising the forest's benefits: supplying wood fibre for our business, providing jobs and income for communities and maintaining healthy forest ecosystems that support biodiversity,

protect water bodies and supply non-wood forest products. Production of sustainable paper-based packaging starts in the forest. The forest owners commit to manage their forests and plantations according to sustainable forest-management criteria. They obtain a certification after an independent, third-party audit and follow a regular audit scheme where their forest management practices are being evaluated.

The forest certification related CoC management systems start from the harvest of the trees. Each operation and entity processing the material has its own CoC system, which covers storage and use of the material, production and shipping of products, documentation of material and product flows and communication to

customers through invoices and delivery notes. In the Smurfit Kappa system, the paper production and converting operations have their own CoC certificates. Each product carrying a forest certification scheme on-product label carries a licence number that can be further traced back to the supplier, producer and the country of origin of the raw material.

A small amount of fibres used in CoC certified products may come from non-certified forests. Evidence of these 'non-controversial' sources is required to comply with the minimum standard of sustainable forest management. Smurfit Kappa requires this portion to comply with the FSC Controlled Wood standard.





“Identifying species in our forests sets a baseline for a collaboration with local organisations on nature protection and improving the ways how we work individually and together.”

over 30%

of our forests in Colombia are protected, natural forests supporting biodiversity

Case Study

Sharing Biodiversity Knowledge Colombia

“Long before sustainability was even a topic for discussion, we decided to contribute to the environment through a focus on conservation and sharing our in-depth-knowledge,” says Adriana Marin, Planning Process Engineer who is in charge of Forestry FSC certification. Since 2005 Smurfit Kappa Colombia Forestry Operations has worked to protect and understand biodiversity and ecosystems. It makes sense, because sustainable forest management ensures continuity of the business and to manage forests sustainably, we need to conserve their diversity. Adriana is responsible for the young tree generation in our commercial plantations, but she has a specific interest in our research on Podocarpus family of pines, the only national pines species in Colombia. This helps the nurseries to produce healthy trees for our plantations and the research would not be possible without our forest conservation programme.

One third of the land Smurfit Kappa owns and manages in Colombia is dedicated to conservation. We work together with local universities to understand the diversity of our flora and fauna and so far, some 3,000 species have been found in our natural and rehabilitated forests. 52 of them are threatened. One of the endangered species thriving in the Smurfit Kappa forests is the

Andean Bear that was already believed to have disappeared completely from the region. “In 2022, we started the second round of inventories,” says Nicolas Pombo, Director of the Forest Division, “the first inventory set the baseline and next we will be able to measure growth in diversity and see if our forest conservation efforts have paid off.”

The Forest Health Programme at Smurfit Kappa is led by entomology specialist, Divanery Bolaños, and forestry pathology specialist, Ginna Zabala. Their team studies and publishes scientific research and applies integrated pest management with emphasis on biological control in our forest plantations. The company has committed to integrated pest management and to keep the plantations and forests healthy, understanding the equilibrium in the nature is the best way. The Programme uses natural enemies of the pests, such as friendly insects that eat harmful insects, in our forests to protect them – in other words, it harnesses biodiversity for commercial use. “We want to ensure that we are not polluting our environment, our waters when managing forests,” Carlos says and continues “therefore it is our responsibility to work with the nature and share our knowledge.”

We reached 94.3% for the full year compared to 93.45% in 2021, and reached our target level in the last quarter of 2022 which is a Group first. This result is without Russian operations which are no longer included in the Group target. Including Russian operations, the outcome would be 92.7%. In the beginning of March 2022, FSC suspended all FSC Certified trade of wood-based products in Russia and Belarus as a consequence of the illegal invasion by Russia of Ukraine. The decision made by FSC impacted Smurfit Kappa's ability to sell any products as CoC certified from its Russian plants from the beginning of April 2022. On 1 April, Smurfit Kappa announced that it would exit the Russian market in an orderly manner and suspended any support to its Russian operations. Due to these two decisions, Russian packaging sales has been excluded from the scope of the CoC certified delivery from 1 April 2022 onwards.

Smurfit Kappa has implemented a Due Diligence System ('DDS') that further ensures that all of the related Group sustainability and sustainable fibre sourcing policies are implemented at local and central purchasing level. The new wood fibre risk assessment procedure, together with the Wood Fibre Risk Assessment platform, facilitates greater teamwork and standardises local purchasing processes. The implementation of the DDS has been third party verified by 'Preferred by Nature' and the verification process consisted of both overall group and on-site gap assessments. The audit report will be used to further strengthen our related policies/procedures and the implementation of our sustainable fibre sourcing policy requirements.

Although we source most of our wood from Europe, in 2022, we sourced wood fibres from 39 different countries of origin among which 10 are classified as potential high-risk countries: Argentina, Bosnia, Brazil, Chile, Mozambique, Paraguay, Romania, Russia, Ukraine. Our mills and third party paper and pulp suppliers stopped using any wood with country of

origin Russia after the beginning of April 2022. In Colombia, we only source from our own FSC-certified plantations. Fibres sourced from the other nine countries require additional due diligence before purchasing to ensure our sourcing policy requirements are followed.

Forest and Plantation Management

All of Smurfit Kappa's own forest plantations are based in Colombia, France and Spain, of which Colombia represents over 99%. All our plantations are certified, either to FSC or PEFC standards.

France and Spain

In Europe, we offer forest management services through our wood supply companies in Spain and France, where we own and manage some 500 ha of forest. In both, we follow local best practice for forest management, as certified by PEFC. Our wood-handling operations are CoC certified to FSC and PEFC standards.

Colombia

Almost all the virgin wood fibre our Colombian plants need is supplied by 67,600 ha of certified forests and plantations, which we own and manage. We use nature conservation programmes with the best sustainable development principles, promoting responsible use of natural resources along with economic development and social inclusiveness in collaboration with NGOs and other third-party organisations.

We also conform to comprehensive legal, technical and environmental regulations, subject to annual review.

Our 67,600 ha of forests and plantations in Colombia include:

- 41,900 ha of commercial plantations, of which 5,300 ha are partnerships with private landowners;
- 22,700 ha of protected natural forest; and
- 3,100 ha for infrastructure.

In our commercial plantations, 57.4% of the land is pine, 36.4% eucalyptus, 4.5% is being replanted and 1.8% is dedicated to research. Our Colombian forest management programmes have been certified by the FSC since 2003.

Biodiversity and Ecosystem Conservation

A third of our Colombian forest land is dedicated to protecting forest sustainability, helping maintain the area's rich biodiversity and preserving watersheds, habitats and ecosystems.

To maintain forest biodiversity and sustainability, our principles for our commercial plantations that represent two thirds of our land use are to:

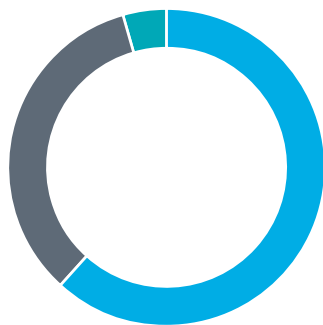
- Conserve them, by protecting and promoting species, diversity, sustaining ecosystems, and protecting water sources and habitats;
- Identify appropriate species and practices that increase plantation yields whilst protecting the environment; and
- Develop research programmes to preserve and enhance soil productivity.

Fibres for paper are efficiently produced on our commercial plantations. We use carefully selected areas for plantations, avoiding valuable ecosystems and protected forest areas. Protecting and promoting natural habitats is important to our approach, so in Colombia we use our own research centre as well as third-party institutions. Since 2009, we have worked with four local universities – Cauca, Nacional, Valle and Quindío – studying the flora and fauna populations in and around our forests.

Examples include:

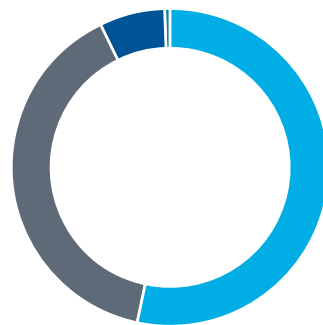
- A partnership, since 2013, with the Biology Programme of the Natural Science School of Universidad del Valle studying the diversity of birds, mammals and plants in the natural forests of the forestry nucleus in Sevilla.
- In 2014, a literature review aimed to inform conservation planning by identifying areas of special biodiversity close to the Company's plantations and natural forests in the Santa Rosa-Pereira core areas.
- During the past five years, studies developed by Smurfit Kappa identified 2,910 species in our forests. This includes 1,563 trees, 1,147 birds, 199 mammals, and one amphibian, of which 52 species are threatened. Our plantations and neighbouring protected forests form important wildlife corridors, contributing to species, conservation in the Andean ecosystem, and need careful management.
- Since 1994, we have collaborated with coffee farmers in the regions where we have forest plantations to introduce ecological synergies from coproduction of forest plantations and coffee farming.

Colombian Plantations Usage



- Key:**
- Commercial plantations – 42k ha
 - Protected natural forest – 23k ha
 - Infrastructure – 3k ha

Biodiversity in our Colombian Forests



- Key:**
- Trees – 1,563
 - Birds – 1,147
 - Mammals – 199
 - Amphibians – 1

Planet continued

Working with Local Indigenous Communities in Colombia

Smurfit Kappa is a proud member of the communities it operates in, abiding by local laws and striving for best practice in everything we do. The Company began lawfully acquiring farms in Cajibío over 50 years ago from legitimate property titleholders and now owns 2,700 hectares in the region. Since then the Company has supported the development of sustainable local communities through education, income generation, job creation, environmental management and being a good corporate citizen.

Our forest management activities in Colombia are independently audited each year and must demonstrate compliance with the 10 FSC principles which set out the essential elements of environmentally appropriate, socially beneficial and economically viable forest management. The FSC Principle 3 covers respect of indigenous peoples' rights, among them the free, prior and informed consent. The last FSC forest management certification audit was conducted by an independent third party auditor in October 2022 with no major observations arising. These forests have been FSC certified since 2003.

Engaging in the Communities

The Company has been involved in many voluntary community-oriented programmes which have specifically benefitted indigenous communities, some examples of which are outlined below:

- Collaboration with Yanacónas indigenous community in the Cauca municipality with the purpose of establishing and

maintaining a high-density commercial plantation for the production of sawn timber. The support included hosting members of the Yanacónas community in our forestry nursery in Restrepo, Valle, and provided them with technical guidance from our employees.

- In the Suárez municipality we have supported the local Nasa ethnic community, sponsoring musical training for young members of the Nasa ethnic Cerro Tijeras Reservation.
- A collaboration on a business development and cultural identity project with the indigenous reserve of Kurak Chak, Cauca, which is predominately comprised of members of the Misak indigenous community. The project involved the construction and operation of a small sugar refinery in addition to supporting workshops on health promotion and disease prevention.
- We have worked with Nuestra Señora Candelaria de la Montaña indigenous reserve, part of the Emberá Chami ethnic community, located in the Riosucio municipality, in the Caldas department on strengthening the economic productivity of their strawberry and dairy projects and helping them achieve the quality levels to comply with the standards of good agricultural practice certification.

In addition to these initiatives with indigenous communities we have invested more than US\$7 million locally in the last three years in sustainable agricultural and forestry production, maintenance of public roads, infrastructure development, economic

reactivation, and other social initiatives which benefit local communities in Colombia. In the last five years, we have also invested over €50 million in the upkeep of our forests across all our forestry.

Land Invasions

Given our positive relations with indigenous communities and the peaceful co-existence that had been in place, the events of July 2021 and subsequent unlawful incidents on our forestry land were entirely unexpected.

In July 2021, without any communication of concerns or issues, there were unlawful invasions and significant damage to our forestry (including natural protected forests) by individuals or groups allegedly representing the Misak indigenous community. Since that time, there has been ongoing unlawful activity and damage to the local ecosystem in our forests in the Cajibío region in Colombia. The Company reported, and continues to report, any such actions to local authorities in order to protect the personal safety of our employees, the local community and the diverse ecosystem in the area.

In addition, for a period during October and November 2022 our forestry farm in the municipality of Sotará in Colombia was subject to illegal invasion by individuals or groups allegedly representing the Coconucos indigenous community. In early November 2022 a serious incident occurred on this farm during which a number of our forestry workers were injured and significant damage was caused to our machinery. This incident

Forest Growth and Carbon Sequestration

Colombia

Every year the trees in our plantations sequester carbon from the atmosphere and store it in the growing stock.

Our plantations in Colombia have been established on land that has been in low-productivity use. Since the start of our forestry operations in Colombia, we have established sustainably managed tree stock which has increased the CO₂ sequestration capacity and carbon stock to a total current storage of over 9 million tonnes of CO₂ equivalent ('eq'). In 2022, the biomass on our plantations sequestered in total a little over one million tonnes of CO₂ eq from the atmosphere, a figure similar to the CO₂ eq in the wood we harvested. In total we have stored 9.34 million tonnes of CO₂ eq from the atmosphere in our growing trees inventory which remains at this level year on year.

To calculate this, we use a methodology, developed in collaboration with the Ministry of Agriculture and Rural Development ('MADR'), National Centre of Coffee Research ('CENICAFE'), and several forestry companies to quantify the growth and carbon sequestration capabilities of commercial pines and eucalyptus species grown under tropical conditions.

Europe

The forested land area in Europe has been in a steady growth since 1950's. The land area has grown during this time by some 30% and between 2005-2015 by 44,000km² (FAO), an equivalent of over 1,500 football fields. Smurfit Kappa owns some 500ha of forest in Europe, and we source a large proportion of our timber used at our virgin paper mills from forest owners whose forest holdings are located in boreal or hemiboreal forests.

Sustainable forest management benefits carbon sequestration and carbon storage in boreal forests. According to a recent study*, the carbon storage in intensively managed boreal forests grows faster than in those that are less managed. The study shows that the carbon sinks in the sustainably managed forests in Nordic Countries grew by 35% during 1990-2017, where as in other, less managed boreal forests it remained about the same. This means that supporting sustainable forest management is a means to mitigate climate change.

9.34 million tonnes
of CO₂ eq from the atmosphere in our growing trees inventory

* Höberg P. et al. Sustainable boreal forest management – challenges and opportunities for climate change mitigation.

and the circumstances surrounding the fatality of an individual which occurred during this incident are currently being investigated by the relevant authorities. The Group will continue to support the ongoing investigations.

The life, health, safety and integrity of all our employees and neighbouring communities are fundamental values of our Group, and therefore we continue to seek an end to such unlawful invasions, and a return to peaceful co-existence with all local communities.

Peaceful Co-existence

Since the unlawful invasion of our land in July 2021 Smurfit Kappa has openly sought dialogue with the Misak indigenous community. In late 2022, members of that community agreed to take part in an independently mediated dialogue process. This process, which to date has been constructive, commenced in December 2022 with Smurfit Kappa Colombia,

members of the Misak indigenous community and other key stakeholders taking part. The dialogue remains ongoing with further meetings held in January and March of 2023, and more planned for 2023.

We continue to believe that peaceful co-existence can be restored in the region within the framework of the law and respect for the constitution. We maintain our commitment to contribute positively to the communities we operate in, supporting the development of all these communities, including the indigenous communities, through our forestry activity and social initiatives.



Case Study

Environmental and Social Sustainability Recognition Colombia

As we place significant importance on being a socially responsible company, it is particularly rewarding to be recognised for this by our customers and partners.

In 2022, Smurfit Kappa Colombia was once again presented with an award for Exemplary Supplier in the category of Environmental and Social Sustainability for a Large Company by Nutresa Group. This award is an excellent example of our leadership and commitment to social sustainability, biodiversity and ecosystems, innovation, the implementation of sustainable practices and the creation of value for our customers.

The Nutresa Group is a leading multi-national food manufacturing company with similar values to Smurfit Kappa with their commitment to inclusive business practices and the preservation of the planet through circular solutions and sustainable sourcing.

For eight consecutive years, Nutresa Group has rewarded the work of partner companies that contributed to their

sustainability objectives through social, environmental and economic initiatives. We were delighted to be recognised as one of their leading suppliers in this award celebration from more than 1,900 companies based in Colombia and abroad.

The nominated companies were evaluated by multi-disciplinary committees and experts, who assessed them on several performance criteria including innovation, productivity, level of logistics service, and environmental and social sustainability.

Commenting on the recognition, Smurfit Kappa Colombia CEO, **Alvaro José Henao**, said: “At Smurfit Kappa, we deliver through our purpose to create, protect and care, so this award not only makes us feel very proud and grateful, but it also motivates us to continue evolving our work in sustainability and for the communities where we have the privilege to operate. Alongside this is our commitment to contribute to the growth of our customers and the delivery of their strategic objectives.”



Planet continued

Water

We are a processor of water and not a significant net-consumer of water, therefore our main focus is on the quality of the water we emit back into the water system. Yet, using water is critical in the paper-making process. Without water, we cannot produce the paper we need for our packaging solutions.

Smurfit Kappa is mainly a processor of water, as illustrated in the diagram on page 57. Our global operations used 141 million m³ of water in 2022. Almost all of that – 138 million m³ – was used by our 35 paper and board mills and the remainder is used by our 243 other (packaging) operations.

Of the 138 million m³ used by the paper and board mills, 126 million m³ was discharged in good condition and almost 12 million m³ is evaporated into the air and will return as rainfall or is bound in the product. We also reuse water several times, after which it is processed in our water treatment facilities and returned to public water bodies. Of the water discharged, 81 million m³ was used for processing and 45 million m³ for cooling.

Water treatment is part of the bioeconomy. We use bacteria to clean the water, and the resultant biogas fuels our on-site CHP plants. The water-cleaning sludges can be used for other water treatment processes, or in agriculture. We also support forests in maintaining nature's water-cycles through promoting certified sustainable forest management. For example, preserving water bodies linked to commercial forests is an indicator of sustainable forest management, while allocating protected forest land, as we do in Colombia, further supports natural water ecosystems (see Forest section on page 53).

“We also reuse water several times, after which it is processed in our water treatment facilities and returned to public water bodies.”

Case Study

Supporting the Health of our Rivers Through Automation

Germany

Many paper mills use river water and release treated process water back. To minimise the process water discharge's organic content (COD), the water is being treated in a water treatment plant and part of the water purifying process is done by bacteria. The bacteria need nutrition, which is managed through taking water samples and adding nutrients such as phosphorous and urea that activate the bacteria.

At Wrexen mill in Germany, this is more complex because it produces both brown and white paper, which require different doses of nutrients.

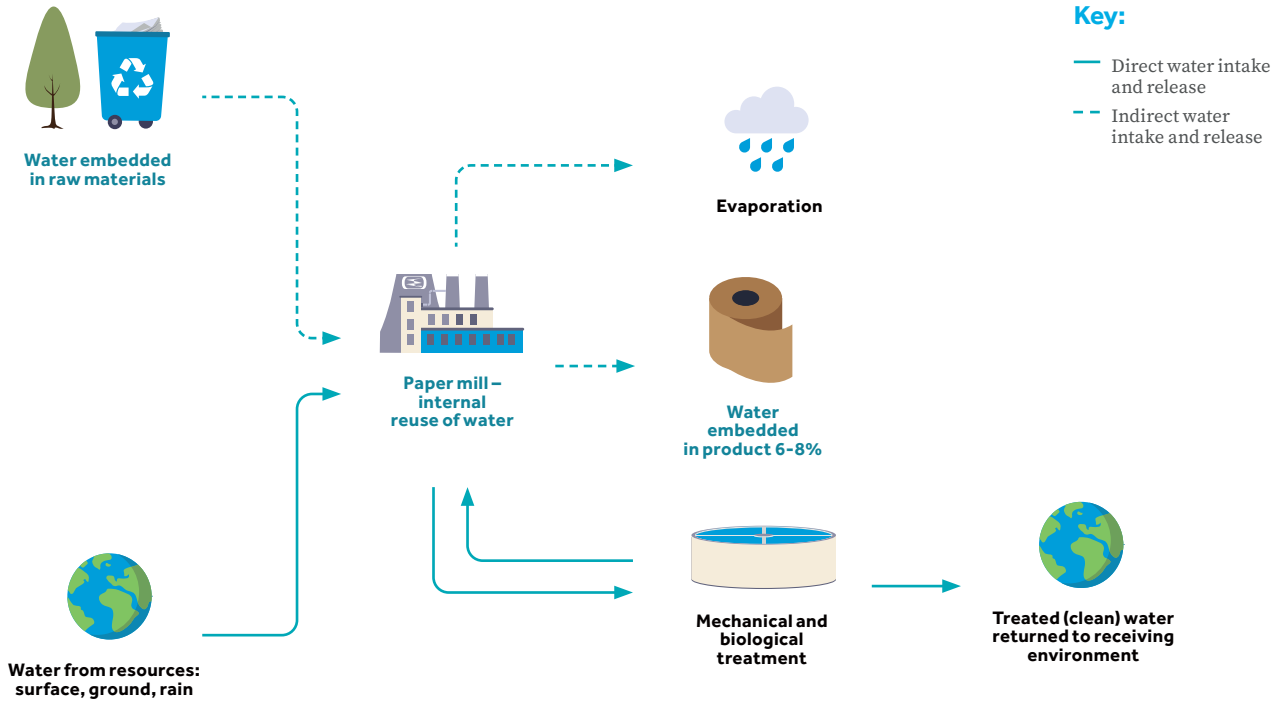
Wrexen's water treatment laboratory could only take one sample per day, so it could not accurately synchronise nutrient doses with production. There are strict regulations on effluent and Smurfit Kappa has a 2025 target to reduce COD by 60% compared with 2005 levels, so Kay Berndt, Manager of Technology, Innovation & Development at Wrexen identified an opportunity to automate the water analysis and treatment process.

Kay's team installed automatic water sensing devices in a shelter outside the mill to take readings every 20

minutes. Despite the faster flow of data, calculations to define nutrient dosages still had to be done manually. Kay's team spent six months researching a solution – and found a correlation with levels of oxygen, pH, and temperature, which enabled them to predict what dosages the water discharge would need, depending on the production schedule.

“We wanted Wrexen to have the best water consumption and lowest environmental footprint of any comparable mill,” says Kay. “The better the water discharge quality,

Water in the Paper Mill



20%
COD reduction

the more we support the health and wellbeing of our rivers. This new part of the mill is integral of our production process and enables us to reuse most of our water.”

With this new automated process, Wrexen has reached a 20% COD reduction, uses 10% less fresh water, has reduced chemical use by 5% and manual handling by 70%. The process has wider ramifications for the industry too, as it could be replicated at many other mills – and a Smurfit Kappa mill in the UK is already exploring how to adopt it.

Planet continued

Committed to Sustainable Water Stewardship

Assessing Risks Related to Water

Since 2014, we have investigated the environmental impact of our paper and board mills and undertook water risk assessments across all our mills. We first conducted a global risk assessment based on the geo-locations of our mills using the Aqueduct and the Weather Research and Forecasting Model ("WRF") tools and created a water scarcity risk mapping for our sites followed by individual risk assessments at sites. In 2021, we completed the first water risk assessments at our paper mills. At the end of 2022, we merged the water risk assessments to our climate risk processes. The project updates all geo-location based, water scarcity based risk assessments using tools such as Aqueduct and WRF, and expands the assessment coverage from paper mills to all operations.

The water risk assessments process focuses on three main risks – physical risk, including local water scarcity and mill equipment, regulatory risk, and reputational risk.

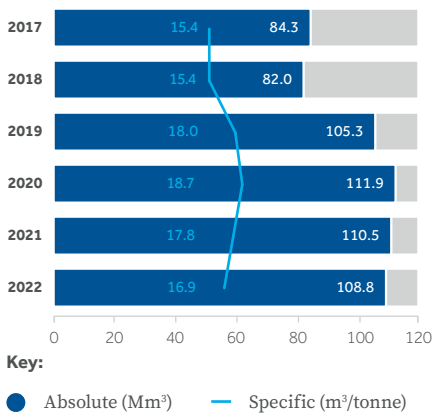
Each assessment comprises a supporting desk study and an on-site audit of each category, including interviews with key stakeholders. Since 2018, the mills have included these assessments in their ISO 14001:2015 certification risk assessments.

All assessments to date confirmed that our mills' water use has no impact on water availability to neighbouring areas. Only 12% of our paper and board production, and just 4% of our water intake, takes place in areas of water scarcity. Nevertheless, we always use water sustainably – many of our stakeholders are focused on local quality and expect good water-management practices.

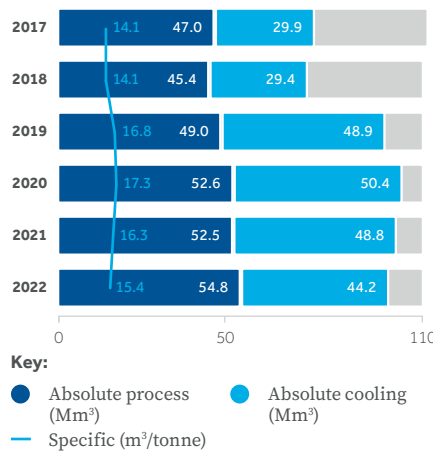
Our products need to meet hygiene standards, and our paper-making technologies require good-quality water. Together with our neighbours and stakeholders, we have a common interest in good water stewardship and we will use these findings to build individual site water stewardship strategies. To manage possible changes in our mill environments, the assessments will be repeated every five years.

“Smurfit Kappa strives to continuously improve its water management, with current focus on improved water use and water quality.”

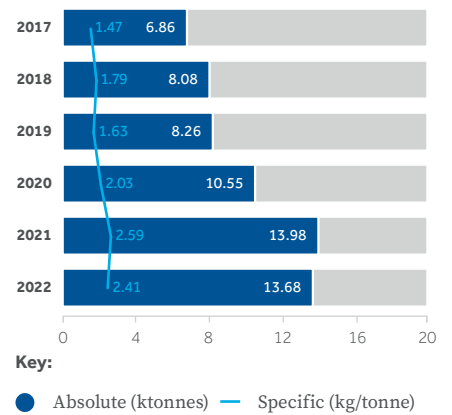
Water Intake: European Mills



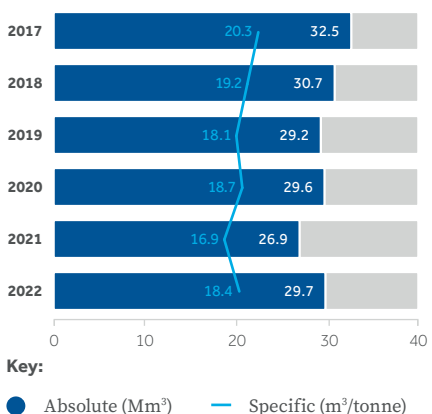
Water Released: European Mills



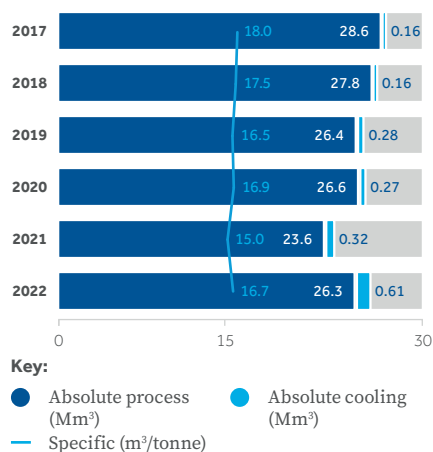
Process Water Discharges* COD: European Mills



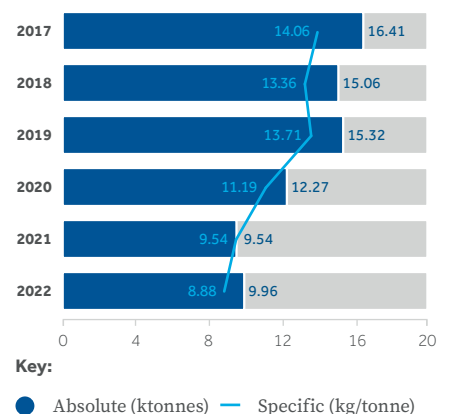
Water Intake: The Americas Mills



Water Released: The Americas Mills



Process Water Discharges* COD: The Americas Mills



* Figures of mills releasing to the environment (mills that released water to external water treatment plants) are not reported.

Since 2018, we are a signatory to the CEO Water Mandate and we are also a member of the Capi Water Issue Group that is looking into water specific industry issues.

Our paper mills engage with their stakeholders in multiple ways. Six of our paper mills – Forney (USA), Los Reyes and Monterrey (Mexico), Nervión (Spain), Nettingsdorf (Austria) and SSK (UK) – discharge their water to the municipality water treatment system and our Morava mill (Czech Republic) shares its water treatment plant with the local municipality. This collaboration benefits all participants as the water discharge from paper mills helps to balance the nutrition needs for municipality water treatment and thus reduce the need for additional water treatment nutrients needed by the municipality. Depending on location, we participate in water-body management and cross-industry collaboration, for example, our Roermond paper mill (Netherlands) receives the phosphorus it needs for water treatment from a neighbouring baby food plant where it is a by-product of their processes.

Focus on Better Water Use and Water Quality

For the vast majority of our operations, availability of ‘fresh’ water is not a concern for the foreseeable future. Nevertheless, we believe that a responsible approach to water is crucial.

As a processor and not a consumer of water, we focus our efforts on further improving the quality of water we discharge, and understanding the risks associated with water availability and use in the areas where we operate. We therefore continually implement best practice in our mills’ water treatment. In 2022, over 98.48% of paper and board was produced at mills with best-practice water treatment systems. This involves decreasing the organic content of process water through anaerobic and aerobic treatments before returning it to public water bodies.

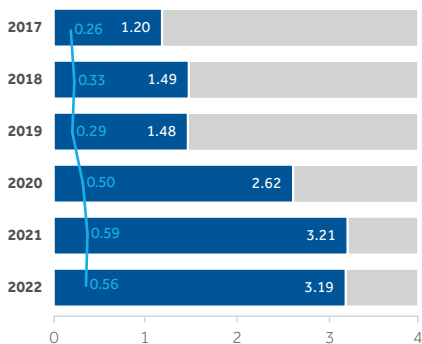
Since 2005 we have invested €129 million in best-practice water treatment systems. Future investment plans include building best practice water treatment for the remaining operations.

Smurfit Kappa strives to continuously improve its water management, with a current focus on improved water use and water quality. Improved water efficiency in our paper mills means improved production efficiency. Therefore, we monitor closely the opportunities arising from best practices to improve our efficiency.

We set a new target to reduce water intake at our paper and board mills by 1% annually per produced tonne of paper. For us, the water quality, and especially water discharge quality is important. The best measurement is the COD for which we have a 60% reduction target by 2025 against the 2005 baseline.

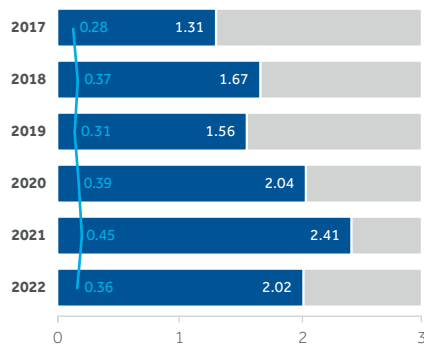
Our COD target is a good measurement also in terms, of understanding how our water-efficiency strategy works, as the COD impacts both paper production as well as effluent.

Process Water Discharges* Biochemical Oxygen Demand ('BOD'): European Mills



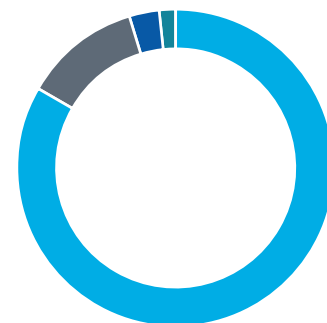
Key:
 ● Absolute (ktonnes) — Specific (kg/tonne)

Process Water Discharges* Total Suspended Solids ('TSS'): European Mills



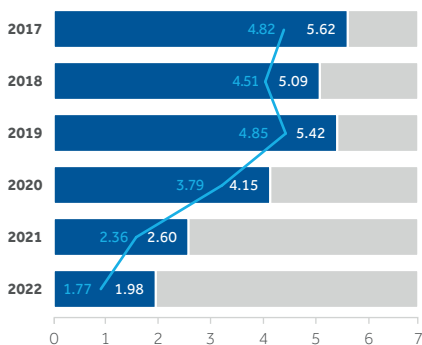
Key:
 ● Absolute (ktonnes) — Specific (kg/tonne)

Water Sources – All Operations



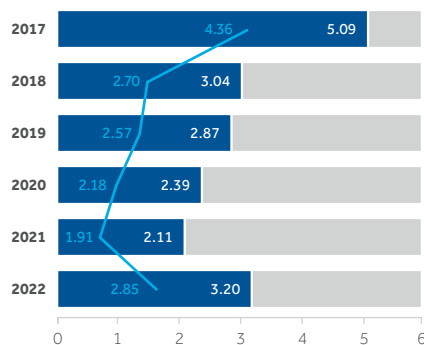
Key:
 ● Surface – 83.47% ● Grid – 3.04%
 ● Ground – 11.92% ● Other – 1.57%

Process Water Discharges* BOD: The Americas Mills



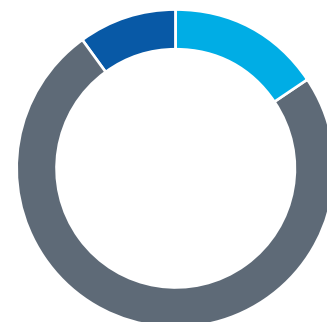
Key:
 ● Absolute (ktonnes) — Specific (kg/tonne)

Process Water Discharges* TSS: The Americas Mills



Key:
 ● Absolute (ktonnes) — Specific (kg/tonne)

Water Discharge – All Operations



Key:
 ● To sea – 15.69%
 ● To river – 74.51%
 ● To third party – 9.80%

* Figures of mills releasing to the environment (mills that released water to external water treatment plants) are not reported.

Planet continued

Progress in 2022

Water Quality

In 2022, we saw a disimprovement in our COD emissions year on year, which was due to some operating issues at our water treatment plants. We expect the ongoing ramp-up of recent investments as well as the implementation of new waste water treatment plants to support the Group's delivery into the future.

Between 2005 and 2022, the COD content of processed water returned to the environment has decreased by 36.9% relative to production, compared with 38.5% in 2021. We saw a slight backtracking against our target in 2022, mainly due to the following:

- The production increases at our Cali mill, Colombia.
- The insufficiency of the water treatment plant at our Belgrade mill in Serbia to the production volumes. The building of a new water treatment plant has begun in 2022.
- Issues with the start-up of the water treatment plant at our Barbosa mill, Colombia and Alfa D'Avignon mill, France.

The addition of our Verzuolo mill in Italy, delivered improvements to the Group's global COD reduction result.

Water Use

In 2020, we introduced a new target to reduce our water by 1% annually in our paper and board mill network. In 2022, the water intake of all our operations was 141 million m³, in comparison with 140 million m³ in 2021. For 2022, compared with 2021, the average water intake by our paper and board mills decreased to 17.2 m³ per tonne of paper produced, from 17.6 m³.

2022 is our second year reporting against the target, and we achieved a 2.1% reduction in comparison with 2021. Whilst the specific water intake trend has been decreasing, the key contributors to the target in 2022 were our Bento and Uberaba mills in Brazil, and Piteå mill in Sweden.

Our paper mills recycle water at a high rate. At the headbox of a paper machine, the pulp consistency is around 1% in the water mix. Initially, 75-125 m³ water is used per tonne of paper. We discharge 3-7 m³ of water – about the same amount as the intake per tonne of paper. Depending on the specific local location, we recycle 10-40 times the amount of water needed in the paper-making process, and reuse this in the paper machine before returning part of it to our process, after treating it in our water treatment plants. Our Smurfit Kappa Zülpich (Germany) and Bento (Brazil) mills operate closed water loop systems.

“2022 is our second year reporting against the target, and we achieved a 2.1% reduction in comparison with 2021.”





Approximately
90%
 efficiency in COD
 reduction at all four
 water treatment plants

Case Study

Investing in Cleaner Water in the Americas

As part of the Group's ambitious target to reduce COD in our water discharge, we have made significant investments in best-practice water treatment in the Americas region. Water is a medium that helps us to form paper from pulp – a mass of fibres. We return some 90% of the water back to nature after water treatment. The rest of the water evaporates from the process and some is bound in the product.

Most of the time, we return the water we use back to the same water body we take it from. Therefore it is important for us that we manage the water quality of our discharge. We do this by treating the water in the water treatment plants and we work to constantly improve the discharge parameter with COD being the most important.

Since 2018, we have invested in building water treatment plants at our Barbosa, Barranquilla (Colombia), Cerro Gordo (Mexico) and Uberaba (Brazil) mills. All new water treatment plants are now running, delivering towards the Group target of 60% reduction of COD by 2025 in comparison with the baseline year 2005.

The COD reduction efficiency at the water treatment plants is currently at 95% in Barbosa, 87% in Barranquilla, 92% in Cerro Gordo and 97% in Uberaba.

Planet continued

Waste

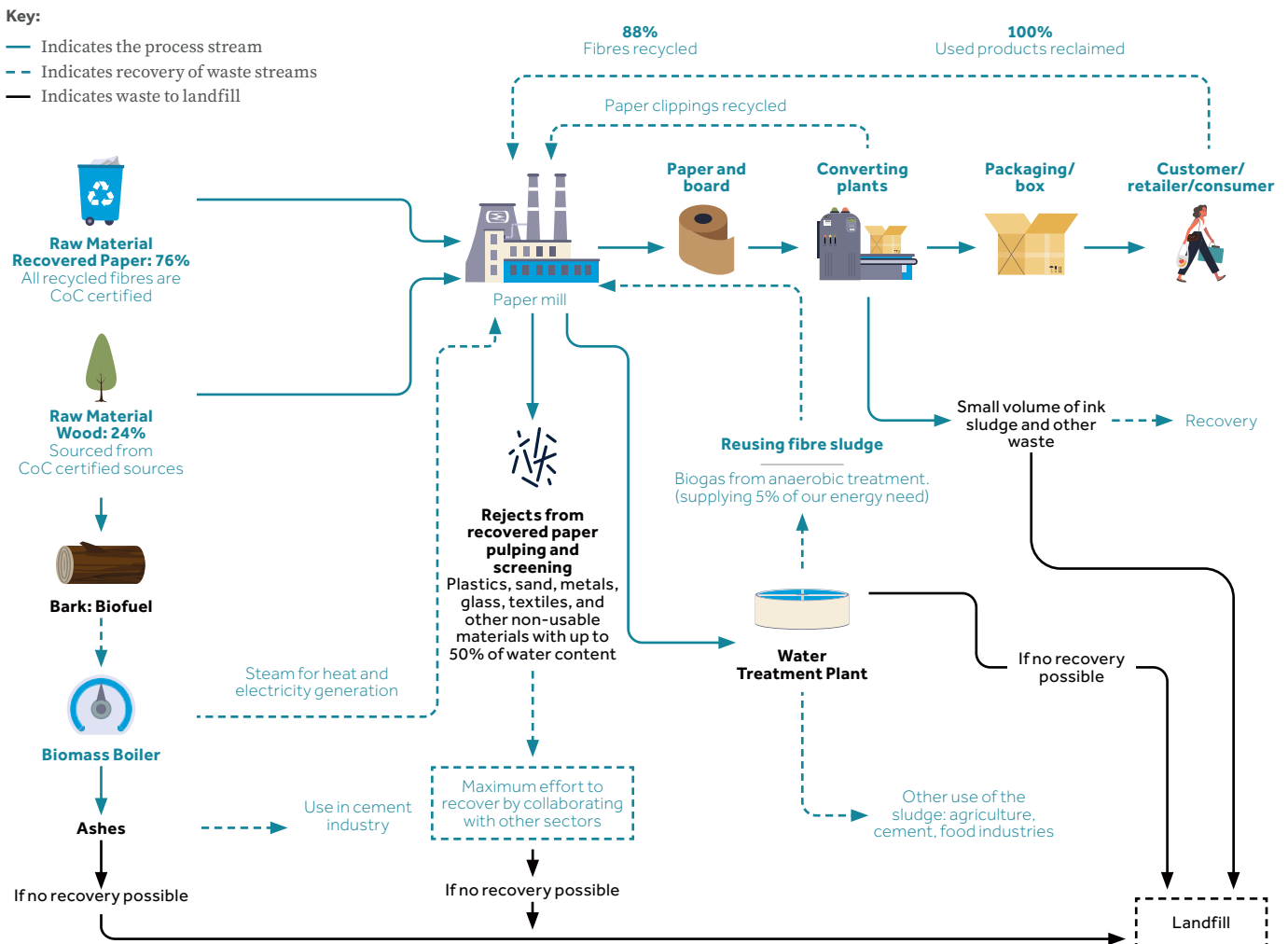
Efficiency of material usage is vital for the bioeconomy and circular economy. We continually find alternative ways to reuse, recycle and recover, to end the linear economy where products end their life-cycle at landfill.

Our packaging solutions help prevent waste, especially in food products' supply chains by protecting products from damage or spoilage. After use – at the end of its life, any paper-based packaging becomes a valuable raw material – it has the highest recycling rate of all packaging materials, supported by advanced recycling systems.

As the graph on page 67 shows, 90.7% of old, corrugated packaging is being collected for recycling and the industry is currently able to recycle 81.5% of its weight as recycled fibres. At Smurfit Kappa globally, we collect 100% of our products back after their use to the production system and in total 88% returns back to our own paper mills.

Smurfit Kappa also participates in its product end-of-life management. Our 44 recycling depots collect recovered paper and paper-based packaging, returning it back to our paper mills, in a sustainable way, where the fibres will be recycled. It is in our interest that the products will be recycled back to the paper-making process. In addition, our

Production Waste Streams





760

tonnes waste to landfill reduction

Case Study

Continuous Improvement in Recycling Waste

Argentina

Coronel Suárez Mill in Argentina has a culture of continuous improvement, and in the past year it has focused on two highly successful waste reduction and recycling programmes.

The bales of recovered paper that the mill processes contain many unwanted materials, mostly plastics, which are sent to landfill three times a week – 200km away. The repulping process also means that all rejected materials come with a high water content. When Superintendent of Maintenance, Javier Guarnieri and Mill Manager, Sergio Torres learned that at another nearby mill an out of order pneumatic screw press was being consigned to plastic waste, they saw an opportunity to bring this back into operation and joined Environmental Manager, Marina Povolò and Environmental Coordinator, Pamela Rey to the team.

Using this press, water is squeezed out of the plastic waste, vastly reducing the weight of the waste sent to landfill. In the next five years, Coronel Suárez plans to

repurpose plastic for energy recovery, but for now, this intervention has reduced waste to landfill by 20% or 760 tonnes in just one year, saving an estimated 44 tonnes of CO₂ in avoided transportation.

“We have to be resourceful about sending waste to landfill because it’s so far away and expensive, and not sustainable for us,” says Pamela. “We’re always looking for alternative ways to reduce it.”

In another initiative, the team researched how they could divert metal and plastic ink and chemical drums from landfill. Having found a market for the drums, their target was 5% – but within months they recycled 20%, around 10 tonnes. This has saved the site €15.7k in charges and avoided around 9 tonnes of oil being needed to make new drums.

The mill is now aiming for a 25% recycling target, and towards this is in the process of reviewing its waste permit from the local authority.

Planet continued

packaging reduces its own impact by being 'right-weighted', using the minimum necessary material, and we are committed to offering sustainable packaging concepts to all our customers. Read more about the circular aspects of our products on page 101.

Our product end-of-life is part of our material sourcing strategy and we collect used boxes to make new boxes from them. Therefore, we can say that we have fully committed to the product end-of-life management; we are a key actor in the circular economy and one of the largest recyclers of paper in Europe, as well as many of our regions in the Americas.

Our key raw material is recycled fibre and, globally, we use 76% of recycled fibres and only 24% virgin. Our other raw materials have been explained in the tables on pages 118-119.

However, whilst our products are recyclable, we generate under 109 kilogrammes of non-hazardous waste per tonne of paper and board, 50% of which is recovered. A large part of the non-hazardous waste we generate is due to the fact that we are a significant player in the paper-recycling business. The recovered paper bales sent to us by recycling companies often contain unwanted plastic, metals, glass, textiles, sand and other non-usable materials; 49% has to be sent to landfill. On average, it takes 1,078 kilogrammes of recovered paper to produce one tonne of paper and board. To reuse as much as possible, we separate unwanted elements using water, some of which is retained by the non-usable materials and can contribute as much as 53% to the weight of subsequent waste.

To minimise landfill, we reuse our own waste as far as possible. Currently, approximately 50% is recovered, and we aim to reduce the amount of waste sent to landfill by 30% per tonne of paper by 2025, compared with 2013.

Our converting operations send paper clippings back to our mills, delivering high-quality recycled fibre. Recovered paper from our corrugating and converting operations comes with minimal auxiliary materials, decreasing waste from the recycled fibre pulping process, further evidencing our circular approach to production.

Our production waste streams and collaboration with other industries to use our side streams are described in the diagram on page 62.

Work Against Litter

Litter and the reduction of packaging waste are a global megatrend.

Our products are the world's most recycled packaging materials. While the paper industry in Europe generally achieves 71.4% recycling rates (lower than paper-based packaging's 81.5% recycling rate in the graph on page 67), in the US and in Latin America recycling rates of 68% and 48.3% have clear upward potential. This, along with our raw material's biodegradability, positions us to work with stakeholders towards litter-free solutions.

Eventually, our packaging returns to the biological cycle – if not to the recycling loop, then it will either be combusted, emitting only the CO₂ that the wood captured while growing, or will degrade naturally with an even smaller environmental footprint than effectively all other packaging solutions.

Work Towards Optimised Use of Raw Materials

We continually collaborate with other industries to use our side streams, including agriculture, cement and pharmaceutical. In 2019, we joined the 4evergreen initiative that aims to support product design for recyclability and calls for the development of optimised collection systems and appropriate recycling infrastructures. The 4evergreen initiative brings together the whole paper-based packaging value chain, from suppliers to packaging customers such as fast moving consumer goods businesses, to find solutions to current and future challenges in collaboration.

Progress in 2022

Our starting point is paper mill waste sent to landfill. After a Group-wide assessment in 2015, we set a target to reduce this by 30% per tonne of paper by 2025. Most waste is reject material from the recovered paper pulping and screening process.

Other sources include sludge from our water treatment facilities, calcium carbonate residue from lime kilns and ash from biomass boilers.

In 2022, we reported a disimprovement year-on-year, reaching a reduction of 24% of waste sent to landfill (29.2% in 2021) from our paper mills per tonne of paper since 2013.

Case Study

Transforming Waste into Reusable Material Italy

Verzuolo paper mill in Piedmont, Italy, can process 1,000 tonnes of waste paper every day, but with the recovered paper come other materials that we can't use. Some 4-5% of it is 'reject' – things like the plastic windows in envelopes and metal bindings on folders. In most European countries, some plastic material can be burned for energy, but not in Italy. Instead, rejects go to landfill – at an environmental cost of €190 per tonne for Verzuolo.

Raffaele Marinucci, Engineering Director at Verzuolo, is leading a research project to change this. He saw a new flotation tank technology that could efficiently separate plastics from rubber waste such as used tyres and made a business case to invest in it. With this new technology at Verzuolo, rejects are shredded and then pulped and flushed in a giant water tank. Water makes up 50% of the total volume, and low-density plastics 20%, with

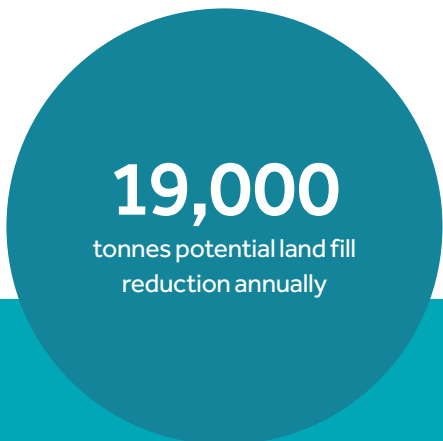
3% being ferrous metals. These materials are now separated out and sold on for reuse via brokers – the plastics can be melted and moulded into many different products, such as pallets.

What was the motivation for this project? For Raffaele it was simple: "The waste reject comes with an extremely high cost and a large environmental footprint. When we buy waste paper we also buy rubbish,

The main reason for the decline in 2022 was the increased production at our Cali mill (Colombia) which has a higher intensity than the Group average and also the fire at our SSK mill (UK) recovered paper yard, which resulted in an exceptional increase of waste sent to landfill. These were partially mitigated by the positive impact of the improved performance out of our Forney mill (US) and Zülpich mill (Germany).

Around 1% of our waste is classified as hazardous, with it mostly coming from maintenance, ink sludge from printing and converting operations and per operation, the amount is small. Our hazardous waste assessment showed the key issue is correct waste classification. Due to local and national lack of clarity in hazardous waste definition, we believe it is conservatively reported in this report.

Our hazardous waste figure increased from 8,774 tonnes in 2021 to 12,815 tonnes in 2022. The annual amount varies due to maintenance, product additives and hazardous waste tanks taking over a year to fill.



so we must consider the full cost, including disposal of the waste. We also anticipate there will soon be legislation to ban sending waste to landfill. We had to think out of the box to find a sustainable solution.”

stream each year and reduce the mill’s waste sent to landfill by 75%. All for an investment of €4.5m – plus the time, effort and passion of Raffaele and his team.

So far, the project has reached a recovery rate of 25% of the potential reusable waste. With some fine tuning, the new technology should soon be able to remove 19,000 tonnes of reusable materials from the waste



“This modification has helped us... to deliver to our sustainability targets of which the whole team is very proud of!”

Alejandro Perez

41%

reduction of rejects per tonne of paper

Case Study

More Fibres from the Same Amount of Recovered Paper

Recycled fibre is an important raw material for paper. Recent study shows that fibres in corrugated packaging can be recycled up to 25 times. However, recycled paper mills receive their recovered papers with a lot of additives on them. These additives include tapes, glues, and stickers. They are tightly attached to the recyclable fibres and reduce the yield of fibres from recovered paper and fibre ends up as rejects, which sometimes becomes waste to landfill.

At our Forney mill in the US, the Stock Prep Operations team has been working on reducing the amount of waste sent to landfill and improve the fibre reclamation process. In 2021, the mill was working on a strategic plan to increase capacity. As part of this plan, a review of the stock preparation stage was done.

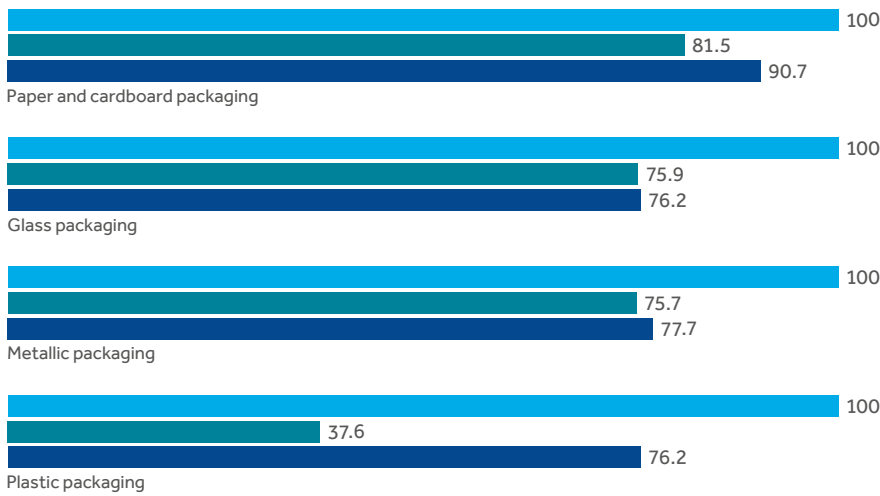
Stock preparation is the stage in paper production where pulp is being prepared. When repulping recycled fibres, sorters to separate rejects from fibres are used. In the new system arrangement, the sorting flows were re-directed leading to a simpler system and improving the yield of fibres captured into pulp and not leaving the system attached to rejects.

“The introduction of the new system has helped our mill to reduce the reject volume from 183 kg/tonne of paper to 108kg/tonne of paper, equalling to 59%, which is a great achievement in many ways,” says Alejandro Perez, Manager of Stock Preparation and Utilities.

“This modification has helped us not only to use our raw material more efficiently, but also to deliver to our sustainability targets of which the whole team is very proud of!”

Circularity of Packaging in 27 EU Countries (%)

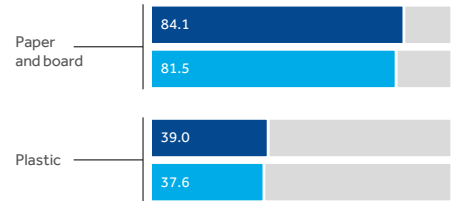
Source: Eurostat



Key: Year 2020

- Used
- Recycling
- Recovery

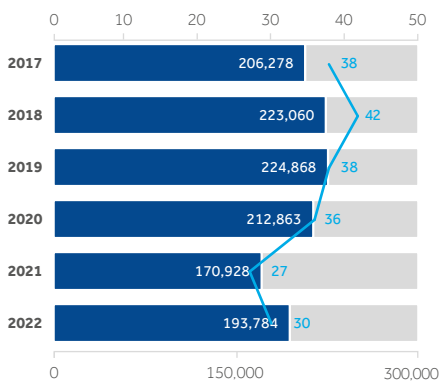
Packaging Recycling Rate in 27 EU Countries (%)



Key:

- 2014
- 2020

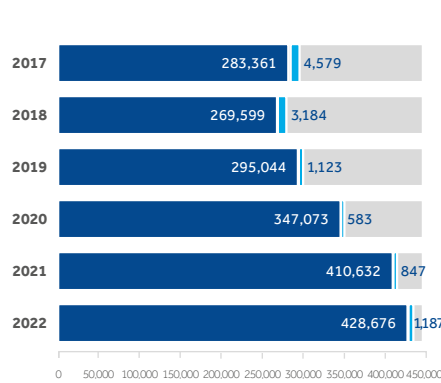
Non-hazardous Waste European Mills



Key:

- Waste sent to landfill (tonnes)
- Specific (kg/tonne)

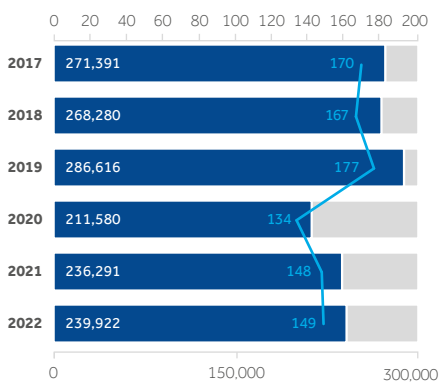
Non-hazardous Waste European Mills



Key:

- Waste sent to recovery (tonnes)
- Waste sent to other (tonnes)

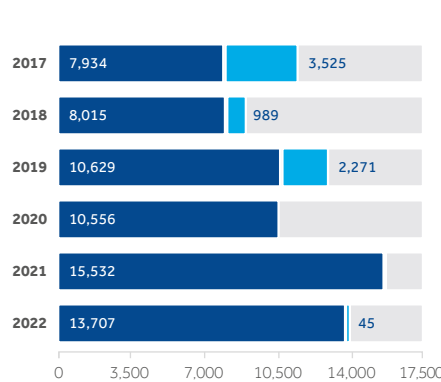
Non-hazardous Waste The Americas Mills



Key:

- Waste sent to landfill (tonnes)
- Specific (kg/tonne)

Non-hazardous Waste The Americas Mills



Key:

- Waste sent to recovery (tonnes)
- Waste sent to other (tonnes)

People

Empowering people and communities

It is Smurfit Kappa's ambition to be recognised as a globally admired company, a great place to work and an employer of choice for top talent. These ambitions are not just about our business growth, but based on our understanding that our success is driven by our highly valued and motivated teams across the world.

48k

employees across the Group

33.7%

female representation in Executive Committee and their direct reports

13.6%

global reduction of the TRIR in 2022



People

68-97

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People continued

Key Principles

Employees who find meaning at work are happier, more productive, and more engaged. This is well understood by the business community. People who believe their job has meaning and a broader purpose are likely to be more committed, relish taking on a challenge, and collaborate effectively. We aim to create meaningful work with a broader purpose, while ensuring the health, safety and wellbeing of our people at work, as well as on their journey to and from the workplace.

This is why Smurfit Kappa strives to constantly evolve and improve its People Strategy and why our HR pillars: People Development & Talent Management; Employee Experience for Performance; Inclusion, Diversity and Equality; and Reward and Recognition have been developed. These are underpinned by the five foundations of our HR strategy – Safety and Wellbeing, Legal Framework, Employee Relations, HR Information Systems, and Internal Communications.

External to our business in the locations in which we operate, we strive to provide assistance to the local communities by supporting projects aligned to the principles of our Smurfit Kappa Foundation ('the Foundation'). The vision for our Foundation is to positively impact the lives of underprivileged people by supporting sustainable projects that positively influence their lives through health and nutrition, education and basic care thus helping to reduce the inequalities that exist.

Our culture together with our values – Safety, Loyalty, Integrity and Respect – have ensured that we continue to be successful.

Smurfit Kappa unites some 48,000 people around the world. We are a truly diverse organisation, spread across 357 sites in 36 countries, speaking over 20 different languages, across four generations. Our primary objective for all our colleagues is to provide a great place to work.

This involves: creating opportunities for work that is productive and delivers a fair income; provides security in the workplace and social protection for families; offers better prospects for personal development and social integration; allows freedom for people to express their concerns; empowers people to organise and participate in the decisions that affect their lives; and ensures equal opportunity for all. Our materiality assessment outlines that the core areas for us are: being a responsible employer; inclusion and diversity in the workplace; and health, safety and wellbeing. Although we made progress in these three areas, we strive to do even more.



Our values of Safety, Loyalty, Integrity and Respect combine to create a safe and inclusive culture, with equal opportunities for all and where inclusion and adherence to human rights are a priority. We take our responsibilities seriously, and believe that through good corporate citizenship and giving back to our local communities, we can help others build a platform that transforms lives, unlocks opportunities and promotes fairness for everyone.

During 2022, we continued to evolve our HR strategy by aligning the evolving needs of our people, with the ambitious needs of our business. This is the 'sweet spot' we strive to achieve, to deliver success for all of our stakeholders in the business. Our strategy to achieve this is fully outlined on pages 78-85. The most important achievement of our Health, Safety and Wellbeing programme is the continued positive performance of our TRIR trends.

The scope of the Smurfit Kappa Foundation ('the Foundation') has broadened to support underprivileged people, not just children in the communities where we operate. Projects supported tackle areas such as poverty, inequality, and access to education. In 2022, the Smurfit Kappa Board confirmed it would increase its annual donation to the Foundation, contributing up to three million each year.

Risks and Opportunities
Attracting Talent and Maintaining Diversity

One of the important areas of focus for Smurfit Kappa is attracting and retaining the talent we need for internal succession planning and leadership continuity. Today's workforce expects choice, purpose, agility and flexibility. Smurfit Kappa like many other successful organisations has adapted well as we continue to focus on sourcing and developing talent through re-skilling, upskilling, recruitment and engagement. We are focused on attracting the right people for our organisation and are investing in retaining and motivating the amazing team we already have.

Our talent agenda ensures we have the right people, in the right places and at the right stages of development to fill key positions as they arise. We aim to attract talented people and help all our employees grow their careers and deliver on their potential. Developing the organisation's culture of talent management is vital to our success; it supports high performance and safeguards the values underpinning our organisation.

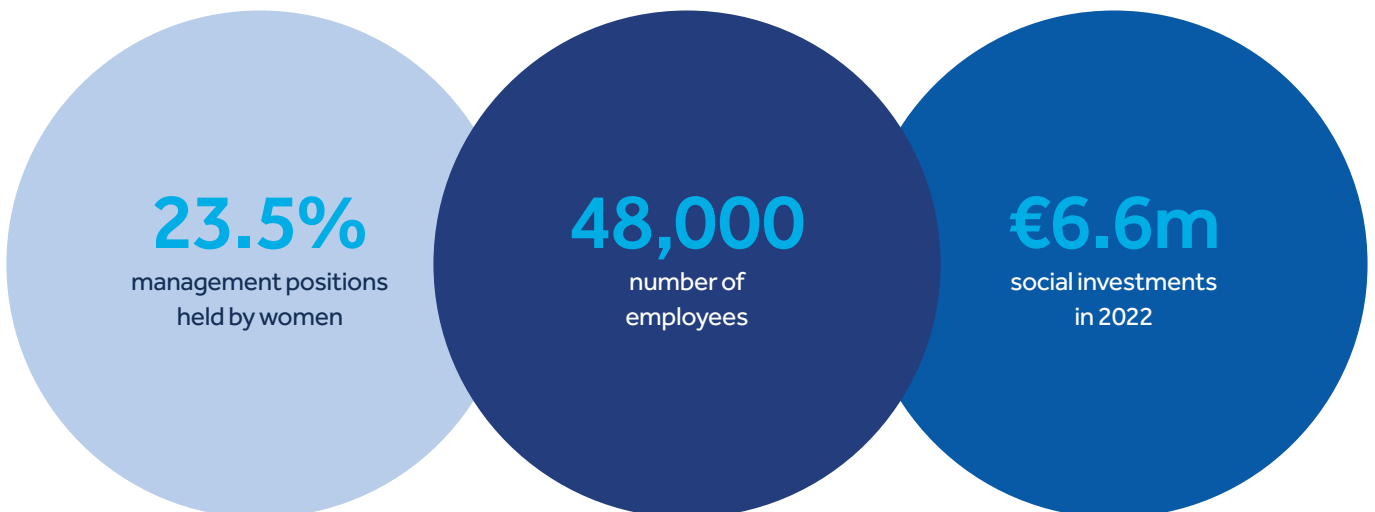
To attract the best and most diverse talent available, we continuously improve our recruitment processes, while also introducing a more flexible approach to working arrangements, where possible, to provide a better work-life balance.

We believe that local hires are imperative for our success, so our succession planning has been designed to take this into account and we have development programmes where high potential employees are given the opportunity to spend one to two years in different teams to encourage cross team working and gain additional experience.

Following our last MyVoice survey in 2021, we systematically reflected and analysed over 40,000 employee comments. This helped us evolve our HR strategy for 2022 and provided direction for the areas our people wanted us to focus on, including focusing on providing a digital workplace with multi-lingual communications. Modernising and simplifying our HR systems was also a key message.

As part of our commitment to driving Inclusion, Diversity and Equality within Smurfit Kappa, we are striving to create a more diverse workplace and ensure that female gender representation across the Group is above 30% over time. We are also committed to 25% of management positions being held by women by the end of 2024. For example, during 2022 we were proud to add a new programme to our Smurfit Kappa Academy catalogue: SK RISE. Developed with feedback from female talent in the organisation, SK RISE is a programme for female employees, designed to support their career and personal aspirations.

Key Performance Towards our People Targets



People continued

We have continued to build on our fair and competitive Rewards & Recognition philosophy to attract and retain our key talent, and to motivate employees at every level of the organisation to achieve the Group's strategic objectives. Our resolute commitment to gender pay equality is continuing, and in December we published our first Gender Pay Gap Report for Ireland. We have also invested in the digitisation of the Group rewards system and have started planning for a Group-wide recognition programme, which will be developed in 2023.

Health and Safety Culture

At Smurfit Kappa we operate large machinery, with complex logistics and regular shift work, and health and safety is a core value for us. Our Safety For Life Programme is making great progress and we believe that operating safely is non-negotiable – no task is so important that it cannot be done safely, this is how we want our employees, contractors and subcontractors to approach their job, each and every day.

The safety and wellbeing of our teams across the world is at the core of how Smurfit Kappa operates. It is part of our culture and we strive to ensure that every day, each of our Smurfit Kappa employees return home safely to their families.

Our health and safety culture is founded on authenticity, empowerment and accountability, with our attention focused around our Safety for Life 'six high-risk areas': working at heights; management of contractors; people and vehicles; warehouses and backyards; contact with moving machines; and energy isolation.

We continually strive to improve our approach to health and safety, and are firmly of the belief that 'what gets measured gets done'. Therefore, for the first time we took the opportunity to have our annual Health and Safety survey included and integrated into MyVoice, our global employee engagement survey.

Equally, we recognise that it is not just about counting incidents. Increasingly our focus is on the actions we know will reduce the numbers of injuries; for example, having safety conversations, recognising strong safety performance and further controlling potential risks within our operations.

During 2022, we began to roll-out a new Health & Safety Management system across all Smurfit Kappa sites, making incident reporting easier and simpler; allowing better access to our data, so we can continue to manage, as well as address and learn from any health and safety incidents that occur. Additionally, our internal auditing programme has been further developed and integrated into the new system, providing progressive governance and action planning.

Our TRIR improvement is 50% since 2018 and 13.6% in 2022. To continue to deliver progressive performance, this year we launched a new five-year strategy – a balanced plan that builds on previous behavioural initiatives, focuses on high risks and delivers a wider wellbeing programme. to continue our positive trajectory.

“Our improvement in TRIR is 50% since 2018 and 13.6% year on year.

To continue to deliver progressive performance, this year we launched a new five-year strategy.”

➔ Read more on page 79

Case Study

Opening Doors for Everyone

Global

As part of our EveryOne programme, many Smurfit Kappa sites work locally to make workplaces inclusive and to reduce discrimination at work and in their local communities. We tackle different challenges in different regions.

At our Cordoba plant in Spain, we started a collaboration with the local Red Cross to give an opportunity to women who are; single mothers, immigrants, young, over 45 or victims of gender violence and offer them work in a safe environment.

This programme has now been implemented at all our Spanish corrugated plants.

The programme started with a theoretical training and by the end of 2022 we had trained over 161 women. Lisbeth Almeida is one of these women.

She immigrated to Spain from Ecuador and for 12 years had tried to find work.

She joined the Red Cross programme and has been employed by Smurfit Kappa Cordoba for over a year. “Since joining Smurfit Kappa, I feel valued and supported and I have the possibility to develop further,” she says. “In the past year I have advanced from assisting with various tasks to having a licence to run a machine,” she says proudly.

Many other Smurfit Kappa sites have similar programmes in place. Our Nettingsdorf paper mill in Austria and our Culiacan corrugated plant

“Since joining Smurfit Kappa, I feel valued and supported and I have the possibility to develop further.”

Lisbeth Almeida

Our sites have developed programmes that make work more accessible for everyone.

in Mexico have focused on workplace improvements that make it attractive for women to return to work after maternity leave. Our Atlacomulco corrugated plant in Mexico has made it a priority to ensure the site is accessible for disabled people, while our Lagamill corrugated plant in Sweden collaborates with the local municipality Markaryd to employ immigrants and support their integration into their new home country.



People continued

Responding to our Stakeholders

	What We Believe	What Our Stakeholders Expect of Us	Our Commitments
People Values	<p>As a business, we strive to create a diverse workplace where everyone has a real sense of belonging and can be their authentic self at work every day.</p> <p>With a workforce of approximately 48,000 people, fostering diversity, inclusion and equality is important to us.</p> <p>We truly value our diverse mix of people, who bring so much to our organisation.</p>	<p>Our stakeholders expect us to be a unifying force for our 48,000 people across the world. To respect their human rights and those of anyone who comes into contact with our organisation, while providing a fair working environment where everyone feels included and respected.</p>	<p>Commitment #1: By 2024, we strive to have 25% female representation in management positions across the Group.</p> <p>Commitment #2: Provide a Speak Up service where our employees and all stakeholders can report wrongdoing or possible wrongdoing in full confidence, while ensuring all allegations are fully investigated and actioned accordingly, in a timely and professional manner.</p>
People Strategy	<p>It has always been the ambition of Smurfit Kappa to be recognised as a globally admired company, a great place to work and an employer of choice for top talent. These ambitions are not just based on our business growth, but also on our understanding that our success is driven by our highly valued and motivated team across the world.</p> <p>Our employees are the very centre of our business.</p>	<p>Our stakeholders expect us to be a best practice organisation in the context of our day-to-day interactions with our employees. We are expected to deliver on our promise to be a great place to work, by delivering top level Training and Development, and Rewards and Recognition programmes.</p> <p>We are also expected to be inclusive to all employees.</p>	<p>Commitment #1: We are committed to delivering at least 3% of an improvement every two years in employee engagement until 2025 (MyVoice surveys as reference).</p> <p>Commitment #2: 100% implementation of all Learning and Development programmes within our global Smurfit Kappa Academy.</p>
Health, Safety and Wellbeing	<p>As an industrial business operating in 36 countries with around 48,000 employees, we are responsible for the health, safety and wellbeing of a large number of people. At Smurfit Kappa, we believe that this extends from work to home.</p> <p>We engage our employees with policies and procedures to deliver, innovate and produce in a safe environment.</p>	<p>Our stakeholders expect us to provide a safe and healthy working environment, and to promote a health and safety culture that encompasses all who work with us, whether it is directly or indirectly.</p>	<p>Commitment #1: Reduce TRIR by at least 5% annually.</p> <p>Commitment #2: Maintain a productive and safe workplace by minimising the risk of accidents, injury and exposure to health hazards for every employee and all subcontractors, aiming for a zero accident working environment.</p>
Communities	<p>We see ourselves as a 'good corporate citizen' in the communities in which we're privileged to operate around the world, and we actively try to make positive and lasting changes.</p> <p>By supporting local education, we can strengthen communities by creating opportunities for income generation, collaboration and participation. This can in turn also provide a talent pool for our future workforce.</p>	<p>Our impact should not only be on the people we work with. Our responsibilities extend beyond, to supporting local economies and livelihoods, especially in remote areas with limited opportunities for work, where we are a significant employer.</p>	<p>Commitment #1: Our employee volunteering programmes will support paid time off for employees to participate in chosen community activities.</p> <p>Commitment #2: Between 2020 and 2025, we will donate €24 million to support social, environmental and community initiatives (20% more than the previous five years).</p>

Status key:

Significant improvement needed



Improvement needed



On track to achieve target



Progress Made in 2022	Status	Delivering for SDGs	Scope
<p>Progress made: In 2022, we achieved 23.5% female representation in management positions.</p>		<p>As a good corporate citizen, we play our part in society by creating decent work for our 48,000-strong team. We are committed to delivering gender equality, reducing social inequality and ensuring our employees have fair pay and freedom of association.</p>	<ul style="list-style-type: none"> All Smurfit Kappa operations
<p>Progress made: 80 cases (FY 2022) were identified and fully investigated, with 11 of them substantiated or partially substantiated.</p> <p>➔ Read more on pages 76-77</p>		<p>Smurfit Kappa contributes to the realisation of the following SDGs and targets:</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>5 GENDER EQUALITY</p> </div> <div style="text-align: center;"> <p>8 DECENT WORK AND ECONOMIC GROWTH</p> </div> <div style="text-align: center;"> <p>10 REDUCED INEQUALITIES</p> </div> </div> <p>5.1, 5.2, 5.5, 5.B and 5.C 8.5, 8.7, 8.8 and 8.B 10.2</p>	
<p>Progress made: We achieved an improvement of 13 percentage points between the 2017 and 2021 MyVoice employee engagement surveys.</p>		<p>As a responsible employer, we are ensuring a working culture in which every member of our 48,000-strong team feels engaged, appreciated as they are and has a sense of belonging. We help our employees to grow their careers, deliver on their potential, while rewarding them fairly for their contributions.</p>	<ul style="list-style-type: none"> All Smurfit Kappa operations
<p>Progress made: In 2022, all Smurfit Kappa Academy training programmes took place.</p> <p>➔ Read more on pages 78-85</p>		<p>Smurfit Kappa contributes to the realisation of the following SDGs and targets:</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>8 DECENT WORK AND ECONOMIC GROWTH</p> </div> <div style="text-align: center;"> <p>10 REDUCED INEQUALITIES</p> </div> </div> <p>8.5, 8.7, 8.8 and 8.B 10.2</p>	
<p>Progress made: We achieved a 13.6% reduction in 2022. Sadly, we had one subcontractor fatality in our Forestry Operations in Colombia.</p>		<p>The safety and wellbeing of everybody on our sites is part of our organisational values. Our focus also extends to work-place wellbeing and work-life balance.</p> <p>Smurfit Kappa's approach to safety and wellbeing has a direct impact on the following SDG and targets:</p>	<ul style="list-style-type: none"> All Smurfit Kappa operations
<p>Progress made: In 2022, we had 277 lost time accidents (270 in 2021).</p> <p>➔ Read more on pages 86-91</p>		<div style="text-align: center;"> <p>3 GOOD HEALTH AND WELL-BEING</p> </div> <p>3.3, 3.4, 3.5 and 3.9</p>	
<p>Progress made: Multiple local projects took place during 2022.</p>		<p>As a good corporate citizen, we play our part in society by creating decent work and delivering economic growth in the communities where we are located. We are committed to delivering gender equality and reducing social inequality.</p>	<ul style="list-style-type: none"> Empowering people in our communities to improve their lives, and where the cycle of poverty, hardship and dependence is an issue we aim to help end this. Applies to the local communities or regions where we are present
<p>Progress made: We invested €6.6 million in social projects in 2022. From 2020-2022, we have donated €18.4 million of our target of €24 million between 2020 - 2025.</p> <p>➔ Read more on pages 92-97</p>		<p>Smurfit Kappa's approach to communities has a direct impact on the following SDG and targets:</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>8 DECENT WORK AND ECONOMIC GROWTH</p> </div> <div style="text-align: center;"> <p>10 REDUCED INEQUALITIES</p> </div> </div> <p>8.5 10.2</p>	

People continued

People values

We are committed to managing our employees in accordance with our declared values. We recognise that good social citizenship, shown in our interactions with employees, business partners and host communities, is essential to creating a sustainable future.

Smurfit Kappa fosters meritocracy and respect, in a safe and open work environment. In keeping with the UN's Declaration of Human Rights, and the Fundamental Principles and Rights at Work developed by the International Labour Organisation ('ILO'), the following principles and conditions are maintained in every country in which we have a presence. While our policy is to select the best person for a position, by far the greater proportion of senior operational positions are held by local managers.

Respect

We value the contribution our employees make to our business. Smurfit Kappa is committed to providing a working environment that is safe, respects individuality, is non-discriminatory, appoints and promotes people on suitability, rewards fairly, encourages personal and professional development, and has effective mechanisms of communication.

Smurfit Kappa operates in countries where the indigenous people have rights to their land and culture. For us, this applies to our forestry operations in Colombia. Our respect to indigenous people's rights have been covered in the FSC-certified sustainable forest management processes and more of this can be read on pages 53-55. To learn more of the activities and engagement with our communities read Our Open Community booklet at smurfitkappa.com/sustainability.

No Discrimination

Smurfit Kappa prohibits discrimination on the grounds of age, disability, faith, gender, sexual orientation or gender identity, marital or civil partnership status, parental or caring responsibilities, race (colour, ethnic or national origin, nationality) or other legally protected status in the countries in which we conduct business. This commitment extends to our own employees and on-site contractors, through external suppliers and other business partners and to communities near our operations.

Working Fairly

We prohibit child labour. We will not employ anyone under minimum school-leaving age or minimum employment age in any country, and no violations of this were identified in 2022. We do not tolerate forced labour or physical abuse, from ourselves or from our suppliers, contractors, subcontractors and others with whom we do business. In 2022, 41 of our operations were subjected to SEDEX Members Ethical Trade Audits, of which 26 were first-time audits.

Furthermore, we have implemented Group-wide self-assessments in each of our FSC-certified sites looking into ILO Declaration on Fundamental Principles and Rights at Work. The assessments are being completed by the local operations themselves and were audited as part of the FSC CoC audits.

Compliant Acquisition Practices

In all of our acquisition processes, due diligence involves examination of the target organisation's policies and practices on human

Case Study

MyHub – Embracing a Digital HR Future to Evolve our Employee Experience

Global

As part of our global HR strategy and priorities, during 2022 we began designing and planning the launch of a new Group-wide Human Resources Information System for Smurfit Kappa.

“Our aim was to design a system that would enhance our overall employee experience by empowering our managers to manage and plan for

performance, talent, compensation, engagement and learning,” says Catherine Paul, Global HRIS Business Partner. “It will also give our employees autonomy over their working experience, enabling them to plan their career no matter where they are on their journey.”

Following the launch of this new platform, superior data reporting

will be available, including standardised dashboards and KPIs, which will enable us to make data-driven decisions for the benefit of all our stakeholders.

Our goal is to deliver excellent HR services that drive the right behaviours in our business and deliver an excellent employee experience. This new platform will

rights, anti-corruption and anti-bribery. We examine their compliance with local, national and international laws, and the day-to-day application of these.

If any serious non-compliance to these policies and practices arises, the acquisition will be reconsidered.

Freedom of Association and Collective Representation

We support all our employees' right to join trade unions, and for representatives to negotiate on their behalf. If freedom of association and collective bargaining are restricted, or employees do not want trade union membership, we work with them to establish mutually acceptable means of representation.

We ensure employee representatives do not suffer any disadvantage or discrimination because of their role. In 2022, we did not have any confirmed cases, where either the association or bargaining rights of any individual or group of employees had been denied. Collective agreements, currently applicable in some 90% of the Group's sites and covering 74% of our employees, are the result of either local or national negotiations in the countries concerned.

In many countries, Smurfit Kappa conducts formal employee consultations with local Works Councils ('WCs'). Read more about these councils in our Annual Report 2022 on page 56. Formal employee consultations include topics on working conditions such as health and safety, minimum notice periods, and benefits not included in basic employment agreements.

enhance the HR team's ability to enable the business to deliver on its strategic agenda. "Having used the platform myself for our French operations, I have found it easy to navigate and significantly improving my daily work processes," says Catherine.

Modern Slavery Act

Smurfit Kappa is subject to the provisions of the UK Modern Slavery Act. Our principles and policies with respect to our employees and suppliers were updated in 2018 to ensure compliance. See also our Annual Report 2022 on page 58.

Ensuring Ethical Behaviour

Every year, all managers and market-facing employees in the business are required to formally confirm adherence to the Group Competition Law Compliance Policy. In addition, these some 6,000 employees completed a competition law compliance e-learning module together with a number of other seminars and ad-hoc presentations.

We have also been continuing to educate colleagues about our Code of Conduct and Speak Up service. It was launched in early 2020 in order to guarantee a confidential employee process for raising issues or matters that align with the three underlying principles of Smurfit Kappa's Code of Conduct; Compliance with the law, ethical behaviour and a commitment to quality and service.

It allows all stakeholders to easily and confidentially report any issue or instance of wrongdoing, with the service available 24/7/365, guaranteeing user confidentiality and/or anonymity, as well as assurance of non-retaliation.

In the three years since its inception, we are pleased to see increasing awareness of our Speak Up system. Our people understand that it is okay to speak up and that is what we encourage.

Our objective for the system is to ensure that in every site, each of our employees is aware of our Code of Conduct and Speak Up service

in order to encourage transparency and to promote a transparent and trustworthy workplace. Every case reported to the Speak Up service is carefully processed and analysed against a set of basic criteria, that help us decide if corrective action is required to mitigate further risks.

In May 2022, to increase awareness and ensure that every employee fully understands their responsibilities and expected conduct as responsible corporate citizens, we launched a new online e-learning programme. This programme offered two different courses, one for office and one for site-based employees to support the Code of Conduct and Speak Up service.

This programme guided employees through the elements of the Code relevant to them and ended with a knowledge quiz to test understanding.

There are eight categories of general issue types covered in the Speak Up service, the three most relevant being: 1) Fraud, Bribery & Corruption; 2) Competition & Anti-Trust; and 3) HR Grievance, ID&E Equal Opportunities, Harassment. In 2022, a total of 80 cases were reported via our Speak Up service. There were 11 substantiated cases, of which seven were from the category HR Grievance, ID&E Equal Opportunities, Harassment. There were no substantiated cases from the category Fraud, Bribery & Corruption and there were no reported cases from the category Competition & Anti-Trust. All reported cases were fully investigated and resulted in 29 corrective actions or improvements to address substantiated cases. All substantiated cases were evaluated using our formal materiality assessment and it was determined that there were no material cases in 2022.



People continued

People strategy

We strongly believe that everyone has talent and needs to find the right place in the organisation where they can express and reach their full potential. The main focus of our People strategy is the area of talent management and development.

Our strategy aims to help us attract, retain, reward and unlock people's talent and potential – developing our people to grow our business and to deliver. It is specifically focused on:

1. Understanding the organisational needs and the business strategy
2. Identifying the HR strategy and people priorities required to execute the business strategy
3. Defining the HR Roadmap to ensure we have the 'human capital' to address business challenges and deliver on the strategy
4. Ensuring HR services and capabilities are in place for the current and future needs of the business

Our people strategy has four key pillars:

- Employee Experience for Performance;
- Inclusion, Diversity and Equality;
- People Development and Talent Management; and
- Rewards and Recognition.

The Foundations of our HR Strategy

These four pillars are underpinned by the foundations of our HR strategy, which includes our safety and wellbeing commitments, the legal framework that supports our business including our Code of Conduct, our Speak Up ethics service, our commitment to employee relations, the provision of a state-of-the-art HR Information System and our commitment to Internal Communications.

We focus on these five foundations to ensure the health and wellbeing of our people, the reliability of our information, the integrity of our organisation and to ensure we communicate with all our colleagues in a consistent and timely manner. These provide us with an approach and way of working, behind which the entire HR organisation is aligned. For example, at Smurfit Kappa, every relevant meeting begins with a discussion on health and safety.

* Percentage changes are reported unless otherwise stated as a percentage point change.

Employee Experience for Performance

Our focus: To stay connected to our people to ensure they feel safe, supported and part of a strong global Smurfit Kappa community. We also aim to ensure all communications are delivered with a clear voice, at every level of our organisation, while providing the opportunity for open two-way dialogue and employee feedback.

We are a diverse team in the context of background and life experience, but also in terms of longevity of service. We are proud so many employees choose to stay with us for most, if not all, of their careers. Almost 46% of our workforce have a tenure exceeding 11 years, which provides a great mix of experience across our workforce.

Our ambition is to create a continuous two-way dialogue to ensure our people understand our strategy and the role they play in its delivery and to inspire our people to perform at their best every day. It is our belief that the people who commit to the organisation, along with everyone who joins us on their career journey, deserve a working life full of moments that matter, from the day they are hired, to the time they leave the organisation or when they choose to retire.

Progress in 2022

Our 2021 My Voice survey showed continued growth in our engagement levels. We believe the reasons for these improvements have been the two-way dialogue and listening strategy we have employed throughout the pandemic. This was led by our MyVoice pulse and organisation wide surveys. The over 40,000 comments received by colleagues as part of our MyVoice pulse survey has given us a real focus for our HR strategy.

In 2021, our MyVoice global engagement survey showed growth of 13-percentage points* in our overall engagement score, which has brought us ahead of the external industrial sector average. This also included an increase of 11-percentage points among our 'highly engaged' employees.

We also saw very strong engagement levels among our top-level executives and leaders of over 95%, with managers reporting levels in the region of 75%. Additionally, we did not see any substantial differences in engagement levels between gender and age groups, which endorses our approach of focusing on all of our diverse talent across the business.

Workforce tenure
exceeding 11 years, almost
46%

20%
women in total workforce

Our HR Strategy

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <h2 style="margin: 0;">People Development and Talent Management</h2> </div> <div style="text-align: center;"> <h2 style="margin: 0;">Employee Experience for Performance</h2> </div> <div style="text-align: center;"> <h2 style="margin: 0;">Inclusion, Diversity and Equality</h2> </div> <div style="text-align: center;"> <h2 style="margin: 0;">Rewards and Recognition</h2> </div> </div> <p>Our Ambition: To help our people grow their careers and deliver on their potential, so we can realise our ambition for them and the organisation, as we move forward.</p> <p>Our Ambition: To create a continuous two-way dialogue, to ensure our people understand our strategy and the role they play in its delivery and to inspire them to perform at their best every day.</p> <p>Our Ambition: To create an inclusive workplace where everyone has a real sense of belonging and can be their authentic selves at work every day.</p> <p>Our Ambition: To attract, retain and recognise our employees, through competitive work practices. Making sure that people are not just appropriately rewarded from a monetary perspective, but also see their achievements recognised and valued in the workplace.</p>	<p>Our Ambition: To help our people grow their careers and deliver on their potential, so we can realise our ambition for them and the organisation, as we move forward.</p>	<p>Our Ambition: To create a continuous two-way dialogue, to ensure our people understand our strategy and the role they play in its delivery and to inspire them to perform at their best every day.</p>	<p>Our Ambition: To create an inclusive workplace where everyone has a real sense of belonging and can be their authentic selves at work every day.</p>	<p>Our Ambition: To attract, retain and recognise our employees, through competitive work practices. Making sure that people are not just appropriately rewarded from a monetary perspective, but also see their achievements recognised and valued in the workplace.</p>
<p>Health, Safety and Wellbeing</p>	<p>Legal Framework</p>	<p>Employee Relations</p>	<p>HR Information Systems</p>	<p>Internal Communications</p>

The results also delivered strong increases of between 10% and 18% on all aspects of the employee experience, which includes key areas such as Leadership (+11%), the Company (+16%), Infrastructure (+18%), Talent & Development (+11%) and Recognition (+16%). Health and Safety and ongoing COVID-19 support were rated among our top strengths, particularly important to us with the global pandemic still present.

Communicating with our 48,000 employees in all of their different languages has become the norm rather than the exception, and ensures that all key business initiatives are communicated across every level of the organisation. This results in both office and site-based staff being informed of all key initiatives. We have further supported this multilingual approach by building new communications channels, both digital and traditional, to ensure our messages reach every corner of the organisation.

Over the past six months we have been planning for the development of an employee app to give all colleagues instant access to timely communications and an enhanced employee experience in their respective languages. The selection of an employee app provider is now complete and we look forward to piloting this new channel during 2023. This will facilitate information at every level of the organisation at the touch of a button for our employees to access when and where it suits them.

Additionally, in third quarter of 2022, we launched MyHub, our first company-wide Human Resources Information System. MyHub is an online tool which will digitise our key HR processes, helping us to provide a better employee experience. It will also facilitate better people decisions to ensure we have the right people in the right place to deliver for our business.

In September 2022, we held in-person Global Management Conferences in Miami and Vienna, with the theme of 'Embrace our Future'. As a management team, we connected on our strategy for the years ahead and we were unanimous in recognising the importance of making those in-person connections.

Our commitment to further developing our employee experience in Smurfit Kappa continues and as we step our way through this new world of work, we intend to further invest and prioritise our efforts to listen to what our people need to be successful.

People continued

Inclusion, Diversity and Equality

Our ambition is to create an inclusive workplace where each one of us feels included, supported and respected in our daily work. We truly value the diversity of our 48,000 employees who bring so much to our organisation in terms of culture, perspective, leadership and innovative thinking.

Embracing and celebrating differences is a core component of EveryOne, our Inclusion, Diversity and Equality ('ID&E') programme. We have continued to advance our commitment to nurturing an inclusive culture, where all employees can thrive and contribute to our success.

Progress in 2022

With our ambitious plans for ID&E in Smurfit Kappa at the forefront of our minds, we have been on an accelerated journey to step change many of the initiatives within our EveryOne programme.

Working together, with significant commitment and effort from our teams across the world, many of the key ID&E focus areas over the past few years have been collectively achieved. Some examples include formation of the Group Executive ID&E Council, establishing and defining our five diverse communities, enhanced ID&E communications and employee engagement, and the completion of our recent ID&E Discovery insights survey.

Our five diverse communities: Disability, Family & Age, Gender, LGBTQ+ & Allies and Origin, Race & Ethnicity, were chosen to reflect and represent our colleagues across Smurfit Kappa. We will focus our ambitions on these five communities and support each of them with a programme of learning and activity over the coming years.

During the year, we came together to celebrate a series of ID&E events, including International Women's Day (March), Pride (June), World Mental Health Day (October), International Men's Day (November) and International Day of Persons with Disabilities (December).

Celebrating these events helps us raise awareness of our equality programmes, while educating and inspiring everyone to focus and participate in our wider ID&E



Case Study

Development of our EveryOne (ID&E) Programme – Discovery Survey 2022

Since the introduction of our five community pillars to our EveryOne programme in 2021, we have continued to deliver our ambitious plans for ID&E in Smurfit Kappa.

Right across the organisation we have a strong and ambitious commitment to ID&E, with a clear strategy and senior sponsorship in place. Our EveryOne approach has been built from the bottom up, with the voice of our colleagues.

One of our key focus areas for 2022 was to really understand how our diverse employees felt about inclusion in the workplace. Seeking employee views and feedback was important, so we embarked on a listening strategy across the organisation by developing a confidential and anonymous Inclusion, Diversity & Equality survey – called EveryOne Discovery. This was the first time in Smurfit Kappa such an initiative had taken

place, and it was welcomed by our employees as it provided them with an opportunity to express their views and feelings.

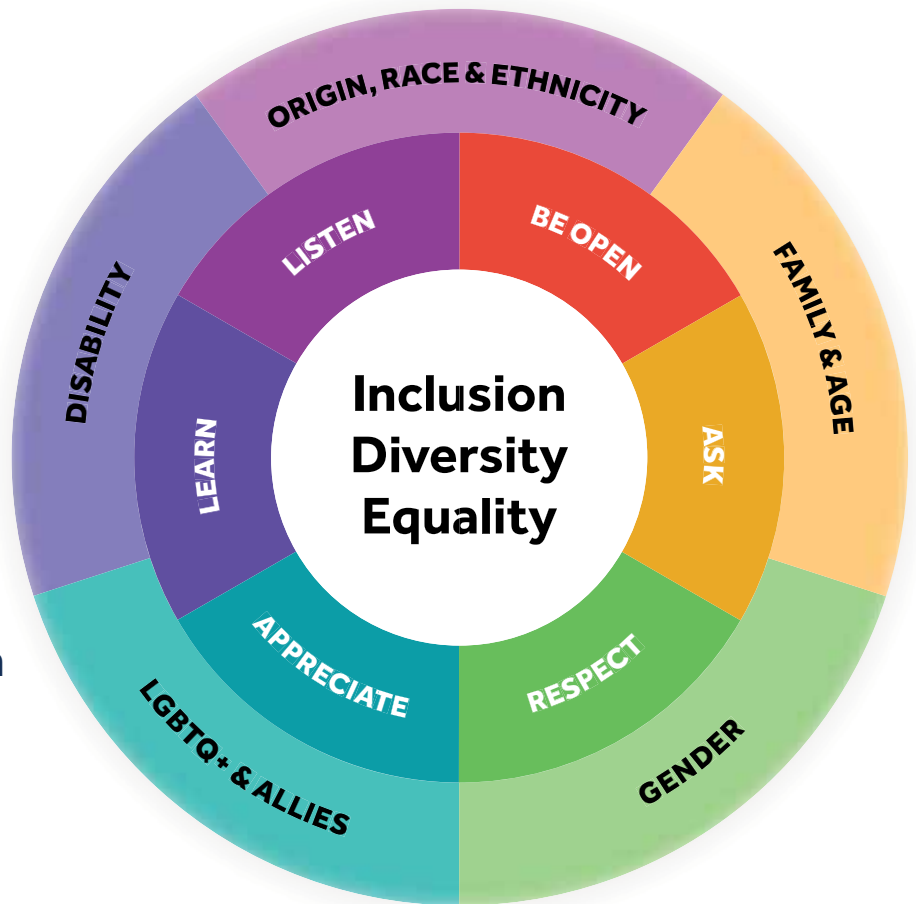
Over a period of three weeks last May, almost 8,000 colleagues participated in this voluntary discovery process, and reported over 9,000 employee comments to help us plan our three-year roadmap for ID&E in Smurfit Kappa.

agenda. Each of these events were celebrated across the organisation with many local activities. We also launched and hosted 'SK RISE' our first ever female development programme.

In terms of the gender diversity goals we set as part of our 'Better Planet 2050' commitments, at the end of 2022, female employees represented 20% of our total workforce, while female representation in management and the Executive Committee has increased to 23.5% and 38.5% respectively.

At the time of publication of this report, the female representation at Board level is 38.5%, demonstrating progress on our journey to a better gender balance and delivering on our commitments.

EveryOne Focus Areas



“Female representation in management and the Executive Committee has increased to 23.5% and 38.5% respectively.”

As a result of the feedback, we created plans to advance our ID&E journey with our employees involved which will focus on four key areas initially:

- 1 ID&E education and awareness programme of events
- 2 Inclusive infrastructure
- 3 Inclusive recruitment
- 4 Smart Working - the future of work



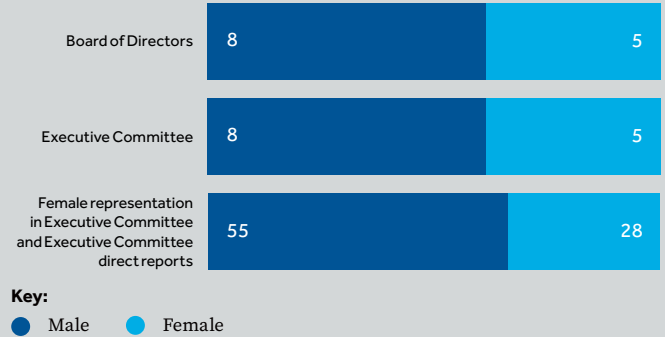
People continued

Diversity of the Executive Team

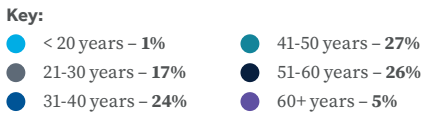
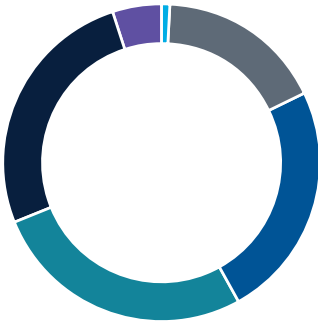
We take part in the FTSE Women Leaders Review which sets out recommendations for FTSE 350 companies to improve the representation of women, both on their executive committee and the direct reports to this committee. We also note the Financial Conduct Authority's requirements on diversity and inclusion on listed boards and executive committees to have at least 40% female representation on boards for financial years starting on or after 1 April 2022. The Board expects to be in line with the new target following the AGM in April 2023, with 45% female representation on the Board. This follows the recent appointment of Mary Lynn Ferguson-McHugh and the announcement in December 2022 that John Moloney and Gonzalo Restrepo will retire from the Board at the conclusion of the forthcoming AGM.

The 2022 FTSE Women Leaders Review was published in February 2023 and represents women on Boards as at 11 January 2023, and senior management as at 31 October 2022.

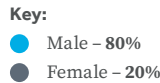
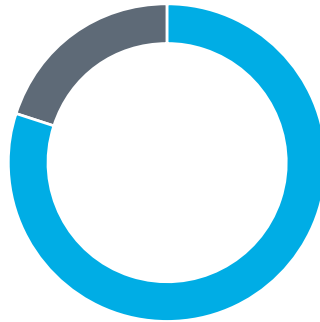
Gender Diversity Split



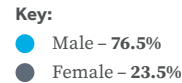
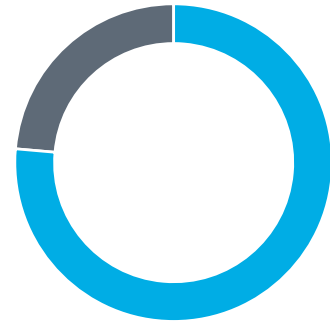
Employee by Age Group



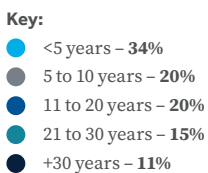
Total Employees by Gender



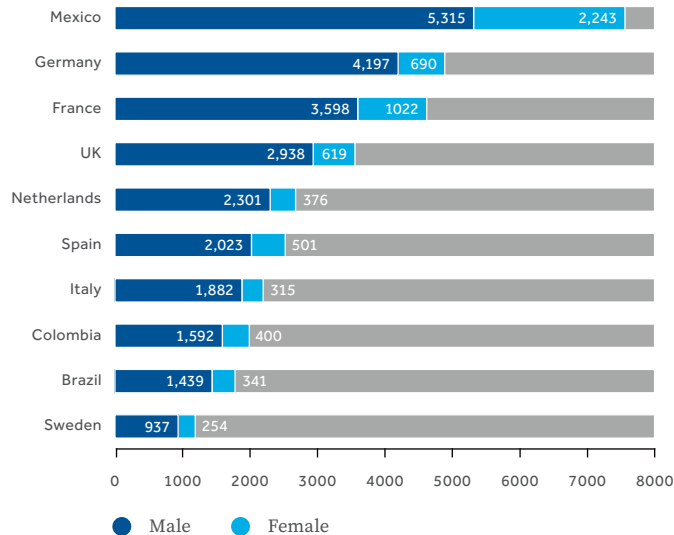
Management by Gender



Length of Service



Top 10 Countries, Total Employees by Gender





21 years

of Smurfit Kappa
AMD programme

Case Study

AMD – a Hybrid Approach to Talent Development

Global

For 21 years, our Advanced Management Development ('AMD') programme has been a key part of the Smurfit Kappa Academy talent development programme. It supports high potential future leaders with the skills, knowledge and experience to accelerate their growth and take on more senior roles in the organisation.

“In 2021, due to the pandemic the programme was run virtually with great success,” explains Deirdre Cregan, Group Director Talent & Inclusion. “However, participants missed out on the opportunity to build their networks and on the informal learning from each other

and senior leaders that takes place over coffee breaks and dinners.”

The three-part programme was an ideal opportunity to trial a new Hybrid approach. “We took all the learnings from a year of virtual learning to run Part One of the programme as an engaging and interactive virtual experience,” says Deirdre. Part Two took place in person in Dublin at our global headquarters, while Part Three was concluded in January 2023 in Amsterdam at our European headquarters.

While this new approach helps us to make the programme more sustainable from a travel perspective, it also makes the programme more inclusive for those who cannot spend too much time away from their personal responsibilities.

“This new approach has been a great success and it has since been replicated across our other Academy programmes,” added Deirdre.

People continued

People Development and Talent Management

Further supporting and developing the culture and practice of talent management in the organisation is core to our success and we recognise this is what will guarantee high performance and the continuation of the values and culture which underpin our organisation. Additionally, focusing on talent by having the right succession plans in place will ensure we can continue to fill key operational and strategic positions. This will help us deliver the right people, with the right skill set, for our various roles as they arise, in order to ensure our ongoing success.

This approach to talent management has delivered many leaders for the organisation. Many colleagues have built and grown their careers over many years, with an average tenure of 17 years among this Leadership cohort. A significant number of them joined us straight from university and have built their careers through a mix of internal and external learning and development programmes, as well as real-life and on-the-job training.

We believe it is part of our role to ensure that no matter who joins our organisation, at whatever stage in their career, our learning and development programmes will equip them with skills and experiences that will be applicable long into the future. This focus on training is supported by ongoing performance dialogue and 360 degree feedback for our senior teams. These are all aimed at supporting their work and personal lives, both within and outside of Smurfit Kappa.

Progress 2022

Our talent agenda continues to focus on ensuring we have the right people, to meet the future needs of the organisation. Our talent cycle integrates talent identification, succession planning and talent development to ensure we invest in our people and support them to achieve their career ambitions.

In 2022, for the second time we undertook a full global talent planning cycle for our top 500 leadership community. This year's cycle built on the exercise completed in 2020 and on the work we did in 2021 to focus on career development. Our focus on targeted talent development over the last two years has seen several successful moves of internal talent into vacancies.

The Smurfit Kappa Global Learning Academy is an important source of development for our people and in 2022 we expanded our offering, with a new programme in our curriculum to support female talent – SK RISE. We also leveraged our experience of virtual learning to redesign our programmes as hybrid experiences. Our programmes were carefully redesigned to make the most out of both a virtual environment where attendees could meet a broader set of people from across the business and an in-person experience, which focused on connection and interpersonal learning.

We were also pleased to see four cohorts of Open Leadership (in partnership with INSEAD), our flagship senior leadership development programme, finally complete their programme following delays as a result of COVID-19. Additionally, we have embarked on a new partnership with Harvard Executive Education in Boston, where a select number of senior executives will attend executive development programmes in line with their development plans and succession planning requirements.

Case Study

SK RISE – Female Development Programme

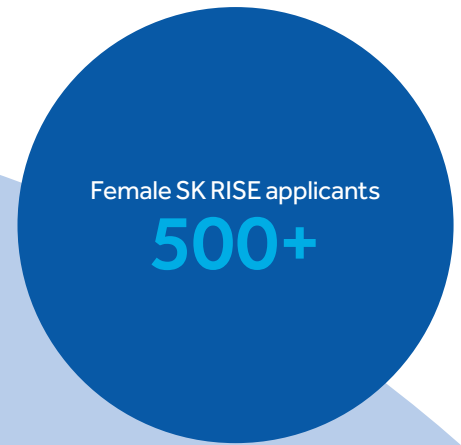
This year we were proud to add a new programme to our Smurfit Kappa Global Learning Academy catalogue: SK RISE.

Developed with feedback from female talent in the organisation, SK RISE is a development programme for female employees, designed to support their career and personal development aspirations.

The programme was launched on International Women's Day 2022 and opened for self-nomination in April 2022. Almost 500 female employees applied for the programme, of which 32 were selected to participate.

The programme, delivered by our learning partner, the Irish Management Institute, is made up of three modules, each with four component parts: 1) a learning module focused on key learnings for female professionals, 2) a leader spotlight where a SK leader shared their experience of the module topic, 3) a peer coaching session where group participants supported each other in small groups to work through their challenges and 4) a one-to-one mentoring session with a leader from the business.

“The SK RISE programme enabled me to expand my female network across the Smurfit Kappa Group” says Gillian Clohessy, Group Tax Manager,



“The experience helped me overcome limiting beliefs, understand my personal impact, as well as giving me a renewed focus on my career goals.”

In addition to the SK RISE programme, we also hosted a virtual workshop on resilience to support those who had not been selected to attend the SK RISE pilot programme in its first year. Their nominations will be considered for selection in 2023, when we have plans to deliver two SK RISE programmes; a second English language programme and a Spanish language version.

These Group-level programmes are just a snapshot of the work that is carried out to support the development of our people. Many other training and development programmes take place at regional, country and site level. In total, 190 employees participated in one of our six Smurfit Kappa Academy programmes run in 2022, for a total of 8,037 training hours, or 42.3 hours per person.

Rewards and Recognition

Our ambition is to attract, retain and recognise our employees through competitive working practices, and making sure that people are not just appropriately rewarded from a monetary perspective, but also see their achievements recognised and valued in the workplace. Our compensation policy ensures that we pay above minimum wage in all our 36 countries, offering employee rewards that consider living wage metrics and benchmarks.

We recognise the success of our people in a variety of ways, because people feel rewarded and are motivated in different ways. Recognition can be anything from a simple thank you from co-workers, to a success story published on the Smurfit Kappa intranet.

There are many ways in which we communicate to our employees that we respect and value them. For example, we have competitive wage structures aligned with market standards, multiple career advancement opportunities, a commitment to global mobility, easy to understand communication of rewards packages; as well as a policy of openly thanking our colleagues for going above and beyond what is expected.

Progress in 2022

In 2022, we continued to challenge ourselves to ensure the compensation benefits we offer at every level of our organisation in terms of our Rewards and Recognition packages are fair, competitive and compare favourably with the market.

It is also critical that our Rewards and Recognition programmes are aligned to ensure our people can see a clear link between their compensation package and their performance, particularly when they perform above and beyond what is expected. In setting our reward packages, Smurfit Kappa takes into consideration the employee's performance, external benchmark data for their role in companies of similar size and scope, while also ensuring internal equity within the Group.

In 2022, we began digitalising our Rewards and Recognition processes. Our leaders will complete all the necessary details for the process in the new HR Information System, MyHub. This pilot will provide the organisation with a scalable, compliant, and confidential approach to the process.

As an organisation, we are committed to gender pay equality and we continue to proactively monitor the pay of male and female colleagues, in similar roles to ensure it is comparable. For several years under UK legislation, employers with more than 250 employees are required to publish key metrics on their gender pay gap and our business continues to show improvement.

Additionally, by December 2022 it became a requirement for organisations with 250 or more employees to publish gender pay gap metrics in Ireland.

While not a requirement for Smurfit Kappa, as none of our companies in Ireland have more than 250 employees, we have voluntarily published our first Gender Pay Gap Report, which has shown that across our Irish businesses that we have a mean (average) Gender Pay Gap of 1.6%. This means that the mean (average) pay of men in Smurfit Kappa Ireland is higher than the mean (average) pay of women by 1.6%.

Our mean pay gap of 1.6% compared favourably with the wider marketplace. We recognise that industries such as the one we operate within, have historically attracted a lower number of female colleagues. In that light, it is positive to be able to demonstrate a very limited Gender Pay Gap within Smurfit Kappa Ireland. However, a number of measures we have or are planning to put in place to address this gap are outlined in our Smurfit Kappa Ireland Gender Pay Gap Report 2022, which can be found on our website: smurfitkappa.com.

The Group is also very focused on ensuring that positive employee and trade/labour union relations are maintained to the highest of standards, so we can ensure fair and sustainable Collective Labour Agreements.

The objectives of our Rewards Policy are to:

- 1 Create a framework to enable the Group to attract and retain talented employees;
- 2 Motivate employees at every level of the organisation to achieve the Group's strategic objectives;
- 3 Provide competitive rewards and benefits that are clearly linked to performance;
- 4 Digitisation of our key processes.

Fair Pay, Compensation and Benefits

We provide competitive rates of pay to ensure fair compensation benefits across all our locations. We apply the 'same job, same pay' principle, and do not gender-discriminate on salary, benefits or any other consideration.

Smurfit Kappa provides a range of employee benefits such as parental leave within local legislations and, depending on our countries, pensions and life insurance form an integral part of the remuneration packages.

Our compensation policy ensures that we pay above minimum wage in all our 36 countries.

In all of our countries we offer similar basic benefits to our employees, full-time, temporary and part-time. The benefits depend on the local social security systems and legislative requirements which vary between countries. Due to vesting periods, stock ownership benefits, where offered, are not applicable for temporary employees.

People continued

Health, safety and wellbeing

Having products produced in a safe and healthy environment is important to all our stakeholders, especially our employees, their families and the communities where we operate. Therefore, the safety and wellbeing of our workforce is something we take very seriously.

The health, safety and wellbeing of our teams across the world is at the core of how Smurfit Kappa operates and also at the heart of our corporate social responsibility. It is part of our culture and cemented in our organisational values of: Safety, Integrity, Loyalty and Respect. Indeed, our vision is to ensure that every day, every Smurfit Kappa employee returns home safely to their families.

This concept applies equally not only to our own employees, but also to contractors, sub-contractors and other visitors to our sites. Operating a global, integrated business model means that we have a set of health and safety procedures and management systems, owned and managed by countries or clusters, spanning all of our operations from production sites to offices. The local health and safety teams ensure that we abide by local legislation, but also adhere to the Group Policies and audit protocols. Our health and safety protocols describe the processes to

identify and assess risk on health and safety hazards and is available on our website smurfitkappa.com.

Our Safety for Life Initiative has identified six high-risk areas for which specific tools have been developed to promote strong risk-management and safe choices at work. These areas are: Energy Isolation; Management of Contractors; Contact with Moving Machines; People and Vehicle Interactions; Warehouse and Backyards; and Working at Heights.

Focus on Behaviour

Health, safety and wellbeing is a mindset, and our approach is to embed a safety-first approach deeply in the company culture to deliver on our aspiration to eliminate all serious incidents and accidents from our operations. We believe that strong health and safety is about individual and collective choices, responsibility and actions. Our Safety for Life Initiative does this through building

an emotional link between the choices we make at work and how that affects the choices we are able to make in our personal lives. Similarly, we also support the choice of a healthy lifestyle, as that also impacts our employees' wellbeing at work and at home.

Alongside our COVID-19 ways of working, we also kept our focus on our business-as-usual progress, and continued to deliver our core Safety and Wellbeing programmes including 'Safety for Leaders' across our operations. This programme helps build resilience, joined up thinking and good teamwork, at a time when it is really needed. In the Americas, we launched a Behavioural Safety Initiative in 2021 - Human Reliability Training - in order to improve the safety culture and leadership, particularly for front-line operational leaders that continued into 2022.

Our Six High-risk Areas



“We believe that strong health and safety is about individual and collective choices, responsibility and actions.”

Case Study

Guardian Angels at Smurfit Kappa Queretaro Mexico

Engaging all employees at the site was at the core of Smurfit Kappa Queretaro's idea when they started their Guardian Angel Programme in 2022. The purpose of the programme is for everybody to feel taken care of, listened to, and always protected.

To make this happen, the corrugated plant has created a designated role in which a staff member oversees the programme – working as the Guardian Angel of the month.

The Guardian Angel will follow a procedure developed for the programme such as walking on the shop floor and looking for any safety and wellbeing needs, talking to colleagues, collecting ideas, and suggesting improvements. Each month a report is put together based on the Guardian Angel's findings. These may be solved by the site or followed up by the next Guardian Angel to keep consistency of the good work.

“Having Guardian Angels on site, we have noticed that small actions such as listening and making some small reorganisational changes, such as relocating items to less hazardous places, improves the work environment, prevents incidents and increases engagement to be the best place to work,” says Fernanda Zuñiga, Human Resources Manager for the site.

Case Study

How to Lead Safety and Wellbeing Argentina and Chile

Working on behaviour is in the core of Smurfit Kappa's Health and Safety strategy, and good behaviour starts from the top. Smurfit Kappa Central, Argentina and Chile clusters designed and implemented a learning strategy under the topic 'How to anticipate error and violation' to promote safe and health oriented decision making.

“We want to be an organisation that learns and reflects critically on mistakes and the pattern setting behaviours behind them,” says Claudio Martines, H&S Cluster Manager for Argentina and Chile. “Improving causal analysis of incidents and understanding and anticipating human error helps to ensure that accidents at the workplace are not repeated,” continues Oscar Velasco, H&S Cluster Manager for Central cluster.

We created a virtual learning environment, using incidents that had occurred in the past to educate our leaders to use different sets of tools and communication skills to prevent future incidents. The key elements in the training include understanding human behaviour, creating networks of trust, reliable accident investigation and positive interventions. With the learnings from the training we aim at lasting transformation in behaviour.

The programme started in the Central Cluster where we have already 700 leaders trained by the end of 2022, and another 700 will be trained in Argentina and Chile in 2023.



700
leaders trained in 2022

People continued

The wellbeing of our employees is core to our agenda. In 2020, we launched a new Employee Assistance Programme ('EAP') and made it available to all of our European colleagues and their families. The programme was piloted in the Americas region in Mexico and has now been rolled out in all countries in the Americas. This means we now have an EAP programme in place across the entire organisation. The EAP programme is available for all Smurfit Kappa employees regardless of whether the employee has been hired by Smurfit Kappa or an agency.

Health and Safety Policy

We continuously review and improve our Health and Safety practices and performance, to progress towards our vision. We know that doing the right things in the right way, with integrity and respect, is necessary to engage our employees and create a successful business based on trust. Smurfit Kappa has a structured approach to health and safety, through which we continually improve our safety performance.

It is our policy to:

- Promote a supportive culture focusing on openness, involvement and dignity in the workplace; we are all responsible for each other's health, safety and wellbeing;
- Provide constructive feedback to success and setbacks in equal measure. We care for our employees and expect them to care for each other, by speaking up when noticing anything they feel is unsafe or would harm anyone's health or wellbeing;



- Review workplace incidents so there is consistent reporting, investigation and, where appropriate, identification of improvement opportunities that strengthen our health and safety management systems and wellbeing;
- Comply with all applicable legal requirements and implement good health, safety and wellbeing practice by effective deployment of our health and safety management systems;
- Ensure that all line managers foster a work environment where every member of the workforce, including contractors, understands their role in health, safety and wellbeing, and delivers on their individual responsibilities;
- Ensure that all operational managers take responsibility for health and safety implementation, communication and compliance;
- Foster a work environment where every member of the workforce understands their role in health and safety, and delivers on their individual responsibilities;
- Ensure that our employees and contractors are trained to work safely; and
- Have processes in place to identify health, safety and wellbeing hazards so that risks are assessed and minimised to acceptable levels, to prevent the occurrence of injury and ill health to our employees, contractors, partners and visitors.

Case Study

Promoting Wellbeing in our Workplace

Global

The health, safety and wellbeing of our people is something we take seriously, and some of our sites across Europe prove how broadly we apply this.

Healthy habits and exercise have the most positive impact when we do them regularly together. So at Piteå in Sweden, a group of employees and the mill's physiotherapist aim to inspire employees to live a more active life. Their initiatives include a gym that's free for employees and their families to use, and arranging regular healthy activities plus training sessions, courses and lectures.

At Zedek in the Netherlands, one of the folding and gluing machines was upgraded in consultation with operators to provide the highest levels of safety. The new solution included a smart automated door-lock system and a starting procedure that requires pressing two buttons,

which means operators need to signal to each other first. The operators now have much more confidence in all of the machine's safety components.

Smurfit Kappa in Poland has made it easier to practice wellbeing by creating a free private club on the Strava app. It's all about supporting and encouraging an environment where everyone can be the best version of themselves.

In Spain, the Cordovilla plant was awarded the prestigious Blue Prize by Mutua Navarra. The judges praised their innovative and sustainable solutions to improve the health of people and the organisation, including initiatives to support mental wellbeing during the pandemic. And recognised the impact of the measures on wider society according to the UN SDGs.

Health and Safety Processes

Our health and safety systems are owned by the respective businesses but are audited to consistent policies across the Group, so that we work to the principles of our Group Health and Safety Policy, local legislation and local risk assessment. All sites have local health and safety support to guide the implementation of the Policies and systems. We have Health and Safety Committees at site, regional and Executive Committee levels.

Understanding the health and safety risks is based on our Policy on Incident Investigation, Reporting and Communication. In addition, we have a Policy on Hazard Identification and Risk Assessment, applicable to all businesses. We also have an Energy Isolation Policy Lock out, Tag out, Try out (LOTOTO) applicable to all sites across the Group. All employees, contractors and visitors are encouraged to report any incidents, including near-misses, ensuring that we learn from our mistakes and repeat-incidents are avoided.

Embedding health, safety and wellbeing thinking into the Company culture means that we have opportunities to listen and share new initiatives, alongside a strong safety agenda in all meetings. Supporting this is a positive culture of competence brought about by consistent and Company-wide training programmes. Employees receive extensive health and safety training that adheres to both country legislation, and also the progressive ambitions of Smurfit Kappa. Significant behavioural-based safety training programmes are in place for all site-based levels of management. New employees, contractors, sub-contractors as well as visitors get an introduction to the site safety measures at the beginning of their tenure in any Smurfit Kappa site.

Progress in 2022

One of the most important achievements of our Health and Safety programme is the continued positive performance of our TRIR trends. Focusing on TRIR has delivered a good result, placing us in a leading position among our peers in health and safety. In 2022, we reached a TRIR of 0.51, a 13.6% improvement on 2021 and 50% improvement since our baseline year 2018.

To continue to deliver these and indeed even better numbers in the future, this year we launched a new five-year strategy to continue our positive trajectory. This is focused on four key areas:

- 1 High risk management
- 2 Behavioural-based safety
- 3 Implementation of a Group-wide safety management tool
- 4 Health and wellbeing

In order to deliver against these key strategic areas in our plants and mills across the world, we have designed, built and began the implementation of our new health and safety management system. This is a tool to support supervisors, managers and our health and safety teams with their daily responsibilities. It makes it easy to track and report safety data, analyse trends and draw insights, meet compliance requirements and reduce administrative work. It will also help to increase visibility, drive down incident rates and continue to promote a safety culture across our organisation.



13.6%
reduction on TRIR in 2022

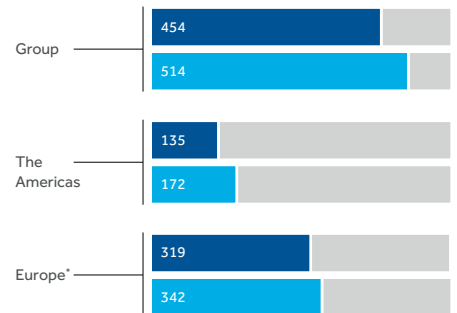
People continued

Additionally, we executed the following activities as part of our Annual Safety Improvement Plans to continue to drive awareness and keep attention on this key topic:

- On World Safety Day (28 April) we launched an initiative on hand safety under the strapline 'Safety it's in your hands'.
- Through our free and confidential Global Employee Assistance Programme, we continued to provide support to our employees and their family members to cope with any work, life or health concerns. The service offers help to deal with any tough situation that our people and their families are not quite sure how to handle. It is easy-to-access and is available 24/7.
- We undertook a summer Health and Safety campaign, under the banner of 'We're Thinking Safety', to reinforce the message that safety is everyone's responsibility, including contractors. This built on our previous years' message 'I'm thinking Safety' and continued to use our Safety for Life branding.
- We continued with our Safety for Leaders programme, which we had begun to roll out during the pandemic via MS Teams. In 2022, it became a significant face-to-face training programme to further support our managers with their health and safety responsibilities.

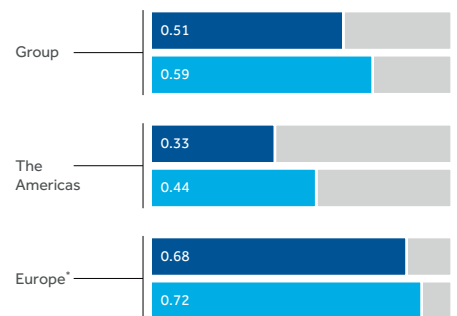
- We further developed our health and safety processes with a particular focus on our Energy & Machinery Isolation Policy, under the theme 'Lock Out, Tag Out, Try Out'.
- Our Health & Wellbeing agenda gathered further momentum with the implementation of our Health & Wellbeing Framework. This has been supported with regular activities such as 'World Mental Health Day'.
- We implemented a new case management process, so that where serious injuries occur, we have a support system in place for those involved.
- Three new Policies (Management of Change, Workplace Inspection and Confined Space Entry) were developed and deployed in the final quarter of the year.
- In December 2022, we regrettably had a subcontractor employee fatality in our Forestry Operations in Colombia. We have launched a campaign in collaboration with our contractors to improve safety at our harvesting operations. This includes raising awareness, training of personnel and managers as well as improving harvesting technology.

Total Recordable Injuries



Key: ● 2022 ● 2021

TRIR



Key: ● 2022 ● 2021

* The employees reporting to Group functions are included to Group data only since 2021. Previously, this data was also included in European figures.

Case Study

Employee Assistance Programme is for our People

The Netherlands

Employee wellbeing is an important element of how we demonstrate that health, safety and wellbeing are core values in Smurfit Kappa. An employee who feels well and has a healthy work-life balance is better able to make decisions at work and at home, which supports their health and mental wellbeing.

At our Vandra corrugated plant in the Netherlands, EAP is embedded in the communications plan for all employees.

“We have focused on ensuring our EAP is visible and understood by everyone at the plant,” explains Cathelijn Schoenmakers, Project

Manager and Communications Specialist on site. This means for example that there are posters about EAP on display in high-traffic areas of the plant, such as coffee areas, canteens, locker rooms and information boards. “When we rolled out the programme, we also handed out flyers explaining the services available to all colleagues through our EAP and it is part of our onboarding process.”

“Now the focus is on making people comfortable about using it,” says Vera Visser, HR Team Lead at Vandra. “We highlight the programme on our SKTV in intervals and our managers have been trained to talk about the

programme with their team members when they think it could be useful,” adds Cathelijn. “Highlighting EAP next to stories about wellbeing in our internal magazine is also part of the plan.”

“When people understand the full extent of the programme and that it is 100% confidential, they gain confidence to use the service,” says Vera. “Having a system that offers help in work, as well as in everyday life, is a great way of showing how much we care about our employees, and through good communication we can keep the option of seeking help in everyone’s minds.”



Colleagues to receive a copy

780+

Case Study

100 Stories on Safety

The Americas

When a colleague shares their safety-related story, it brings to life the dangers of workplace accidents and the potential to have a positive impact and change behaviour is much more likely. This was the idea behind the SK Tijuana book, 100 Stories on Safety. In mid-2022, the sites published the second edition of the book, printing 1,200 copies and distributing them to all 780+ colleagues at all sites in Tijuana and other sites in SK North America (‘SKNA’).

The book is a collection of stories, written and told by members of all departments. Each of the stories has been told in the person’s own words, from their perspective, and is not only focused on the safety challenges of working alongside the machinery, but also includes safety in the office environment and even at home. Featuring illustrations by a local artist, the book has become popular in SKNA, supporting the behavioural change in safety, and creating a feeling of togetherness and engagement at the SK Tijuana sites.

People continued

Communities

We have always believed strongly in being part of the communities in which we are privileged to operate. Through our local operations, we actively support projects that help build a sustainable future for their communities.

We remain deeply committed to our local communities and have always strongly believed in being part of, collaborating with, and giving back to the communities in which we are privileged to operate. Despite facing another challenging year, our teams across the world continued to donate their time, effort and expertise to make a positive and lasting impact on their local communities.

Through our operations, we actively support projects that help build a sustainable future for the communities in which we live and work. We engage with and support local economies and livelihoods by creating opportunities directly and indirectly for employment, investing in infrastructure, and contributing to community activities through our Open Community initiatives. In addition to the direct involvement of our operations

in their local communities, the Group also provides 100% of the funding to the Smurfit Kappa Foundation, ('the Foundation'), a registered charity in Ireland, which focuses on delivering a positive impact on the lives of underprivileged people in the communities where we operate. Since being formed in 2011, the Foundation has supported a total of 200 projects with a social investment of over €12 million in 24 countries.

Involved in Communities

We always consider the concerns of the wider community at national and international level. Community involvement builds trust and serves as a link to the issues important to us. Local general managers are expected to represent the Group as part of the local community and play a positive part in its development.

The Smurfit Kappa Foundation
has invested over
€12 million
in social projects

Case Study

Atomic Ambassadors

Argentina

In early 2021, the Smurfit Kappa Bernal paper mill in Argentina officially joined the Atomic Ambassadors community by partnering with Atomic Lab, an organisation created by the inventor Gino Tubaro. Atomic Lab aims to improve the quality of life through technology by providing free 3D printed prosthetic limbs. Through 3D printing, children and adults with disabilities can be changed into superheroes, giving them a unique life-changing opportunity.

After installing a 3D printer at our Bernal site, our employees volunteered their time to train how to create 3D printed prostheses and continued to give their time to print more to donate them to the people who need them. We saw volunteers from across the

design, production, network support, delivery, distribution, and communications teams at the mill become Atomic Ambassadors, who, alongside Gino Tubaro and Atomic Lab, produced and donated four prostheses with unique designs to those in need of them.

“The way Atomic Lab uses technology to improve the lives of hundreds of people is amazing. To be an Atomic Ambassador is a great honour.”

Lucila Garcia, Process Chief at Bernal site, Argentina

“In our philanthropic work, we focus on self-help initiatives, education and health programmes, and contribute through financial donations and volunteering by local employees.”

Where relevant, we take part in local community engagement projects and impact assessments. Our operations play a role in education, and supporting locally vulnerable groups. As an example of the impact, effectiveness and innovativeness of our focus on employee health, safety and wellbeing, the Mutua Navarra awarded our Cordovilla corrugated plant in Spain with a Blue Prize in 2022.

In our philanthropic work, we focus on self-help initiatives, education and health programmes, and contribute through financial donations and volunteering by local employees. Examples of these can be found throughout the People Section of this report and in the ‘Our Open Community’ booklet, available at smurfitkappa.com.

All our European sites and the majority of our sites in the Americas have performed an environmental impact assessment which is typically part of the local operational permit process. Each site has an official community-grievance process and we are committed to following these up. The main reasons for complaints are typically, noise and odour from our operations.

The circular economy has an impact on our communities as well. Smurfit Kappa participates widely in local circular operations. Some examples of these are:

- Delivering district heating from our paper mill to the residents of Piteå, Sweden, with a similar project under development in Nettingsdorf, Austria;
- Supporting municipality water treatment systems with our effluent, which has nutrients that help treat municipality waste water in Nettingsdorf, Austria, and Nervión, Spain;
- Treating municipality waste water in Morava, Czech Republic;
- Maintaining rural road structures at our Colombian Forestry Operations; and
- Collecting city-recovered paper in Malaga, Spain.



People continued

Smurfit Kappa Foundation

During 2022, we redefined the purpose of the Foundation, so in addition to a focus on children, the Foundation also financially supports sustainable projects that positively impact the lives of underprivileged people in the areas of health and nutrition, education and basic care, thus helping to reduce inequalities that exist. Throughout 2022, over 40 projects were supported, donating over €2.7 million to charities with a focus on supporting mental health and wellbeing programmes, a continuous emphasis on the health and education of underprivileged people, as well as projects to support the inclusion of all in society. Using the UN's SDGs as a guide, we focused on delivering impact for six SDGs: No Poverty, Zero Hunger, Good Health and Wellbeing, Quality Education, Gender Equality and Reduced Inequalities.

Progress in 2022

The war in Ukraine and the people affected by this tragedy was a particular focus for our fundraising and volunteering hours during the year. Working with the International Red Cross and the Polish Medical Mission, the Smurfit Kappa Foundation, provided funding for life-saving humanitarian aid to the people of Ukraine fleeing the war in their country, as well as funding for the provision of medical aid for Ukrainians on the Polish border. In addition to the contribution made by the Foundation, colleagues across the world combined with the Group, who doubled their

efforts, to raise a further €2.4 million to fund various local charities involved in the humanitarian efforts and provide funds to the International Red Cross.

We estimate that as a Group, including our Foundation, we donated €6.6 million in 2022. This was for a wide range of activities, including children's education, health and social-inclusiveness projects and research.

Our target is to donate over €24 million to social, environmental and community activities between 2020 – 2025. In addition, we will support volunteering by our employees. Our Employee Volunteering Programmes will support paid time-off for employees to participate in chosen community activities. Reporting against our target, we are now at €18.4 million of the target of €24 million to be donated between 2020–2025.

We are proud of all our community activities and believe these are a demonstration not only of our organisational culture but also of our essential and enduring purpose to create, protect and care. Our Open Community initiatives cover all aspects of our involvement with our communities worldwide, which are captured under four categories outlined below.

In 2022, our colleagues invested over 6,300 hours in social projects and these projects impacted 109,000 people in our communities.

“During 2022, there was a focus on supporting mental health programmes, a continuous focus on the health and education of underprivileged people, as well as projects to encourage the inclusion of everyone in society.”

Our Open Communities Initiatives



Key

- Empowering communities – 38%
- Encouraging wellbeing – 36%
- Inspiring our future – 19%
- Protecting our planet – 7%

66
Empowering communities projects

62
Encouraging wellbeing projects

33
Inspiring our future projects

12
Protecting our planet projects



€2,400,000
donated

Case Study

Supporting our Colleagues who are Ukrainian and their Communities

Global

When the war in Ukraine broke out in early 2022, Smurfit Kappa immediately focused its attention on helping colleagues directly impacted by the conflict, as well as the wider population affected in Ukraine. We began our work by setting aside the agenda for our leadership conference and made the event into an information gathering and sharing session to see how we could help and assist those in need.

In the early days of the war and over the past year, we have donated almost €2,400,000 to fund various local initiatives including re-location and accommodation of our employees from Ukraine. These funds were raised through direct donation from the Group, the Smurfit Kappa Foundation, as well as various colleagues across the globe participating in fundraising initiatives.

Through our colleagues in Poland, we also supported local charities involved in the humanitarian effort. Our activities included:

- Accommodation for over 60 families of our employees who are Ukrainian
- Supporting the Pass It On Foundation, which is accommodating and offering rehabilitation to 32 disabled people, including children from Ukraine.
- Assisting the ECHO Foundation, which rehabilitates deaf children and is currently supporting a number of Ukrainian children.
- Keeping seven ambulances on the road, which are used in eastern Ukraine to ferry the sick and injured to hospital.
- Maintaining a sanatorium in Ukraine, where refugees from eastern Ukraine, mainly from Mariupol, are staying – about 150 women with children.
- Working with the Fundacja Obywatelska Wielkopolska Drohobycz Foundation, which takes care of two refugee centres in Morszyn and Drohobycz in western Ukraine. Approximately 600 women, children and older people are housed in these centres.
- Providing packaging for transporting food and cleaning products for Ukraine, as well as care packages for women, children and babies.

A further €105,000 was raised for the International Red Cross when last summer two of our employees completed a 6,500km bike ride from Gibraltar to the Nordkapp summit to fundraise for Ukraine.

The Smurfit Kappa Foundation



Supporting sustainable projects in the countries where we operate with a focus on health and nutrition, education, and basic care. These are some of the highlights from 2022.



73
basic care projects
2012-2022

87
education projects
2012-2022

Case Study

Casita del Niño 'Rincón del Sol'

Argentina

The Smurfit Kappa Foundation supported the final stages of the construction of a brand new headquarters for the Casita del Niño 'Rincón del Sol' organisation in Sunchales, which works with children in vulnerable situations. The new headquarters will have comfortable, well-equipped spaces to facilitate the different daily activities of the organisation, such as providing meals, hygiene information, educational support, recreation and the promotion of resources and skills for the development and strengthening of family and community networks. The new building will have a total area of 586 square metres.

"Smurfit Kappa's support has been key to making this progress. It's a commitment that goes far beyond just providing money."

Mayor Roman Berardi

Case Study

Promoting Opportunities for Small Rural Producers Colombia

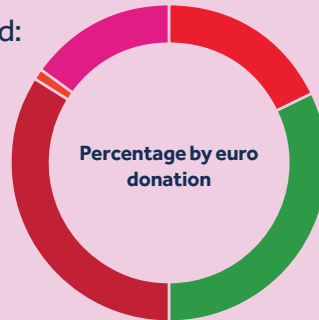
The Smurfit Kappa Colombia Foundation provided funding for the 'Colombia in Peace' fund alongside Colombian organisations Sustainable Colombia, Alpina, Supracafé, and Alpina Foundation. The programme's mission is to close the disparity of technology and business knowledge that can see rural producers exploited in their industry, where their production costs versus value yield often keep them in a perpetual state of social vulnerability and poverty. The Smurfit Kappa Colombia Foundation made a financial contribution of approximately €82,500.

With further contributions and work of the partnering organisations, two commercial agreements have been reached with Alpina S.A. and Supracafé Colombia S.A. to market the production of milk and coffee for the producers as a collective. This agreement will result in small rural producers selling their yields as a collective, directly to wholesalers, rather than selling individually through intermediaries.



Delivering for UN SDGs

In 2022, the Smurfit Kappa Foundation supported:



- Key**
- UN SDG 1 No poverty: 18%
 - UN SDG 3 Health and wellbeing: 32%
 - UN SDG 4 Education: 34%
 - UN SDG 5 Gender equality: 1%
 - UN SDG 10 Reduce inequalities: 15%

40

health and nutrition projects
2012-2022

200

projects across 24 countries
2012-2022

€12.4

million invested
2012 – 2022

€2.7

million invested
2022

Case Study

La Stazione Rulli Frulli Italy

With the support of the Smurfit Kappa Foundation and the local SK Camposanto plant, an abandoned bus station in Finale Emilia, within the Modena region of Italy, became a place where young adults and children could come together in this socio-occupational project to create a space for cultural and professional activities.

In partnership with 'Astronave Lab,' an inclusive carpentry school, and the music band 'Rulli Frulli,' young people with disabilities, professionals with special needs and passionate volunteers transformed the old bus station into a multi-functional hub, providing them and the local community with a music school, craft and carpentry workshop, and bistro.

As a result of the renovation work and the €192,000 donation by the Foundation, an average of 800 people every week can now benefit from this inclusive community centre.

Federico Alberghini, Rulli Frulli band conductor and project manager, said: "Thanks to Smurfit Kappa, this abandoned place is an example of inclusion and a meeting point that will enable the integration for young people that need support. This project is a benchmark for private companies supporting the local communities."



€192,000

donated by SK Foundation

Impactful Business

Delivering for all stakeholders

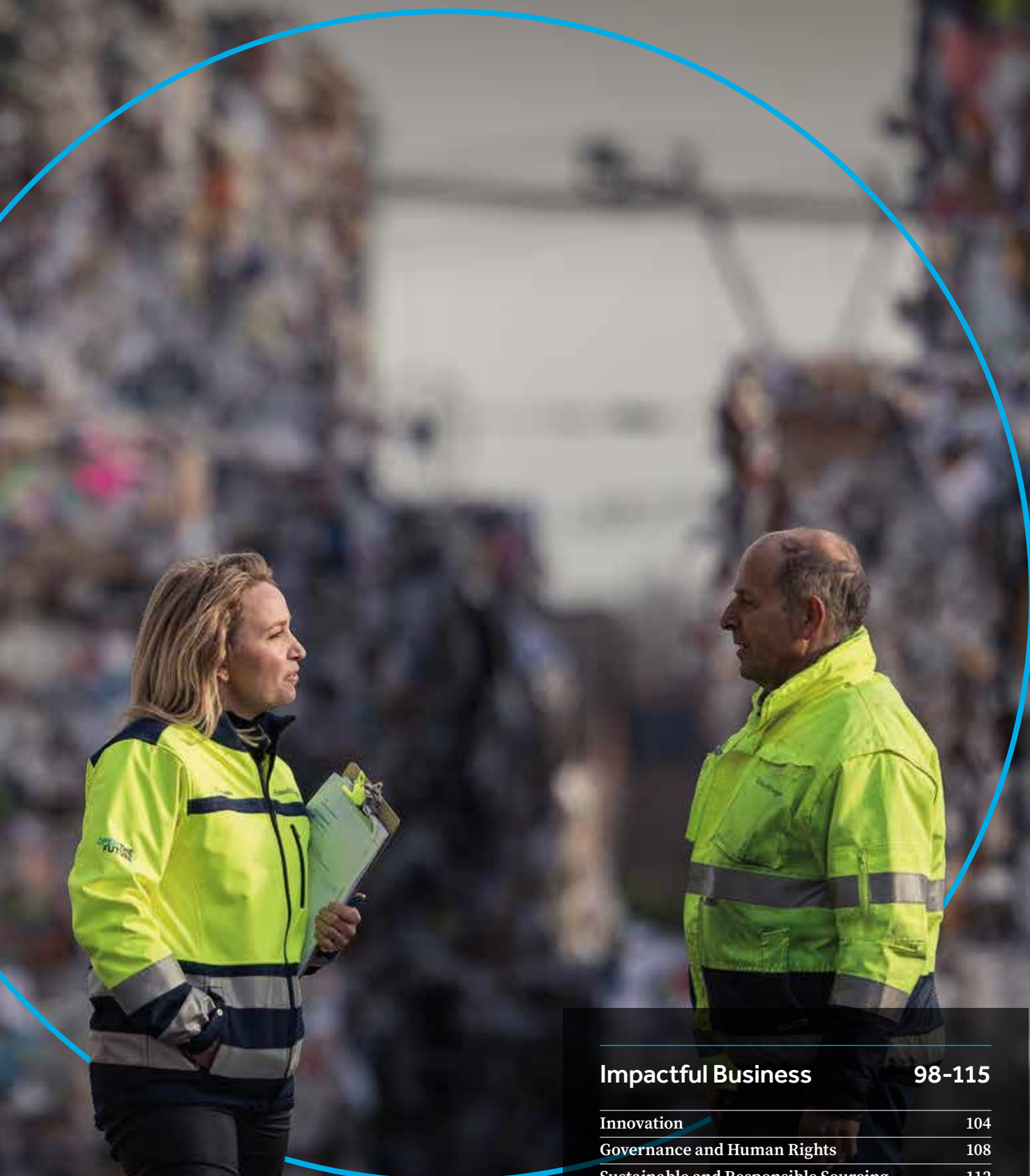
Sustainability creates value and is a core element of our strategy. We collaborate with customers and suppliers, sustainably growing their and our businesses throughout the value chain. Our innovative packaging solutions are material efficient, produced sustainably and support customers in delivering their sustainability objectives.

121

sustainability supplier
audit activities

160k

uses of our InnoTools
in 2022



Impactful Business

98-115

Innovation	104
Governance and Human Rights	108
Sustainable and Responsible Sourcing	112

Impactful Business continued

Key Principles

Since 2007, when we started reporting our progress in sustainability, our approach has been to make our performance measurable, transparent and tangible. We report our progress annually, and have our sustainability data independently assured using GRI Standards. We then convert the data into tangible, unique customer-relevant information to support our innovation and design processes. Certifying our management systems adds transparency and credibility for our stakeholders, and having clear policies helps everyone understand how we govern our performance.

We are committed to managing our business ethically, in accordance with our declared values recognising that good social citizenship, reflected in how we interact with our employees, business partners and local communities, is an integral ingredient in creating a sustainable future.

We believe that ethical business conduct must be promoted from the most senior levels of the business, and fostered through the whole organisation. Smurfit Kappa has specific policies on key areas of sustainability, which are integral to improving future performance.

To sustainably grow our business we favour short supply chains and will work with suppliers aligned with our sustainability principles.

We all want our food, clothing and household goods delivered securely, and safe from damage or theft and unnecessary waste. Businesses therefore need fit-for-purpose packaging solutions, which protect the product and delivers it safely to the consumer.

Paper-based packaging offers the most versatile and sustainable solution for manufacturers, retailers and consumers, through any chosen sales channel. It has the highest recycling rate of any packaging, which helps to reduce product waste, and in the unlikely event it isn't recycled, it is biodegradable. According to the Food and Agriculture Organisation of the United Nations ('FAO'), inadequate packaging wastes 20-50% of food in developing countries, compared with only 3-5% in developed countries, where fit-for-purpose packaging ensures safe product transport. Smurfit Kappa works to promote fit-for-purpose packaging in our operations in both developing and developed countries.

We maximise this sustainability for ourselves, our customers and suppliers, through continuous research. Our experience and expertise inspire innovative, fit-for-purpose and sustainable packaging solutions.

Sustainable Value Chain is our Business

Sustainability creates value and is a core element of our strategy. Our approach to it is end-to-end: from procurement at the supplier end, to production and product delivery to our customers, the principle of aligning economic goals with social, community and environmental responsibility is applied throughout.

We collaborate with customers and suppliers, sustainably growing their and our businesses throughout the value chain. Our innovative packaging solutions reduce use of raw materials, helping customers deliver their sustainability objectives. Our business model is circular: our key raw material is recycled fibre and we recover the old, corrugated boxes from our value chain to make new ones. We continually search for new synergies within our operations and with our local partners.

We work to minimise climate change by maximising the efficient use of resources, thereby reducing pressure on the environment.

Our investors want long-term profitable businesses, so environmental and social responsibility are key factors when choosing companies for investment. Evidence of Smurfit Kappa's continued progress is clear through the various investor ratings and disclosure programmes that we participate in, such as FTSE4Good, Euronext Vigeo Europe 120, STOXX Global ESG Leaders, The Green



Economy Mark from the London Stock Exchange, CDP, SEDEX and EcoVadis. Furthermore, paper-based packaging is expected to grow as consumers are increasingly aware of environmental issues and 80% prefer paper-based packaging (Cepi and Paper and Packaging Org Surveys).

We provide industry-leading transparency and detail to our stakeholders of every aspect of our operations, whilst promoting sustainability in our customers' businesses. Smurfit Kappa uses suppliers who adhere to our Sustainable and Responsible Sourcing








Policy, our Supplier Code of Conduct, and who are CoC certified where applicable. We audit suppliers on human rights, labour practices and environmental impact.

Creating Tangible Progress

For us, sustainability is not only about mitigating climate change and reducing inefficiency; it is vital to our future as one of the world's largest paper-based packaging companies, and for stimulating innovation and creating new customer demand.

According to the UN Global Compact-Accenture CEO Study on Sustainability, sustainability is essential to a CEOs' business strategies, and 88% of investors see it as a competitive advantage. For them, and for our customers, we must demonstrate the link between sustainable business and corporate value. We integrate sustainability measurement into our business strategy, and throughout our global operations. We know the impact of our sustainable strategy – the facts and figures are in this report, enabling investors to appraise the effect of sustainable performance on our business. We are proud to have received customer awards and investor recognition for our sustainability performance.

Circular Aspects of our Products

Impact of our Products	Direct Impact	Indirect Impact
Impact 1 Refuse 	Designing packaging solutions from mono-materials helps our customers to refuse packaging that is difficult to recycle, is therefore not recycled and that is not biodegradable.	Supporting the packaging value chain to reduce packaging waste and uncontrolled litter. Delivering solutions to our customers that help meet the EU Single Use Plastics Directive requirements.
Impact 2 Reduce 	Designing packaging solutions that help eliminate non-circular packaging materials with a higher environmental footprint. Ensuring that resource efficiencies are maximised and material waste is reduced by offering fit-for-purpose packaging solutions that optimise the use of packaging materials. Where possible, we produce lighter grammage papers which require less fibre.	We intend to use renewable energy wherever it is economically feasible. This will involve additional use of biomass and scaling-up methods, which use our organic waste to generate energy. It will also involve investments that reduce CO ₂ emissions and increase energy efficiency.
Impact 3 Reuse 	Ensuring that where reusing is economically, logistically, hygienically and environmentally unfavourable, our recyclable packaging solutions offer a more sustainable alternative with less environmental impact than using a reusable solution.	Ensuring that we reuse resources in our production wherever possible. For example, using the organic by-product of our production process as biofuel, or reusing materials separated in the paper-making process. We also reuse water in our paper-making processes multiple times, before treating it for discharge.
Impact 4 Recycle 	76% of the raw material we use consists of recycled fibres. All paper-based packaging we produce is recyclable. Recycling of our packaging product delivers new corrugated products with the same quality, whereas the majority of plastic packaging, for example, is downcycled.	We continually find ways to recycle the metal, plastic, wood and other non-paper components separated from the recovered paper that is delivered to our mills.
Impact 5 Recover 	Ensuring all paper-based packaging we manufacture can be recovered. For example, offering mono-material solutions that are easy to recover for our customers and consumers.	Our corrugated plants recover paper clippings and send them back to paper production at our mills. We close loops and create circularity in our energy production through recovering the high-energy value of any by-products, such as black liquor and biogas, and circulating heat. We also seek synergies with our neighbours where possible.
Impact 6 Renew 	We promote sustainable forest management in our own forests and plantations as well as throughout our supply chain, and demand deliveries of fibrous materials to be CoC certified by an internationally accepted forest management standard, FSC, PEFC or SFI.	
Impact 7 Biodegrade 	Paper is made of renewable raw materials, with up to 97% fibre and starch; the rest being fillers and ashes, such as calcium carbonate. Renewable materials biodegrade naturally and at the end-of-life are converted to natural materials, such as CO ₂ and water.	

Impactful Business continued Responding to our Stakeholders

	What We Believe	What Our Stakeholders Expect of Us	Our Commitments
Innovation	<p>We have a responsibility to respond to the challenge facing the environment and society today – to inspire more sustainable packaging solutions.</p> <p>Packaging can help to lower a product’s environmental footprint, and to protect and promote our customers’ products. We can realise these aims through our data-driven innovation approach.</p> <p>A fundamental challenge with packaging waste is litter; by offering fit-for-purpose packaging solutions we can minimise material waste.</p>	<p>To deliver fit-for-purpose, cost-effective and sustainable packaging solutions to our customers.</p> <p>To develop innovative packaging solutions as our response to the global challenge of litter and packaging waste.</p>	<p>Commitment #1: To inspire more sustainable packaging solutions through:</p> <ul style="list-style-type: none"> • The development of our Better Planet Packaging initiative; • Using our data to improve our processes, products, supply chains, logistics and markets; and • Optimising the use of our InnoTools to support our innovation and design, and leverage our global ideas.
Governance and Human Rights	<p>We operate in an environment with diverse legislation, regulations and cultures. Our Code of Conduct is the fundamental guideline for everybody at Smurfit Kappa from the Board of Directors, officers and employees, as well as all individuals, entities, agents or anyone acting on the Group’s behalf – and we require the same from our suppliers.</p> <p>Our Code of Conduct expects adherence to ethical standards, and commitment to quality and service.</p>	<p>To fundamentally comply with regulations and guidelines, have effective corporate governance and respect human rights.</p>	<p>Commitment #1: We are committed to maintaining a strong governance framework by:</p> <ul style="list-style-type: none"> • Making our Code of Conduct accessible for all stakeholders; • Ensuring our stakeholders adhere to the principles of the Code; and • Offering an independent and unbiased channel to raise concerns about breaches to the Code.
Sustainable and Responsible Sourcing	<p>Sharing our sustainability knowledge, experience and expertise with our suppliers increases the sustainability of our whole value chain. In order to sustainably grow our business and attract customers and investors our materials, goods and services must have the right quality and cost, but also be securely and responsibly sourced.</p>	<p>To extend our ethical and sustainable manner of conducting business to our supply chains, and to require our suppliers to continually advance their sustainable footprints.</p>	<p>Commitment #1: We are committed to:</p> <ul style="list-style-type: none"> • Working with suppliers that adhere to our Sustainable and Responsible Sourcing Policy and Supplier Code of Conduct, are CoC certified (where applicable), and commit to our Modern Slavery Act Statement; and • Regularly auditing our suppliers to ensure adherence with our key Sustainable and Responsible Sourcing principles.

Case Study

TechniPaper® Portfolio Delivers Sustainable Solutions for Complex Supply Chains

Europe


Smurfit Kappa’s Better Planet Packaging focuses on four areas of reinventing sustainable packaging. One of these areas is research and development work of packaging materials. Under the portfolio of TechniPaper®, we are reinventing paper solutions that help deliver packaging solutions for reduced consumption of plastic. In 2022, we introduced TechniPaper® AquaStop™ and Thermo-Sealant™. When designing TechniPaper® AquaStop™,

we focused on the fit-for-purpose water resistant packaging. Many other coatings either compromise recyclability or exceed requirements of the packaging beyond what is needed, leading to a wasteful use of resources. TechniPaper® AquaStop™ is a fully recyclable solution that delivers water protection for products that need short-term water protection, protection from condensation or visual damage from water. Possible applications for

TechniPaper® AquaStop™ include transport packaging for fruits, frozen produce or transport packaging for cut flowers.








Thermo-Sealant™ contains heat sealing properties that provide both paper-to-paper and paper-to-plastic secure seals. This versatile new solution is ideal for multi-packs, flow-packs, or any other secondary packaging wraps used for bundling products in a dry environment.

Status key:

Significant improvement needed 

Improvement needed 

On track to achieve target 

Progress Made in 2022	Status	Delivering for SDGs	Scope
<p>Progress made: Our tools: Innobook, Pack Expert, Paper to Box, Shelf Viewer and SupplySmart, were used almost 160,000 times during 2022.</p> <p>➔ Read more on pages 104-107</p>		<p>Our product offers a great opportunity for innovation that can have a positive impact for society.</p> <p>Smurfit Kappa contributes to the realisation of the following SDG and targets:</p>  <p>9.2, 9.4 and 9.5</p>	<ul style="list-style-type: none"> All Smurfit Kappa operations
<p>Progress made: During 2022, no material breaches to our Code of Conduct were made. No material fines were imposed on the Group for any breaches of such laws and regulations in 2022.</p> <p>➔ Read more on pages 108-111</p>		<p>For Smurfit Kappa, impactful business means respecting people and having responsible governance. These, in turn, have a positive impact on the communities we have operations in.</p> <p>Smurfit Kappa contributes to the realisation of the following SDGs and targets:</p>   <p>8.7 16.2, 16.5 and 16.10</p>	<ul style="list-style-type: none"> All Smurfit Kappa operations
<p>Progress made: During 2022, 121 supplier audit activities took place through our six pillar Sustainable and Responsible Sourcing audit programme.</p> <p>➔ Read more on pages 112-115</p>		<p>Smurfit Kappa can extend its impact through its supply chains and through that have an impact on decent work and economic growth.</p> <p>Smurfit Kappa contributes to the realisation of the following SDG and targets:</p>  <p>8.5, 8.7 and 8.8</p>	<ul style="list-style-type: none"> All Smurfit Kappa operations

Thermo-Sealant™ has a high resistance to traction or tearing and can be used across a variety of industries and applications including direct contact with dry foodstuffs, fresh produce punnet closure and wrapping hygiene products. Thermo-Sealant™ is recyclable, 100% FSC CoC certified and supports our customers to achieve their packaging targets.



Impactful Business continued

Innovation

We do not just sell packaging to our customers, we work closely with them, developing value-added solutions for their supply chains. Smurfit Kappa Better Planet Packaging is our compass to deliver our ambition of packaging solutions that leave no trace for future generations.

Role of Packaging

The role of packaging has become a subject of debate after the world woke up to the littering problem and the amount of plastic in our ecosystems. In the EU, from 2009 – 2020, the amount of packaging waste grew by 20% and is expected to continue to grow by 19% until 2030, which has prompted the regulators to rethink packaging legislation. E-commerce has made the issue of packaging waste and void between products and packaging a focus for customers. Packaging materials have to be reusable, recyclable, actually recycled and biodegradable, and produced ethically and sustainably.

The core function of packaging is to protect, transport and store the packaged goods in a safe manner. When packaging solutions are designed to be fit-for-purpose, this helps to reduce waste and the environmental footprint of the packaged goods throughout their value chains.

We use a holistic approach to find solutions that are impactful and can be realised on a large scale. This leads to fit-for-purpose packaging solutions that ensure that the packaged product is transported and stored safely and delivered undamaged to the consumer.

As part of our product and process development, we use engineering based thinking to analyse customer challenges and find creative solutions for specific products and markets.

With circularity in mind at the design stage, and by optimising both primary and secondary packaging, we can deliver efficiencies in transport, storage and display and ultimately ensure recovery and recycling of our packaging products in recycling channels.

We use Life Cycle Assessments as a tool to understand the environmental footprint of our products and processes but do not rely solely on that. Fit-for-purpose design manages a wider scope of environmental challenges in the packaging design – including the protection of packaged goods from becoming waste – and is therefore the most suitable approach to packaging solutions. Our Better Planet Packaging tools help compare progress against sustainability KPIs and Smart Services help customers to develop new solutions from idea to implementation.

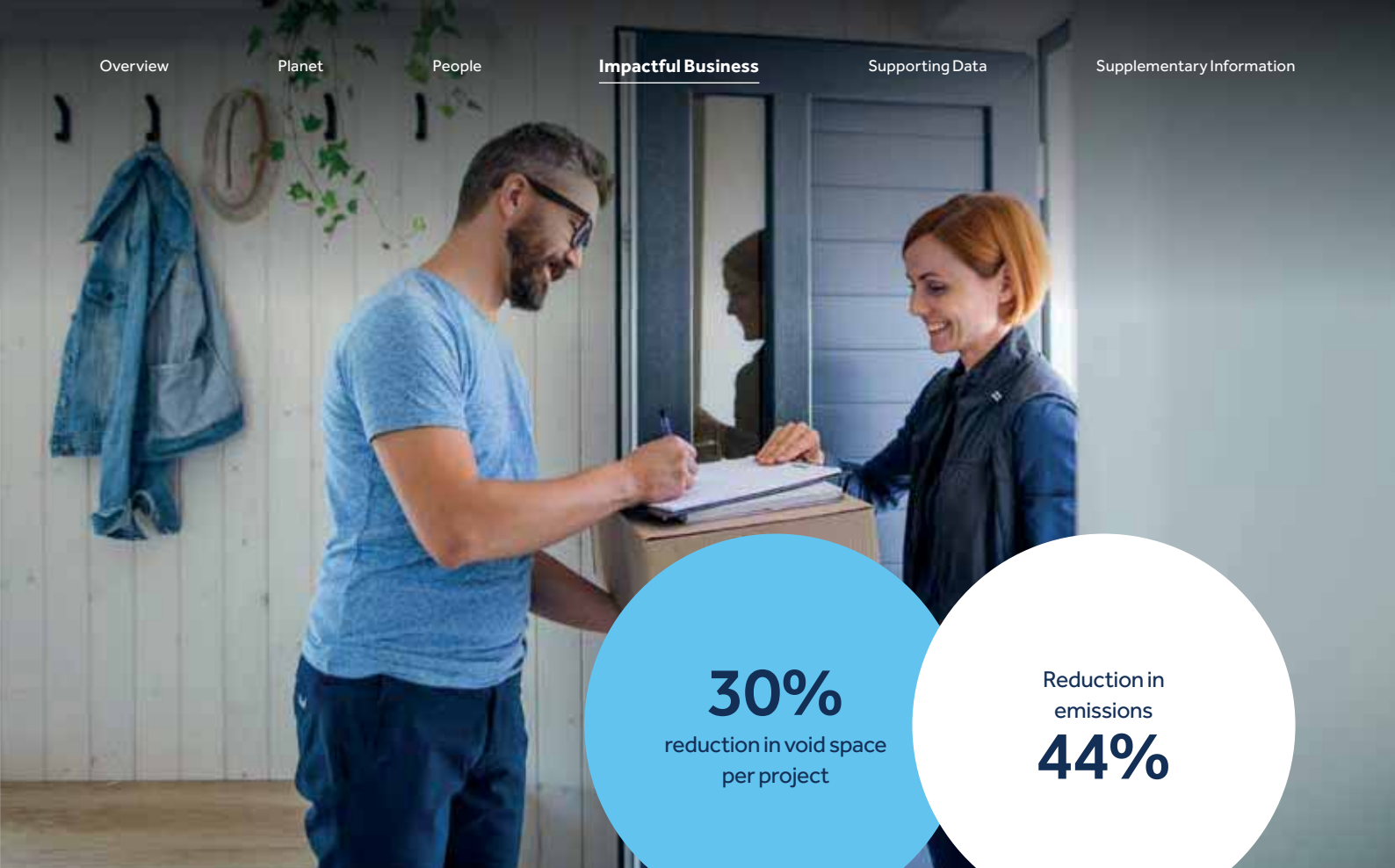
We focus both on our own and our customers' supply chains. Our paper-based packaging is designed to minimise resource use, reduce environmental footprint and use material sourced through certified CoC fibre origin management systems. The effective monitoring of our sustainability data enables us to discover new approaches to packaging and supply-chain management and we use our InnoTools – eSmart, SupplySmart and Pack Expert – to understand our customers' supply chains.

To drive innovation for our customers and suppliers, we examine the entire packaging concept to develop a more appropriate, sustainable solution. We also consider changing customer preferences, demographics, regulatory developments and other competitive forces.

Our ambition is to deliver our customers fit-for-purpose packaging solutions, and we focus on using our extensive data and proprietary business tools, such as Paper to Box, to deliver this.

“It’s reassuring to see the adoption and growing success of our Click-to-Lock box solution and how this collaboration with Smurfit Kappa is supporting the move to more environmentally friendly products, which in turn, supports the delivery of our customers’ sustainability targets.”

Olivier Chevalier, Head of Product Development and Sustainability, McBride plc



30%
reduction in void space
per project

Reduction in
emissions
44%

Case Study

Reduce Void Space, Reduce Carbon Emissions

Global

Online shopping is an industry which is thriving and adding to the problem of carbon emissions as transport represents 25% of EU carbon emissions, and it's the only sector whose emissions are increasing. The single biggest contributor to environmental impact in e-commerce is shipping parcels that are too large for the products they contain and to get rid of this abundant space additional material is used, void filler. The wide variety of void fillers, from straw to plastic bubbles, means they can become challenging for shoppers to separate in household waste in order to enable recycling, so fillers often end up in landfill. E-commerce companies can only keep a limited number of box sizes in stock and this leads to void space and the use of fillers.

As part of our Better Planet Packaging initiative, we wanted to explore how Smurfit Kappa could help cut transport emissions and void waste through data-driven insights and packaging innovation. Gérard van den Boogaard, Supply Chain Innovation Director with the Better Planet Packaging team, was part of the research team that developed an AI solution for oversized packaging in e-commerce deliveries. He helped engage sales and design teams within Smurfit Kappa to understand what packaging customers were using, and how we could make sure their parcels portfolio became fit-for-purpose.

Our design teams are now collaborating with customers on new solutions such as expandable boxes and integrated buffers that can be adapted to create more or reduce space without the need for an unsustainable amount of void fillers. One customer has reduced their box volume from 24 litres to 3 litres and used the buffer to print brand messages that enhance the consumer's experience of unboxing. We are helping other customers in the transition to mono-material solutions: paper-based void fillers that make recycling easy together with the paper-based box.

"Packaging has been designed for transportation and not for the product," says Gérard. "e-commerce packaging needs to enable transportation. Based on our findings, we've been able to design solutions that give flexibility to the box size and supply mono-material void fillers. This means we can now offer a fully sustainable solution. Using our LCA Lite software we can show customers how different packaging options can reduce emissions."

For the 15 customer parcel portfolios that were analysed in the last year, this innovative approach has achieved on average a 30% reduction in void space per project, and reduced emissions by 44%. Most importantly, this can help customers reduce the need for transport vehicles, packaging material and emissions across the entire supply chain – and the more customers adopt this approach, the greater the reduction of carbon emissions.

Impactful Business continued

Better Planet Packaging

In Spring 2022, we published our renewed vision for innovation for sustainable packaging. Our vision focuses on eventually delivering net zero emissions from packaging and its production. We see this happening through three steps:

1. Reduce the packaging problem by the elimination of problematic and unnecessary packaging from the market. Direct substitution with a sustainable alternative may not always be enough, packaging can only be defined as sustainable when it is fit-for-purpose and does the job it is intended for. Oversized packaging or packaging that fails to protect a product from shipping damage does not serve its purpose and destroys rather than creates value.
2. Collect, recover and restore packaging and materials through strategies like reuse, repair, remanufacture and recycle. Recycling at scale will keep the materials in the economy as long as possible before they are returned safely to the biosphere. This requires the collection system to work at scale so that all used packaging is collected during its entire lifetime to ensure that it is reused or recycled at scale and not littered, landfilled, or exported to other countries for landfilling.

3. Whatever resources we extract from the biosphere must be restored and whatever waste disappears back into it must never pollute. This means using renewable raw materials and ensuring biodegradable packaging. This will ensure that the small amount of waste that does find its way back into the biosphere can do so without causing pollution.

To achieve this circularity, we believe that packaging has to be reinvented. To make this happen, we reinvent in four areas:

1. Reinvent packaging manufacturing: consistently reducing the environmental footprint of packaging and eventually minimising it to zero.
2. Reinvent packaging materials: develop fit-for-purpose packaging materials that are renewable, recyclable and recycled, and biodegradable.
3. Reinvent packaging design: develop fit-for-purpose Better Planet Packaging solutions for today, tomorrow and ultimately for a sustainable future.
4. Reinvent supply chain: packaging solutions that protect the product in its journey and optimises that journey to reduce its environmental footprint.

World Without Packaging Waste

Our Better Planet Packaging initiative's purpose is to create better packaging for a better world for future generations and using packaging where needed. It seeks to make a positive impact on supply chains around the globe and on millions of consumers, while improving the environmental footprint of packaging and reducing packaging traces on the planet.

By developing optimised and fit-for-purpose paper-based packaging solutions that are designed to be recyclable and are recycled, we can help our customers, entire value chain to reduce their carbon footprint.

We also contribute to a vision of a world without packaging waste by supporting the concept of circularity. As part of that, we play a role in collecting used packaging; the industry reuses more than 90% of this material.

In 2022, we extended our Better Planet Packaging tools to a four-tool suite:

- Paper to Box calculates the carbon footprint of the packaging solution.
- LCA lite compares the carbon footprint of different packaging materials advising on the optimal solutions.
- BPPProgress visualises customers packaging related carbon footprint, its evolution over time using historical data and projection into the future, eventually to 2050 towards our net zero goal.
- SupplySmart helps to uncover, target and deliver improvements to packaging in order to increase efficiency and effectiveness across their supply chain.



“Our vision focuses on eventually delivering net zero emissions from packaging and its production...

...To achieve this circularity, we believe that packaging has to be reinvented.”

In 2021, we introduced a new tool, Buffers Inspirator, to help our design team create innovative and new recyclable and biodegradable paper-based alternatives to plastic buffers in packaging. Our Better Planet Packaging case study library makes all design concepts available for our designers anywhere in the world to deliver the best possible design concepts to our customers.

By innovating and understanding the added value of every fibre of our products, the result is greater sustainability, from start to finish.

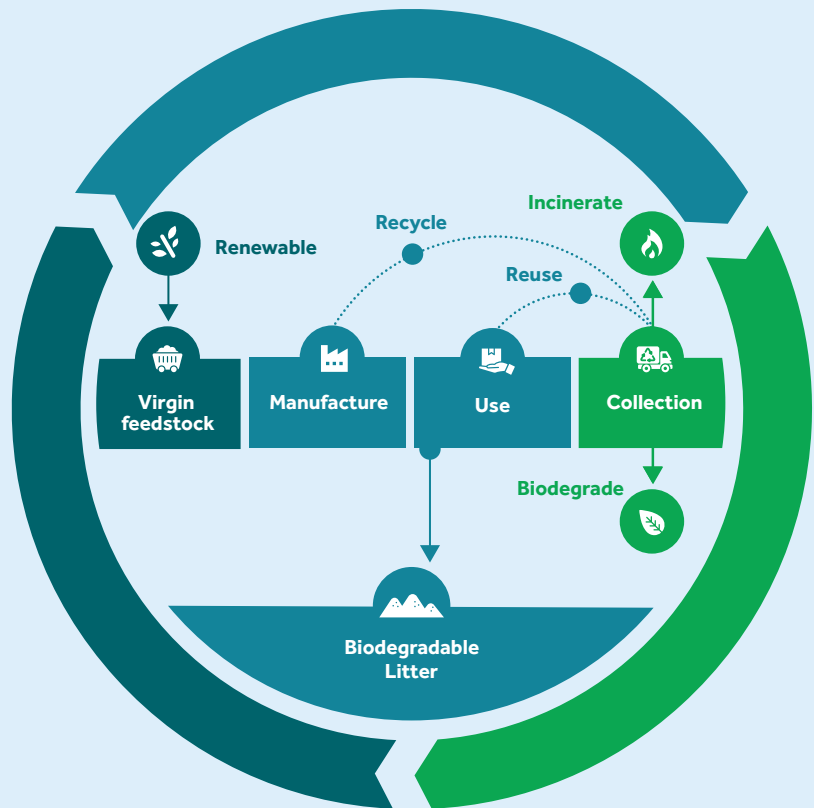
Our approach to packaging solutions:

- Uses our strength and industry-leading expertise in innovation to develop sustainable packaging-solutions, especially in plastic substitution, that are renewable, recyclable and recycled, and biodegradable;
- Applies our industry knowledge and expertise on end-to-end supply chain management to help our customers improve the environmental impact and efficiency of their supply chain while also delivering a superior consumer experience; and
- Sustainability has been at the core of our business for decades. We will continue to lead the industry by developing new solutions and are committed to managing our operations in a sustainable way.

Our Vision

A truly circular packaging production requires decoupling from fossil carbon leakage in all cycles of packaging reuse and recycling. We do this through:

- Eliminating unnecessary packaging or optimising renewable and recycled sustainable raw material alternatives, designing out waste and pollution from the outset;
- Fully utilising the valoric value of all resources, including generating bioenergy from residues and circular energy recovery;
- Reducing leakage through economically viable recycling systems and biodegradable raw material;
- Promoting organic carbon cycles through biodegradation or incineration waste from products made from organic, renewable sources and keeping with net-zero emissions; and
- Increasing material life cycles through collect, recover and restore packaging and materials using strategies like reuse, repair, remanufacture and recycle, keeping products and raw materials in use for as long as possible.



Impactful Business continued

Governance and human rights

We are committed to strive for the highest standards of corporate governance and ethical business conduct. This commitment is instilled across our business, from the boardroom to the factory floor, and throughout our operations and supply chain.

We believe that ethical business conduct must be promoted from the most senior levels of the business, and fostered through the whole organisation. This section outlines Smurfit Kappa's approach to governance in terms of sustainable conduct. We require the same standards of conduct from our suppliers, and this section also summarises our approach to supplier compliance. For further information on corporate governance, see pages 104-112 of the 2022 Annual Report.

Lead from the Top

The overall responsibility for ensuring the Group demonstrates leadership within the paper-based packaging sector, promoting an actionable sustainable development agenda, lies with the Board of Directors.

The Sustainability Committee of the Board has responsibility for providing strategic guidance and support to management in the implementation of Smurfit Kappa's Sustainability Strategy. The sustainability strategy continues to focus on the three key pillars: People; Planet; and Impactful Business. The Group's sustainability strategy, objectives and policies are managed by the Group Executive Committee led by the Group CEO. In addition, the Group Chief Sustainability Officer, reporting into the Group CFO, forms an important link between the executive, the Board and our broader stakeholder base.

An Executive Sustainability Committee, consisting of key, relevant members of the senior management team, ensures

that the sustainability strategy is driven throughout the business and reports to the Sustainability Committee of the Board. It also reports on a regular basis to the Group Executive Committee.

The Sustainability Working Group, consisting of relevant representatives from operations and the Group's head office, ensures that targets are met across all material areas. It also promotes sustainability targets among our customers and suppliers. Both the Executive Sustainability Committee and the Sustainability Working Group are led by our Group Chief Sustainability Officer. Critical concerns in the area of sustainability are communicated to the Board through these committees and by the Group CEO.

Case Study

Inclusive Design: More Accessible and Inclusive Website for Users with Disabilities and Impairments

At Smurfit Kappa, our purpose and values work hard together to create a safe and inclusive culture, with equal opportunities for all, where inclusion and adherence to human rights are a priority. As part of our group-wide social strategy, with a focus on inclusion, diversity, and equality under the 'EveryOne' programme, and as a proud member of The Valuable 500, we undertook a significant project to make the website more accessible and inclusive for users with disabilities and impairments.

Our website now conforms to rigorous international standards for accessibility, placing the Smurfit Kappa global website in the top tier of websites worldwide for accessibility.

The Group website is the digital home of our company, where we welcome approximately 2.3 million visitors each year, who collectively view over 8.3 million pages of content. By achieving this exemplary standard of accessibility, we are making ourselves as welcoming and available for the widest range of people we can, including those with a disability.

During 2022, with the support of the independent charity consultants AbilityNet, we have taken meticulous steps to meet the 'Web Content Accessibility Guidelines' ('WCAG'). WCAG is a universally accepted standard for measuring the accessibility of a website. Our commitment to WCAG's AA standards of compliance means that people with a disability should be able to access the majority of our website content easily.

Complying with Regulations and Guidelines

It is Group policy to comply, at a minimum, with the relevant laws and regulations in the countries we operate in. We ensure that our employees are aware of relevant guidelines and conduct themselves accordingly.

During 2022, no material fines were imposed on the Group for any breaches of such laws and regulations.

To demonstrate our commitment, wherever possible we go beyond minimum compliance with regulations and maintain the highest reporting standards. Information about our voluntary actions in legal and regulatory matters can be found in sections Planet, People and Impactful Business on pages 34-115. Our entire Sustainable Development Report has a limited assurance by KPMG, in accordance with the GRI Standards.

In addition, each significant business unit is subject to an annual external and independent financial audit conducted by the Group's external Auditor. Most of our business units are subject to local statutory financial audits. The Group also has an Internal Audit function which, during 2022, performed 57 detailed internal audits.

Code of Conduct and Corporate Policies

The Smurfit Kappa Code of Conduct ('the Code') applies to the Board of Directors, officers and employees, as well as all individuals, entities, agents or anyone acting on the Group's behalf. The Code is available in 21 languages to ensure accessibility and worldwide compliance.

The Code takes account of the following international conventions and codes:

- International Labour Organisation ('ILO') Declaration on Fundamental Principles and Rights at Work (core conventions);
- UN Declaration on Fundamental Human Rights;
- Organisation for Economic Cooperation and Development ('OECD') Guidelines for Multinational Enterprises; and
- UN Global Compact.

The Code provides accessible and understandable guidance for employees in every jurisdiction.

Each Smurfit Kappa entity and its employees are required to apply the Code, as well as abiding by the laws and practices of their industry and the jurisdiction in which they operate. It makes clear that personal and professional integrity is essential to conducting business in an ethical manner. The Code also requires adherence to ethical standards, and commitment to quality and service.

Adhering to ethical standards includes the way we interact with external bodies, including anti-corruption and complying with competition laws. We have designed controls to mitigate the risks related to corruption and these are tested during our internal audits. All market-facing employees have been trained on competition law; interactions where there is specific focus on complying with the law are registered centrally, and are subject to annual self-declaration controls.

During 2022, there were no material incidents reported, which the Group considered to be non-compliant with the Code.

The Code is supplemented by policies relating to our operational and managerial practices. These policies cover Environment, Sustainable Forestry and Fibre Sourcing, Sustainable and Responsible Sourcing, Social Citizenship, and Health and Safety. All our codes and policies are available on our website: www.smurfitkappa.com.

Respecting Human Rights

As a responsible business, we support global human rights and labour standards, and check that our suppliers do too. Smurfit Kappa Group is committed to the application of the principles expressed in the UN Guiding Principles on Business and Human Rights, and the Fundamental Principles and Rights at Work developed by the ILO in all of the countries in which we have (or will have) a presence. Our Social Citizenship Policy Statement reflects our commitment to upholding internationally recognised human rights.

Our Supplier Code of Conduct requires that those who seek to do business with the Group respect and uphold the rights of workers and prohibit the use of child labour and forced labour of any type. For more information on our engagement with suppliers in this area, see our Sustainable and Responsible Sourcing section on pages 112-115.



Impactful Business continued

The Group is subject to the provisions of the UK Modern Slavery Act and publishes an annual Modern Slavery Act ('MSA') Statement, which is available on the Group website at www.smurfitkappa.com.

We also require our suppliers to comply with the Modern Slavery regulations and conduct audits on them to ensure compliance. Suppliers are required to confirm their compliance with the Modern Slavery regulations every three years and the MSA is available in eight languages, which represent the languages used by the majority of our suppliers. Confirmation of compliance with the Group's Sustainable and Responsible Sourcing Policy, Supplier Code of Conduct and Modern Slavery Act Statement are one of the first steps in the onboarding of new suppliers.

In 2021, the FSC CoC standards were revised to include labour requirements based on ILO Core Conventions. The Group's FSC Chain of Custody-certified sites are required to implement the FSC core labour requirements in their operations and must be able to demonstrate this to external third-party auditors. To conform with the FSC core labour requirements, organisations are required to complete a self-assessment in relation to the ILO Core Convention requirements. During 2022, our FSC-certified sites completed the self-assessments and were audited to ensure compliance. The relevant sites were able to demonstrate their compliance with all FSC core labour requirements and in doing so have retained their FSC certification.

In keeping with the UN Guiding Principles on Business and Human Rights, and the Fundamental principles and Rights at Work developed by the ILO, we are committed to the principles of respect, diversity, working fairly, fair pay, compensation and benefits, and our acquisition practices are in line with these principles as well. They are maintained in every country in which we have a presence and our principles and policies with respect to our employees and suppliers are updated to ensure compliance.

Demonstrating Leadership

Our goal is to be the most sustainable paper-based packaging solutions company globally. To achieve this, we believe it is important to share our sustainability experience with our customers, suppliers and the wider industry.

We are involved with selected trade bodies to influence understanding and share knowledge about embedding sustainability throughout organisations, including:

- Confederation of European Paper Industries ('Cepi') – Group and National level membership. Smurfit Kappa's Group CEO is currently a board member;
- European Corrugated Packaging Association ('FEFCO') – Group and national level membership. Smurfit Kappa's CEO for Europe is currently a board member;
- International Corrugated Case Association ('ICCA'). Smurfit Kappa's CEO for Europe is currently a board member; and
- Asociación de Corrugadores del Caribe Centro y Sur América ('ACCCSA'). Smurfit Kappa's America and Caribbean Corrugated Director is currently a board member.

In addition, we are active participants in and signatories to many environmental reporting and sustainability organisations:

- CDP (formerly Carbon Disclosure Project);
- UN Global Compact;
- UN Global Compact's CEO Water Mandate;
- The Forest Stewardship Council ('FSC');
- The Programme for the Endorsement of Forest Certification ('PEFC');
- The Science Based Target initiative ('SBTi');
- The Supplier Ethical Data Exchange ('SEDEX'); and
- World Business Council for Sustainable Development ('WBCSD').

Influencing Public Policy for Good

Beyond compliance, Smurfit Kappa upholds standards on a variety of matters material to our business, representing them to the parties concerned, either directly or through industry bodies such as Cepi, FEFCO or the European Round Table of Industrialists ('ERT'). We also work closely with the Irish Business and Employers' Confederation ('IBEC') and equivalent bodies in other countries. Our Group CEO is a member of the ERT.

At all times, the people representing the views of Smurfit Kappa do so with reference to the Code, and the local laws and regulations that apply to the Group's operations. There were no significant criticisms of the Group in this respect in 2022.

In line with the Code, no financial contributions were made to political parties in 2022. No national government is a direct investor in Smurfit Kappa.

Our Approach to Tax

As a responsible company, operating globally, Smurfit Kappa is acutely aware of its responsibilities around corporate citizenship. This includes managing and maintaining a sufficient level of tax contribution, which means we do not engage in aggressive tax planning. An example of that is how we approach cross-border transactions, which, given the multi-national nature of our Company and business, occur on a daily basis. Our transfer pricing policies are aligned with our operating business model and with commercial substance. Transactions between related parties are made on an arms-length basis in accordance with OECD guidance and principles.

Our approach to tax can be found at smurfitkappa.com/tax-strategy.

Our business activities generate a significant amount and a variety of taxes including corporate income taxes, value-added taxes, employment taxes, wealth taxes and other transaction taxes. We are committed to complying with tax laws in a fair and responsible manner and to having open and constructive relationships with tax authorities. We embrace our responsibility to pay an appropriate amount of taxes and we engage with international initiatives to improve and simplify tax regimes to achieve a balance that promotes greater transparency and certainty whilst also incentivising investment and growth in countries.

Fiscal Contribution

In 2022, we recorded a corporate income tax expense of €348 million for an effective tax rate of 27%.

We paid €321 million in corporate income tax in the period. We also paid dividends of €332 million on which we remitted approximately €36 million in taxes on behalf of our shareholders.

Safe Products and Satisfied Customers

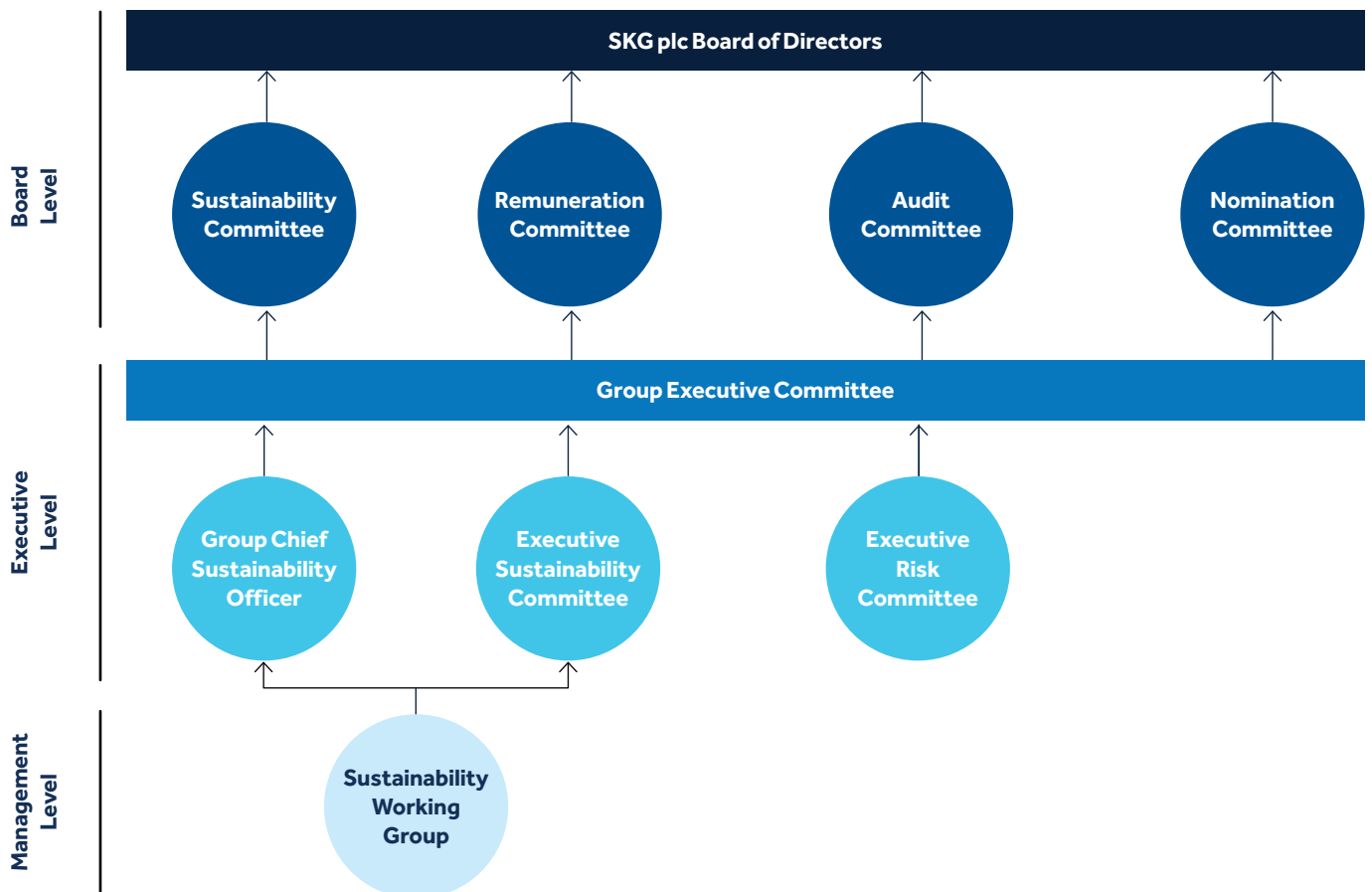
Ensuring our packaging solutions are safe is an integral part of our business. As our packaging is used to deliver and store food products, our products must meet all relevant food safety standards. These include OECD guidelines for Multi-national Enterprises and providing statements on food safety and REACH to our customers.

We provide our customers, when required or requested, with support and advice on matters relating to the regulations and/or voluntary codes concerning the health and safety aspects of our products. We have a central team working on food safety to ensure compliance with regulations and provide customers with specific advice if needed. The support we offer is limited to information provided by the customer detailing their individual circumstances.

As a highly customer-centric organisation, we put customer experience at the heart of our operating model. We strive to differentiate ourselves with an enhanced buying experience, and to create measurable value for our customers and key stakeholders.

Delivering a great customer experience calls for disciplined execution and consistent service delivery. We use data and analytics-based insights to review customer journeys and pinpoint the operational improvements that can have the biggest effect. We also use tangible methods and tools to measure customer satisfaction and understand what matters to our customers and how we can deliver it. Our customer relationship management ('CRM') tools enable us to follow up on customer feedback and capture insights that can maximise customer satisfaction. This drives customer value and loyalty. GDPR requirements are fully complied with when dealing with customer data and analytics.

Our Governance Structure



Impactful Business continued

Sustainable and responsible sourcing

In 2022, we spent €8.1 billion on raw materials, energy, logistics, maintenance/repair, and capital equipment. Sourcing materials, goods and services represents the single largest cost item for Smurfit Kappa. As such, sustainable and responsible sourcing is an integral part of our sustainability vision and strategy.

We want to sustainably grow our business and value chain. That means our materials, goods and services not only have the right quality and cost, but also should be sourced securely in a sustainable and responsible way as described in our Sustainable and Responsible Sourcing Policy and in alignment with the objectives of the 2030 UN SDGs.

By developing more sustainable supply chains in collaboration with our suppliers, we can manage risks and costs, develop new revenue streams, and add value to our brands. We have a Sustainable and Responsible Sourcing audit programme, which helps us deliver against our three pillars of sustainability: Planet, People and Impactful Business.

The programme itself consists of six sections. These are:

- 1 quality
- 2 hygiene, health and safety
- 3 business continuity
- 4 manufacturing
- 5 performance reporting
- 6 environment and sustainable development.

Each one has a strong sustainability implication, namely: assessing supplier risks; focusing on relevant supplier processes (especially regarding business continuity); mitigating risks related to environmental, social and equality issues; respecting the right to water sufficiency, safety, accessibility, affordability and reducing waste. During our on-site audits, employees responsible for the areas of the six sections are interviewed.

The audit questionnaire will be further updated to reach compliance with the upcoming 'EU Directive on Mandatory Human Rights, Environmental and Good Governance due diligence'. As the Supply Chain Law will be implemented in Germany per 2023, we have decided on an online tool to cover the due diligence requirements

regarding Environment, Human Rights and Governance. The implementation started in October 2022.

Our approach to Sustainable and Responsible Sourcing goes beyond regulatory requirements. To deliver our commitments and those of our stakeholders, we have a set of sourcing policies, informed by the Smurfit Kappa Suppliers' Code of Conduct, Sustainable and Responsible Sourcing Policy, Sustainable Forestry and Fibre Sourcing Policy (see: smurfitkappa.com).

We require our suppliers to participate in commonly accepted best practice and certification schemes. These include good non-financial reporting under the UN Global Compact, GRI Standards and CDP; and preferably reporting social data to SEDEX, adhering to ISO 9001 quality management, ISO 14001 environmental management, ISO 50001 energy management systems, ISO 22001 hygiene management and ISO 45001 on safety. ISO 46001 water-efficiency management – if applicable to the supplier's industry – and on food safety standards where relevant.

Leading the way in Sustainable and Responsible Supply Chains

To meet the requirements of our vision and strategy, our suppliers must adhere to the Smurfit Kappa Suppliers' Code of Conduct. Those who do not sign up to it must be committed to a compatible code in compliance with the UN Declaration of Human Rights and the ILO Principles and Rights at Work covering: freedom of association, prohibiting child labour and forced labour, treating employees humanely, working times in accordance with internationally recognised standards, respecting employee contributions, fair compensation with no wage deduction as a disciplinary measure, encouragement of

“To deliver our commitments and those of our stakeholders, we have a set of sourcing policies, informed by the Smurfit Kappa Suppliers' Code of Conduct, Sustainable and Responsible Sourcing Policy, Sustainable Forestry and Fibre Sourcing Policy.”

➔ Read more at smurfitkappa.com

574

suppliers have submitted a declaration form for compliance with our sourcing policies

continuous training and development, health and safety at work, non-discrimination, prohibiting harassment, bullying, other unfair practices and promoting community involvement. They will recruit, hire and train without regard to race, colour, gender, sexual orientation, age, religion, creed, national origin, disability or any other legally protected status in the countries where they do business.

Suppliers are also required to follow our Sustainable and Responsible Sourcing Policy, and all other relevant policies, which also cover the safeguarding of the natural environment and respecting indigenous peoples and traditional livelihoods. During our audits, we found evidence of seven suppliers having exceeded their environmental permits. Corrective actions are already in place or are being defined.

Suppliers are required to submit a declaration form for compliance with our Sustainable and Responsible Sourcing Policy, our Suppliers' Code of Conduct, our Modern Slavery Act Statement and a Statement on controversial sources of Raw Materials, Goods and Services. This declaration is refreshed every three years and we monitor our suppliers' compliance through our Sustainable and Responsible Sourcing audit programme. 574 suppliers have signed this declaration representing 57.0% of our preferred suppliers and 74.1% of the relevant sourcing spend.

In 2022, we updated the first three documents and made them available in the following languages: Dutch, English, French, German, Italian, Polish, Spanish and Swedish. These standards should be extended upstream in the suppliers supply chain.

Our Sustainable and Responsible Sourcing programme is founded on risk mapping against our key criteria: overall sourcing spend, global presence, labour rights, working conditions, technological innovation, excellent service and reputation. We use country evaluation of international parties like the Global Slavery Index, Euler and FSC. Risk mapping considers the sourcing categories with the highest impact on our products, and therefore our stakeholders.

This year, as a result of the country evaluation, the business relationship with 13 suppliers of key materials in Russia, a high-risk country, have been terminated.

The most relevant sourcing categories are our key materials (paper and other wood fibre-based materials, starch, chemicals, inks, adhesives and industrial tapes) that are used in our primary production process and form the basis for our packaging solutions we deliver to customers.

The sourcing of wood fibre-based materials, as well as our own forestry operations, are controlled by our Sustainable Forestry and Fibre Sourcing Policy, which was renewed in 2022. A more detailed report on these activities can be found in the Forest section on pages 50-55.

We require the key materials, other goods and services we contract to be produced and delivered sustainably and responsibly. Since launching our Sustainable and Responsible Sourcing programme in 2010, we have assessed 412 of our suppliers to ensure they meet our standards. Including self-assessments, re-approval audits and follow-up of improvement plans, 821 activities with suppliers have taken place. As Argentina, Mexico and Colombia are considered the highest-risk countries regarding child labour in paper recovery, we have visited in 2022 (after our tours in 2014 and 2017) 81 operations in Argentina (68%), 245 in Mexico (95%), 154 in Colombia (50%) and an additional 106 in Brazil (76%). These visits were to check whether there is any presence of child labour in this sector. With this activity, we comply with the new FSC requirement 7.2. No cases of child labour have been identified during our (partly unannounced) visits.



Impactful Business continued

Six Section Supplier Audit Programme

We monitor whether suppliers are a member of SEDEX or are assessed on their ethical practices by EcoVadis. We believe however that on-site audits increase competence and commitment in our supplier base, while training and enhancing our mutual understanding of key requirements. Based on their scoring at the audit, follow-up programmes are designed on a supplier-by-supplier basis. This includes further strengthening their understanding of, and compliance with, Smurfit Kappa's Sustainable and Responsible Sourcing principles and indicators.

Audits result in a rating against each of the six sections of our Sustainable and Responsible Sourcing programme. If the result is below 'expected performance' an obligatory improvement programme is devised.

Failure to commit to the improvement action list may, ultimately, lead to termination of the business relationship.

The supplier assessment is repeated every three to five years through a re-approval audit process.

Our country-based risk mapping which is based on analysis by international institutes like FSC, Global Slavery Index and Euler, combined with supplier audit results, show that 93.5% of our suppliers of key materials carry moderate to low risk. Our sourcing network includes suppliers ranging from small-scale local companies to large multinationals. In total, an estimated 81% of our suppliers' deliveries can be classified as local. In 2022, supplier improvement opportunities typically included Performance Reporting and Business Continuity management.

Overall, there were no material findings in our audits that would impact safe and timely deliveries of our products to our customers and we have not come across violations of human rights, labour and/or working conditions.

We hold annual global sourcing seminars in which part of the programme is to train and update the knowledge of our sourcing managers on developments, achievements and challenges in the area of Sustainable and Responsible Sourcing. In 2022, our Global Sourcing Team obtained online training. Further training of the audit tool was given to the teams in Germany, Sweden and the Americas that are in contact with suppliers.

Progress in 2022

To contribute to the objectives of the 2030 UN SDGs, we focus on selected SDGs in our Sustainable and Responsible Sourcing programme. This new focus specifically targets our strategic and key suppliers. We ask our suppliers to support, where material, at least the SDGs where Smurfit Kappa can make an impact. These SDGs are numbers 15 (Forest), 13 and 7 (Climate Action), 12 (Waste), 6 (Water) and 3 (People). From our supplier involvement, Smurfit Kappa Group has been awarded five stars by Support the Goals.

With some COVID-19 restrictions still in place during the year, we were able to perform 66 on-site audits. Due to large distances, we performed three audits online. In 2022, we performed more work on supplier audits in the Americas, where we have assessed nine suppliers of key materials. Of the total of 121 activities, 21 of these were a first-time audit. Eighteen of these initial assessments were done in Europe and three in the Americas. A total of 79.7% of all suppliers audited during 2022 scored at least 'expected performance', and the remaining will pass the audit once they complete improvement plans.

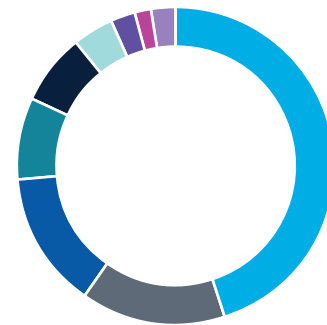
Following the initial audit, we work with each supplier to identify continual improvement opportunities.

The best compliance to our sustainability objectives has been consistently achieved by suppliers of starch, paper, chemicals and ink. Furthermore, none of our audited suppliers in these industry sectors score below expectation. From all sourcing categories, ten have been identified as key material and most relevant to our Sustainable and Responsible Sourcing programme.

From the key materials, 80.9% of the spend has been monitored.

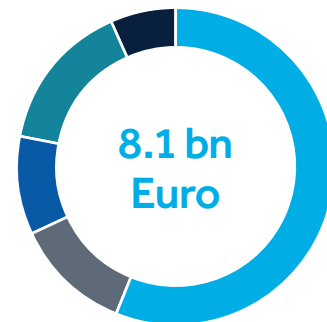
Spread over seven regions, we work with 17 external auditors supporting us with their knowledge of local legislations regarding environment, working conditions, labour rights, culture and language. Some have specific experience with industries and/or with our Sustainable and Responsible Sourcing audit programme; nine of them took part in the 2021 online training programme and three were trained 'on the job' in 2022.

Supplier Audit Activities by Country 121 Audit Activities (112 individual suppliers audited)



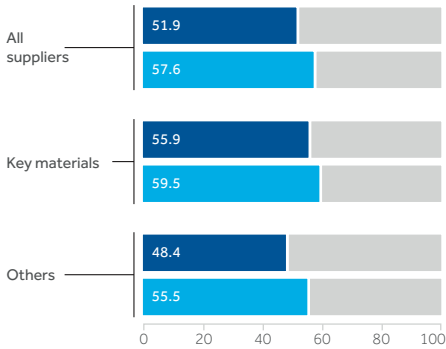
- Key:**
- D-A-CH - 55
 - PL - 18
 - UK/IR - 17
 - Americas - 10
 - BNL - 9
 - Scandinavia - 5
 - IT - 3
 - FR - 2
 - Rest of World - 2

Total Sourcing Costs (€m)



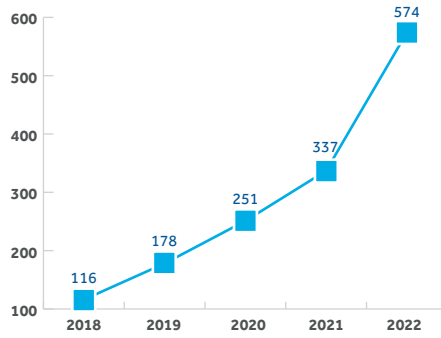
- Key:**
- Raw material and consumables - 4,564
 - Transportation and storage - 966
 - Capital equipment - 817
 - Energy - 1,249
 - Maintenance and repairs - 527

**Average Audit Score
Initial vs 2022**



Key:
● Initial audits ● 2022 Current level

Signed Sustainability Declarations*



* The declarations cover compliance with our Suppliers' Code of Conduct, Modern Slavery Act Statement and Sustainable and Responsible Sourcing Policy.



121
sustainable supplier audit
activities in 2022

Supporting data





Supporting Data

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Input/Output 2022

Europe

Input

Wood and Fibre		
Wood ¹	4,999	ktonnes ar
Market virgin pulp	117	ktonnes ar
Other pulp	10	ktonnes ar
Recovered paper	5,278	ktonnes ar
Paper or board purchased	1,373	ktonnes ar
Plastic films, other plastic item (BIB)	33	ktonnes
Starch (all types)	308	ktonnes ar
Inorganic raw materials	334	ktonnes ar
Other organic raw materials	178	ktonnes ar

Energy

Energy from fossil fuels	30,689	TJ (Terajoule)
Energy from purchased biofuels	5,526	TJ
Electricity from grid	2,197	GWh

Water

Water intake ²	111	Mm ³
---------------------------	-----	-----------------

Output

Production		
Papers (all grades)	6,032	ktonnes
Corrugated packaging*	5,347	ktonnes
Board and laminated boards*	404	ktonnes
Converted board*	115	ktonnes
Sacks*	–	ktonnes
Other packaging	33	ktonnes

Direct Emissions to Air

CO ₂ fossil	1,771	ktonnes
CO ₂ biogenic	3,594	ktonnes
Dust/particulates from fuels	0.17	ktonnes
SO _x from processes	0.79	ktonnes
NO _x from processes	2.9	ktonnes

Energy Output

Electricity to third party	400	GWh
Thermal energy to third party	175	TJ
Biomass sold	664	TJ

Waste

Hazardous waste	11.1	ktonnes
Non-hazardous waste sent to landfill	200	ktonnes
Non-hazardous waste recovered	468	ktonnes
Other non-hazardous waste	14.4	ktonnes

Discharges to Water

Water released	100	Mm ³
COD	30.2	ktonnes
BOD	11.8	ktonnes
Total suspended solids	5.2	ktonnes
Nitrogen	0.54	ktonnes
Phosphorous	0.060	ktonnes

Notes

1 Wood and sawmill chips as delivered to the mill.

2 Water intake includes rainwater and waste water from another operation.

* Partly produced with Smurfit Kappa paper or board.

ktonnes ar: kilotonnes as received.

The table reports total energy consumption of the site, taking into account the fuels used to produce electricity and/or thermal energy sold externally. This results in different figures for these parameters compared to those on pages 120 to 121. The latter pages show the energy consumption for the production of the paper or board manufactured.

The Americas

Input

Wood and Fibre		
Wood ¹	871	ktonnes ar
Market virgin pulp	3	ktonnes ar
Other pulp	2	ktonnes ar
Recovered paper	1,499	ktonnes ar
Paper or board purchased	288	ktonnes ar
Plastic films, other plastic item (BIB)	5	ktonnes
Starch (all types)	67	ktonnes ar
Inorganic raw materials	39	ktonnes ar
Other organic raw materials	66	ktonnes ar

Energy

Energy from fossil fuels	12,739	TJ (Terajoule)
Energy from purchased biofuels	2,233	TJ
Electricity from grid	887	GWh

Water

Water intake ²	31	Mm ³
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Output

Production		
Papers (all grades)	1,491	ktonnes
Corrugated packaging*	1,661	ktonnes
Board and laminated boards*	122	ktonnes
Converted board*	91	ktonnes
Sacks*	72	ktonnes
Other packaging	5	ktonnes

Direct Emissions to Air

CO ₂ fossil	835	ktonnes
CO ₂ biogenic	607	ktonnes
Dust/particulates from fuels	0.17	ktonnes
SO _x from processes	1.32	ktonnes
NO _x from processes	1.41	ktonnes

Energy Output

Electricity to third party	–	GWh
Thermal energy to third party	–	TJ
Biomass sold	–	TJ

Waste

Hazardous waste	1.7	ktonnes
Non-hazardous waste sent to landfill	253	ktonnes
Non-hazardous waste recovered	20	ktonnes
Other non-hazardous waste	0.1	ktonnes

Discharges to Water

Water released	27.4	Mm ³
COD	11.6	ktonnes
BOD	2.47	ktonnes
Total suspended solids	3.51	ktonnes
Nitrogen	0.36	ktonnes
Phosphorous	0.030	ktonnes

Notes

- 1 Wood and sawmill chips as delivered to the mill.
 - 2 Water intake includes rainwater and waste water from another operation.
- * Partly produced with Smurfit Kappa paper or board.
ktonnes ar: kilotonnes as received.

The table reports total energy consumption of the site, taking into account the fuels used to produce electricity and/or thermal energy sold externally. This results in different figures for these parameters compared to those on pages 122 to 123. The latter pages show the energy consumption for the production of the paper or board manufactured.

Environmental Data 2022

Paper and Board Mills, Europe

		Nettingsdorf, Austria	Sangüesa, Spain	Facture, France	Piteå, Sweden	Morava, Czech Republic	Wrexen, Germany ⁵	Hoya, Germany ⁵	Zülpich, Germany	Mengibar, Spain
		kl, tl	mg paper	bkl, wtkt	bkl, wtkt	tl, fl	wtkt, sb, tl, fl	tl, fl, cart	tl, fl	fl, tl
Production	ktonnes	418	85	547	659	75	295	430	507	218
Energy										
Electricity										
Co-generated	GWh	154	58	401 ¹	293	–	50	109	149	97
Self-generated	GWh	–	–	–	–	–	–	–	–	–
Hydro power	GWh	–	–	–	–	0.7	0.1	–	–	–
Solar electricity generated on site	GWh	–	–	–	–	–	–	–	–	–
Net grid supply	GWh	123	88	46	262	22	37	54	41	– ²
Total electricity	GWh	277	146	447	556	23	88	163	190	97
Fuel Usage										
Biofuels	TJ	4,301	2,070	9,160	10,049	17	59	93	400	–
Fossil fuels	TJ	674	179	598	173	329	1,226	2,238	2,659	1,500
Total fuels	TJ	4,975	2,249	9,758	10,222 ³	346	1,285	2,331	3,059	1,500
Water Withdrawal										
Surface	Mm ³	15.9	4.5	7.9	26.8	0.5	0.5	–	1.6	1.3
Ground	Mm ³	–	–	0.9	–	0.0	0.6	2.3	0.4	0.0
Grid	Mm ³	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.1
Total water ⁴	Mm ³	16.0	4.7	9.3	27.3	0.5	1.2	2.5	2.0	1.3
Discharges										
To Air										
CO ₂ fossil direct Scope 1	ktonnes	38	13	35	13	18	69	126	157	84
CO ₂ fossil indirect Scope 2	ktonnes	–	17	2	3	10	13	19	14	–
CO ₂ biogenic	ktonnes	467	221	1,091	1,155	1	5	7	46	5
Dust (particulate matter PM)	tonnes	9.8	8.0	27.1	87.3	0.2	0.0	0.0	0.5	0.1
NO _x as NO ₂	tonnes	294	114	589	593	6	32	74	137	66
SO _x as SO ₂	tonnes	8	40	66	24	1	1	1	3	72
To Water										
Process water	Mm ³	5.78	3.81	9.71	10.36	0.32	0.32	2.05	–	1.16
Cooling water	Mm ³	7.98	–	–	16.79	–	0.54	0.07	1.23	–
COD	tonnes	9,233	226	4,062	2,005	44	69	244	–	418
BOD	tonnes	5,618	75	1,107	430	0	4	15	–	11
Total suspended solids	tonnes	799	65	651	246	6	5	72	–	233
Total nitrogen	tonnes	43.6	24.8	108.2	31.8	5.3	0.8	29.7	–	40.7
Total phosphorous	tonnes	3.4	0.5	13.9	6.7	0.2	0.1	1.6	–	3.9
Waste										
Total non-hazardous waste	tonnes	21,800	15,421	54,125	37,990	10,370	11,351	30,910	15,011	26,554
Landfill	tonnes	3,712	4,103	10,181	1,678	4,688	–	–	–	22,962
Recovery	tonnes	18,088	11,318	43,786	36,312	5,682	11,189	30,910	15,011	3,592
Other	tonnes	–	–	158	–	–	162	–	–	–
Hazardous waste	tonnes	180	340	195	133	4	72	30	5,258	40

Notes

- 1 CHP partly or totally outsourced.
- 2 Electricity exported by CHP.
- 3 Part of heat exported outside the Group.

4 Total water includes rainwater and waste water from another organisation.

5 Both Hoya and Wrexen consist of two mills on one site, data are aggregated data per site.

Water discharges in italic: mills that do not discharge their process water to surface.

Alfa d'Avignon, France	Rethel, France	Saillat, France	Ania, Italy	Verzuolo, Italy	Roermond, the Netherlands	Parencio, the Netherlands	Belgrade, Serbia	SSK, United Kingdom	Townsend Hook, United Kingdom	Herzberger, Germany	Nervión, Spain	Total mills
tl	tl	fl, tl	fl, tl	fl, tl	tl, fl	fl, grap pap, tl	tl, fl	tl, fl	fl, tl	sb	sack pap	
67	62	227	221	433	642	600	122	192	238	251	149	6,436
–	–	38 ¹	65	263	103	–	–	57	80	75	118	2,111
0.01	–	–	–	–	–	–	–	–	–	0.03	0.00	0.04
–	–	1.1	–	–	–	–	–	–	–	0.9	–	2.8
–	–	–	–	–	–	–	–	–	–	–	–	–
26	22	74	– ²	– ²	76	363	47	– ²	6	14	56	1,358
26	22	113	65	263	179	363	47	57	85	90	174	3,472
–	11	65	50	363	234	1,159	–	30	40	–	3,240	31,340
290	269	1,292	1,340	3,016	2,648	1,303	812	1,293	1,384	1,622	109	24,955
290	279	1,357	1,390	3,379	2,882	2,463	812	1,322	1,424	1,622	3,349	56,295
0.9	–	1.8	–	5.9	2.3	15.0	1.2	–	1.0	3.8	2.7	93.6
–	0.4	–	1.6	–	–	5.1	–	1.0	0.4	0.0	–	12.7
–	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.8
1.0	0.4	1.8	1.6	6.0	2.5	20.3	1.3	1.1	1.4	3.8	2.8	108.8
16	15	72	75	170	149	75	66	73	78	91	7	1,441
1	1	4	–	–	–	–	35	–	–	5	11	136
1	1	6	3	43	18	140	–	3	7	–	346	3,569
0.1	0.0	0.6	0.0	0.2	0.0	0.6	7.5	0.0	0.0	2.1	24.8	169.0
8	5	40	20	90	112	115	71	91	57	41	240	2,796
5	3	2	0	1	6	7	462	0	5	6	43	756
0.54	0.36	1.61	1.34	4.53	1.83	4.72	1.03	0.94	0.78	1.49	2.15	54.83
0.15	–	–	–	–	–	15.02	–	–	0.27	2.11	–	44.16
120	39	270	129	399	314	776	4,198	4,109	98	267	1,341	28,360
37	3	5	15	57	11	25	1,373	2,220	4	18	319	11,347
29	8	203	20	31	49	66	274	1,826	27	32	140	4,782
14.7	4.5	31.0	17.3	37.7	35.1	46.3	2.2	20.7	9.8	2.8	1.5	508.6
1.3	0.4	2.6	1.0	2.0	2.8	8.2	1.5	11.9	0.4	1.0	0.3	63.6
3,512	1,735	16,485	18,324	55,133	57,174	68,015	19,689	29,561	23,922	32,689	73,876	623,647
3,484	1,482	15,859	2,505	12,969	10,507	2,550	11,374	16,392	3,334	–	66,004	193,784
28	253	626	15,819	42,162	46,504	65,465	8,315	13,095	20,588	32,062	7,872	428,676
–	–	–	–	3	163	–	–	74	–	627	–	1,187
35	9	29	33	89	27	70	2	105	23	15	68	6,756

bkl: brown kraft liner
cart: carton board
fl: recycled fluting
grap p: graphic paper

mg paper: machine-glazed paper
sb: solid board
tl: testliner

wtkl: white top kraftliner
wttl: white top testliner
sack p: sack paper

Environmental Data 2022 continued

Paper and Board Mills, the Americas

		Bernal, Argentina	Coronel Suárez, Argentina	Bento, Brazil	Pirapetinga, Brazil	Uberaba, Brazil
		t, fl	t	fl, t	t, fl, wtfl	t, fl
Production	ktonnes	80	50	49	124	59
Energy						
Electricity						
Co-generated	GWh	–	–	–	–	–
Self-generated	GWh	–	–	–	–	0.01
Hydro power	GWh	–	–	–	–	–
Solar electricity generated on site	GWh	–	–	–	–	–
Net grid supply	GWh	34	13	19	58	29
Total electricity	GWh	34	13	19	58	29
Fuel Usage						
Biofuels	TJ	–	–	331	928	562
Fossil fuels	TJ	502	300	2	37	6
Total fuels	TJ	502	300	333	965	568
Water Withdrawal						
Surface	Mm ³	–	–	0.1	0.9	–
Ground	Mm ³	0.7	0.3	–	–	0.4
Grid	Mm ³	0.0	–	0.0	0.0	–
Total water ¹	Mm ³	0.7	0.3	0.1	0.9	0.4
Discharges						
To Air						
CO ₂ fossil direct Scope 1	ktonnes	29	17	0	3	0
CO ₂ fossil indirect Scope 2	ktonnes	10	4	2	6	3
CO ₂ biogenic	ktonnes	0	–	36	99	58
Dust (particulate matter PM)	tonnes	0.0	0.0	44.2	47.4	38.1
NO _x as NO ₂	tonnes	39	14	48	160	76
SO _x as SO ₂	tonnes	3	0	0	4	1
To Water						
Process water	Mm ³	0.32	0.19	–	0.62	0.29
Cooling water	Mm ³	0.32	–	–	–	–
COD	tonnes	45	83	–	222	587
BOD	tonnes	7	15	–	85	234
Total suspended solids	tonnes	4	18	–	22	54
Total nitrogen	tonnes	5.3	2.2	–	5.5	4.9
Total phosphorous	tonnes	0.1	0.0	–	0.8	0.5
Waste						
Total non-hazardous waste	tonnes	8,255	4,059	4,126	13,770	6,156
Landfill	tonnes	3,303	4,026	3,377	13,557	6,069
Recovery	tonnes	4,952	33	715	214	87
Other	tonnes	–	–	35	–	–
Hazardous waste	tonnes	68	22	38	19	8

Notes

1 Total water includes rainwater and waste water from another organisation.

Water discharges in italic: mills that do not discharge their process water to surface.

	Cali, Colombia	Barranquilla, Colombia	Barbosa, Colombia	Los Reyes, Mexico	Cerro Gordo, Mexico	Monterrey, Mexico	Forney, USA	Total Mills
sc fl, bkl, sack p, bkl, cart, tl, p&w, wttl, wtkl	tl, fl	fl, tl	fl, tl	fl, tl	tl, cart, fl	fl, tl	tl, fl	
270	64	110	140	316	32	319	1,613	
211	34	50	–	–	–	13	308	
0.12	–	0.02	–	–	–	–	0.15	
–	–	–	–	–	–	–	–	
–	–	–	–	0	0	–	0	
114	3	4	67	158	20	122	642	
326	37	54	67	158	20	135	950	
3,741	–	–	–	–	–	207	5,770	
4,969	626	733	753	1,430	207	1,512	11,077	
8,710	626	733	753	1,430	207	1,719	16,847	
21.5	0.8	0.8	–	–	–	–	24.1	
0.2	–	–	0.4	1.5	0.1	–	3.6	
0.0	0.0	–	–	–	0.1	1.4	1.4	
21.8	0.8	0.8	0.7	1.5	0.2	1.4	29.7	
379	35	48	42	80	12	85	730	
6	0	0	27	63	8	46	175	
364	–	–	–	0	0	26	585	
30.8	3.2	0.3	0.0	0.3	0.0	2.1	166.6	
814	36	63	23	34	10	46	1,365	
1,147	1	89	0	3	1	27	1,276	
21.71	0.55	0.67	0.43	0.94	0.09	0.49	26.28	
–	–	–	–	–	–	0.28	0.61	
7,651	532	378	114	459	44	1,281	11,396	
1,263	162	143	10	72	17	406	2,414	
2,679	221	100	11	101	10	225	3,444	
275.6	4.5	0.9	3.1	8.1	1.7	31.8	343.7	
12.2	3.9	0.9	0.4	2.7	0.1	5.7	27.5	
102,966	3,195	11,159	14,701	41,108	3,973	40,204	253,673	
101,707	2,174	9,704	14,096	40,851	1,012	40,046	239,922	
1,249	1,022	1,455	605	257	2,961	158	13,707	
10	–	–	0	–	–	–	45	
182	11	8	18	20	5	0	399	

bkl: brown kraft liner
cart: carton board
fl: recycled fluting
sc fl: semi-chemical fluting

p&w: printing and writing paper
pulp: virgin pulp sold externally
tl: testliner
wtkl: white top kraftliner

wttl: white top testliner
sack p: sack paper

Environmental Data 2022 continued

Total Operations Europe

		Paper and Board Mills	Integrated Corrugated Operations	Other Packaging Operations	Other Operations	Total Operations
Production	ktonnes	6,436	5,058	437	1,867	13,798
Energy						
Electricity						
Co-generated	GWh	2,111	–	–	–	2,111
Self-generated	GWh	0.04	–	–	–	0.04
Hydro power	GWh	3	–	–	–	3
Solar electricity generated on site	GWh	–	4	–	–	4
Net grid supply	GWh	1,358	559	86	4	2,007
Total electricity	GWh	3,472	563	86	4	4,125
Fuel Usage						
Biofuels	TJ	31,340	191	1	–	31,531
Fossil fuels	TJ	24,955	4,378	132	79	29,543
Total fuels	TJ	56,295	4,568	132	79	61,074
Water Withdrawal						
Surface	Mm ³	93.6	0.0	–	–	93.6
Ground	Mm ³	12.7	0.2	0.0	–	12.9
Grid	Mm ³	0.8	1.5	0.1	0.0	2.4
Total water ¹	Mm ³	108.8	1.7	0.1	0.0	110.6
Discharges						
To Air						
CO ₂ fossil direct Scope 1	ktonnes	1,441	252	8	6	1,706
CO ₂ fossil indirect Scope 2	ktonnes	136	109	16	0	262
CO ₂ biogenic	ktonnes	3,569	20	0	–	3,589
Dust (particulate matter PM)	tonnes	169	2	0	0	171
NO _x as NO ₂	tonnes	2,796	89	3	4	2,891
SO _x as SO ₂	tonnes	756	28	1	4	788
To Water						
Process water	Mm ³	54.8	0.6	0.0	–	55.5
Cooling water	Mm ³	44.2	0.1	–	–	44.3
COD ²	tonnes	28,360	1,827	–	–	30,187
BOD ²	tonnes	11,347	479	–	–	11,825
Total suspended solids ²	tonnes	4,782	421	–	–	5,203
Total nitrogen ²	tonnes	509	31	–	–	540
Total phosphorous ²	tonnes	64	1	–	–	64
Waste						
Total non-hazardous waste	tonnes	623,647	45,674	7,421	6,328	683,070
Landfill	tonnes	193,784	4,377	707	1,302	200,170
Recovery	tonnes	428,676	28,602	6,168	5,026	468,471
Other	tonnes	1,187	12,695	547	–	14,428
Hazardous waste	tonnes	6,756	3,933	426	12	11,127

Notes

- 1 Total water includes rainwater and waste water from another organisation.
- 2 Sum of available data (for mills details are reported in individual tables).

Total Operations, The Americas

		Paper and Board Mills	Other Operations	Total Operations
Production	ktonnes	1,613	3,491	5,104
Energy				
Electricity				
Co-generated	GWh	308	–	308
Self-generated	GWh	0.15	0.22	0.37
Hydro power	GWh	–	–	–
Solar electricity generated on site	GWh	0	1	1
Net grid supply	GWh	642	241	882
Total electricity	GWh	950	242	1,192
Fuel Usage				
Biofuels	TJ	5,770	204	5,974
Fossil fuels	TJ	11,077	1,662	12,739
Total fuels	TJ	16,847	1,866	18,713
Water Withdrawal				
Surface	Mm ³	24.1	0.1	24.2
Ground	Mm ³	3.6	0.3	3.9
Grid	Mm ³	1.4	0.4	1.9
Total water ¹	Mm ³	29.7	0.9	30.5
Discharges				
To Air				
CO ₂ fossil direct Scope 1	ktonnes	730	104	835
CO ₂ fossil indirect Scope 2	ktonnes	175	72	247
CO ₂ biogenic	ktonnes	585	22	607
Dust (particulate matter PM)	tonnes	167	3	170
NO _x as NO ₂	tonnes	1,365	41	1,406
SO _x as SO ₂	tonnes	1,276	43	1,320
To Water				
Process water	Mm ³	26.3	0.2	26.5
Cooling water	Mm ³	0.61	–	0.61
COD ²	tonnes	11,396	167	11,563
BOD ²	tonnes	2,414	58	2,472
Total suspended solids ²	tonnes	3,444	67	3,512
Total nitrogen ²	tonnes	343.7	13.7	357.4
Total phosphorous ²	tonnes	27.5	0.1	27.6
Waste				
Total non-hazardous waste	tonnes	253,673	19,056	272,730
Landfill	tonnes	239,922	12,665	252,587
Recovery	tonnes	13,707	6,298	20,005
Other	tonnes	45	93	138
Hazardous waste	tonnes	399	1,290	1,689

Notes

- 1 Total water includes rainwater and waste water from another organisation.
- 2 Sum of available data (for mills details are reported in individual tables).

Environmental Data 2022 continued

Total Group Operations

		All Operations				
		2022	2021	2020	2019	2018
Energy						
Electricity						
Co-generated ¹	GWh	2,419	2,196	2,192	2,218	2,282
Self-generated	GWh	0.41	0.58	1.09	0.81	8.14
Hydro power	GWh	3	5	5	4	4
Solar electricity generated on site	GWh	5	1	1	0	–
Grid supply	GWh	2,890	2,907	2,841	2,876	2,356
Total electricity	GWh	5,317	5,109	5,040	5,099	4,650
Fuel Usage						
Biofuels	TJ	37,506	37,363	36,965	37,119	36,580
Fossil fuels	TJ	42,282	40,847	41,058	40,735	40,469
Total fuels	TJ	79,787	78,210	78,023	77,854	77,049
Water Withdrawal						
Surface	Mm ³	117.8	116.6	120.9	114.2	99.1
Ground	Mm ³	16.8	17.0	17.0	16.7	10.9
Grid	Mm ³	4.3	4.0	4.0	3.9	3.9
Total water ²	Mm ³	141.1	140.1	144.3	137.1	115.3
Discharges						
To Air						
CO ₂ fossil direct Scope 1	ktonnes	2,541	2,500	2,545	2,513	2,489
CO ₂ fossil indirect Scope 2	ktonnes	508	553	566	808	652
CO ₂ biogenic	ktonnes	4,195	4,176	4,073	4,066	3,944
Dust (particulate matter PM)	tonnes	341	344	383	596	631
NO _x as NO ₂	tonnes	4,297	4,128	4,400	4,971	5,072
SO _x as SO ₂	tonnes	2,108	2,176	2,395	2,237	2,694
To Water						
Process water	Mm ³	82.0	77.0	80.0	76.2	74.0
Cooling water	Mm ³	44.9	49.3	50.8	49.2	29.7
COD ³	tonnes	41,750	41,398	40,100	42,015	41,316
BOD ³	tonnes	14,297	14,849	15,399	17,449	15,022
Total suspended solids ³	tonnes	8,715	8,431	7,775	7,898	8,004
Total nitrogen ³	tonnes	897	1,088	901	960	1,228
Total phosphorous ³	tonnes	92	99	87	107	224
Waste						
Total non-hazardous waste	tonnes	955,799	915,257	856,862	903,341	853,599
Landfill	tonnes	452,757	426,106	442,038	539,450	519,000
Recovery	tonnes	488,476	475,022	405,801	350,287	323,045
Other	tonnes	14,566	14,129	9,022	13,604	11,553
Hazardous waste	tonnes	12,815	8,774	10,046	9,655	10,614

Notes

1 CHP partly or totally outsourced.

2 Total water includes rainwater and waste water from another organisation.

3 Sum of available data (for mills details are reported in individual tables).

Social Data

Social Citizenship and Health and Safety

	2022	2021	2020	2019	2018
Social Citizenship (Full-time Employees)					
Total number of employees ¹	48,058	48,045	46,688	46,237	44,959
of whom female (%) ²	20%	20%	19%	19%	19%
Employees leaving the company ³	5,421	4,919	4,017	4,842	6,224
of whom resignation and retirement (%)	74%	69%	64%	64%	58%
Employees joining the company ³	5,705	5,778	4,189	5,038	6,675
Age distribution (%)					
<20 years	1%	1%	1%	1%	1%
21-30 years	17%	17%	16%	17%	17%
31-40 years	24%	25%	25%	24%	24%
41-50 years	27%	27%	27%	28%	28%
51-60 years	26%	26%	26%	25%	25%
>60 years	5%	5%	5%	5%	5%
Employees turnover (%)	12.7%	11.7%	9.8%	11.7%	15.5%
Length of service, above 11 years (%)	46%	46%	47%	48%	49%
Female in management (%)	23.5%	22%	22%	21%	19%
Parental leave	1,423 employees took a parental leave and 1,201 returned from parental leave	1,225 employees took parental leave and 1,015 returned from parental leave	1,152 employees took parental leave and 900 returned from parental leave	1,178 employees took parental leave and 1,028 returned from parental leave	1,260 employees took parental leave and 1,126 returned from parental leave
of whom female ⁶	383 female employees took parental leave and 260 returned	371 female employees took parental leave and 238 returned			
Average training hours per employee	21	18.7	15	22	24
By gender ⁶	20.9 Male/22.5 Female	18.6 Male/18.9 Female			
Health and Safety					
Lost time accidents (LTA) (SK employees)	277	270	232	325	321
Lost time accidents (LTA) (contractors)	58	63	37	46	48
Days lost due to accidents (DLA) (SK employees)	8,890	9,090	9,413	11,177	10,683
Accident severity rate (ASR) (%) (SK employees)	10.08%	10.39%	11.19%	13.15%	12.65%
LTA frequency rate (FR)* (SK employees)	0.31	0.31	0.28	0.38	0.38
Total recordable injury rate ⁴	0.51	0.59	0.60	0.84	1.01
Number of restricted workday cases (RWC) (SK employees) ⁵	68	107	104	135	
Number of medical treatment cases (MTC) (SK employees) ⁵	109	137	165	253	
Number of medical treatment cases (MTC) (contractors) ⁶	12	9			
Total recordable injuries (LTA/RWC/MTC) ⁵	454	514	501	713	
Fatalities					
Own employees	0	0	0	0	0
Contractors ⁷	0	0	1	0	0
Sub-contractors ⁷	1	1	1	2	0

Notes

- 1 Based on full-time equivalent of employees and contractors.
- 2 Based on SK employees only (excluding contractors).
- 3 This data has been derived from Hyperion Financial Management data system (HFM). Since 2018, all countries have registered in HFM, and data accuracy has improved. This has led to an increase in the joiners and leavers data compared with 2017.
- 4 New indicator since 2018.

5 New indicator since 2019.

6 New indicator since 2021.

7 (Sub)contractors have been split into contractors and sub-contractors since 2021.
* The amount of contractors and sub-contractors in our business is relatively small. Contractors and sub-contractors are mainly supporting us in major construction and maintenance projects and represent our external suppliers.

Sourcing Data

Sustainable Sourcing and Sustainable Fibre Data

	2022	2021	2020	2019	2018
Sustainable Sourcing Data					
Number of audit activities¹					
Suppliers of key materials	66	9	21	35	21
Tactical and other suppliers	55	13	25	77	53
Satisfactory Scores					
Suppliers of key materials	50	8	20	29	20
Tactical and other suppliers	37	11	24	65	43
Sustainable Fibre					
Wood supplied from certified forests ²	56.9%	56.2%	57.3%	57.8%	55.0%
Wood supplied from non-controversial sources ²	43.1%	43.8%	42.7%	42.2%	45.0%
Paper produced as certified ²	93.0%	92.8%	92.7%	92.6%	91.0%
Packaging sold as certified ^{2,3}	94.3%	93.5%	93.8%	92.1%	88.4%
External papers purchased through CoC certified supply chains ^{2,4}	99.2%	99.5%	99.2%	98.9%	99.5%
Recycled fibres in global production	76.2%	75.6%	75.4%	75.8%	74.5%

Environmental Incidents 2022

Significant Environmental Non-compliances in 2022*

Site	Significant Environmental Non-Compliance	Details
Barranquilla, Colombia	Water	A new water treatment plant has now started to run and the site is expected to be compliant in 2023.
Belgrade, Serbia	Water	Construction work for a new water treatment plant has started and is expected to be finalised in 2023.
Coronel Suárez, Argentina	Water	The water treatment plant will be updated with an anaerobic reactor which is expected to be finalised in 2023.
Facture, France	Noise	Noise insulation work has been started in several parts of the mill and is expected to be finalised in 2023.
Mengíbar, Spain	Noise	The site is awaiting guidance on local new permit limits to drive how the issue is resolved.
Mengíbar, Spain	Water	The water treatment plant was updated with a new reactor during 2022 and the site is expected to be compliant in 2023.
Sangüesa, Spain	Air	The site is adjusting the operation of its lime kiln and we expect this to resolve the issue in 2023.

* A significant environmental non-compliance is a non-compliance that requires a change to existing infrastructure at the site, often requiring a CapEx.

Notes

- 1 An 'audit activity' could be an initial or re-approval audit, a follow-up on improvement plan, an internal audit or an assessment by an external platform. From 2022 onwards we report on all audit activities.
- 2 FSC, PEFC or SFI CoC certified and FSC Controlled Wood.
- 3 Russian data has been excluded from CoC-related KPIs from 1 April 2022 (see page 134). The result including Russia for the full year was 92.7%.
- 4 Russian data has been excluded from CoC-related KPIs from 1 April 2022 (see page 134). The result including Russia for the full year was 94.1%.

Management System Certifications

Forestry, Wood Sourcing and Mills

		Quality Management System	Environmental Management System	Health and Safety System	Hygiene Management for Foodstuffs Packaging		Energy Management System	Chain of Custody		
		ISO 9001	ISO 14001	ISO 45001	EN 15593	FSSC 22000	ISO 50001	FSC	PEFC	SFI
Europe										
Wood Sourcing										
ES	Central Forestal			YES				YES	YES	
FR	Comptoir du Pin			YES				YES	YES	
Virgin Mills										
AT	Nettingsdorf	YES	YES	YES	YES			YES	YES	
ES	Nervión Sangüesa	YES	YES	YES	YES		YES	YES	YES	
		YES	YES	YES	YES			YES	YES	
FR	Facture	YES	YES	YES		YES		YES	YES	
SE	Piteå	YES	YES	YES		YES	YES	YES	YES	
Recycled Mills										
CZ	Morava	YES	YES	YES	YES		YES	YES	YES	
DE	Herzberger Hoya ¹ Wrexen ¹ Zulpich	YES	YES	YES	YES		YES	YES	YES	
		YES	YES	YES	YES		YES	YES	YES	
		YES	YES	YES	YES		YES	YES	YES	YES
		YES	YES	YES	YES		YES	YES	YES	YES
ES	Mengibar	YES	YES	YES	YES			YES	YES	
FR	Alfa D'Avignon Rethel Saillat	YES	YES		YES			YES	YES	
		YES	YES		YES			YES	YES	
		YES	YES	YES	YES		YES	YES	YES	
IT	Ania Verzuolo	YES	YES	YES	YES			YES	YES	
		YES	YES					YES	YES	
NL	Parenco Roermond	YES	YES	YES		YES	YES	YES	YES	
RS	Belgrade	YES	YES			YES		YES		
UK	SSK Townsend Hook	YES	YES	YES	YES		YES	YES	YES	
		YES	YES	YES			YES	YES	YES	
The Americas										
Forestry										
CO	Colombian Forest							YES		
Virgin mills										
CO	Cali		YES					YES		
Recycled Mills										
AR	Bernal Coronel Suárez	YES	YES				YES	YES		
		YES	YES				YES	YES		
BR	Bento Pirapetinga Uberaba	YES						YES		
		YES						YES		
		YES						YES		
CO	Barbosa Barranquilla		YES					YES		
ME	Cerro Gordo Los Reyes Monterrey	YES	YES					YES		
		YES	YES					YES		
		YES	YES					YES		
USA	Forney		YES	YES				YES	YES	YES

Note

1 Both Hoya and Wrexen consist of two mills on one site, data are aggregated data per site.

Protected Areas and Biodiversity

Smurfit Kappa Operations Within or Adjacent to Legally Protected Area or to Areas of High Biodiversity Value

Some of our European sites operates partly in or are adjacent to areas classified by Natura 2000.

Location	Type Plant	Specifics	Status	Area
Austria				
Nettingsdorf	Paper mill	Site adjacent to a protected area	Natura 2000	Hangwälder Ritzlhof AT3147000
Czech Republic				
Morava	Paper mill	Site adjacent to a protected area	Natura 2000	Vallée du Ciron FR7200693
France				
Alfa d'Avignon	Paper mill	Site adjacent to a protected area	Natura 2000	Le Rhône aval FR9301590
Aquitaine	Corrugated site	Site adjacent to a protected area	Natura 2000	Údolí Moravice CZ0813474
Facture	Paper mill	Site partly located in the protected area	ZNIEFF type 1 ZNIEFF type 2 Natura 2000 LPO ZICO	Zone inondable de la basse Leyre Vallées de la grande et de la petite Leyre Vallées de la grande et de la petite Leyre AN1
Germany				
Delitzsch	Corrugated site	Site adjacent to a protected area	Natura 2000	Agrarraum und Bergbaufolgelandschaft bei Delitzsch DE4439452
Heppenheim	Board converting site	Site adjacent to a protected area	Natura 2000	Hinterer Bruch südlich Heppenheim DE6317306
Herzberg	Three activities (board mill & corrugated site & converting plan)	Site adjacent to a protected area	Natura 2000 Naturpark Harz	Sieber, oder, Rhume DE 4228331 N°4229-402
Lauenburg	Corrugated site	Site adjacent to a protected area	Natura 2000	Elbe mit Hohem Elbufer von Tesperhude bis Lauenburg mit angr. Fl. DE2628392
St Leon	Corrugated site	Site adjacent to a protected area	Natura 2000	Lußhardt zwischen Reilingen & Karlsdorf DE6717341
Wrexen	Paper mill	Site adjacent to a protected area	Natura 2000	Vogelschutzgebiet Egge DE4419401
The Netherlands				
Parenco	Paper mill	Site adjacent to a protected area	Natura 2000	Rijntakken NL2014038 Veluwe NL3009017
Spain				
Nervión	Paper mill	Site adjacent to a protected area	Natura 2000	Urkiola Natural Park ES213009
Vigo	Corrugated site	Site adjacent to a protected area	Natura 2000	Gándaras de Budiño ES1140011
Sweden				
Eslöv	Corrugated site	Site adjacent to a protected area	Natura 2000	Abullahagen SE0430119
Welltilverkaren	Corrugated site	Site adjacent to a protected area	Natura 2000	Abullahagen SE0430119
Piteå	Paper mill	Site adjacent to a protected area	Natura 2000	Svensbyfjärden SE0820711

Some Other Sites are Adjacent to Sites Protected by National or Local Status

Location	Type Plant	Specifics	Status	Area
Belgium				
Turnhout	Corrugated site	Site adjacent to a protected area	National legislation	Nature reserve 'Frans Segers'
Denmark				
Kolding	Corrugated site	Site adjacent to a protected area	National legislation	Kolding Havn
Ecuador				
Ecuador sacks	Sack plant	Site adjacent to a protected area	Local legislation	Cerro blanco forest (White forest hill)
France				
Dore	Corrugated site	Site located in a protected area	Local legislation	Parc naturel régional Livradois-Forez
Germany				
Hoya	Paper mill	Site adjacent to a protected area	National legislation	2: Wiedsee & Bürgerpark
Lübeck	Corrugated site	Site adjacent to a protected area	National legislation	Schellbruch
Schneverdingen	Corrugated site	Site located in a protected area	Local legislation	Water reserve
The Netherlands				
R. Eindhoven	Corrugated site	Site located in a protected area	Local legislation	Philipps de Jongh park
United Kingdom				
Townsend Hook	Paper mill	Site adjacent to a protected area	Local legislation	Holborough and Burham Marshes SSSI

Water Courses Where Smurfit Kappa Withdraws or Releases Water that are Classified Sensitive or Protected

- Piteå: paper mill in Sweden discharge process water in the estuary Vargödraget, which is classified as protected area Natura 2000 (SE 0820330)

Biodiversity

Threatened species recorded on Smurfit Kappa Colombia Forestry Division's properties

Group	Total	Critical Risk	Endangered	Vulnerable
Birds	19	0	5	14
Flora	22	1	10	11
Mammals	10	1	2	7
Amphibian	1	0	0	1
Total	52	2	17	33

Smurfit Kappa take into consideration the ICUN: International Union for Conservation of Nature, CITIES: International Trade in Endangered Species of Wild Fauna and Flora and MADS: Ministry of Environment and Sustainable Development Colombia.

Supplementary information





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About this Report

The information in this report covers the international activities of the Smurfit Kappa Group for the calendar year 2022 and also includes some information for early 2023, where mentioned specifically. In this report, we cover the business, environmental and social activities at our own operations, as well as our approach to sourcing and how we support our customers' sustainability targets.

The 2022 Sustainable Development Report will be the Group's first report published on the same day as its Annual Report.

Acquisitions, Divestitures and Closures 2022

During 2022, Smurfit Kappa acquired three corrugated plants: in Argentina (Argencraft), in Brazil (PaperBox) and in the UK (Atlas Packaging). We also acquired a bag-in-box plant in Spain (Pusa Pack). Our Carson sheet plant was shut down and consolidated into the Baldwin Park corrugated plant in the US, in 2022.

Data on the acquired, opened, sold and closed sites during 2022 is not included for the 2022 data presented in this report. Our reporting policy states that the acquired and opened sites start to report on their first full year in the Group. The sold and closed sites report until the last reporting period in the Group, which for all environmental data is quarterly for paper and board mills and annually for all other operations. The health and safety data for all operations is reported quarterly and the social data annually.

Smurfit Kappa applies a two-year integration policy to the acquired operations. The new operations have to obtain certified management systems required by the Group within this period. The operations start to report about the management systems immediately after obtaining the certificate, issued by a third party. This has the greatest effect on the certified CoC-related reporting.

The Group announced on 20 March 2023 that it had completed its exit from the Russian market. The Group had announced its intention to exit the Russian market in an orderly manner on 1 April 2022 and subsequently entered into an agreement to sell its Russian operations to local management. Following the approval of the Russian authorities and the completion of all necessary administrative processes, the Group's operations in Russia were sold to local management. The operations included a bag-in-box facility and two corrugated plants in St Petersburg, and a corrugated plant in Moscow.

In March 2022, FSC suspended all FSC Certified trade of wood-based products in Russia and Belarus as a consequence of the illegal invasion by Russia of Ukraine. The decision made by the FSC impacted Smurfit Kappa's ability to sell any products as CoC certified from its Russian plants from the beginning of April 2022. As a result, Russian data has been excluded from the reported CoC-related KPIs from 1 April 2022 onwards. The decisions have no impact on any other KPIs for 2022.

Topics, Issues and Targets

Smurfit Kappa fully recognises that sustainable development embraces social and business issues as well as environmental ones. These issues have been selected on the basis of input from various stakeholder groups. Smurfit Kappa collected and controlled data from all its manufacturing operations that were operational at the end of 2022.

No significant changes in the scope, boundary and measurement methods were applied to the report compared with previous years.

Our targets are primarily based on specific emissions, measured against produced tonnes of paper rather than absolute values as the Group is in dynamic growth mode and we also take account of the acquisitions, and opening and closing of facilities. Other information is reported in absolute figures, unless otherwise stated.

We have changed our approach in calculating our charitable donations and we no longer include a monetised value for non-cash donations. This change leads to a restatement of the 2020 and 2021 charitable donations amounts due to the exclusion of monetised non-cash amounts. The impact of this change is a decrease of charitable donations from €7.7 million to €7.4 million in 2020 and from €4.9 million to €4.4 million in 2021.

Reporting Guidelines, Data Collection

Among the various references used for the development and identification of baseline data included in this report, our reporting has been made in accordance with the GRI Standards, issued by the GRI which is one of the references used for the development and identification of baseline data included in this report.

GRI is an international independent organisation that helps businesses, governments and other organisations understand and communicate the impact of business on critical sustainability issues such as climate change, human rights, corruption and many others.

In May 2020, Smurfit Kappa announced its support for the recommendations by the TCFD. Following on from that, this is the Group's third year to report consistent with those recommendations and we expect this to develop and evolve over time (see page 141). The TCFD was established by the Financial Stability Board to develop recommendations in relation to climate-related disclosures that would inform investment and other financial decisions. The recommendations set out an important framework for understanding and analysing climate related risks.

The Sustainability Accounting Standards Board ('SASB') is an independent non-profit organisation that sets standards to guide the disclosure of financially material sustainability information by companies to their investors. The Group's response to the relevant SASB criteria can be found in this report (see page 142).

Every effort has been made to provide data that is as accurate as possible. Data relating to environmental factors is gathered through a Group-wide IT-based reporting system implemented in all Smurfit Kappa operations.

This tool is integrated into the Group's intranet, enabling sites to report their environmental data online according to GRI guidelines into a central database. We make continuous efforts to increase our data quality. This includes improving the user-friendliness of our data collection and developing mill individual reporting protocols. Our protocols and guidelines exceed the scope of the GRI guidelines and are part of the external assurance scope. For the most part, data is based on measured or metered quantities, or on best estimates based on industry knowledge and established calculation factors.

Our GHG emission reporting is based on CO₂ emissions, which is the only material GHG emission for Smurfit Kappa. CO₂ emissions calculations have been based on established fuel consumption and specific CO₂ emission factors. Definitions and calculations for the performance indicators can be found in the glossary on pages 146-150.

Ongoing initiatives continue to further standardise the data gathering system to improve data quality and consistency in the use of Group definitions and scope requirements of our key indicators. In 2022, we increased the frequency in reporting across more of our operations to support our reporting timelines. This forms part of the ongoing development of the Group's non-financial data reporting. In 2022, we implemented a new approach to data audits and they now follow the same approach as we use for all financial data.

External Assurance

As outlined on page 16 the Sustainability Committee of the Board has the responsibility to provide strategic guidance and support to management in the implementation of the Smurfit Kappa Sustainability Strategy. The Group has appointed an external assurance provider, KPMG, to provide limited assurance on the data and the text of the report. This is the 14th Sustainable Development Report that has been externally assured. KPMG's assurance report can be found on page 151.

GRI Index

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
Universal Standard				
GRI 2: General Disclosures				
The Organisation and its Reporting Practices				
GRI 2	GRI 2:1	Organisational details	SDR	Cover, inside front, back cover
GRI 2	GRI 2:2	Entities included in the organisation's sustainability reporting	SDR	134
GRI 2	GRI 2:3	Reporting period, frequency and contact point	SDR	134 This report covers the period 2022
GRI 2	GRI 2:4	Restatements of information	SDR	134
GRI 2	GRI 2:5	External assurance	SDR	151-152
Activities and Workers				
GRI 2	GRI 2:6	Activities, value chain and other business relationships	SDR	1-33
GRI 2	GRI 2:7	Employees	SDR Data partially incomplete based on gender and region breakdown.	Inside front, 71, 127
GRI 2	GRI 2:8	Workers who are not employees	SDR	127 (footnote)
Governance				
GRI 2	GRI 2:9	Governance structure and composition	AR	100-147
GRI 2	GRI 2:10	Nomination and selection of the highest governance body	AR	100-147
GRI 2	GRI 2:11	Chair of the highest governance body	AR	100-103
GRI 2	GRI 2:12	Role of the highest governance body in overseeing the management of impacts	AR	100-147
GRI 2	GRI 2:13	Delegation of responsibility for managing impacts	SDR	108-111
GRI 2	GRI 2:14	Role of the highest governance body in sustainability reporting	SDR/AR/website	108-111 / 108-109 / smurfitkappa.com/about/corporate-governance
GRI 2	GRI 2:15	Conflicts of interest	AR	108-109
GRI 2	GRI 2:16	Communication of critical concerns	SDR/AR	109-110 / 105-112
GRI 2	GRI 2:17	Collective knowledge of highest governance body	AR	69-72, 104, 108-110, 141-143
GRI 2	GRI 2:18	Evaluation of the performance of the highest governance body	AR	110-111
GRI 2	GRI 2:19	Remuneration policies	AR	117-127
GRI 2	GRI 2:20	Process to determine remuneration	AR	117-127
GRI 2	GRI 2:21	Annual total compensation ratio	AR Currently applies to Ireland only. We have started to voluntarily put together gender pay gap data in the UK and Ireland and build on a further disclosure. In our remuneration report we disclose the complete remuneration policies for our highest paid individuals (AR 120-136)	131
Strategy, Policies and Practices				
GRI 2	GRI 2:22	Statement of sustainable development strategy	SDR	12-19
GRI 2	GRI 2:23	Policy commitments	SDR/website	108-111 / smurfitkappa.com/about/corporate-governance/policies

GRI Index continued

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
GRI 2	GRI 2:24	Embedding policy commitments	SDR/website	108-111 / smurfitkappa.com/about/corporate-governance/policies
GRI 2	GRI 2:25	Processes to remediate negative impacts	SDR/AR	77, 93 / 97, 112, 116
GRI 2	GRI 2:26	Mechanisms for seeking advice and raising concerns	SDR	77
GRI 2	GRI 2:27	Compliance with laws and regulations	SDR	77, 109, 128
GRI 2	GRI 2:28	Membership associations	SDR	3, 30-31, 108-111
Stakeholder Engagement				
GRI 2	GRI 2:29	Approach to stakeholder engagement	SDR/AR	30-31 / 42-48
GRI 2	GRI 2:30	Collective bargaining agreements	SDR	77
GRI 3: Material Topics				
Disclosures on Material Topics				
GRI 3	GRI 3:1	Process to determine material topics	SDR	32-33
GRI 3	GRI 3:2	List of material topics	SDR	32-33, 40-41, 74-75, 102-103
GRI 3	GRI 3:3	Management of material topics	SDR/partially omitted: Some of the reporting requirements are incomplete. A double materiality assessment commenced in 2022 which will support further disclosure of these requirements	32-33, 40-41, 74-75, 102-103
Category: Economic				
GRI 201: Economic Performance				
GRI 201	GRI 201:1	Direct economic value generated and distributed	AR	2-3, 6-7
GRI 201	GRI 201:2	Financial implications and other risks and opportunities due to climate change	SDR/AR/omitted 202:2 iii and v Incomplete data at the moment. The data will become available as our TCFD evolves	36-41 / 32-36, 68-85
GRI 201	GRI 201:3	Defined benefit plan obligations and other retirement plans	SDR/AR	85, 108-109 / 197-202
GRI 201	GRI 201:4	Financial assistance received from government	SDR	110-111
GRI 202: Market Presence				
GRI 202	GRI 202:1	Ratios of standard entry level wage by gender compared to local minimum wage	SDR	85
GRI 202	GRI 202:2	Proportion of senior management hired from the local community	SDR	76-77, 127
GRI 203: Indirect Economics Impacts				
GRI 203	GRI 203:1	Infrastructure investments and services supported	AR/SDR/ Omitted 203:1c: not applicable to our industry	
GRI 203	GRI 203:2	Significant indirect economic impacts	AR	32-36
GRI 204: Procurement Practice				
GRI 204	GRI 204:1	Proportion of spending on local suppliers	SDR	112-114, 128
GRI 205: Anti-corruption				
GRI 205	GRI 205:1	Operations assessed for risks related to corruption	SDR/AR	76-77, 109-110 / 36 Our Code of Conduct covers anti-corruption
GRI 205	GRI 205:2	Communication and training about anti-corruption policies and procedures	SDR/AR	76-77, 109-110 / 58 Our Code of Conduct covers anti-corruption
GRI 205	GRI 205:3	Confirmed incidents of corruption and actions taken	SDR	109-110 Our Code of Conduct covers anti-corruption

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
GRI 206: Anti-competitive Behaviour				
GRI 206	GRI 206:1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	SDR/AR/ Code of Conduct	76-77, 109-110 / 36, 58 Our Code of Conduct covers anti-corruption
GRI 207: Tax				
GRI 207	GRI 207:1	Approach to tax	SDR	110-111
GRI 207	GRI 207:2	Tax governance, control, and risk management	SDR	110-111
GRI 207	GRI 207:3	Stakeholder engagement and management of concerns related to tax	Website	smurfitkappa.com/ tax-strategy
GRI 207	GRI 207:4	Country-by-country reporting	Omitted: Data incomplete. We expect to have finalised our country-by-country data by 2025	
Category: Environmental				
GRI 301: Materials				
GRI 301	GRI 301:1	Materials used by weight or volume	SDR	51, 118-119, 128
GRI 301	GRI 301:2	Recycled input materials used	SDR	27, 51, 62, 118-119, 128
GRI 301	GRI 301:3	Reclaimed products and their packaging materials	Omitted: not applicable for our industry, SK produces packaging materials for other industries	
GRI 302: Energy				
GRI 302	GRI 302:1	Energy consumption within the organisation	SDR	42-45, 126
GRI 302	GRI 302:2	Energy consumption outside of the organisation	N/A	N/A
GRI 302	GRI 302:3	Energy intensity	SDR	43, 120-126
GRI 302	GRI 302:4	Reduction of energy consumption	SDR	42-45, 120-126
GRI 302	GRI 302:5	Reductions in energy requirements of products and services	Omitted: not applicable for our industry, SK produces packaging materials for other industries	
GRI 303: Water and Effluents				
GRI 303	GRI 303:1	Interactions with water as a shared resource	SDR	56-61
GRI 303	GRI 303:2	Management of water discharge-related impacts	SDR	36-41, 56-61
GRI 303	GRI 303:3	Water withdrawal	SDR We report as cubic metres (m ³) instead of megalitres 303:3b we report water withdrawal by individual mills	40-41, 56-60, 118-126, 150
GRI 303	GRI 303:4	Water discharge	SDR We report as cubic metres (m ³) instead of megalitres 303:4c we report water discharge by individual mills	40-41, 56-60, 118-126, 150
GRI 303	GRI 303:5	Water consumption	SDR	56-60, 118-126, 150
GRI 304: Biodiversity				
GRI 304	GRI 304:1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	SDR	52-55, 130-131
GRI 304	GRI 304:2	Significant impacts of activities, products, and services on biodiversity	SDR	52-55
GRI 304	GRI 304:3	Habitats protected or restored	SDR	52-55, 130-131
GRI 304	GRI 304:4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	SDR	52-55, 130-131

GRI Index continued

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
GRI 305: Emissions				
GRI 305	GRI 305:1	Direct (Scope 1) GHG emissions	SDR Smurfit Kappa reports based on CO ₂ emissions. Other CO ₂ emissions are not considered as material	42-45, 118-126, 134, 146-147
GRI 305	GRI 305:2	Energy indirect (Scope 2) GHG emissions	SDR Smurfit Kappa reports based on CO ₂ emissions. Other CO ₂ emissions are not considered as material	118-126, 134, 146-147
GRI 305	GRI 305:3	Other indirect (Scope 3) GHG emissions	SDR Smurfit Kappa reports based on CO ₂ emissions. Other CO ₂ equivalent emissions are not considered as material. Our current Scope 3 reporting covers emissions from transport and we are currently expanding our scope. Our biogenic CO ₂ emissions are covered in our Scope 1 reporting	48-49
GRI 305	GRI 305:4	GHG emissions intensity	SDR Smurfit Kappa reports based on CO ₂ emissions. Other CO ₂ emissions are not considered material	4, 22, 34, 37, 40-42, 44-45
GRI 305	GRI 305:5	Reduction of GHG emissions	SDR Smurfit Kappa reports based on CO ₂ emissions. Other CO ₂ emissions are not considered material	4, 22, 34, 37, 40-45, 146-147
GRI 305	GRI 305:6	Emissions of ozone-depleting substances (ODS)	SDR Due to their specific relevance for our industry, Smurfit Kappa reports SO _x and NO _x as individual emissions	SO _x , NO _x , 120-126
GRI 305	GRI 305:7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	SDR	120-126, 147
GRI 306: Waste				
GRI 306	GRI 306:1	Waste generation and significant waste-related impacts	SDR	62, 64-65, 67, 118-126
GRI 306	GRI 306:2	Management of significant waste-related impacts	SDR	22-23, 26-29, 36-41, 62-67, 134
GRI 306	GRI 306:3	Waste generated	SDR	62, 64-65, 67, 118-126
GRI 306	GRI 306:4	Waste diverted from disposal	SDR	62, 67, 118-126
GRI 306	GRI 306:5	Waste directed to disposal	SDR	62, 67, 118-126
GRI 308: Supplier Environmental Assessment				
GRI 308	GRI 308:1	New suppliers that were screened using environmental criteria	SDR	112-115, 128
GRI 308	GRI 308:2	Negative environmental impacts in the supply chain and actions taken	SDR	112-115, 128
Category: Social				
GRI 401: Employment				
GRI 401	GRI 401:1	New employee hires and employee turnover	SDR Data partially incomplete based on age group, gender and region breakdown.	127
GRI 401	GRI 401:2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	SDR	85
GRI 401	GRI 401:3	Parental leave	SDR Data partially incomplete based on age group, gender and region breakdown.	127
GRI 402: Labour/Management Relations				
GRI 402	GRI 402:1	Minimum notice periods regarding operational changes	SDR	76-77

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
GRI 403: Occupational Health and Safety				
GRI 403	GRI 403:1	Occupational health and safety management system	SDR	86-91, 127
GRI 403	GRI 403:2	Hazard identification, risk assessment, and incident investigation	SDR	86-91, 127
GRI 403	GRI 403:3	Occupational health services	SDR	86-91
GRI 403	GRI 403:4	Worker participation, consultation, and communication on occupational health and safety	SDR	76-77, 86-91
GRI 403	GRI 403:5	Worker training on occupational health and safety	SDR	86-91
GRI 403	GRI 403:6	Promotion of worker health	SDR	86-91
GRI 403	GRI 403:7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	SDR	86-91
GRI 403	GRI 403:8	Workers covered by an occupational health and safety management system	SDR	86-91, 127, 129
GRI 403	GRI 403:9	Work-related injuries	SDR	86-91, 127
GRI 403	GRI 403:10	Work-related ill health	SDR	86-91, 127
GRI 404: Training and Education				
GRI 404	GRI 404:1	Average hours of training per year per employee	SDR	85, 127
GRI 404	GRI 404:2	Programs for upgrading employee skills and transition assistance programs	SDR	71-72, 78-79, 84-85
GRI 404	GRI 404:3	Percentage of employees receiving regular performance and career development reviews	Omitted: data not available. We are currently rolling out our HRIS which will transfer all performance reviews onto a digital system that enables us to collect the data in the coming years	
GRI 405: Diversity and Equal Opportunity				
GRI 405	GRI 405:1	Diversity of governance bodies and employees	SDR/AR	76-77, 80-82 / 104
GRI 405	GRI 405:2	Ratio of basic salary and remuneration of women to men	SDR Information currently available for Ireland and UK	85
GRI 406: Non-discrimination				
GRI 406	GRI 406:1	Incidents of discrimination and corrective actions taken	SDR	76-77, 80-82, 108-109
GRI 407: Freedom of Association and Collective Bargaining				
GRI 407	GRI 407:1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	SDR	76-77, 108-115
GRI 408: Child Labour				
GRI 408	GRI 408:1	Operations and suppliers at significant risk for incidents of child labour	SDR	112
GRI 409: Forced or Compulsory Labour				
GRI 409	GRI 409:1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	SDR	76-77, 112-115
GRI 410: Security Practices				
GRI 410	GRI 410:1	Security personnel trained in human rights policies or procedures	N/A	
GRI 411: Rights of Indigenous Peoples				
GRI 411	GRI 411:1	Incidents of violations involving rights of indigenous peoples	SDR	54-55, 76
GRI 413: Local Communities				
GRI 413	GRI 413:1	Operations with local community engagement, impact assessments, and development programs	SDR	20-21, 40, 54-55, 72, 74, 92-97
GRI 413	GRI 413:2	Operations with significant actual and potential negative impacts on local communities	SDR	30-31, 70-75, 92-97

GRI Index continued

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
GRI 414: Supplier Social Assessment				
GRI 414	GRI 414:1	New suppliers that were screened using social criteria	SDR	112-115
GRI 414	GRI 414:2	Negative social impacts in the supply chain and actions taken	SDR	100-101, 112-115, 128
GRI 415: Public Policy				
GRI 415	GRI 415:1	Political contributions	SDR	109-110
GRI 416: Customer Health and Safety				
GRI 416	GRI 416:1	Assessment of the health and safety impacts of product and service categories	SDR	111
GRI 416	GRI 416:2	Incidents of non-compliance concerning the health and safety impacts of products and services	SDR	111
GRI 417: Marketing and Labelling				
GRI 417	GRI 417:1	Requirements for product and service information and labelling	Omitted: not applicable for our industry. Our products are business to business and in general no such information is required	
GRI 417	GRI 417:2	Incidents of non-compliance concerning product and service information and labelling	Omitted: not applicable for our industry. Our products are business to business and in general no such information is required	
GRI 417	GRI 417:3	Incidents of non-compliance concerning marketing communications	SDR	108-115
GRI 418: Customer Privacy				
GRI 418	GRI 418:1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	SDR	109-113

Task Force on Climate-related Financial Disclosures Index

Area	Recommended Disclosures	Source	Page(s)
Governance			
Disclose the organisation's governance around climate-related risks and opportunities.	a) Describe the Board's oversight of climate-related risks and opportunities.	AR 2022 SDR 2022 CDP Climate Change response 2022	AR: 32-33, 69-71 SDR: 108-111 CDP: Section C.1 Governance
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	AR 2022 SDR 2022 CDP Climate Change response 2022	AR: 32-33, 71-72 SDR: 108-111 CDP: Section C.1 Governance
Strategy			
Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	AR 2022 CDP Climate Change response 2022	AR: 73-81 CDP: Section C.2 Risk and Opportunities
	b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	AR 2022 SDR 2022 CDP Climate Change response 2022	AR: 73-81 SDR: 36-49 CDP: Section C.2 Risk and Opportunities and C.3 Business Strategy
	c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	AR 2022 CDP Climate Change response 2022	AR: 73-81 CDP: Section C.3 Business Strategy
Risk Management			
Disclose how the organisation identifies, assesses, and manages climate-related risks.	a) Describe the organisation's processes for identifying and assessing climate-related risks.	AR 2022 CDP Climate Change response 2022	AR: 32-33, 82 CDP: Section C.2 Risk and Opportunities
	b) Describe the organisation's processes for managing climate-related risks.	AR 2022 SDR 2022 CDP Climate Change response 2022	AR: 32-33, 82 SDR: 36-49 CDP: Section C.2 Risk and Opportunities
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	AR 2022	AR: 82
Metrics and Targets			
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	AR 2022 SDR 2022 CDP Climate Change response 2022	AR: 31, 82-84 SDR: 40-49, 118-126 CDP: Section C.4 Targets and Performance and Section C.6 Emissions Data
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas emissions, and the related risks.	AR 2022 SDR 2022 CDP Climate Change response 2022	AR: 31, 82-84 SDR: 42-49, 118-126 CDP: Section C.4 Targets and Performance and Section C.6 Emissions Data
	c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	AR 2022 SDR 2022 CDP Climate Change response 2022	AR: 31, 82-84 SDR: 40-49 CDP: Section C.4 Targets and Performance

AR – Annual Report

SDR – Sustainable Development Report

CDP – Carbon Disclosure Project

SASB Index

Code	Accounting Metric	Source	Page(s)
Topic: Greenhouse Gas Emissions			
RR-PP-110a.1	Gross global Scope 1 emissions	SDR	44-45, 118-126
RR-PP-110a.	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	SDR	42-49
Topic: Air Quality			
RR-PP-120a.1	Air emissions of the following pollutants: 1 NO _x (excluding N ₂ O); 2 SO _x ; 3 Volatile organic compounds (VOCs); and 4 Particulate matter (PM), and (5) hazardous air 1. pollutants (HAPs)	SDR NO _x , SO _x , and PM (dust) are part of the HAPs. Other relevant HAPs and relevant VOCs are being reported to the local authorities depending on the local requirements stipulated in the permits	118-126
Topic: Energy Management			
RR-PP-130a.1	1 Total energy consumed; 2 Percentage grid electricity; 3 Percentage from biomass; and 4 Percentage from other renewable energy	SDR	118-126
Topic: Water Management			
RR-PP-140a.1	1 Total water withdrawn; and 2 Total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	SDR	56-61
RR-PP-140a.2	Description of water management risks and discussion of strategies and practices to mitigate those risks	SDR	58-59
Topic: Supply Chain Management			
RR-PP-430a.1	Percentage of wood fibre sourced from: 1 Third-party certified forestlands and percentage to each standard; and 2 Meeting other fibre sourcing standards and percentage to each standards	SDR	50-51, 53, 128
RR-PP-430a.2	Amount of recycled and recovered fibre procured	SDR	50-51, 53, 128

Business in the Community, Ireland

External Commentary for Smurfit Kappa Sustainable Development Report 2022 Delivering the Future Together

Smurfit Kappa Group is a Leading Global Provider of Sustainable Packaging

Smurfit Kappa operates across 36 countries in Europe and the Americas, employs 48,000 people in over 350 production sites and revenue in 2022 was €12.8 billion.

In this Sustainable Development Report (their 16th) Smurfit Kappa conveys the global context in which the business is operating – the global population and inequality is rising; the need for a Just Society is pressing; water scarcity, deforestation and biodiversity loss is increasing; pollution of land and oceans is on the rise and the climate is changing.

It is in this context that Smurfit Kappa's company purpose – to create, protect and care – is placed centre stage. Their purpose informs their strategic business decisions, actions arising and denotes both the company culture and behaviour expected at all levels of the organisation.

The company operates an inspiring circular business model and this 2022 Report describes how Smurfit Kappa's economic goals are aligned with their social, community and environmental responsibilities. Company priorities are synthesised by three headings: Planet, People and Impactful Business.

Impactful Business

The goal of packaging is to protect and promote customer products, but the unique selling point ('USP') of paper-based packaging is that it is also 100% renewable, recyclable and biodegradable.

The USP of Smurfit Kappa is that they are also involved in all stages of the supply chain – from collecting and purchasing recovered paper, to growing and purchasing wood to supply the 'fibrous raw material' needed by their paper mills to produce the full range of paper that can be converted into an array of packaging options. It is on account of this that Smurfit Kappa's packaging products support their customers' own sustainability strategies by providing them with 'sustainable, circular and innovative packaging solutions'.

Working with Smurfit Kappa, Danone will be able to eliminate 798 tonnes of plastic per year for their Alpro brand (page 8). A Spanish drinks producer has been able to remove all bubble wrap and polystyrene to protect a single bottle during shipment by switching to a flexible, corrugated material which can be adapted to different bottle sizes and is widely recycled (page 9).

Smurfit Kappa's suite of tools also help to determine the carbon footprint of customers' packaging, providing CO₂ emissions data and other information to enable customer solutions to be fully optimised.

A particularly significant indication of how Smurfit Kappa is embedding sustainability and circularity into the company's capital structure is the recent publication of its first Green Bond Allocation and Impact Report detailing the use of the proceeds of its inaugural €1 billion dual-tranche Green Bond, issued in September 2021.

Planet

Smurfit Kappa runs an energy-intensive manufacturing business and it is to be expected that their environmental priorities are Climate Change, Forest, Water and Waste.

76% of Smurfit Kappa's raw material is recycled fibre with the remaining 24% coming from renewable Chain of Custody Certified wood.

Important too is the fact that their CO₂ emission targets were validated by the SBTi in 2021 and reporting is consistent with TCFD recommendations. In 2022, CO₂ emissions were reduced by 43.9% (since 2005), a strong indication the 55% reduction target by 2030 will be reached.

Since 2005, Smurfit Kappa has invested €994 million in 1) more efficient energy generation; 2) technologies to reduce the use of energy; and 3) technologies that recover energy. These investments have improved overall energy efficiency in the paper mill system by 20.6%.

Regarding the management of water, efforts are focused on continuing to decrease water in-take and further improve the quality of the water discharged from paper and board mills. Since 2005, Smurfit Kappa has invested €129 million in best practice water treatment systems, leading to a reduction of 36.9% Chemical Oxygen Demand.

Waste sent to landfill from paper mills has been reduced by 24% since 2013 and a target has been set to reduce waste to landfill intensity by 30% by 2025.

We noted that in a pioneering recycling programme, Smurfit Kappa recycled waste collected across 3,000 Walmart stores in Mexico - winning Smurfit Kappa the Award for Sustainable Supplier of the Year 2022.

As a sector leader, we encourage Smurfit Kappa to consider further data disclosures including metrics on emissions and water use per unit of product produced, as this will enable customers and investors to evaluate the progress of various products and compare them against competitors.

In an excellent example of Biodiversity and Ecosystem conservation, we learned that one third of the land Smurfit Kappa owns and manages in Colombia is dedicated to conservation. Working with local universities to understand the flora and fauna, some 3,000 species have been identified in both the natural and rehabilitated forests, some of which are endangered.

One of the endangered species now thriving in the Smurfit Kappa forests is the Andean Bear believed to have disappeared completely from the region. In 2022, Nutresa Group (a leading multinational food manufacturing company) presented Smurfit Kappa Colombia with an award for being an Exemplary Supplier in the area of Environmental and Social Sustainability.

People

We noted the 13.6% global reduction in the Total Recordable Injury Rate in 2022, from 2021.

The description of the new Guardian Angel Programme at Smurfit Kappa Querétaro also stood out. The purpose of this new programme is for 'employees to feel taken care of, listened to and always protected'. As Guardian Angel of the Month, a staff member walks the shop floor, talks to colleagues about safety and wellbeing and in doing this, is able to collect ideas and suggestions for improvements. This effort at listening and responding by making small changes is already showing improvements in the work environment and is increasing engagement.

Additionally, analysis of the comments submitted to the 2021 employee survey 'My Voice' has helped evolve the Smurfit Kappa HR strategy and identify key areas where employees want the company to do more e.g., provide a digital workplace with multi-lingual communication.

In response, Smurfit Kappa is now in the process of developing a Digital Employee Mobile App to give all colleagues, office and factory based, instant access to important communications and an enhanced

Business in the Community, Ireland continued

employee experience in their respective language. Another outcome of the employee consultation has been the development of SK RISE – a programme to support the career development and personal aspirations of female employees, delivered by the Irish Management Institute.

Currently women comprise 38.5% of the Smurfit Kappa Board and 23.5% of management positions are held by women. A target is in place to have 25% female representation in management positions across the Group by 2024.

The 'Everyone Programme' has a goal to reduce discrimination at work and ensure Smurfit Kappa workplaces are more inclusive. An action being taken as a result of this goal is that Smurfit Kappa plants in Spain, in collaboration with the Red Cross, have started a programme to give training opportunities to single mums, immigrants, those over 45 and victims of gender violence.

Smurfit Kappa has been continuing to educate colleagues on the Code of Conduct and Speak Up Service launched in December 2019. In 2022, we noted that 80 cases were reported to the Speak Up service resulting in 29 corrective actions or improvements.

Regarding their Supply Chain, a key step in the onboarding of new suppliers includes the completion of a Declaration of Compliance with the Smurfit Kappa Sustainable and Responsible Sourcing Policy, Supplier Code of Conduct, Modern Slavery Statement and the Statement of the Controversial Sources of Raw Materials, Goods and Services. Relevant suppliers also must comply with the Sustainable Forestry and Fibre Sourcing Policy.

Suppliers are audited on human rights, labour practices and environmental impact. Ongoing monitoring of suppliers focuses on Argentina, Mexico, Colombia and Brazil, identified as higher risk countries for child labour in paper recovery.

Concerned about the communities in which they are located, Smurfit Kappa has donated €18.4 million to projects in the areas of Health, Education and Environmental Protection since 2020. In 2022, €2.4 million was donated to the Ukraine Appeal, to fund initiatives such as relocating and accommodating Smurfit Kappa employees from Ukraine. Funds were also provided through donations from the Smurfit Kappa Foundation in tandem with colleagues participating in fundraising activities across the globe.

Leading the Way

Smurfit Kappa's governance structure on sustainability is described well on page 110. Good detail is also provided on how key stakeholders are engaged regarding the areas of circularity, inclusivity and innovation and how the issues deemed most important to both stakeholders and business operations are determined. We recommend including figures on stakeholder engagement frequency and numbers engaged. This is both relevant to the materiality assessment and, as a global organisation, it is critical to ensure broad coverage of the widest possible range of stakeholder views.

Smurfit Kappa's leadership in their sector is also demonstrated by their board membership of the Confederation of Europe Paper Industries ('Cepi'), the Europe Corrugated Packaging Association ('FEFCO') and the International Corrugated Case Association ('ICCA'). The company is also a signatory of environmental reporting and sustainability organisations including the CDP, the FSC, SBTi and the WBCSD. As a company that has been consistently named 'Industry Top Rated', it is imperative that Smurfit Kappa uses this leadership space to promote sector-wide transformation on social and environmental sustainability.

An assessment of the link between shareholder value and ESG would also support the foundation of how sustainability and economic value are interdependent.

We noted that Smurfit Kappa's strategic priorities are aligned with the UN Sustainable Development Goals and throughout this report, each progress update includes an update on the relevant SDG.

Consistent since 2009, the 2022 Smurfit Kappa Sustainable Development Report has been assured by an independent third-party assurance provider and the GRI Standards have been applied.

Final Comment

Smurfit Kappa is clear that to tackle global challenges, a new way of thinking is required alongside the ability to innovate. Even though they have a strong sustainable business model (based on a product made with 100% renewable, recyclable and biodegradable primary raw material), business processes will need to continue to evolve to meet carbon emission, water and waste reduction targets utilising advancing technologies.

Alongside a relentless focus on business process continuous improvement and innovation, Smurfit Kappa has visibly increased their efforts on employee engagement, wellbeing and Inclusion, Diversity & Equality. We look forward to reading about the impact and outcome of this increased emphasis in future reports.

In 2022, the EU published the Corporate Responsibility Reporting Directive ('CSRD') the aim of which is to put sustainability and financial reporting on an equal footing.

Due to the nature of the business model, focus on circularity and experience in transparent reporting, Smurfit Kappa will be ideally placed to fulfil the requirements of the CSRD. However, the key difference will be the requirement of one report rather than two. Based on what we know of the work of Smurfit Kappa, they will find a way to do this well.

Tomás Sercovich
CEO

UN Global Compact

Smurfit Kappa became a supporter of the United Nations Global Compact ('UNGC'), a worldwide corporate citizenship initiative, in 2010.

As a network of more than 12,000 corporate participants and other stakeholders in some 170 countries, it is the largest voluntary corporate responsibility initiative in the world. Supporters of the UNGC promote 10 core principles in the areas of human rights, labour, environment and anti-corruption. These principles are listed in the table below.

As a part of this commitment, Smurfit Kappa will report on the Company's corporate responsibility activities and performance in an annual Communication On Progress ('COP'), using the annual Sustainable Development Report as the platform for this communication.

The Sustainable Development Report provides a number of examples of ongoing activities, as well as relevant key performance indicators, which illustrate Smurfit Kappa's support for the 10 Global Compact principles in its everyday business. Measurements of performance related to the Global Compact principles are given using indicators provided by the Global Reporting Initiative ('GRI'), wherever feasible. In particular, GRI performance indicators relating to human rights, labour and anti-corruption principles are presented in the Social Development section, while environmental performance indicators reported in the Environment section. A complete GRI index can be found on pages 135-140 of the Report.

The following table shows how our performance in relation to each UN Global Compact principle can be reported using a number of GRI performance indicators. This is based on guidance documents published by the UN Global Compact.

UNGC Principles	GRI Indicators
Human Rights	
1 Businesses should support and respect the protection of internationally proclaimed human rights; and	2:9; 2:12-14; 2:19; 2:22-23; 3:1-3; 403:1,4; 405:1-2; 406:1; 407:1; 408:1; 409:1; 411:1; 412:1-3; 414:1-2; 418:1
2 Businesses should make sure that they are not complicit in human rights abuses.	2:23; 3:1-3; 406:1; 407:1; 408:1; 409:1; 411:1; 412:1
Labour	
3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	2:23; 2:26; 2:30; 3:1-3; 402:1; 403:1,4
4 Businesses should uphold the elimination of all forms of forced and compulsory labour;	2:23; 2:26; 2:30; 3:1-3; 406:1; 408:1; 409:1
5 Businesses should uphold the effective abolition of child labour; and	2:23; 3:1-3; 408:1; 409:1
6 Businesses should uphold the elimination of discrimination in respect of employment and occupation.	2:23; 2:30; 3:1-3; 401:2; 405:1-2; 406:1; 407:1
Environment	
7 Businesses are asked to support a precautionary approach to environmental challenges;	2:12-14; 2:22-23; 3:1-3; 201:2; 302:1; 303:1-2; 304:1; 304:3; 305:4-5; 306:1-2
8 Businesses should undertake initiatives to promote greater environmental responsibility; and	2:23; 3:1-3; 201:2; 301:1-2; 302:1; 302:3-5; 303:1-5; 304:1-4; 305:1-7; 306:1-5; 308:1-2
9 Businesses should encourage the development and diffusion of environmentally friendly technologies.	3:2-3; 201:2; 301:1-2; 302:3-5; 303: 1-5; 304:1-4; 305:4-5; 306:1-2
Anti-corruption	
10 Businesses should work against corruption in all its forms, including extortion and bribery.	2:5; 2:9; 2:19; 2:23; 2:26; 3:1; 3-3; 205:1-3; 413:2



Glossary

Climate Change, Energy and Air Emissions

Bioeconomy	Smurfit Kappa uses the European Commission definition for bioeconomy as production of renewable biological resources and the conversion of these resources and waste streams into value-added products, such as food, feed, bio-based products and bioenergy.
Bioenergy	Bioenergy is one of the many diverse resources available to help meet our demand for energy. It is classified as a form of renewable energy derived from biomass – organic material – that can be used to produce heat, electricity, transportation fuels and products.
Biofuels	Fuels coming from biomass: wood rejects, bark, black liquor, pitch oil, certain parts of mixed wastes and biogas produced during the anaerobic treatment of water.
Biomass	Biomass is an energy resource derived from plant- and algae-based material that includes crop wastes, forest residues, purpose-grown grasses, woody energy crops, algae, industrial wastes, sorted municipal solid waste, urban wood waste and food waste. Biomass is the only renewable energy source that can offer a viable supplement to petroleum-based liquid transportation fuels – such as gasoline, jet and diesel fuel – in the near to mid term. It can also be used to produce valuable chemicals for manufacturing, as well as power to supply the grid.
Black liquor	Residue from pulping containing organic compounds (such as lignin). This residue is burnt to produce energy and to recover the chemicals.
By-product	Secondary or incidental products deriving from manufacturing process and are not the primary product. A by-product can be marketable.
Carbon dioxide equivalent CO₂-eq	A measure used to compare the emissions from various greenhouse gases based upon their climate change potential (CCP). The CO ₂ -eq carbon dioxide equivalent for other emissions is derived by multiplying the amount of the emission by the associated CCP factor.
Carbon footprint	Carbon released to the atmosphere during the life cycle of a product from cradle to grave.
CDP	CDP (formerly the 'Carbon Disclosure Project') is an organisation based in the United Kingdom which encourages large corporations from the world's major economies to disclose their greenhouse gas emissions and climate change strategies.
CHP	Combined Heat and Power: a combination of a boiler and a gas and/or steam turbine that simultaneously produces electricity and thermal energy (steam) by burning fuels. This system is considered to be the most efficient technology in industries using both steam and electricity. When mills sell part of their produced steam to an external party or have net electricity export (selling more to an external party than purchasing), the consumption of fuel and emissions reported for these mills is adjusted to report only that part used to produce paper. This adjustment is based on a reference heat boiler with an efficiency of 90%, which is also used by CEPI and the European Commission for EU ETS benchmark calculations. Electricity from a CHP is called co-generated electricity while all other internal generation is expressed as self-generated.
CHP (outsourced)	A CHP installation, belonging to an external party, located at or near a Smurfit Kappa site for delivering electricity and steam to the Smurfit Kappa production facility. All fuel and electricity used for the production of paper as well as emissions related to that are included in the figures for the Smurfit Kappa production facility.
Climate change	The United Nations Framework Convention on Climate Change (UNFCCC) defines it as a change of climate that is attributed directly or indirectly to human activity, altering the composition of the global atmosphere.
Co-generated electricity	Electricity generated by a CHP system belonging to Smurfit Kappa or from an outsourced CHP system.
CO₂ biogenic	Carbon dioxide emitted when burning biofuels. This CO ₂ is considered to be carbon neutral as it is removed from the atmosphere and stored in biomass within a short period of time.
CO₂ fossil	Carbon dioxide emitted when burning fossil fuels for the production of paper. The calculation is based on international guidelines from the carbon content of each fuel (WRI/WBCSD GHG protocol).
CO₂ indirect	Fossil carbon dioxide generated externally in the production of electricity purchased from the grid. Source: IEA CO ₂ Emissions from Fuel Combustion, OECD/IEA, Paris, 2016.
Energy efficiency	Energy efficiency is the goal to reduce the amount of energy required to provide products and services.
Energy Union	The Energy Union strategy is focused on boosting energy security, creating a fully integrated internal energy market, improving energy efficiency, decarbonising the economy (not least by using more renewable energy) and supporting research, innovation and competitiveness.
European Union Emissions Trading System – EU ETS	EU ETS, also known as the European Union Emissions Trading Schemes, is the most extensive greenhouse gas emissions trading scheme in the world. It was launched in 2005 to combat global warming and is a major pillar of EU climate policy.
Dust	Particles coming from the combustion of fuels. Dust emissions are measured mainly by the mills. Where dust is not measured (converting plants), emissions are calculated from fuel consumption using the emission factors listed in the Ecoinvent database version 2.1. Ecoinvent is a life cycle inventory database for energy systems, materials, transports and chemicals.
Fossil fuels	Fuels originating from non-renewable resources (gas, oil, coal, peat and lignite).
GHG emissions	A greenhouse gas (GHG) is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, that is trapping and holding heat in the atmosphere. By increasing the heat in the atmosphere, greenhouse gases are responsible for the greenhouse effect, which leads to global warming.
GJ	Gigajoule, a unit of energy that generally applies to fuel. 1 gigajoule (GJ) = 1 billion joules = 10 ⁹ joules.

Climate Change, Energy and Air Emissions continued

Green electricity certificate	A tradable commodity for electricity units generated using renewable energy sources. Definition of renewable energy source is a variable depending on certificate trading scheme, typically solar, hydro, wind, geothermal or biomass. A certificate of origin covers other energy sources than certificate of renewable origin.
Grid supply	Electricity purchased from a national distribution network.
GWh	Unit of energy, generally applies to electricity. 1 GWh (GigaWatt hour) = 1 million kWh (kiloWatt hour).
Net zero	To achieve net zero emissions, we work towards achieving a state in which the activities at our paper and board mills in our gate-to-gate value chain result in no net impact on the climate from greenhouse gas emissions. The key effort for Smurfit Kappa is to move from fossil-based fuels to carbon neutral fuels and improve its energy efficiency.
NO_x	Mix of nitrogen oxides (NO and NO ₂) calculated as NO ₂ (nitrogen dioxide) coming from combustion of fuels. They can contribute to the acidification of soil and water. NO _x emissions are measured mainly by the mills. Where NO _x is not measured (converting plants), emissions are calculated from fuel consumption using the emission factors listed in the Ecoinvent database version 2.1.
Paris Agreement	Agreement within the framework of the United Nations Framework Convention on Climate Change dealing with greenhouse gases, emissions mitigation, adaptation and finance. An agreement on the language of the treaty was negotiated by representatives of 195 countries during COP21 in December 2015.
Self-generated electricity	Electricity generated by an electricity generator without recovery of steam.
Sequestration	Carbon sequestration describes the long-term storage of carbon dioxide or other forms of carbon to either mitigate or defer global warming and avoid dangerous climate change.
SO_x	Mix of sulphur oxides calculated as SO ₂ coming from combustion of fuels. Sulphur dioxide contributes to the acidification of soil and water. SO _x emissions are measured mainly by the mills. Where SO _x is not measured (converting plants), emissions are calculated from fuel consumption using the emission factors listed in the Ecoinvent database version 2.1.
PJ	Petajoule, a unit of energy. 1 petajoule = 1000 terajoules = 10 ¹⁵ joules.
TJ	Terajoule, a unit of energy that generally applies to fuel. 1 terajoule = 1000 gigajoules = 10 ¹² joules.
21st Conference of the Parties – COP 21	The 2015 United Nations Climate Change Conference was held in Paris, France, from 30 November to 12 December 2015. It was the 21st yearly session of the Conference of the Parties to the 1992 United Nations Framework Convention on Climate Change and the 11th session of the Meeting of the Parties to the 1997 Kyoto Protocol.

Organisations

Asociación de Corrugadores del Caribe Centro y Sur América (ACCCSA)	Organisation of corrugated cardboard manufacturers in the Latin American region, whose objective is to exchange experiences, ideas and technological knowledge that will benefit and consolidate the entire Latin American corrugator sector.
CEPI	CEPI, the Confederation of European Paper Industries. It is a non-profit organisation representing the European pulp and paper industry.
EcoVadis	EcoVadis brings Buyers and Suppliers together to efficiently drive CSR and sustainability performance across 150 sectors and 120 countries to reduce risk and drive innovation in their supply chains.
ELCD	European Reference Life Cycle Database. The ELCD has been developed within the 'European Platform on Life Cycle Assessment' by the Joint Research Centre, Institute for Environment and Sustainability (JRC-IES).
ERT	The European Round Table of Industrialists (ERT) is a forum bringing together around 60 Chief Executives and Chairpersons of major multinational companies of European parentage covering a wide range of industrial and technological sectors, working to strengthen competitiveness in Europe. The group works at both national and European levels.
ESG	Environmental, social and corporate governance (ESG) criteria refer to three main factors investors consider with regards to a firm's ethical impact and sustainable practices.
Ethibel	The Ethibel Sustainability Index Excellence Europe lists 200 European companies that display the best performance in terms of corporate social responsibility.
Euronext Vigeo	The Euronext Vigeo indices comprise the highest-ranking listed companies as evaluated in terms of their performance in corporate social responsibility.
FAO	The Food and Agriculture Organisation (FAO) is specialised agency of the United Nations that leads international efforts to defeat hunger. The goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives. With over 194 member states, FAO works in over 130 countries worldwide.
FEFCO. The European Federation of Corrugated Board Manufacturers	FEFCO is a non-profit organisation representing the interests of the industry across Europe and addressing a wide range of issues, from technical topics to economical questions. The role of the Federation is to investigate economic, financial, technical and marketing issues of interest to the corrugated packaging industry, to analyse all factors that may influence the industry and to promote and develop its image.
FTSE4Good	The FTSE4Good Index series is designed to measure the performance of companies demonstrating strong environmental, social and governance practices.

Glossary continued

Organisations continued

Global Reporting Initiative (GRI)	GRI is an independent international organisation for sustainability reporting, since 1997. GRI helps businesses and governments worldwide understand and communicate their impact on critical sustainability issues such as climate change, human rights, governance and social well-being. This enables real action to create social, environmental and economic benefits for everyone. The GRI Sustainability Reporting Standards are developed with true multi-stakeholder contributions and rooted in the public interest.
ICCA	The International Corrugated Case Association (ICCA), formed in 1961, contributes to the well-being of the corrugated packaging industry worldwide by supporting and enhancing the work of association members.
ILO	International Labour Organisation (ILO) is the only tripartite United Nations agency. Since 1919, the ILO brings together governments, employers and workers of 187 member states, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.
Irish Business and Employers Confederation (IBEC)	IBEC is Ireland's largest lobby group representing Irish business both domestically and internationally. Its membership is home-grown, multinational, big and small, spanning every sector of the economy.
OECD	Organisation for Economic Co-operation and Development (OECD), provides a forum in which governments can work together to share experiences and find solutions to common problems, work with governments to understand what drives economic, social and environmental changes, measure productivity and global flows of trade and investment, analyse and compares data to predict future trends, establishes international standards in a wide range of aspects, from agriculture and taxes to the safety of chemical products.
SBTi	The Science Based Targets initiative (SBTi) drives ambitious climate action in the private sector by enabling organisations to set science-based emissions reduction targets. The SBTi is a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF).
SDGs	The Sustainable Development Goals (SDGs) define global sustainable development priorities and aspirations for 2030 and seek to mobilise global efforts around a common set of goals and targets. The SDGs call for worldwide actions among governments, business and civil society to end poverty and create a life of dignity and opportunity for all, within the boundaries of the planet.
SEDEX	As the largest collaborative platform for sharing ethical supply chain data, SEDEX is an innovative and effective supply chain management solution, helping companies to reduce risk, protect company reputation and improve supply chain practices.
STOXX Global ESG Leaders	The STOXX Global ESG Leaders index offers a representation of the leading global companies in terms of environmental, social and governance criteria, based on ESG indicators provided by Morningstar Sustainability. The index is made of the following three ESG sub-indices: the STOXX Global ESG Environmental Leaders, the STOXX Global ESG Social Leaders and the STOXX Global ESG Governance Leaders indices.
Support the Goals	Support the Goals is an initiative to reward businesses for supporting the UN Sustainable Development Goals. The simple rating system is a roadmap to guide businesses on how to improve
TCFD. Task Force on Climate-Related Financial Disclosures:	The Task Force on Climate-related Financial Disclosures is an industry-led effort, chaired by Michael Bloomberg, with 32 global expert members from the private sector. The Task Force's remit was to develop voluntary climate-related disclosures that could 'promote more informed investment, credit, and insurance underwriting decisions.' The TCFD recommendations describe information that companies should disclose to help investors, lenders, and insurance underwriters better understand how companies' oversee and manage climate-related risks and opportunities as well as the material risks and opportunities to which companies are exposed.
UN 2030 Agenda	The 2030 Agenda for Sustainable Development was launched by a UN Summit in New York on 25-27 September 2015 and is aimed at ending poverty in all its forms. The UN 2030 Agenda envisages 'a world of universal respect for human rights and human dignity, the rule of law, justice, equality and non-discrimination'. It is grounded in the Universal Declaration on Human Rights and international human rights treaties and emphasises the responsibilities of all states to respect, protect and promote human rights. There is a strong emphasis on the empowerment of women and of vulnerable groups such as children, young people, persons with disabilities, older persons, refugees, internally displaced persons and migrants. The Agenda's 17 Sustainable Development Goals (SDG), and their 169 targets, aim at eradicating poverty in all forms and 'seek to realise the human rights of all and achieve gender equality'.
UN Global Compact's CEO Water Mandate	The CEO Water Mandate is a UN Global Compact initiative that mobilises business leaders on water, sanitation and the Sustainable Development Goals. Endorsers of the CEO Water Mandate commit to continuous progress against six core elements of water stewardship and in so doing understand and manage their own water risks.
WBCSD	The World Business Council for Sustainable Development is a CEO-led organisation of forward-thinking companies that galvanises the global business community to create a sustainable future for business, society and the environment.
4evergreen	4evergreen is a cross-industry alliance of over 100 members representing the entire lifecycle of fibre-based packaging, sharing expertise to develop tools and guidelines for an even more sustainable sector. The goal is to reach a 90% recycling rate for fibre-based packaging by 2030.

Certifications: Forest and Other

Deforestation	Deforestation, clearance or clearing is the removal of a forest or stand of trees where the land is thereafter converted to a non-forest use.
FSC	The Forestry Stewardship Council (FSC) is an independent, non-governmental organisation established to promote the responsible management of the world's forests through independent third-party certification.

Certifications: Forest and Other continued

FSSC 22000	These standards specify requirements for a food safety management system where an organisation in the food chain needs to demonstrate its ability to control food safety hazards in order to ensure that food is safe at the time of human consumption.
ISO 9001	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of quality management.
ISO 14001	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of environmental management.
ISO 50001 Energy Management Systems	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of energy usage: improvement of efficiency, reduction of consumption and energy security.
Non-controversial origin	Virgin wood or wood fibre which has been verified as having a low probability of including wood from any of the following categories, in line with FSC and PEFC schemes: a) Illegally harvested wood. b) Wood harvested in violation of traditional and civil rights. c) Wood harvested in forests in which high conservation values are threatened by management activities. d) Wood harvested in forests being converted from natural and semi-natural forests to plantations or non-forest use. e) Wood from forests in which genetically modified trees are planted.
ISO 45001	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of occupational health and safety management.
PEFC	Programme for the Endorsement of Forest Certification. PEFC is an independent, non-governmental organisation that promotes sustainably managed forests through independent third-party certification.
Reforestation	Reforestation is the natural or intentional restocking of existing forests and woodlands (forestation) that have been depleted.
SFI	SFI Inc. (Sustainable Forest Initiative) is an independent, non-profit organisation dedicated to promoting sustainable forest management. Companies are certified Chain of Custody according to the SFI standard through independent third-party certification.
EU Timber Regulation	The EU Timber Regulation is a regulation aims to reduce illegal logging by ensuring that no illegal timber or timber products can be sold in the EU, applies to wood and wood products being placed for the first time on the EU market.

Products, Raw Materials and Other

Containerboard	Papers and boards mainly used in the manufacture of corrugated board. They are made from virgin or recycled fibres. Included are kraftliner, testliner, semi-chemical fluting and recycled fluting.
Corrugated board	Structured board made by a corrugator usually formed by gluing one wave-formed liner (called fluting) in the middle of two flat-facing sheets of containerboard (kraftliner or testliner).
EPS	Expanded and Extruded Polystyrene is a rigid, closed cell, thermoplastic foam material, produced from solid beads of polystyrene. Used for thermo insulation purposes.
Fluting	The wave-formed middle layer in corrugated board.
Kraftliner	Paper manufactured mainly from virgin wood fibres.
Testliner	Paper manufactured from recycled fibres.
Inorganic raw materials	Raw material used for manufacturing our products that are not organic, such as fillers, sodium hydroxide, sodium sulphate and calcium oxide.
Other organic raw materials	Raw materials used for manufacturing our products that are organic excluding fibres, starch or plastic raw materials which are reported individually. This category includes oil, lubricant and organic additives, such as colourant or dyes.
Location information	Local: The country where we operate. In sourcing local refers to Smurfit Kappa country of operations. Significant locations of operation: Smurfit Kappa has high volume production – can be a country or region within a country. In sourcing, suppliers' location, we buy material from.
Raggers	In the beginning of the repulping process in which recovered paper is returned into pulp, non-fibrous materials are being removed from the recovered paper. Plastics, strapping and other floating materials are collected from the mass with a rope called a 'ragger'.
Recovered paper	Recovered paper refers to used paper and board separately collected and classified for the purpose of recycling, which is then used as raw material in the manufacture of new paper and paperboard.
Recovery	Recovery refers to extracting selected materials for a specific use. In the paper industry this means recovery of fibres in recycled paper or the recovery of energy value in the final stage of the material life cycle.
Recycling	Converting material into new materials and products. In the paper industry this refers to converting recycled fibres back to paper and finding new uses for other raw materials produced alongside recovered paper instead of sending them to landfill.
Reduction	This can either mean finding the most materially efficient ways to use raw materials or replacing a more harmful raw material with a less harmful one and thus reducing its harmful impact.
Renewing	Using renewable raw materials in a sustainable manner and maintaining the natural ability of the material to be renewed.
Reuse	Reuse is the action or practice of using something again, whether for its original purpose (conventional reuse) or to fulfil a different function (creative reuse or repurposing) without changing its form in between.
Virgin fibre	Pulp obtained through a chemical process used to remove lignin from wood. As a result, the fibre can be used to produce paper. The lignin residue and other organic compounds are subsequently collected and used in the formation of black liquor.

Glossary continued

Social Citizenship and Health and Safety	
Accident	An undesirable or unfortunate happening that occurs unintentionally and usually results in harm, injury, damage or loss.
Contractor	This refers to all contract staff agency workers provided by a third party staff agency, where the invoice is accounted in the P&L as part of 'wages and salaries'.
Lost time accident (LTA)	Refers to a work-related injury incident sustained by a Smurfit Kappa employee while performing their work duties that results in their absence from their scheduled work after the day of the incident.
Lost time accident frequency rate	Refers to the number of lost time accidents per 100,000 hours worked. LTA frequency rate = number of LTA x 100,000/ total number of hours worked.
Lost time accident severity rate	Refers to the total number of days lost per 100,000 hours worked. LTA severity rate = number of days lost x 100,000/total number of hours worked.
Number of days lost	Refers to the number of days lost arising from any lost time accident. When counting the number of days lost due to an accident, the day of the accident is not counted as a lost day.
Senior Management	Executive Teams or similar positions.
Subcontractor	This refers to workers who provide services to Smurfit Kappa but work for third party organisations (e.g. Cleaners, Security, Catering) – where Smurfit Kappa is not directly responsible for paying their 'wages and salaries'.
Total recordable incident rate (TRIR)	Refers to the total number of recordable injury cases per 100,000 hours worked by Smurfit Kappa employees. Number of recordable injuries (lost time accident + restricted workday case + medical treatment case) x 100,000/total hours worked by all Smurfit Kappa employees during the period covered.
Universal Declaration of Human Rights	The Universal Declaration of Human Rights (UDHR) is a milestone document in the history of human rights. Drafted by representatives with different legal and cultural backgrounds from all regions of the world, the Declaration was proclaimed by the United Nations General Assembly in Paris on 10 December 1948 (General Assembly resolution 217 A) as a common standard of achievements for all peoples and all nations. It sets out, for the first time, fundamental human rights to be universally protected and it has been translated into over 500 languages.
Workforce	The workforce, or labour force, is the labour pool in employment; it is generally used to describe those working for a company or industry.
Water	
BOD	Biochemical Oxygen Demand (unit: mg O ₂ /litre) refers to the level of oxygen uptake by microorganisms in a sample of water measured over a period of five days.
COD	Chemical Oxygen Demand (COD) is the most commonly used test to measure the amount of organic compounds in water (unit: mg O ₂ /litre). The result indicates the level of all organic compounds that can be oxidised by a strong oxidising agent.
Process water	Quantity of water containing organic compounds released into the environment (river, sea) after internal water treatment or released to an external treatment plant (municipal water treatment). In all cases, levels of pollutants released are reported as outputs of the Company even in the case of operations that send process water to external treatment.
Total N (Nitrogen)	Sum of organic nitrogen, ammonia (NH ₃) and ammonium (NH ₄ ⁺) discharged with the process water.
Total P (Phosphorous)	Sum of phosphorous compounds discharged with the process water.
Total suspended solids (TSS)	Refers to the level of small solid particles discharged with the process water. Total suspended solids are those solids retained on a glass fibre filter dried to a constant weight at 103-105°C.
Water impact assessment	Assessing potential risk from water availability and quantity, covering multiple aspects specific to each geographical locations.
Waste	
Waste	Wastes are classified as non-hazardous wastes or hazardous wastes, and are reported separately. Wood wastes and corrugated board shavings are excluded. All amounts of wastes are reported in mass as disposed.
Total non-hazardous waste	Sum of all non-hazardous waste whatever its destination. Each category of non-hazardous wastes is defined and reported.
Non-hazardous waste landfill	Part of the non-hazardous wastes that are disposed of in either internal or external landfill in accordance with national legislation.
Non-hazardous waste recovery	Part of non-hazardous wastes that are reused or recycled or composted or used in agriculture or incinerated with energy recovery. The incineration facility is classified as a recovery operation if the efficiency of the plant complies with the definition laid down in Annex II of the Directive 2008/98/EC on waste.
Non-hazardous waste other	Part of non-hazardous wastes that do not belong to the two previous categories. This includes wastes incinerated without energy recovery or wastes for which the final disposal is uncertain.
Hazardous waste	A hazardous waste is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment. Residues of oils and other hazardous wastes (building wastes containing asbestos, ink residues, etc.).

Assurance Report of the Independent Auditor

To: the members of Smurfit Kappa Group plc

Our Conclusion

We have reviewed the Sustainable Development Report 2022 (hereafter 'the Report') of Smurfit Kappa Group plc (hereafter 'Smurfit Kappa') based in Dublin, Ireland, for the year ended 31 December 2022.

A review is aimed at obtaining a limited level of assurance.

Based on our review nothing has come to our attention that causes us to believe that the Report is not prepared, in all material respects, in accordance with the reporting criteria as described in the 'Reporting criteria' section of our Report.

The Report comprises a representation of the policy of Smurfit Kappa with regard to sustainability and the thereto related business operations, events and achievements during the year. Smurfit Kappa is the parent company of a group of entities. The Report incorporates the consolidated information of this group of entities to the extent as specified in 'About this Report' in the Report.

Basis for our Conclusion

We have conducted our review in accordance with Dutch law, including Dutch Standard 3810N 'Assurance-opdrachten inzake maatschappelijke verslagen' (Assurance engagements relating to sustainability reports), which is a specified Dutch Standard that is based on the International Standard on Assurance Engagements ('ISAE') 3000 'Assurance engagements other than audits or reviews of historical financial information'. Our responsibilities under this standard are further described in the 'Our responsibilities for the review of the Report' section of our report.

We are independent of Smurfit Kappa in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence). Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics).

We believe the assurance we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Reporting Criteria

The Report is prepared in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative ('GRI Standards') and in accordance with the applied supplemental reporting criteria as disclosed in the Supplementary Information section of the Sustainable Development Report. The GRI Standards used are listed in the GRI Content Index as disclosed on pages 135-140 of the Sustainable Development Report.

The absence of an established practice on which to draw, to evaluate and measure sustainability information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time.

Consequently, the Report needs to be read and understood together with the reporting criteria used.

Materiality

Based on our professional judgement we determined materiality levels for each relevant part of the Report and for the sustainability information as a whole. When evaluating our materiality levels, we have taken into account quantitative and qualitative considerations as well as the relevance of information for both stakeholders and the company.

Limitations to the Scope of our Review

The Report includes prospective information such as ambitions, strategy, plans, expectations and estimates. Inherently the actual future results are uncertain. Inherent to prospective information, the actual future results are uncertain. We do not provide any assurance on the assumptions and achievability of prospective information in the Report.

References to external sources or websites in the Report are not part of the sustainability information as reviewed by us. Therefore, we do not provide assurance on this information.

Our conclusion is not modified in respect of these matters.

Directors' Responsibilities

Directors of Smurfit Kappa are responsible for the preparation of the Report in accordance with the applicable criteria as described in the 'Reporting criteria' section of our Report, including the identification of stakeholders and the definition of material matters. Directors of Smurfit Kappa are also responsible for selecting and applying the reporting criteria and for determining that these reporting criteria are suitable for the legitimate information needs of stakeholders, taking into account applicable law and regulations related to reporting. The choices made by the Directors regarding the scope of the Report and the reporting policy are summarised on page 134 of the Sustainable Development Report 2022.

Furthermore, the Directors are responsible for such internal control as it determines is necessary to enable the preparation of the Report is free from material misstatement, whether due to fraud or error.

Our Responsibilities for the Review of the Report

Our responsibility is to plan and perform our review in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

Procedures performed to obtain a limited level of assurance are aimed to determine the plausibility of information and vary in nature and timing, and are less in extent, than for a reasonable assurance engagement. The level of assurance obtained in review is therefore substantially less than the assurance obtained in an audit.

We apply the 'Nadere Voorschriften Kwaliteitssystemen' (NVKS, Regulations for Quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and other relevant legal and regulatory requirements.

Our review included among others:

- Performing an analysis of the external environment and obtaining an understanding of relevant societal themes and issues, and the characteristics of the company;
- Evaluating the appropriateness of the reporting criteria used, their consistent application and related disclosures in the Report. This includes the evaluation of the results of stakeholders' dialogue and the reasonableness of estimates made by the Management Board;
- Obtaining through inquiries a general understanding of control environment, processes and information systems relevant to the preparation of the sustainability information, but not to obtain assurance evidence about their implementation or their operating effectiveness;
- Identifying areas of the Report with a higher risk of misleading or unbalanced information or material misstatements, whether due to error or fraud. Designing and performing further assurance procedures aimed at determining the plausibility of the sustainability information responsive to this risk analysis. These procedures consisted, among others of:

Assurance Report of the Independent Auditor continued

- Interviewing management and relevant staff at corporate level responsible for the strategy, policy and results;
- Interviewing relevant staff responsible for providing the information for, carrying out internal control procedures over, and consolidating the data in the Report;
- Determining the nature and extent of review procedures for the group components and locations. For this, the nature, extent and risk profile of these components are decisive. Based thereon we selected the components and locations to visit. The visits to Baldwin Park, Belgrade, Cali, Fature, Monterrey and Tijuana in the United States, Serbia, Colombia, France and Mexico are aimed at, on a local level, validating source data and evaluating the design and implementation of internal controls and validation procedures;
- Obtaining assurance information that the Report reconciles with underlying records of Smurfit Kappa;
- Reviewing, on a limited test basis, relevant internal and external documentation; and
- Performing an analytical review of the data and trends.
- Evaluating the presentation, structure and content of the Report; and
- Considering whether the Report as a whole, including the disclosures, reflects the purpose of the reporting criteria used.

Amstelveen, 28 March 2023
KPMG Accountants N.V.

D.A.C.A.J. Landesz Campen RA
Partner

Confirmation of rights to use the trademarks:



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responsible forestry





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