



 Smurfit Kappa

# Delivering a Better Tomorrow

Sustainable Development Report 2019



# Smurfit Kappa,

a FTSE 100 company, is one of the leading providers of paper-based packaging solutions in the world.



We operate across 35 countries with around 46,000 employees in over 350 production sites and revenue of €9.0 billion in 2019.

Our purpose is to meet the needs of our customers, to generate superior returns for our shareholders, and to invest in our people, the communities in which we operate and the environment.

Find out more on pages 8-9



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## Where We Operate

# A world leader with operations in 35 countries

We are one of the largest integrated manufacturers of paper-based packaging solutions in the world. We are located in 23 countries in Europe and 12 in the Americas. In Europe, we are the leader by production volume in corrugated packaging and containerboard, and in Latin America we are the only large-scale pan-regional player.

## Our Business in Numbers

Forestry plantations (hectares)	Recovered fibre facilities and forestry operations	Paper and board mills	Converting plants	Other production facilities
68k	42	34	245	34





### Our Business in Numbers

Production sites

Employees

Countries

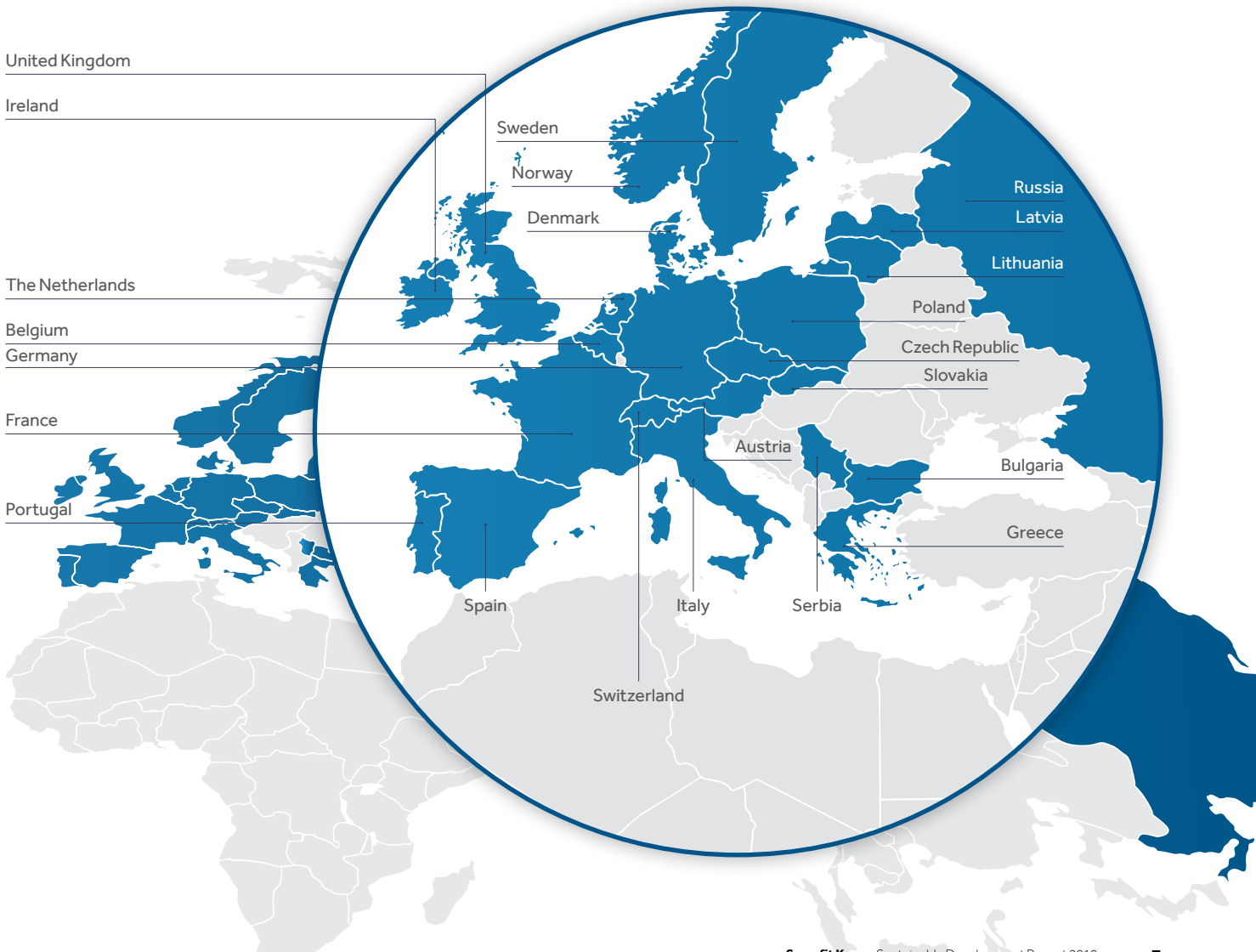
Customers in the FMCG  
(fast-moving consumer goods)  
segments

355

46,000

35

60%



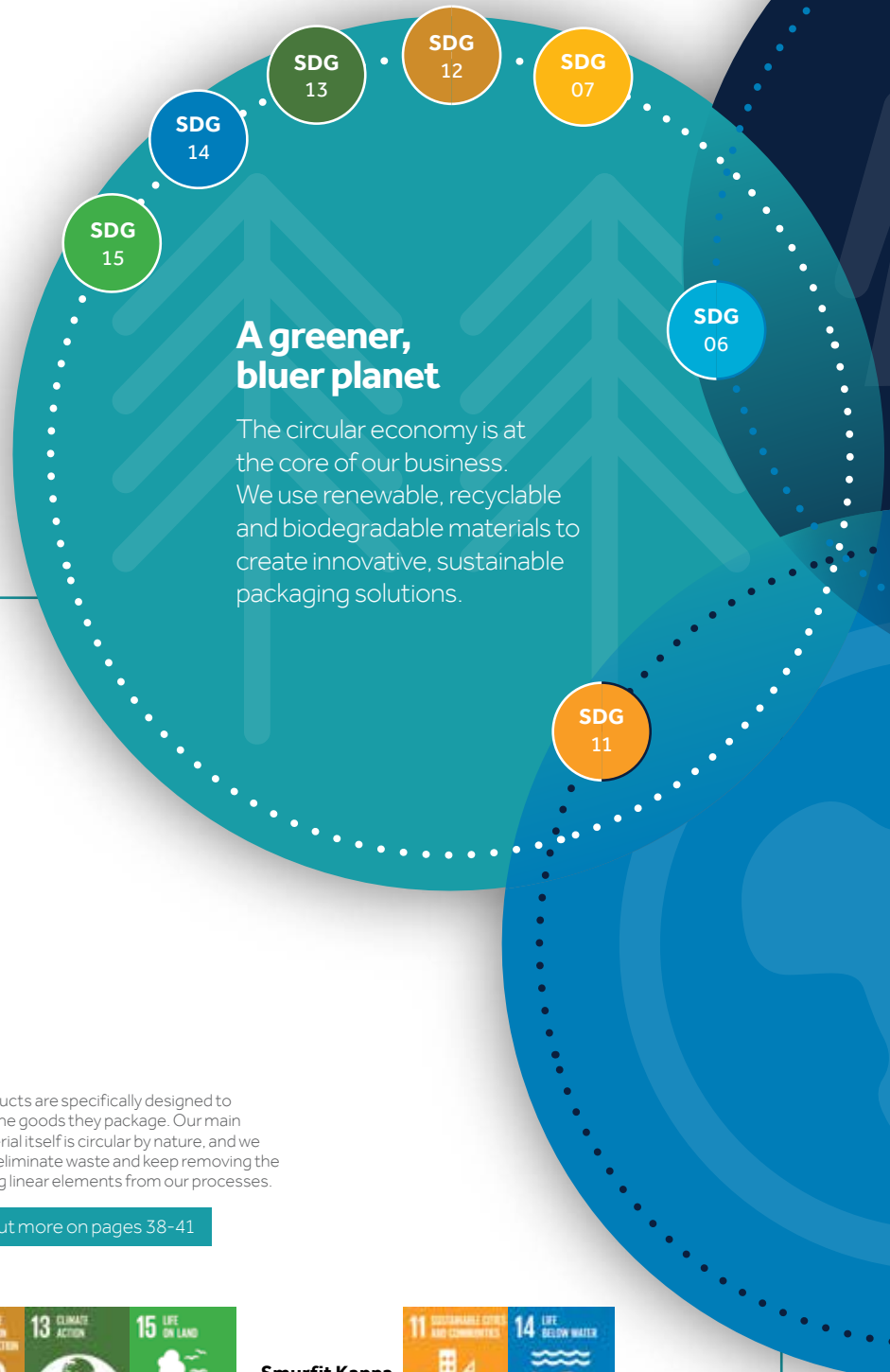
## Our Approach to Sustainable Business

# Delivering a better tomorrow

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

This means: continually striving to minimise our environmental impact and practising responsible governance; treating our stakeholders with respect; and creating an impactful business through our products and their production.

Read more about our Sustainable Development Goal (SDG) selection on pages 12, 21, 43, 61



## A greener, bluer planet



### Climate change

We are stepping up our ambition with low-carbon and energy-efficient production systems, and increasing our use of renewable fuels. We also offer our customers optimised packaging solutions that help them to reduce CO<sub>2</sub> emissions in their value chain.

Find out more on pages 26-29

### Forest

We balance the use of virgin and recycled fibres to maintain a positive and sustainable balance of renewable raw materials. We have committed to a complete Chain of Custody certified sourcing and manufacturing chain, from fibres to the packaging solutions.

Find out more on pages 30-33

### Water

We are committed to responsible water stewardship. We focus our efforts on continually improving the quality of water we discharge and understanding the risks associated with water availability in the areas where we operate.

Find out more on pages 34-37

### Waste

Our products are specifically designed to protect the goods they package. Our main raw material itself is circular by nature, and we strive to eliminate waste and keep removing the remaining linear elements from our processes.

Find out more on pages 38-41

Smurfit Kappa Impacts



Smurfit Kappa Supports





# An employer of choice

## An employer of choice

Having engaged employees is critical for our business. We work safely with talented people in a global, culturally diverse organisation.

SDG 08

SDG 01

SDG 02

SDG 03

SDG 04

SDG 05

SDG 10

### People values

We endorse the principles of respect for human rights, freedom of association, fair compensation and diversity, regardless of age, gender, sexual orientation, ethnic origin, disability or nationality.

Find out more on pages 46-47

### Health and Well-being

The safety of our people is a core value to the organisation. Our Safety for Life initiative was launched to increase the level of safety awareness among our entire workforce, to reach our zero-accident goal.

Find out more on pages 54-55

### People strategy

Employees who find meaning at work are happier, more productive and more engaged. This is why we are constantly evolving and improving our people strategy. We believe our employees are the beating heart of our business and they need to feel how much they are valued by the organisation.

Find out more on pages 48-53

### Communities

We are proud to participate where we can in the communities, where we are privileged to operate. In 2019, Smurfit Kappa made approximately €3.5 million in social investments, across many projects in the areas in which it is located.

Find out more on pages 56-59



Smurfit Kappa Impacts



Smurfit Kappa Contributes



Smurfit Kappa Supports

## An impactful business

As a global Group, our activities aim to create sustainable value for our customers, investors, employees, suppliers and the communities where we operate.

SDG 17

SDG 16

SDG 09

### Innovation

Offering tailored fit-for-purpose packaging is the core of our eco-design. We link data, engineering and creative thinking throughout the packaged products' value chain, from packaging solutions back to our supply chain and processes.

Find out more on pages 64-65

### Governance and Human Rights

Smurfit Kappa supports the UN Global compact and is committed to promoting the United Nations Global Compact (UNGC) 10 principles of human rights, labour, environment and anti-corruption. As part of this, Smurfit Kappa reports transparently on its activities and performance in these areas.

Find out more on pages 66-67

### Sustainable sourcing

Sharing our sustainability knowledge, experience and expertise with our suppliers increases the sustainability of our whole value chain. To be able to sustainably grow our business, our materials, goods and services, must have the right quality and cost, but also be securely and responsibly sourced.

Find out more on pages 68-69



Smurfit Kappa Contributes



Smurfit Kappa Supports

# An impactful business

## Our Strategic Priorities

# Vision into action

As a global Group our activities create sustainable value for our stakeholders, especially the communities where we operate.

### A greener, bluer planet

Significant progress in reducing our relative CO<sub>2</sub> emissions; since 2005 we reduced fossil CO<sub>2</sub> emission intensity by 32.9% compared with our baseline year 2005. Key contributors to this progress were the investment in efficient Combined Heat and Power energy production at our Townsend Hook paper mill, and the new, energy-efficient paper machine at our Los Reyes paper mill, supported by new boilers.

A total of 92.1% of our packaging solutions delivered to customers globally were Chain of Custody (CoC) certified, providing assurance about the sustainable origin of the raw material used.

Investments in best practice water treatment reached €79 million since 2005, and we achieved a reduction of 35% in the water discharge Chemical Oxygen Demand (COD).

Achieving our target to reduce waste sent to landfill proved more challenging than anticipated. This is partly due to the lack of availability of regional partners with which we can collaborate to find alternative recovery applications for the waste material from the recovered paper pulping and screening process.

[Read more on pages 20-41](#)

#### Reduction of relative CO<sub>2</sub> emissions (since 2005)

-32.9%

#### Packaging solutions sold as CoC certified

92.1%

#### Reduction of relative COD in water discharge (since 2005)

-35%

#### Reduction of waste sent to landfill (since 2013)

-7.1%

### An employer of choice

In 2019, we evolved our People Strategy, organised under four pillars: Employee Experience for Performance; Inclusion, Diversity and Belonging; People Development and Talent Management; and Rewards and Recognition. It is focused on ensuring we are a globally admired employer of choice in order to attract and retain the best talent.

2019 was our first full year delivering against our target to deliver a 5% reduction annually in our Total Recordable Injury Rate (TRIR). We achieved a 17% reduction in comparison with 2018.

We are proud to be a part of the communities where we have a privilege to operate. In 2019, Smurfit Kappa Colombia was recognised with the RedEAmérica CSR award for 'Community Transformation' for its Integral Territorial Development programme.

During 2019, the Group worked on the introduction of its new Group Ethics Management processes and governance. We now provide an enhanced reporting channel and case management process that aligns 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 will also ensure our employees have a voice, and an opportunity to report wrongdoing or potential wrongdoing in full confidence.

[Read more on pages 42-59](#)





Disclosures



ecovadis



Ratings and Indexes



Reduction of the TRIR since 2018

-17%

Number of employees

46,000

Social investments in 2019

€3.5m



An impactful business

Smurfit Kappa's engagement with customers, both current and prospective, on the 'Better Planet Packaging' initiative was best illustrated with two flagship events: our biennial Innovation Event in May hosting over 350 customers from across the globe; and our inaugural Global Better Planet Packaging Day on 21 November, which involved over 650 brand owners and retailers across our global operations with our Global Experience centre network providing a unique platform for the day.

In 2019, the Group's leadership in innovation was recognised with 63 national or international awards for packaging innovation, sustainability, design and print. The Group's operations received awards in Argentina, Austria, Belgium, Brazil, Bulgaria, Colombia, the Czech Republic, France, Ireland, Mexico, the Netherlands, Russia, Sweden and the UK.

The Group was included in the newly formed Solactive ISS ESG Beyond Plastic Waste Index, which recognises companies active in the reduction of plastic pollution.

During 2019, we audited 112 suppliers through our seven pillar sustainable sourcing audit programme.

Acquisitions in 2019:

- Serbia (2) FHB paper mill and Avala Ada corrugated plant
- Bulgaria (2) corrugated plants

[Read more on pages 60-69](#)

Customers welcomed on Global Better Planet Packaging (BPP) Day

+650

Awards won in 2019

63

Use of our InnoTools: PackExpert and Paper to Box in a day

+11,400

## CEO's Statement

# Putting sustainability at the centre of our business

**“Our ambition is to be the most sustainable company in paper-based packaging.”**

**Tony Smurfit**  
Group Chief  
Executive Officer



## Welcome to Smurfit Kappa's 13th annual Sustainable Development Report.

2019 was the last year of a decade during which the global community became acutely aware of the environmental and social challenges our planet faces. For business, sustainability challenges and opportunities in the areas of environment, social and governance (ESG) have become mainstream Board priorities, and companies are now incorporating and integrating sustainability into their corporate strategies and how they conduct business.

Responding to these challenges, we have demonstrated our ambition to position the Group as the most sustainable company in paper-based packaging and delivering on our vision to be a globally admired company, dynamically delivering secure and superior returns for all stakeholders. Both our sustainability and business performance during 2019 showed progress towards the realisation of that vision. To reflect both commitment and leadership, Smurfit Kappa's Board of Directors formed a Sustainability Committee of the Board at the end of 2019 that will drive and provide overall strategic guidance of our sustainability strategy.

We consider climate change, resource efficiency (particularly regarding litter) and people issues such as human rights, Safety and Well-being, training and development, and diversity and inclusiveness as major global issues and we are well placed to be part of the solution to these long-term sustainability challenges.

We have realised significant reductions in our carbon footprint since 2005, and over 50% of our energy consumed is from renewable sources. Our product is a vital element in society's supply chains, improves our customers' environmental footprints and fully supports the circular economy by being renewable, recyclable and biodegradable.

Our industry-leading 'Better Planet Packaging' initiative seeks to reduce packaging waste and litter by creating more sustainable packaging solutions through design, innovation and recycling capabilities. Over 8,000 of our employees and their families put their passion for sustainability into action by participating in the 2019 World Cleanup Day activities.

This passion, combined with the quality and determination of our people, is a central element for our continued success. To ensure we attract and develop the best talent, we have developed

global and local educational training programmes in which thousands of our employees participate annually. Loyalty, integrity and respect are guiding principles when developing our business, and we are committed to 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 entire operations.

Our ambition to generate superior returns for all stakeholders focuses us on becoming a truly sustainable and circular company. Within that ambition, generating superior returns for our investors is paramount to enable us to invest in our people, the environment around us, the communities in which we are privileged to operate and in the long-term sustainable growth of the business itself.

### Our Progress in 2019

Further progress was made during 2019 on our five sustainability goals to be reached by 2025 and 2030 (see table opposite). I was particularly pleased with our significant progress in Climate Change, Forest, Water and Health & Safety. Over 50% of energy used in our paper mills is now based on renewable energy, and since 2005 these mills have decreased fossil CO<sub>2</sub> emissions by 32.9%.



In 2020, we will continue on this journey with investment of €134 million in a new recovery boiler in our Austrian kraftliner mill, which has the potential to reduce fossil CO<sub>2</sub> emissions by 40,000 tonnes. Our waste to landfill reduction target is more challenging as, while we have a circular business model, we also rely on availability of partners to recover certain residual materials in the raw material that we currently dispose of. In Forest, our 92.1% rate of deliveries to customers that were Chain of Custody certified provide assurance, traceability and proof of resource efficiency, while enabling end-to-end transparency across the supply chain.

We continued to be listed on various environmental, social and governance indices, such as FTSE4Good, the Green Economy Mark from the London Stock Exchange, Euronext Vigeo Europe 120, STOXX Global ESG Leaders and Ethibel's sustainable investment register. I am proud that Smurfit Kappa is included in a new equity index by ISS Solactive, recognising companies that are active in the reduction of plastic pollution.

This last accolade is a great recognition for the work Smurfit Kappa does through its Better Planet Packaging initiative by providing alternative, innovative and sustainable paper-based packaging solutions for its customers. ESG rating agencies such as Sustainalytics, MSCI and EcoVadis rated us as sustainability leaders, and the recognition by the 'We Support the Goals' initiative is proof that Smurfit Kappa is doing its part to realise the 2030 UN Sustainable Development Goals.

### Looking Ahead

At the time of writing, the Covid-19 pandemic continues to bring enormous uncertainty to society. At Smurfit Kappa we are bringing our values of Safety, Loyalty, Integrity and Respect to life during this challenging time. Our immediate primary focus is to protect our employees and continue to meet our customers needs. We remain operational which is as a result of our employees dedication and commitment and have been deemed an 'essential business' in many of the countries in which we operate. This means that we play a critical role in the fight against Covid-19 because without our packaging many vital supply chains including medical equipment, pharmaceutical, food and sanitation products could not continue to be delivered.

We have seen that the responses to the Covid-19 pandemic, especially the lockdowns and business disruption, have resulted in changing consumer patterns and behaviour particularly from a climate perspective. The CO<sub>2</sub> impact has been significant with large reductions in our cities and our skies due to the restrictions on travel. We know disruptive events and recessions change consumers perspectives and attitudes and as a result consumer purchasing trends. As a leader in Sustainability and Innovation SKG is well positioned to deliver insights and packaging solutions for our customers as future trends emerge.

The decade that started this year had already been named the 'Decade of Action' as forecasts show that the global community needs to adjust the components of its energy usage in the next 10 years to minimise the rise of global temperatures

to 1.5°C this century. Regardless the effects of the Covid-19 pandemic, Smurfit Kappa will continue to play its part as our reduction of fossil CO<sub>2</sub> over the past 15 years has shown. The evidence shows that our sustainable products are part of the solution. Life cycle analysis at product level shows a favourable carbon footprint of our paper-based products compared with other packaging materials.

Customers are increasingly switching to our paper-based solutions and turning away from less sustainable solutions. It is this trend that makes us confident that Smurfit Kappa has tremendous business opportunities to significantly contribute to the transition the global community will have to make. In 2020, Smurfit Kappa will continue to significantly invest in renewable and biodegradable packaging solutions that decrease the carbon footprint of both our customers and our own manufacturing processes, focus on the reduction of waste and water discharge, and continue the investment in the safety and development of our people.






I hope you find the content of our Sustainable Development Report 2019 interesting and informative, and look forward to your feedback (sustainability@smurfitkappa.com).



**Tony Smurfit**  
Group Chief Executive Officer  
30 April 2020

## Delivering our Targets

Our targets focus on our strategic areas and are designed to align the Group with the UN 2030 Sustainable Development Goals.

		Target	Achievement
<b>Climate Change</b>		<b>40%</b> reduction in fossil fuel emissions intensity by 2030	<b>32.9%</b> reduction in fossil fuel emissions intensity since 2005
<b>Forest</b>		<b>&gt;90%</b> packaging solutions sold as Chain of Custody certified to customers	<b>92.1%</b> packaging solutions sold as Chain of Custody certified in 2019
<b>Water</b>		<b>60%</b> reduction in Chemical Oxygen Demand intensity by 2025	<b>35.0%</b> reduction in Chemical Oxygen Demand intensity since 2005
<b>Waste</b>		<b>30%</b> less waste to landfill by 2025	<b>7.1%</b> less waste to landfill since 2013
<b>People</b>		<b>5%</b> reduction in Total Recordable Injury Rate annually	<b>17.0%</b> reduction in Total Recordable Injury Rate in 2019

## 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 exchange of ideas delivers benefits for everyone.

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

### Our Sustainable Value Dimensions

Our size gives us a unique position in the paper-based packaging value chain, enabling us to create sustainable value for our stakeholders by meeting their requirements depending on their areas of interest. For example, we help them meet sustainability commitments with Chain of Custody certification of the packaging production process, by reducing supply chain risks, or by improving measurements and reports of environmental footprint or social impact, adding to their transparency.

We ensure our stakeholders receive these benefits – from requiring high standards of supply chain sustainability 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 reduce and measure their own supply chain emissions.

### Our Engagement Methods

We know which issues are important to our stakeholders through continual multi-level engagement with 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 and World Business Council for Sustainable Development (WBCSD);
- participating in CDP, (formerly the Carbon Disclosure Project) EcoVadis, FTSE4Good and SEDEX surveys, and benchmarking against UN Sustainable Development Goals; 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 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.



#### Circularity

Working with a circular business model is our approach to delivering environmental sustainability. This means we involve our stakeholders at all stages, and add value to each one.



#### Inclusiveness

Our approach to our people and stakeholders is 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.

## How we engage

### How we include our stakeholders across our key focus areas



## Key activities in 2019



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"> <li>Regular business meetings at our Experience Centres</li> <li>Customer conferences</li> <li>WBCSD membership</li> <li>Awards and competitions run by customers</li> </ul>	<ul style="list-style-type: none"> <li>Investor days and conferences</li> <li>One-to-one meetings</li> <li>ESG ratings by rating agencies</li> <li>Feedback from sustainability analysts</li> <li>Queries directly from investors</li> </ul>	<ul style="list-style-type: none"> <li>MyVoice engagement surveys</li> <li>Day-to-day interactions</li> <li>Works Councils</li> <li>Social committees</li> </ul>	<ul style="list-style-type: none"> <li>Participation in local initiatives</li> <li>Supporting social investment projects</li> </ul>	<ul style="list-style-type: none"> <li>Supplier sustainability audits</li> <li>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)</li> <li>WBCSD membership</li> </ul>
<ul style="list-style-type: none"> <li>Packaging solutions that enable safe delivery</li> <li>Packaging solutions that cut waste and improve recyclability</li> </ul>	<ul style="list-style-type: none"> <li>Through our circular business model, lowering costs and increasing efficiency and revenue</li> </ul>	<ul style="list-style-type: none"> <li>Engaging our current and future employees</li> <li>Circulation of talent and ideas across operations and geographies to find best practice</li> </ul>	<ul style="list-style-type: none"> <li>Careful research and creating win-win solutions through closed material loops</li> <li>Support local business ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>Sharing our sustainability knowledge</li> <li>Identifying opportunities to increase circularity and add value across the value chain</li> </ul>
<ul style="list-style-type: none"> <li>Benefits of our solutions to include all in the value chain</li> </ul>	<ul style="list-style-type: none"> <li>Reduce reputational risk</li> <li>Streamline supply chains to reduce CO<sub>2</sub> emissions and minimise waste</li> </ul>	<ul style="list-style-type: none"> <li>Make employees feel included and appreciated as part of a team</li> <li>Health and Safety policies align with OHSAS 18001</li> <li>Safety culture from home to work</li> </ul>	<ul style="list-style-type: none"> <li>Share value from Smurfit Kappa business growth to local communities</li> <li>Encourage employee volunteering</li> </ul>	<ul style="list-style-type: none"> <li>Wherever possible, procuring products and services from local suppliers</li> <li>Keep finances flowing through local economy</li> </ul>
<ul style="list-style-type: none"> <li>Fit-for-purpose, eco-design packaging</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable packaging innovations deliver an attractive return on investment</li> </ul>	<ul style="list-style-type: none"> <li>Pay and participation are balanced in a safe and healthy workplace</li> <li>Talent development supporting creative ideas</li> </ul>	<ul style="list-style-type: none"> <li>Cross-industry collaboration helps to deliver financial and environmental benefits, such as reducing waste to landfill</li> </ul>	<ul style="list-style-type: none"> <li>Encouraging our suppliers to be innovative about products and processes</li> <li>Helping test and optimise solutions before they go to market</li> </ul>
<ul style="list-style-type: none"> <li>Better Planet Packaging Days reaching 650 customers (see page 16)</li> <li>At the end of 2019, our delivery of certified packaging reached 92.1% (see page 30)</li> </ul>	<ul style="list-style-type: none"> <li>Improved environmental performance</li> <li>Fossil CO<sub>2</sub> reduction by 32.9% (see page 22)</li> <li>COD discharge reduction by 35% (see page 22)</li> <li>Waste sent to landfill reduced by 7.1% (see page 22)</li> </ul>	<ul style="list-style-type: none"> <li>Introduced our new People Strategy, which focuses on employee experience for performance (see pages 48-53)</li> <li>Improved our TRIR by 17% since 2018 (see page 55)</li> </ul>	<ul style="list-style-type: none"> <li>€3.5 million in social investments (see page 56)</li> <li>8,100 hours volunteering</li> <li>32,000 people impacted</li> </ul>	<ul style="list-style-type: none"> <li>99.8% of our fibre produced and purchased as CoC certified (see page 22)</li> <li>112 supplier audits (see page 69)</li> </ul>

## 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.

To ensure that we continue to report on the issues most important to our stakeholders, we update our materiality assessment every three years. This year for the 2019 report, this assessment has been updated and included engagement from across all of our stakeholder groups. By identifying key material issues, 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 our internal policies and positions, long-term strategic plans and the Code of Business 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 offered two forms of engagement; an online survey for internal stakeholders and interviews with external stakeholders.

The employee survey that covered a representative sample of employees in both regions and at all disciplines. We will include the survey questions in the MyVoice employee engagement survey in the future.

We conducted interviews with key external stakeholders, such as customers, investors and suppliers. This form of engagement allowed us to understand, on a deeper level, key sustainability issues and how we can have a greater impact across our value chain.

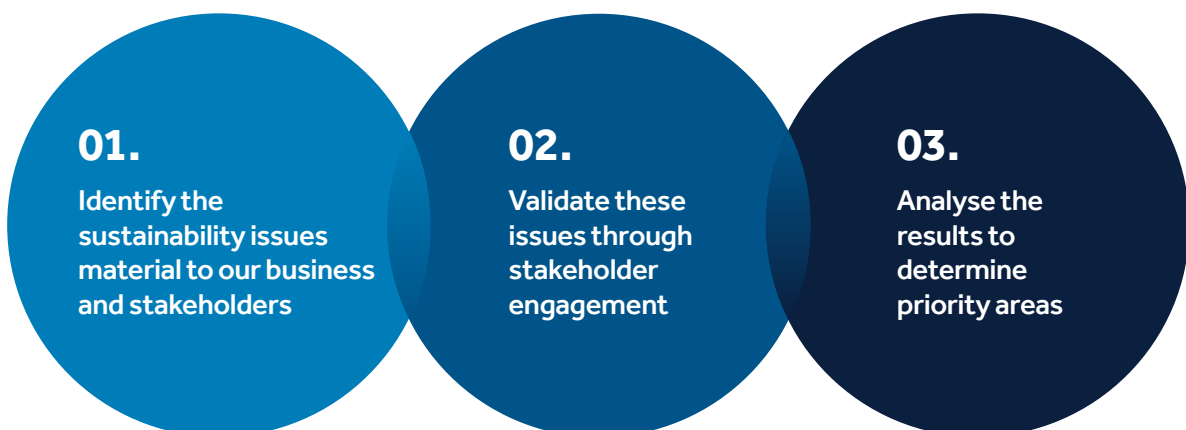
### Aligning to External Frameworks

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 and Sustainability Accounting Standards Board.

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 material issues. 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.

To determine priority and impact, we have mapped our commitment to the SDGs across three levels; Smurfit Kappa impacts, Smurfit Kappa contributes and Smurfit Kappa supports. Smurfit Kappa impacts means that we have set measurable targets to achieve the goal; Smurfit Kappa contributes means that we have a contribution to deliver towards the achievement of the goal; and Smurfit Kappa supports means that by being a responsible business we support society to deliver these goals. The rationale behind each selection has been explained on pages 21, 43 and 61.

## Our Materiality Assessment has Three Stages





## Material Sustainability Aspects Through the Value Chain *(material aspects explained below)*



### Raw materials

- **Planet**  
01, 03, 05
- **People**  
10, 11, 12
- **Impactful Business**  
15

### Suppliers

- **Planet**  
05
- **People**  
10, 11
- **Impactful Business**  
14, 15, 17

### Company operations

- **Planet**  
02, 03, 04, 06, 07
- **People**  
09, 10, 11, 12
- **Impactful Business**  
14, 15, 16

### Distribution

- **Planet**  
03, 04
- **People**  
10, 11
- **Impactful Business**  
16, 17

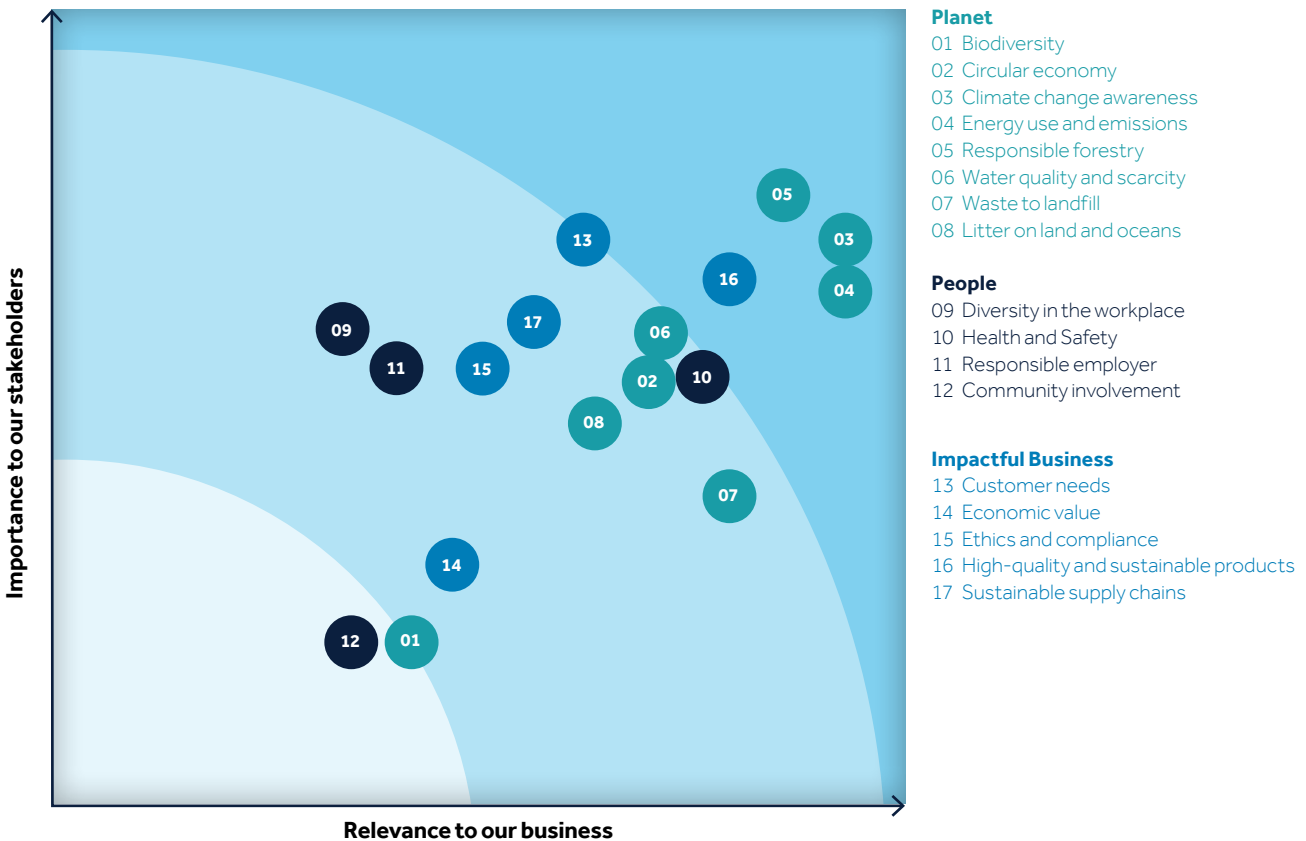
### Product use

- **Planet**  
02, 03, 06, 07, 08
- **People**  
10, 11
- **Impactful Business**  
15, 17

### Product end-of-life

- **Planet**  
01, 02, 03, 08
- **People**  
12
- **Impactful Business**  
16

## Material Aspects Facing Smurfit Kappa



- Planet**
- 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 oceans
- People**
- 09 Diversity in the workplace
  - 10 Health and Safety
  - 11 Responsible employer
  - 12 Community involvement
- Impactful Business**
- 13 Customer needs
  - 14 Economic value
  - 15 Ethics and compliance
  - 16 High-quality and sustainable products
  - 17 Sustainable supply chains

Better Planet Packaging

# Better Planet Packaging

seeks to reduce packaging waste and address the challenges of litter that ends up in our oceans and land.



Smurfit Kappa continues to lead in innovative sustainable packaging solutions for our customers, led by our 'Better Planet Packaging' initiative, which provides our customers with sustainable solutions today, ready for the challenges of tomorrow.

### In doing this we:

- ❏ **Develop** and **design** paper-based packaging concepts and materials with improved functionalities, that are fully renewable, recyclable and biodegradable as alternatives for today's unsustainable packaging solutions.
- ❏ **Educate** and **inspire** all stakeholders to understand the role sustainable packaging can play in addressing the challenges of waste.
- ❏ **Support** our customers and other stakeholders to develop a go-to-market strategy and **implementation** plan for paper-based packaging alternatives.

We have a range of tools and approaches that support our BPP initiative. See our case studies on pages 16-19.





## Develop and Design

**We are working with customers (and many other stakeholders) to deliver innovative, sustainable packaging solutions.**

These solutions include alternatives to traditional fruit and vegetable packaging (Safe&Green), a paper-based solution to traditional wood and plastic pallets, a lightweight sustainable alternative to wooden pallet tops (TOPPSafe™) and a portfolio of products to replace single-use plastic in the bundling of cans and bottles (TopClip, GreenClip and Nor-Grip), to name a few. We are working to develop paper-based packaging with functional barrier properties, that is fully renewable, recyclable and biodegradable, and new recycling systems (linked to the paper recycling system) to recycle packaging that is 'unrecyclable' today.



## Education and Inspiration

**Smurfit Kappa's engagement with customers was best illustrated with two flagship events: our biennial innovation event in May 2019; and our inaugural Global Better Planet Packaging Day in November 2019. This year, we also launched the 'BPP starts with ME' internal campaign to ensure that, as a Group, we are working hard towards removing plastic waste in our daily lives, both at home and at work.**

The 2019 Innovation Event which involved hosting over 350 customers from across the globe, focused on the theme Better Planet Packaging, looking at how we can make packaging for a sustainable world.



### Automated Packaging Solution

Topro, a producer of mobility aid products, needed smarter transport packaging in order to minimise logistics costs and environmental impact. It also wanted to improve production efficiency and automate its entire packaging process. Together with Topro, we assessed the supply chain throughout Europe and, with the help of Paper to Box, defined the required packaging criteria and functionality. Our new tapered box solution allowed better pallet fill with 180 more products per truck. Our solution for Topro reduced logistics costs by 40% and its packing line is now 100% automated.

Automated packaging line

100%

### Global Better Planet Packaging Day

On 21 November 2019, we hosted our inaugural Global Better Planet Packaging Day. This event saw us welcome over 650 brand owners and retailers to our Global Experience Centre network in 27 locations, across three continents. The day involved a combination of educational and inspirational lectures followed by a series of interactive workshops aimed at helping our customers to design packaging that helps rather than harms our planet.

Customers welcomed on Global BPP day

+650

## Implement and Support

We support customers in the development of a sustainable packaging strategy, a go-to-market strategy and implementation plan for paper-based packaging alternatives for today's unsustainable packaging solutions.

We analyse proposed solutions for recyclability, design for recycling and biodegradability.

### Brand Enhancement Through Sustainable Choices

School kit is a box developed for an Argentinian office product company. The customer wanted to improve recognition and market share of its brand through sustainability. The box is designed for school material supplies and can be repurposed later into tools for school children such as rulers, folders and pencil cases. The customer has achieved the anticipated brand recognition and the initiative has led to the introduction of recycling projects in schools.

Paper-based solution

100%





## ShelfSmart

The right shelf-ready packaging is proven to boost sales quickly and cost effectively, giving our customers maximum brand benefit where it matters most – at the point of purchase.

ShelfSmart is an innovative retail merchandising service designed to develop scalable, risk-proofed, shelf-ready packaging solutions. This is especially important for food packaging, where lost products mean a high environmental footprint.

### Safe&Green

Safe&Green is a shelf packaging concept from Smurfit Kappa, offering our customers a 100% recyclable alternative to fruit and vegetable packaging. The concept is fit for a variety of dried and fresh fruits, vegetables, nuts, herbs, etc. The punnets, trays and other shelf-ready packaging can have a natural look or be printed with branding to attract consumers. The concept is fully compliant with EU regulations for food contact and recyclability.

An alternative to fruit and vegetable packaging, which is recyclable

# 100%



## SupplySmart

SupplySmart is a combination of unique tools, data and expertise that enables customers to optimise their supply chain with improved packaging solutions with the assurance they're making fully risk-assessed decisions that will deliver measurable cost savings.

Smurfit Kappa engages with businesses using a proven six-step methodology, designed to help our customers make the most informed packaging choices to deliver the best return while reducing their environmental footprints.

### No-damage Transportation with a Corrugated Box

A Colombian children's toy producer was packaging its high-quality toys in low-cost plastic bags. The situation was unsustainable for the customer, with poor product perception, damage from transport and unstable storing. After evaluating the customer supply chain, partly customised, partly standardised corrugated packaging options, Smurfit Kappa was able to offer a cost-efficient packaging solution that allowed the customer to enter new premium product sales channels and reduce damage to the product.



Renewable, recyclable and biodegradable

100%



## eSmart

Our eSmart process is designed to improve all aspects of eCommerce packaging, from packing line to supply chain to consumer experience, including environmental impacts.

Smurfit Kappa helps customers manage complexity by analysing their eCommerce business across 12 key areas – including optimising their planning, increasing supply chain efficiency and delivering a positive customer experience. This analysis helps to identify areas for improvement and further development.

### Sustainable, Protective Packaging

Smurfit Kappa worked with a leading Latin American egg provider to successfully enable them to enter the eCommerce channel. SK tapped into the expertise and experience of our eSmart service to identify a packaging concept that would both protect the product and drive sales growth. An attractively designed pack was created to promote both the product and the brand alongside creating a positive consumer experience.

Styled like a briefcase with handles for carrying, the packaging keeps the eggs fresh and secure throughout the supply chain. It is also attractive from a sustainability perspective because more packs can be shipped during transportation and it is 100% renewable, recyclable and biodegradable.



Product before



Product after



## Planet

# A greener, bluer planet

For many years, our operations have been designed on a circular economy model. This means seeking closed loop solutions, maximising resource efficiency and minimising waste, including CO<sub>2</sub> emissions. It also means supplying packaging that avoids waste and litter.

Reduction of relative CO<sub>2</sub> emissions  
(since 2005)

-32.9%

Reduction of relative COD in  
water discharge (since 2005)

-35.0%

Packaging solutions sold as CoC certified

92.1%

Reduction of waste sent to landfill  
(since 2013)

-7.1%



### Inside this section

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### Key Principles

We replace the natural resources we need, use virgin resources in the best possible way, and reuse or recycle all side streams we can. This circular approach increases resource productivity, adding to our competitiveness.

Our circular business model starts with renewable, sustainable primary raw materials. Our well-established and integrated approach to producer responsibility and paper recycling means that 75% of our raw material is recycled fibre. We use organic by-products as biofuel, circulate our process waters as much as we can, wherever possible, and 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 using mono-material solutions, this creates efficiencies in our customers' packaging lines, and in addition improves 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 raw materials for industry and employment.

### Key Achievements in 2019

We made significant progress in reducing our relative CO<sub>2</sub> emissions; since we reduced fossil CO<sub>2</sub> emission intensity by 32.9% compared with our baseline year 2005. Key contributors to this progress were the investment in efficient Combined Heat and Power energy production at our Townsend Hook paper mill and the new, energy-efficient paper machine at our Los Reyes paper mill, supported by new boilers.

[Read more on page 27](#)

A total of 92.1% of our packaging solutions delivered to customers globally were Chain of Custody certified, providing assurance about the sustainable origin of the raw material used.

[Read more on page 30](#)

Investments in best practice water treatment reached €79 million since 2005, and we achieved a reduction of 35% in the water discharge COD in the same period.

[Read more on page 36](#)

Achieving our target to reduce waste sent to landfill proved more challenging than anticipated. This is partly due to the lack of availability of regional partners with which we can collaborate to find alternative recovery applications for the waste resulting from cleaning the recovered papers that form 75% of our raw material.

[Read more on page 39](#)

## Delivering for SDGs

### Smurfit Kappa Impacts

As an energy-intensive manufacturing business that uses natural resources, Smurfit Kappa has a direct impact on clean water resources, affordable and renewable energy, and forest biodiversity and ecosystems. 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 the global climate action. Supplying our customers with renewable, recyclable and biodegradable packaging solutions that help protect their products from damage and help inform consumers of their contents, we are part of the responsible consumption and production chains. We have set targets in all these areas.



### Smurfit Kappa Supports

Smurfit Kappa support local communities through its paper recycling operations, and is part of the infrastructures for sustainable communities. Our products can help reduce microplastics from entering water bodies and harming water ecosystems, and our Better Planet Packaging initiative helps raise awareness in this area.





## Planet continued

### Responding to our Stakeholders

	What we believe	What our stakeholders expect from us	Our commitments
<b>Climate change</b>	<p>We are tackling our CO<sub>2</sub> emissions by improving our energy efficiency, as well as moving from fossil fuels to bio-based energy wherever possible. 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 in innovation and product design, develop supportive tools and services, and create fact-based solutions for customers.</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 customer's emissions.</p>	<p><b>Commitment #1:</b> A 40% relative reduction in Scope 1 and 2 fossil fuel based CO<sub>2</sub> emissions in our mill system compared with 2005 levels by 2030.</p> <p><b>Progress made:</b> Since 2005, we reached 32.9% reduction.</p> <p><b>Commitment #2:</b> Collaboration with customers to determine carbon footprints of the packaging life cycle.</p> <p><b>Progress made:</b> Our suite of tools that help to determine the carbon footprint of our customers' packaging were used, on average, 11,000 times a day.</p> <p><b>Commitment #3:</b> Assessment of energy usage reduction opportunities in converting operations in selected countries by 2020.</p> <p><b>Progress made:</b> Project is ongoing.</p>
<b>Forest</b>	<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 up to eight times when producing our paper-based packaging products. Using both recycled and virgin fibres in production, our ambition is to deliver fit-for-purpose packaging with the best overall environmental footprint for each package, and communicating about the sustainable origin of fibres in a transparent way.</p>	<p>As growing consumption raises pressure on resources, our stakeholders increasingly place value on sustainable consumption, integrity of origin, recycling and avoiding litter. Sustainable forest management and use of recycled fibres are at the core of the expectations for paper-based products.</p>	<p><b>Commitment #1:</b> All fibre produced and purchased is CoC certified under FSC, PEFC or SFI (Sustainable Forest Initiative).</p> <p><b>Progress made:</b> We continued to produce and purchase 99.8% of our fibres under fibre origin management systems that are CoC certified in 2019. This is within our margin of 1% variation.</p> <p><b>Commitment #2:</b> Over 90% of our packaging is labelled as CoC certified under FSC, PEFC or SFI.</p> <p><b>Progress made:</b> We reached 92.1% in 2019.</p> <p><b>Commitment #3:</b> All production sites using FSC, PEFC and/or SFI CoC standards.</p> <p><b>Progress made:</b> Every newly acquired site has to comply with the CoC management system certification within two years from acquisition.</p>
<b>Water</b>	<p>Over 90% of the water we use is returned to nature in good condition, and the rest is emitted to the air during the process or is bound to the product. 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. 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><b>Commitment #1:</b> 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><b>Progress made:</b> Since 2005, we reached a 35% reduction.</p> <p><b>Commitment #2:</b> Perform environmental impact assessments of the water use of our paper mills (where relevant) and develop water usage measurements by 2020.</p> <p><b>Progress made:</b> During 2019 and the first quarter of 2020, 10 new sites were assessed. The project will be finalised by the end of 2020.</p>
<b>Waste</b>	<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 agriculture.</p>	<p>Avoiding waste, circular economy and efficient use of raw materials are material issues for our stakeholders, and many of our customers have stated objectives to reduce waste.</p>	<p><b>Commitment #1:</b> Decrease the waste sent to landfill by 30% per tonne of product produced by our mill system compared with 2013 levels by 2030.</p> <p><b>Progress made:</b> Since 2013, we reached a 7.1% reduction.</p> <p>Our Better Planet Packaging initiative focuses on reducing packaging litter and drives innovation for paper-based packaging, while keeping our raw materials in the recycling loop.</p> <p>We are also working with the recycling and paper producing industries to keep our raw materials in the recycling loop.</p>

## BanaBag – Removing Plastics in Banana Farming // Spain

To produce high quality bananas for the market, they must be 'bagged' during growth – a cover is placed over the ripening bananas.

This protects them from insects and from damage caused by friction within the bunch, or the plant's leaves hitting the fruit. The bags also create an ideal microclimate in which the bananas ripen faster and become better quality. Typically, these bags are made from plastic.

A producer of organic bananas for the European market wanted to take its sustainable farming one step further and remove all plastic from the farming process. It looked for a solution that would deliver the same or better results, and not cause more plastic waste.

SK Sangüesa was able to offer a solution, and the BanaBag® was created. This is a paper tube that can be pulled over the banana bunches and cut where needed. It also has paper spacers which are used between hands of bananas within a bunch to protect friction between banana fruits.

"The BanaBag® brings multiple benefits. Using a special kraft paper, the product is suitable for a wet environment and a smooth side surface avoids friction. Paper creates natural insulation, protecting the fruit from extreme temperatures or overheating at the top of the bunch," says Iñaki Urdaci, the Market Insight Manager at SK Sangüesa. The solution is FSC certified and biodegradable, and can be composted with other compostable material at the farms. The paper solution is also fully food safe.

BanaBag® was tested for a year on Colombian banana farms totalling 140 hectares. During this time, the product proved to be an excellent substitution for plastic bagging and may have played a part in higher production with better quality of banana produce. "The test also helped to remove over 43 tonnes of plastic equalling an area of 192 football fields," Iñaki says. He continues "is there a better way to demonstrate what we can do with paper?"

Plastic removed in 1 year (tonnes)

# +43



The UN's 2030 Agenda for Sustainable Development calls for action via 17 Sustainable Development Goals, and both the Paris Climate Accord and the EU set tough carbon targets. By 2030, the Paris Accord aims to limit climate change to under 2°C and the EU commits to reducing CO<sub>2</sub> emissions by 40% compared with 2005. 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, Smurfit Kappa is well-placed to make these targets a reality.

Circularity has been our business model since our inception, so we are in the lead as the circular economy goes mainstream. Our operations in 35 countries, and 355 production sites in Europe and the Americas, influence the whole packaged goods value chain. We drive positive change from sustainable raw material sourcing to minimising operational impact and shrinking our customers' environmental footprints.

Our environmental sustainability strategy is in 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, 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.

### Climate Change

Climate change is one of the greatest challenges facing society. If emissions continue to rise, ecosystems, biodiversity, economic development and communities will be impacted. Our stakeholders are increasingly looking for low-carbon alternatives, and therefore it is our priority to adapt and create a more circular approach to packaging.

Climate change has the potential to impact our business operations in a variety of ways. Extreme

weather patterns will affect our operations and supply chain, potentially impacting forests, water, weather, carbon regulation and taxation, and energy availability and affordability.

Forests play an important role in environmental resilience. We therefore need to promote healthy forests and manage these resources sustainably. Extreme weather patterns will affect local water systems. Drought, flooding and local restrictions on water usage may limit our access to water, so we have been conducting water risk assessments at our paper mills.

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 do 77% of our business in Europe, we fully support the EU Energy Union initiative in delivering innovative, efficient products and technologies to tackle climate change. However, to retain global competitiveness, there must be safeguards against 'carbon leakage' – firms moving to areas with weaker carbon policies.

## Planet continued

The Forest Fibre Industry 2050 Roadmap to a low-carbon bio economy shows a CO<sub>2</sub> 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% by 2050, break through technologies must be available by 2030.

### 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.

To decrease fossil CO<sub>2</sub> emissions we must shift to renewable energy. However, government incentives encouraging use of biomass for energy could lead to increased competition and higher raw material costs, putting paper packaging at a competitive disadvantage.

Packaging recyclability and biodegradability are popular topics. For example, in 2019, the EU launched its Single Use Plastics Directive, encouraging use of reusable or biodegradable materials.

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 (see diagram below). The biological cycle is called bioeconomy, and covers production and maximal value capture of renewable biological resources, including their reuse, recycling and sustainable return through biodegradation. The technical cycle covers the circularity of mainly non-renewable processed resources. Paper and paper-based packaging are involved in both cycles and move between them.

### Part of the Bioeconomy

Wood-based fibres are the starting point of our circular business model. The virgin fibres used by the paper industry are mostly from the removal of young trees to support forest growth, or as wood chips from sawmills, both of which are fully renewable, sustainable and reusable.

A total of 75% of our raw material is recycled fibre – the remaining 25% comes from sustainably managed forests through Chain of Custody certified supply chains. Paper-based packaging has the highest recycling rate of any packaging – wood fibre can be recycled eight times, before being used for energy or biodegraded. Trees sequester 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.

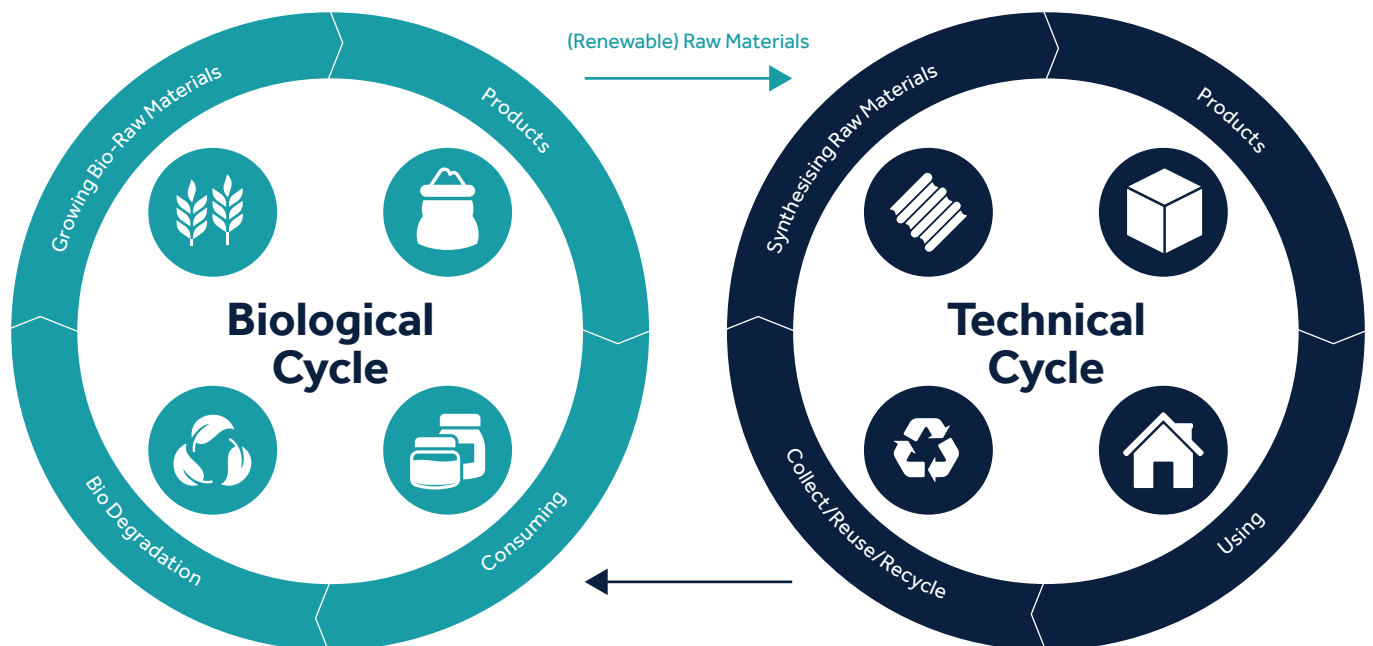
Smurfit Kappa participates in sustainable forest management through its own forests and plantations, and by only sourcing fibres from sustainably managed forests.

### Closing Loops

We 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 which 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 recycle our process waters several times, and invest in best-practice water treatment. Biogases from this become fuel for our Combined Heat and

## The Circular Economy





Power 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

We also recover paper packaging from our customers. Paper-based packaging collection rates were higher than for any other packaging material at 91.9% in 2017. 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 CO<sub>2</sub> it captured while growing, or degrades naturally, reducing the environmental footprint of the leakage.

## Good Collaboration // Czech Republic

When the SK Morava paper mill in the Czech Republic was about to expand production with a new paper machine in the 1990s, the authorities required it to invest in biological water treatment as well. The mill had no space on its premises, so a creative solution was needed.

The best location for the new water treatment plant was below the village, so the idea of a joined paper mill and village municipality water treatment evolved. Today, the waste water treatment plant, treats both paper mill and municipality waste water. The mill is responsible for the water treatment plant, and the local council governs the sewage system. A total of 13% of the water volume treated is municipality waste water.

"This has proven to be a good collaboration," says Ludek Jurica, Operational Manager SK Morava. "It creates operational and

reputational benefits for the mill and enhances our relationship with the community. It ensures that we have to have good two-way communication." It is also a good way to create circularity in water use and treatment. Joint water treatment is more efficient, and mixing our respective waste water means we can be more economical with the nutrients required for biological water treatment.

"It is important to remember that we are part of the community. Working together towards a better planet is part of this coexistence," explains Ludek.

**"It creates operational and reputational benefits for the mill and enhances our relationship with the community. It ensures that we have to have good two-way communication."**

Ludek Jurica  
Operational Manager  
SK Morava



# Climate change

The SDGs for climate change require us to lower customer carbon footprints and encourage production efficiency. Our customers and investors expect us to approach climate change strategically and inform them of our progress.

Increasing our energy efficiency lowers costs and reduces climate impact. We aim to minimise energy use, but also to move from fossil fuels to renewable sources, including biomass. This makes us an efficient resource-user of wood, residual streams and energy.

Our circular approach also makes us an efficient user of wood fibres and by-products. For energy, we only use wood biomass that has no higher value purpose and we reuse by-products, such as black liquor, as fuel. This uses resources at their highest value, in line with the waste hierarchy.

## Progress In 2019

To tackle climate change, we are using less fossil fuel and emitting less CO<sub>2</sub>, promoting renewable sources and closing loops to create circularity in our production process. There are three parts to this:

- **Investing in efficient energy generation**
  - Investing in highly efficient Combined Heat and Power (CHP) systems
  - Improving the efficiency of our existing boilers
- **Investing in efficient energy use**
  - Investing in technologies that reduce energy consumption
  - Re-engineering our processes and implementing smart energy efficient solutions
- **Investing in fossil CO<sub>2</sub> reductions**
  - Where possible, shifting to CO<sub>2</sub> neutral biofuels and other renewable solutions

Between 2005 and 2019, we achieved a 32.9% reduction of relative CO<sub>2</sub> emissions for our mills. We published a new target in 2018, and aim for a 40% reduction of relative CO<sub>2</sub> emissions in comparison with the 2005 baseline by 2030.

## Investing in Efficient Energy Generation // UK

**“To start with, our old Combined Heat and Power plant (CHP) was outdated and, quite frankly, a bit past it,” says Kevin Bussey, Managing Director of our plant in Townsend Hook, South East UK.**

“We’d had it since the ‘90s, and it was far too big, but selling excess power to the National Grid was typical for that era. We do things more efficiently now.”

The Townsend Hook Mill produced 226,000 tonnes of paper in 2019, supplying the UK and Irish market and complementing the heavier weights of paper from SK’s SSK mill. The new CHP plant was part of a major overhaul at the site which replaced two old paper machines with a newer one with 17% lower energy consumption. This new machine would make lighter weight paper, more suitable to modern, sustainable needs, and lighter weighted packaging.

A new CHP could similarly produce no more than was needed; 11MW, rather than the overcapacity of the old plant at 30MW. It could also produce both electricity and steam from natural gas, with 85% efficiency.

“In line with the Group’s global targets of reducing CO<sub>2</sub> emissions by 40% per tonne of paper by 2030, we were keen to replace the old CHP. A combination of the energy contract coming to an end in 2018, and needing an Environmental Agency permit to install the new paper machine, gave us an ideal opportunity,” says Kevin.

However, this improvement was a real test of SK’s commitment to reducing carbon emissions. The whole project commenced in 2015, and the new CHP started in 2018. During that time, installing new machines and decommissioning old ones required a significant investment, and led to 1.5 years of zero production for the site.

“It was worth it though,” explains Kevin. “In total, the CO<sub>2</sub> emissions from the site were reduced by 22% from 2012, and now we produce paper, which will be used more efficiently, and for which there is greater demand.”

### CO<sub>2</sub> emissions reduced

# 22%



## Local Project, Global Expertise // Mexico

**“We faced a big challenge, but also an opportunity”, says Alfredo Leal, Plant Manager at Smurfit Kappa Los Reyes Paper Mill in Mexico. “It was the combination of local resources and the Group’s global expertise that led to our success.”**

Staff at SK Los Reyes Mill wanted to replace their 50-year-old boxboard machine with a rebuilt containerboard machine, to meet the paper needs of SK Mexico and improve integration with the corrugated division. The site already had a smaller containerboard machine, which would provide the workers with expertise for the new one.

However, the team knew they could get better value from the new machine, and consulted with SK globally. The Paper Production Technology teams in Europe and the Americas, the Global Sourcing team, and colleagues from Colombia, Europe, and the US were invaluable.

All this led to the following design improvements:

- Stock preparation using the Smurfit Kappa blueprint, meaning less equipment used and energy saved
- Two fire tube boilers, saving fuel and steam during machine breaks
- Thermocompression systems, to get the most efficiency out of the dryer sections
- Tri-nip configuration, including a shoe press, improving dryness speed and efficiency
- Heating the closed hood via an energy-recovery system

These improvements led to a production design of 100,000 tonnes/year – 25,000 tonnes more than the machine’s original capacity. This, along with the more efficient boilers, led to a 13% reduction in CO<sub>2</sub> per tonne of paper in 2019. By the second year, with a better than expected ramp-up and good financial results, SK Los Reyes Mill was awarded Group Company of the Year in SK Mexico.

“The biggest success factor was opening ourselves to the Group’s global expertise, knowledge and support while working on a local project,” says Alfredo. “It shows the power of having a global network, and I want to thank everyone who has participated and supported us during this journey”



### Energy Efficiency

We cannot achieve our CO<sub>2</sub> emission reduction without progress in energy efficiency. From 2005 to 2019, we achieved a 17% improvement in paper mill energy efficiency by investing in more efficient energy generation and energy-reduction technologies.

The 2019 key events that resulted in a 32.9% reduction of relative CO<sub>2</sub> emissions compared with 2005 were:

- SK Townsend Hook, UK, continued to improve its energy efficiency due to the full year with the new, more efficient CHP as well as replacing fresh steam injections by heat recovery. This resulted in 6.1% CO<sub>2</sub> savings per produced tonne of paper
- SK Barbosa, Colombia, continued to reduce its CO<sub>2</sub> emissions by 4.2% per produced tonne of paper due to its continued improvements in energy efficiency in the paper machine
- SK Los Reyes, Mexico, the paper mill delivered a second full year with its new, 100,000 tonne capacity paper machine and supporting new boiler house, and continued to reduce its CO<sub>2</sub> emissions by 1.9% per produced tonne of paper
- Our Austrian and Colombian sites started to purchase all grid electricity with green certificates, resulting in reductions in Scope 2 CO<sub>2</sub> emissions
- The inclusion of the SK Parenco mill to the Group reporting after it’s first full year in the Group led to reductions in relative CO<sub>2</sub> emissions
- The divestiture of our Venezuelan operations also contributed to the overall CO<sub>2</sub> emission reductions

- We had a 7.1% increase of CO<sub>2</sub> emissions per produced tonne of paper in SK Saillat, France, due to the restart of the external CHP

### Renewable Energy

To be able to reach our CO<sub>2</sub> target, we plan to move from fossil to renewable fuels wherever possible. During 2019, our paper mills used 51.4% biofuels, compared with 37.9% in 2005. In 2018, the Piteå mill in Sweden, already effectively biofuel based, also changed its internal wood yard transport to biofuels. The addition of the Parenco mill in the Netherlands mid-2018 further helps us to shift to bio-based fuels.

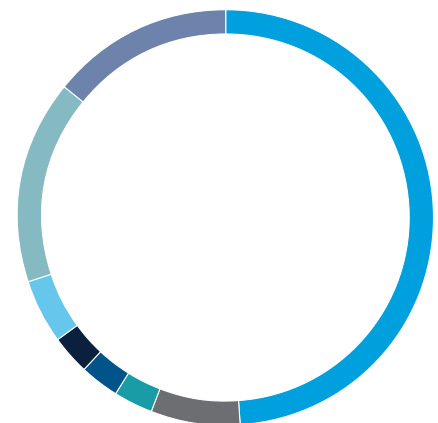
### Working with our Customers

Using a suite of tools, including Paper to Box and Pack Expert, we work with customers to determine their packaging’s carbon footprint. These tools provide CO<sub>2</sub> emissions data and other information to optimise solutions.

On average in 2019, Paper to Box was used 10,000 times per day and Pack Expert 1,300 times per day. Use of Pack Expert continued to grow from 2018, due to expanded use in the Americas and increased customer interest in using our research-based expertise. As we have achieved a 32.9% reduction of CO<sub>2</sub> emissions, these tools help use this data for our customers’ benefit.

Our InnoTools suite of design software also shows customers the carbon footprint for each packaging unit and tracks its development over time.

**Our packaging makes only 3% of the footprint in food product value chain**



Key:

- Food supply (farm/sea) as prepared food leaving the factory – 49%
- Primary packaging – 7%
- Secondary & transport packaging – 3%
- Factory to shop transport – 3%
- Retail – 3%
- Consumer shopping – 5%
- Consumer cooling/freezing – 16%
- Consumer cooking – 14%

Source: Incpen, 2008



# Award-Winning Circular Energy // Sweden

**“People talk about recycling, but in Piteå we recycle heat,” says Per Swärd CEO of the Smurfit Kappa Piteå Kraftliner mill in Northern Sweden.**

“Many mills are looking into working with district heating providers, but we’ve been doing it for 42 years.”

As well as producing their own energy in a biomass boiler, the SK mill has two turbines which produce 55% of the mill’s electricity consumption. Even better, the mill has a unique and well-established partnership with the local energy corporation, where excess mill heat is used for district heating. This ensures that the local community uses the mill’s secondary heat, which would otherwise be wasted. The

local energy corporation has invested in the plant to make this process more efficient, installing a mill heat-switch and a system to extract waste heat from the recovery boiler chimney.

Piteå has severe winters, and heat from the SK plant supplies 95% of district heating, including 3,800 buildings, three indoor swimming pools and also de-ices the main pedestrian street. The partnership has also been looking into summer uses, and in 2021 will be running a pilot project using the energy to drive a kindergarten’s cooling system. If successful, this solution will be installed at other facilities such as schools and retirement homes, and the plant’s energy can be reused even more efficiently all year round.

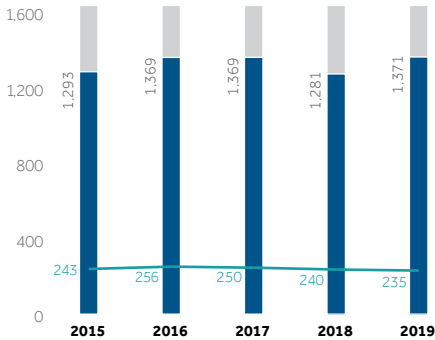
In 2018, SK Piteå made the 40-year partnership celebration an opportunity to inform people how it gives back to the community and environment. Historically, the plant’s location has sometimes been a bit unpopular – it’s a large industrial facility right in the middle of a tourist town. It also takes up prime riverfront estate because originally the mill needed to be on the river for wood transportation.

The upside of the location is that it enables efficient distribution of district heating, giving sustainable green energy to the community.

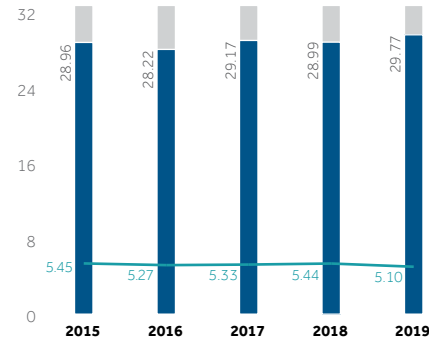
The 40-year district heating celebration was a huge success. “There’s a Swedish saying: ‘you can’t become a prophet in your home town,’” says Per Swärd. “But we proved that wrong when our partnership celebration led to us being given Piteå’s 2019 Business Sustainability Award.”



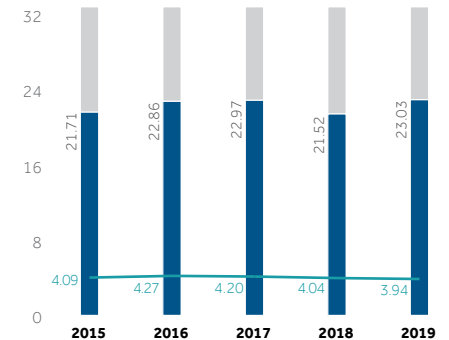
**Direct Fossil (Scope 1) CO<sub>2</sub> Emission: European Mills**



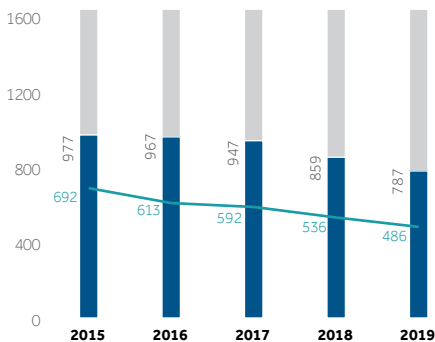
**Biofuels: European Mills**



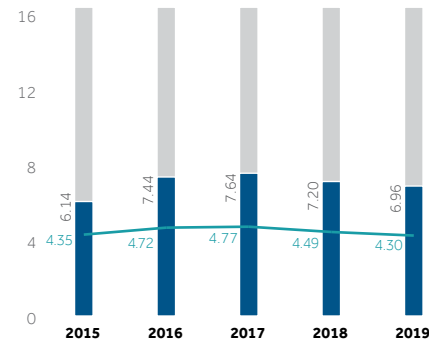
**Fossil Fuels: European Mills**



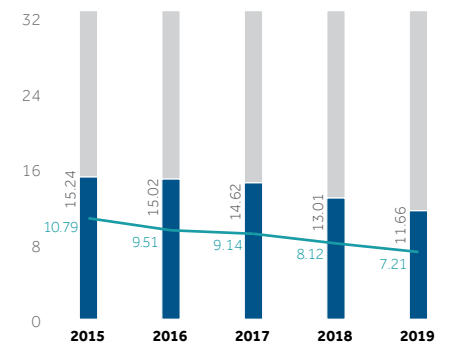
**Direct Fossil (Scope 1) CO<sub>2</sub> Emission: The Americas Mills**



**Biofuels: The Americas Mills**



**Fossil Fuels: The Americas Mills**



Key:

Absolute – (ktonnes) Specific – (kg/tonne)

Key:

Absolute – (PJ) Specific – (GJ/tonne)

Key:

Absolute – (PJ) Specific – (GJ/tonne)

**Emissions from Transport**

In 2017, we started a project to include emissions in our transport-related supply chain decisions. This focuses on three improvements: maximising efficiency through payload optimisation and reducing empty mileage; developing a good mix of road, rail and water transport; and using less carbon-intensive fuel technologies. Data management was essential, so in 2018 we piloted a European project including emission data in logistics decision-making.

This project covers all our European transport emissions – 77% of our business. The transport streams and scope of our reporting are described in the diagram below. In 2019, we started a similar pilot project in Colombia.

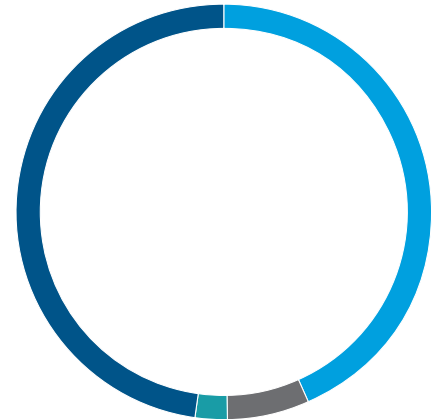
In the reported CO<sub>2</sub> emissions, we include the transport of wood, recovered paper and market pulp, as well as from transporting intermediate products such as reels of paper, corrugated and solid board sheets from paper mills to converting plants. In 2019, these were the equivalent of 353,000 tonnes of CO<sub>2</sub>. We also report CO<sub>2</sub>

emissions from delivering to customers – all road transport, representing CO<sub>2</sub> emissions of 105,000 tonnes. In 2019, the total of these transport-related emissions represented 458,000 tonnes of CO<sub>2</sub> equivalent.





Whilst CO<sub>2</sub> emission calculation for paper reel transport between our own mills and converting plants is accurate (representing 75% of the total volume), we also have a good estimate for emissions when reels of paper are supplied to our corrugated plants by third parties. While corrugated transport is mainly by road over shorter distances, for all remaining transport we operate a modal mix of 4% rail, 7% water and 89% road transportation, based on shipped volume.

Our operating companies report transport data annually, and we aggregate this in a database where emission calculation is applied based on default CO<sub>2</sub> emission factors from the GLEC reference model (Global Logistics Emissions Council by Smart Freight Centre).

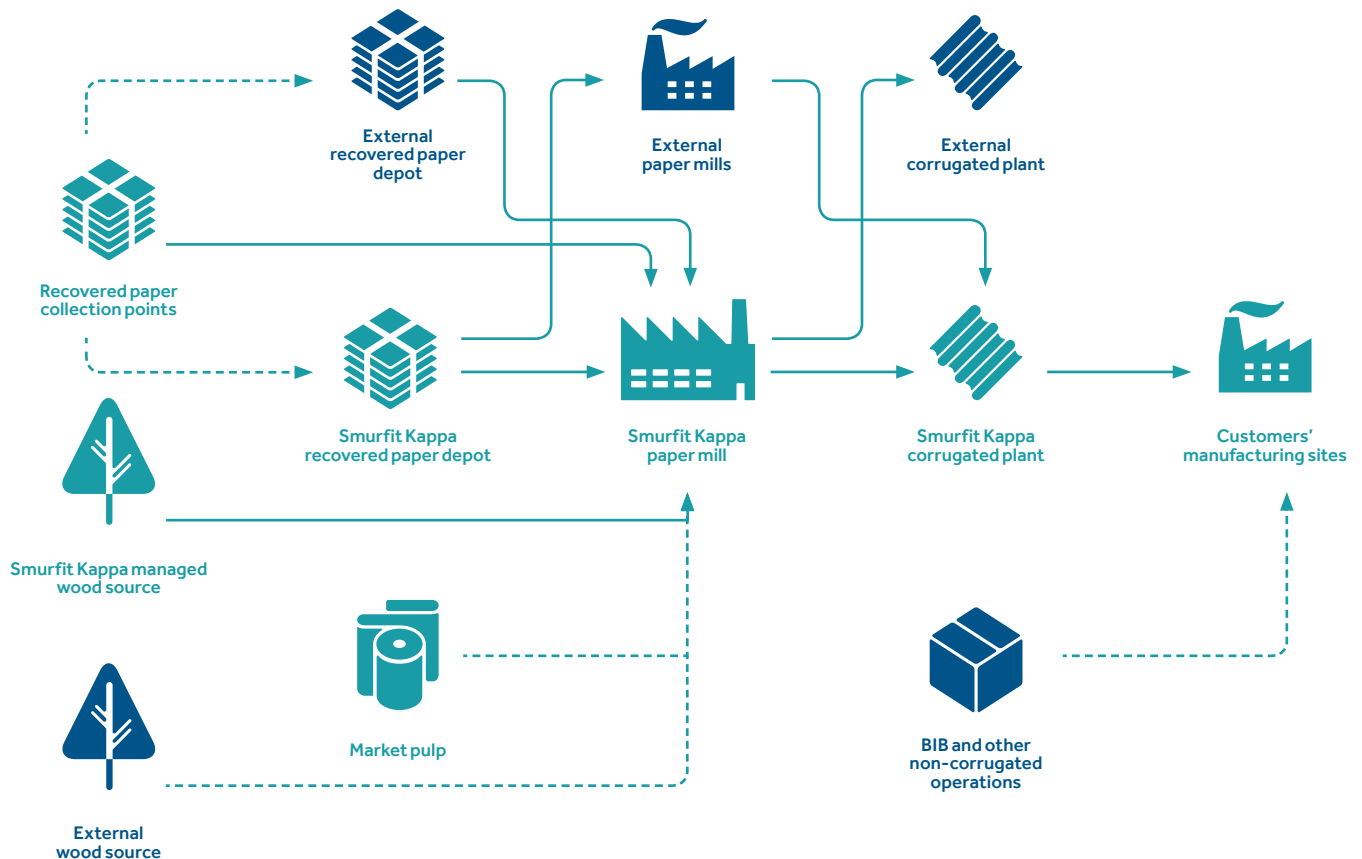
**Direct Fuel Consumption, All Operations**



**Key:**

-  Natural gas – 43.6%
-  Coal – 6.3%
-  Other fossil fuels – 2.4%
-  Bio fuels – 47.7%

**Transport Streams**



The transport streams shown with bold arrows represent transports included in the calculations.

Source: Incpen, 2008

# Forest

Wood fibres are our main raw material, making us part of the bioeconomy. Smurfit Kappa sustainably manages its own eucalyptus and pine plantations in Colombia, as well as smaller forests in France and Spain. We use certified Chain of Custody wood for pulp from European suppliers in Austria, the Baltic countries, France, Germany, Spain and Sweden.

### Our Commitment to Sustainable Fibre

We aim to source virgin fibres from certifiably well-managed forests, or at least of non-controversial origin, or Chain of Custody certified recycled fibres. All materials must be delivered through a third-party-verified Chain of Custody certified supply chain. We accept Forest Stewardship Council® (FSC®), Programme for Endorsement of Forest Certification™ (PEFC™) and Sustainable Forestry Initiative® (SFI®) certified wood, and the Chain of Custody systems at our mills and plants also cover recycled-fibre sourcing.

Products delivered to our customers must meet the commitments we make in our policy statements (Forestry Policy, Code of Business Conduct, Social Citizenship). Most are covered by the Chain of Custody certification standards, which concern all fibre and fibre-based products we use or manufacture, whatever their origin or form.

A total of 58% of the wood we use for virgin paper or pulp comes from forests certified under the FSC, PEFC and/or SFI schemes. The remaining 42% is of non-controversial origin, risk-assessed through our FSC and/or PEFC Chain of Custody system, and verified by a third party. Our efforts in Spain to increase FSC certified wood supplies have started to have a positive impact on the Spanish certified wood volumes. We also had an increase in FSC certified wood supplies in Sweden.

Annually, Smurfit Kappa's recycling operations handle some 5.2 million tonnes of recovered paper in Europe, and 2 million tonnes in the Americas. We have a network of 17 recycled paper depots in Europe, and 22 in the Americas, using recovered paper from municipalities, retailers, industries, and our own corrugating and converting operations.

### Chain of Custody

Our sustainability commitments must show supply chain transparency. We use robust monitoring and third-party auditing of our supply chain, ensuring compliance. Smurfit Kappa does

not source fibre from high deforestation-risk areas, but this issue nevertheless affects the whole industry's reputation. The best practice to deliver our commitment is through forest certification, and related Chain of Custody certification.

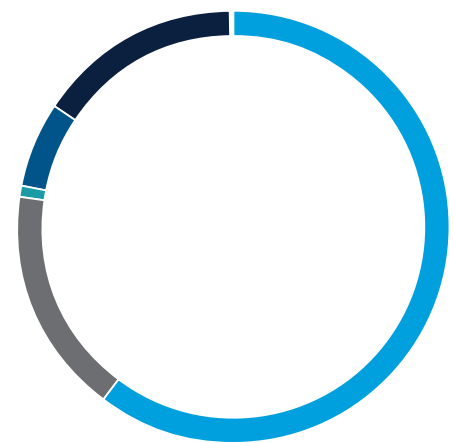
At the end of 2019, 93% of our paper was produced as Chain of Custody certified, according to FSC, PEFC or SFI. The remaining 7% is from non-controversial fibres in accordance with FSC Controlled Wood standard, and managed through the mills' Chain of Custody certified risk assessment systems.

The complete European Smurfit Kappa paper and board mill system has been Chain of Custody certified under the FSC and PEFC schemes since 2010. Since January 2015, all our American paper mills have been certified by FSC and/or SFI standards.






Furthermore, all our converting operations are Chain of Custody certified. We reached our target to sell over 90% of our packaging solutions as Chain of Custody certified at the end of 2016, and during 2019 this increased to 92.1%.

With Nepcon, we performed an assessment and gap analysis to measure the effectiveness of our Chain of Custody and related due diligence systems during 2018/2019, and used this to strengthen our 2019 forestry and fibre sourcing policy. We source fibres from 35 countries among which seven are classified as potential high risk: Argentina, Belarus, Brazil, Chile, Colombia, Russia and Ukraine. In Colombia, we only source from our own FSC certified plantations, but fibres sourced from the other six countries require additional due diligence before purchasing.

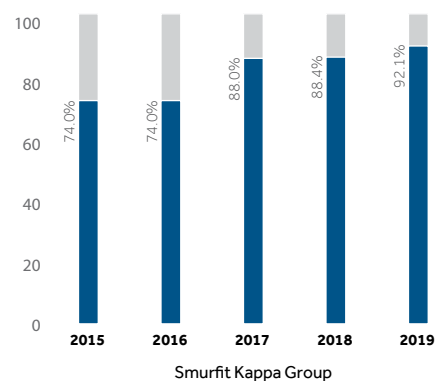
Virgin and Recycled Fibres per Source 2019



Key:

-  Recycled pulp produced internally – 60.4%
-  Wood pulp produced internally – 17.1%
-  Market virgin pulp – 0.9%
-  Virgin paper purchased – 6.2%
-  Recycled paper purchased – 15.5%

Share of packaging products sold as CoC certified 2015-2019





## Forest and Plantation Management Colombia

Almost all the virgin wood fibre our Colombian plants need is supplied by 68,000 hectares (ha) of forests and plantations which we own and manage. We use protection programmes with the best sustainable development principles, promoting responsible use of natural resources along with economic development and social inclusiveness. We also conform to comprehensive legal, technical and environmental regulations set by local government and international bodies, subject to annual review.

Our 67,100 ha of forests and plantations in Colombia include:

- 42,000 ha of commercial plantations, of which 6,000 ha are partnerships with private landowners;
- 22,000 ha of protected natural forest; and
- 3,100 ha for infrastructure.

In our commercial plantations, 58% of the land is pine, 35% eucalyptus, 6% is being replanted and 2% is dedicated to research. Our Colombian forest management programmes have been certified by 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 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.

Plantation forestry efficiently produces sustainable fibres for paper production. 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:

- Since 2013, a partnership with the Biology Programme of the Natural Science School of Universidad del Valle has studied 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 1,223 species in our forests. This includes 651 trees, 494 birds, 77 mammals, and one amphibian, of which 42 species are endangered. Our plantations and neighbouring protected forests form important wildlife corridors, contributing to species conservation in the Andean ecosystem, and need careful management

We also work with neighbouring communities, engaging local people in our decision-making. This is especially important in Latin America, where indigenous people may have land rights, and livelihoods are often dependent on forests. In 2019, there were no violations of the rights of indigenous people.

## France and Spain

In Europe, we offer forest management services through our wood supply companies in Spain and France, where we manage some 600 hectares of forest. In both, we follow local best practice for forest management, as certified by PEFC. Our wood-handling operations are Chain of Custody certified to FSC and PEFC standards.

## Solar Power for the Laboratories // Colombia

The Smurfit Kappa Colombia Forestry Operations are responsible for the management of the 45,000 hectares of pines and eucalyptus plantations and 22,000 hectares of protected natural forest owned by the Company.

They also are responsible for one nursery and two laboratories that support sustainable forest management.

In 2019, the Forestry Operations started a project to install solar panels to supply the energy demand of its laboratories at the Rancho Grande estate. The 168 solar panels, with a capability of reaching 300 watts each, supply 50% of the energy need of the laboratories dedicated for forest entomology and forest phytopathology.

The total amount of solar energy production is almost 78,000 KWh per year and the CO<sub>2</sub> emission savings equal 29.7 tonnes per year.

"It is a nice way to use the same power for our laboratories as what our trees use to grow," says members of the Project team: Carlos M. Jiménez, Byron Urrego and Andrés Jaramillo.

Number of solar panels

# 168



Planet continued

## Chain of Custody: proven trail for sustainable fibres

Transparency throughout the supply chain is vital to delivering our sustainability commitments. We are committed to maintaining robust monitoring and third-party auditing of our supply chain, ensuring sourced fibre complies with our sustainability principles.

Our manufacturing sites are Chain of Custody certified, and over 99% of our fibres are sourced through Chain of Custody certified supply chains. Our commitment is to deliver over 90% of our sold products as Chain of Custody certified.

Below, five dedicated Smurfit Kappa employees explain what happens at each stage of a Chain of Custody certified supply chain.

### Five of our dedicated employees outline the important part they play in the Chain of Custody journey



#### Responsible Sourcing at Paper Mills

*"We are committed to securing our wood from sustainably managed forests, mainly from nearby regions, either from certified forests or from controlled sources. When a timber load enters the paper mill, our resource planning systems are in place to check the status of certification and prevent any unidentified fibres from being put into production. Once we know fibres are okay to use, a documented information trail of the raw material follows it throughout the paper-making process. From certification documentation to origin controls and independent third-party audits, our processes ensure transparency. As a forest engineer in the paper industry and as a father, I am passionate about the benefits of certified forestry – not just environmental, but social and economic."*

**Ernst Kastner, Wood Purchasing Manager at Smurfit Kappa Nettingsdorf paper mill in Austria**



#### Paper Recovery and Recycling

*"Our principal raw material is recovered paper and cardboard which we receive from Smurfit Kappa's recycling operations (post-consumer waste), as well as clippings which we receive from our corrugated operations (pre-consumer waste). Material sources and specifications are stipulated and compliance is closely monitored – a key requirement to help demonstrate appropriate Chain of Custody. For me personally, our approach to Chain of Custody means we're minimising our impact on the depletion of natural resources; that makes me proud to work at Smurfit Kappa."*

**Mark Webster, Compliance & Environmental Manager at Smurfit Kappa SSK's recycled paper mill in the UK**

#### Sustainable Forest Management

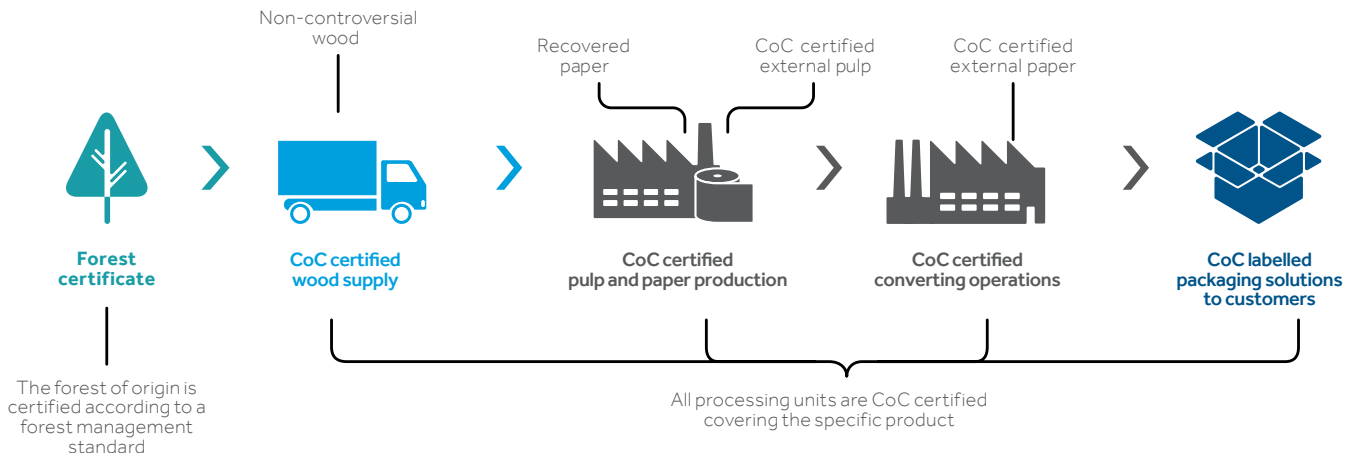
*"Certified forests mean that we apply specific procedures to protect and manage the forest and forest ecosystems sustainably, as well as to maintain the safety of our operations in the forest. I know this is important to our customers, but certified plantations also act as a source of employment for the surrounding communities that we are committed to supporting."*

**Jose Nehil Zuluaga Trujillo, Harvest Technician of Forestry, who works in Smurfit Kappa's own Colombian FSC® certified forest plantations**





## Chain of Custody (CoC) Model



### Transforming Paper into Packaging

*“Our plant doesn’t work with non-certified material. For a start, it’s all traced and tracked through our order system. My colleagues and I also receive annual in-house FSC training to ensure we know and understand the materials we work with; so customers can rest assured the people behind our products know what they’re working with. Our training and day-to-day work within the parameters of our Chain of Custody system has raised our awareness of the importance of certified material; it has a massive impact on both the environment and society.”*

**Dave Senior, Conversion Shift Manager at Smurfit Kappa Weston Super Mare corrugated plant in the UK**



### The Final Packaging Product

*“Product delivered? Have a look at the paperwork that came with it. All of our customers receive a dispatch note and an invoice with our certified ‘stamp of proof’ clearly marked – their guarantee that our product originates from a sustainable source, verified throughout the supply chain. What’s more, all of our products are fully recyclable so you can have peace of mind that the paper from your packaging can be recovered and reused again and again. Selling certified, sustainable products gives the whole of our Company great pride – and it sets us apart.”*

**Peter De Knop, Key Account Manager for Smurfit Kappa Benelux**



# Water

Water is a critical element in pulping wood and recovered-paper fibres, in the formation of paper and in drying it with steam-driven dryers. Without water, we cannot produce paper.

Our 34 paper and board operations used 134 million m<sup>3</sup> of water in 2019, of which 125 million m<sup>3</sup> was discharged in good condition, making us a processor of water rather than a consumer. 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, 75 million m<sup>3</sup> was used for processing and 49 million m<sup>3</sup> for cooling. Since 2014, we have carried out water risk assessments across all our paper mills. Our products need to meet hygiene standards, and our paper-making technologies require good-quality water. This means that with our neighbours and stakeholders, we have a common interest in good water stewardship.

Only 12% of our paper and board production is in areas of water scarcity, representing 3% of our water intake. Nevertheless, we always use water sustainably – many of our stakeholders are concerned with local quality and expect good water management practices. In 2018, we showed our commitment to water stewardship by becoming a signatory to the CEO Water Mandate.

Water treatment is part of the bioeconomy. We use bacteria to clean the water, and the resultant biogas fuels our Combined Heat and Power 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. 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 chapter).

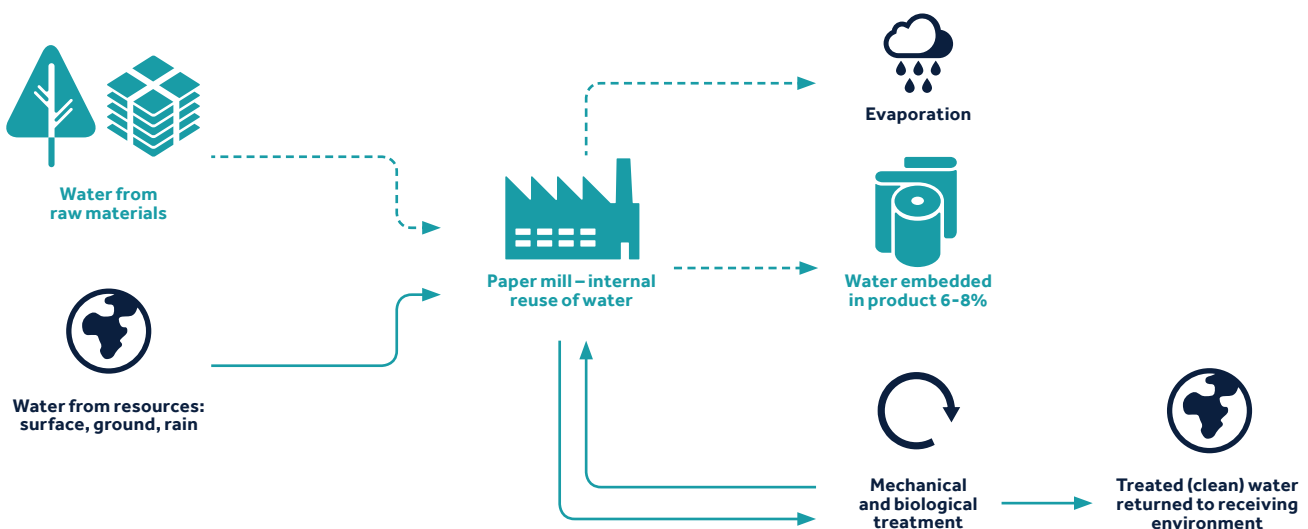
### Committed to Sustainable Water Stewardship

We aim to further improve our discharged water quality, and know the risks associated with water availability and use. We therefore continually implement best practice in our mills' water treatment. In 2019, over 98% 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 2014, we have investigated the environmental impact of our paper mills as well as water-related risks. During 2019 and early 2020, we finalised our in-depth assessments at 10 paper mills not previously assessed, the remaining four paper mills in Brazil and Serbia will be assessed during of 2020. All assessments confirmed that our mills' water use has no impact on water availability to neighbouring areas. We will use these findings to build individual site water stewardship strategies.

Water risk assessments focus on three categories – 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.

## Water in the Paper Mill





## “One More Time!” – Reusing Treated Water // Argentina

“Corrugated packaging production uses quite a lot of water, and we always try to reduce demand on local sources,” says Pablo Leon, Plant Manager at the Smurfit Kappa Coronel Suárez corrugated plant in Argentina.

“But we were using over 1,600 m<sup>3</sup> of water per month, so the Process Control and Maintenance team set themselves the challenge of reducing fresh water consumption by 30%, to reduce the strain on the environment.”

Even for a corrugating plant of Coronel Suárez’s capacity, 1,600 m<sup>3</sup> is a lot of fresh water, but an investigation soon found a culprit. The liquid ring vacuum pump – part of the water treatment system, ironically enough – had the highest consumption of fresh water. It needed fresh water because, after treatment, particles of the filtering volcanic earth (expanded perlite) were present in the treated water. Whilst these were environmentally neutral, they had an abrading effect on the delicate pump. As Pablo says, “Our treated water has always been the best quality, but it wasn’t good enough for our pump!”

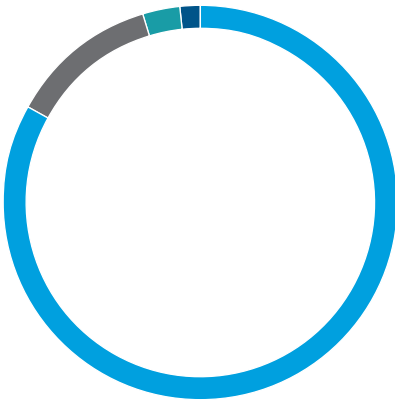
However, a synergy with different projects became available. The Process Control department had been improving the quality of the treated water so it could be used in different parts of the production process. “In order to hang onto our water, it has been treated to a standard beyond what was legally required,” comments Pablo, “So, we thought, perhaps it would now be good enough for our pump.”

It was – the pump now uses no fresh water, and using treated water on the pump’s seal has led to a reduction of 61% in general fresh water use – more than twice the target. “We get our money’s worth out of our treated water,” says Pablo, “Using it one more time before returning it to the environment.”

### Water reduction achievement

# 61%

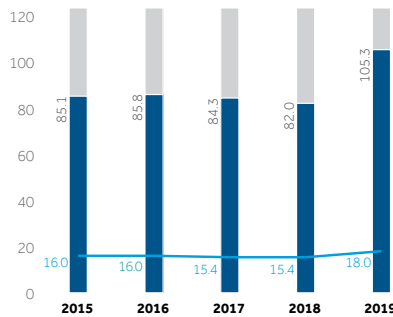
Water Sources – All Operations



Key:

- Surface – 83.3%
- Ground – 12.2%
- Grid – 2.9%
- Other – 1.6%

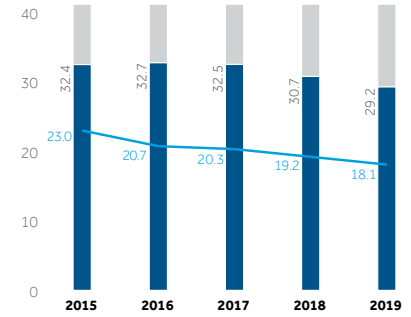
Water Intake: European Mills



Key:

- Absolute – (Mm<sup>3</sup>)
- Specific – (M<sup>3</sup>/tonne)

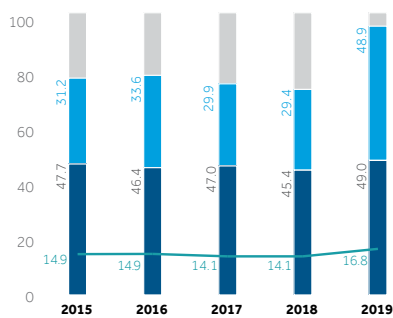
Water Intake: the Americas Mills



Key:

- Absolute – (Mm<sup>3</sup>)
- Specific – (M<sup>3</sup>/tonne)

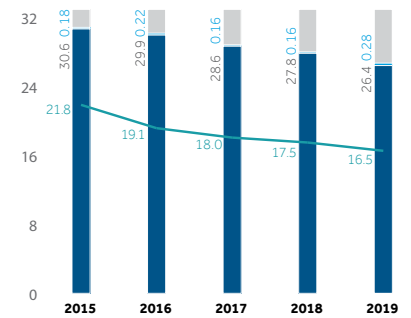
Water Released: European Mills



Key:

- Absolute process – (Mm<sup>3</sup>)
- Absolute cooling – (Mm<sup>3</sup>)
- Specific – (M<sup>3</sup>/tonne)

Water Released: the Americas Mills



Key:

- Absolute process – (Mm<sup>3</sup>)
- Absolute cooling – (Mm<sup>3</sup>)
- Specific – (M<sup>3</sup>/tonne)

# Planet continued

## Progress in 2019

Between 2005 and 2019, the Chemical Oxygen Demand (COD) content of processed water returned to the environment has decreased by 35% relative to production, in comparison with 33% in 2018. This result is mainly due to the improvement of the water treatment plant at our Piteå paper mill in Sweden. The mill had experienced problems in its water treatment in 2018, and the situation has since stabilised.

The Cali paper mill in Colombia improved efficiency of its water treatment plant from multiple initiatives. These included changes made to reduce the presence of foam, stabilising clarifier and eventually installing a new sludge press that also reduces the volume of solids entering to the water treatment plant.

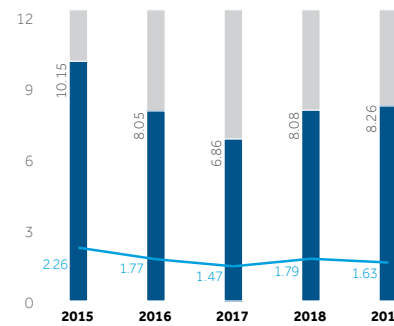
The Pirapetinga paper mill in Brazil continued to improve its water treatment after a repair of its aerobic reactor in 2017.

Our paper mills, in Barbosa in Colombia and Uberaba in Brazil, had issues with their water treatment plants resulting in disimprovements in COD discharge on site level.

In 2019, water intake of all our operations was 134 Mm<sup>3</sup>, in comparison with 113 Mm<sup>3</sup> in 2018. For 2019, compared with 2018, the average water intake by our paper and board mills increased to 18.0 m<sup>3</sup> per tonne of paper produced from 16.3 m<sup>3</sup>, an 11% increase, mainly due as a result of the addition of the SK Parenco paper mill in the Netherlands to our Group reporting after its full year in the Group.

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 m<sup>3</sup> water is used per tonne of paper. We discharge 3-7m<sup>3</sup> water – about the same amount as the intake per tonne of paper. 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 to our process after treating it in our water treatment plants. Our Zülpich (Germany) and Bento (Brazil) mills operate closed water loop systems.

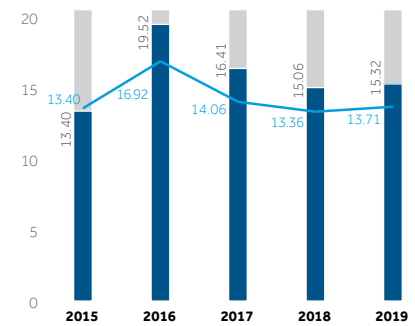
**Process Water Discharges\* COD (Chemical Oxygen Demand): European Mills**



Key:



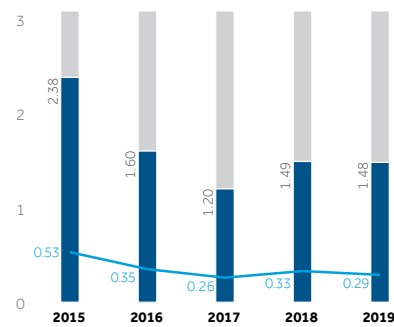
**Process Water discharges\* COD: The Americas Mills**



Key:



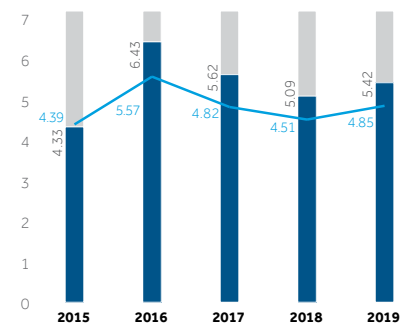
**Process Water Discharges\* BOD (Biochemical Oxygen Demand): European Mills**



Key:



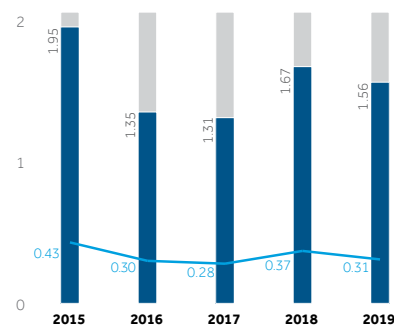
**Process Water Discharges\* BOD: The Americas Mills**



Key:



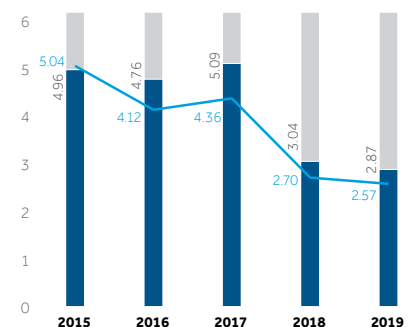
**Process Water Discharges\* TSS (Total Suspended Solids): European Mills**



Key:



**Process Water Discharges\* TSS: The Americas Mills**



Key:



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



# Sharing the benefits of water treatment // Spain

Clean and accessible water cannot be taken for granted and, along with its neighbours and stakeholders, Smurfit Kappa has a common interest in good water stewardship. Achieving good-quality water discharge from our operations is a vital part of our water management strategy.

Paper mills use a huge amount of water, which is recirculated many times during the paper manufacturing process. Eventually, the water quality becomes too poor, so it needs to be treated and returned to nature. Over 90% of water is returned – the rest is either bound to the product or evaporated.

Smurfit Kappa Nervión works closely with the municipality water treatment facility – so closely that the municipality water treatment plant is right next to the paper mill, and Nervión sends its pre-treated water effluent directly to it.

“Before releasing water to nature, it is usually treated biologically,” explains Pilar Veiga, Quality and Environmental Manager of SK Nervión. “This means that bacteria are used in the water treatment plant. These bacteria are chosen based on the impurities that need to be removed from the water, which supply some of their nutrient needs.

“However, our paper mill effluent naturally has all the other nutrients the bacteria need. Therefore, our effluent helps the municipality water treatment work better and more cost-efficiently,” says Pilar.

As water treatment is a finely-balanced biological process which we all benefit from, it is important to find these synergies with neighbours. “While we have this collaboration with our municipality, it means that we also talk a lot with them and that enhances the relationship as well,” Pilar says. “It’s a win-win for everybody.”

A similar collaboration with the municipal water treatment facility takes place at SK Nettingsdorf, in Austria.

**“While we have this collaboration with our municipality, it means that we also talk a lot with them and that enhances the relationship as well.”**

**Pilar Veiga**  
Quality and Environmental Manager  
SK Nervión



# Waste

Material efficiency 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 this by protecting products from damage or spoilage. After use, any paper-based packaging becomes a valuable raw material – it has the highest recycling rate of all packaging materials, supported by improved recycling systems. In addition, our packaging reduces its own impact by being ‘right-weighted’, using the minimum necessary material.

However, whilst our products are recyclable, we generate 110 kg of non-hazardous waste per tonne of paper and board, 62% of which is sent to landfill.

This is because the recovered paper bales sent to us by recycling companies often contain unwanted plastic, metals, glass, textiles, sand and other non-usable materials.

On average, it takes 1.076kg 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 37% is recovered, and we aim to reduce the amount of waste sent to landfill by 30% per tonne of paper by 2020, compared with 2013.

## From Landfill to Circular Use // Colombia

**“We talk a lot about sludge,” says Alfredo Marin, Technical Director of the SK Cali plant in Colombia, “In particular the sludge from our water treatment plant – it is our main output to landfill.”**

The sludge is residue from the mill process effluent and the raw water treatment plant. “The sludge from the raw water treatment is too wet with only 3% solid, it’s a huge weight to send to landfill,” says Alfredo.

Initially it was dewatered using an old screw press, but this only increased the solid content to 16%, so the mill’s management committed resources to solving the issue. “Several possible solutions were explored,” says Alfredo, “including initial filtration of river water to reduce solids such as grit, or high-tech solutions like centrifuges and membranes. But none guaranteed total separation at low cost.”

Even the simplest idea – improve the screw press – was problematic. A modern screw press can usually achieve 30% solids, but not for the particular composition of the Cali mill’s sludge, especially with seasonal variations caused by rainfall.

“So we worked with a supplier with expertise in this area,” explains Alfredo, “testing in a smaller pilot plant at 10% of the capacity that would eventually be needed. We were able to overcome problems on a smaller scale, and by the end of its run the pilot plant managed 50% sludge consistency even during the rainy season.”

Following this, the main screw press was installed in December 2019, and in its first month has achieved better than 50% consistency. “But it doesn’t stop there,” says Alfredo. “Following the Group’s ambition to move into circular systems, we have also been researching uses for the compressed sludge, like burning it in our lime kiln or combining it with unburned particles from our coal boiler to create a pelletised fuel which we could use in the same boiler.”

“There are other benefits too,” he adds, “the new process prevents spills – the sludge yard is the cleanest it has been for years!”

Sludge consistency

50%  
+34%



**Work Against Litter**

Since 2018, litter reduction has been a global megatrend. Our products are the world’s most recycled packaging materials. While the paper industry in Europe generally achieves 71.6% recycling rates (lower than our 84.7% recycling rate in the graph on page 40), in the US and in Latin America recycling rates of 65.9% and 45% have clear upward potential. This, along with our raw material’s biodegradability, positions us to work with stakeholders and smart regulatory guidance 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 CO<sub>2</sub> that the wood captured while growing, or will degrade naturally with an even smaller environmental footprint than many other packaging solutions.

**Progress in 2019**

Our starting point was paper mill waste sent to landfill – 90% of our total waste. After a Group-wide assessment in 2015, we set a target to reduce this by 30% per tonne of paper by 2020, but in 2018 this was adjusted to 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.

We continued to have challenges with implementing our target to reduce waste sent to landfill and remained at 7.1% reduction in 2019 against our baseline year 2013. This is a slight decrease in comparison with 2018, when we were at 7.6% reduction. However, we believe that we are able to turn the trend and expect the results from our investment in the sludge press at our Cali mill in Colombia to show in 2020. The further increase of waste sent to landfill was mainly due to the heavy rains impacting the sludge at our Cali mill in early 2019 and the recovered paper quality leading to increased rejects at our Forney mill. 2019 also saw multiple positive events as we improved the recovered paper quality on many sites, leading to less rejects as well as optimised processes to gain better yields of fibre recovery.

Around 1% of our waste is classified as hazardous – mostly from maintenance, plus 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 decreased from 10,600 tonnes in 2018 to 9,700 tonnes in 2019. The annual amount varies due to maintenance, product additives and hazardous waste tanks taking over a year to fill.

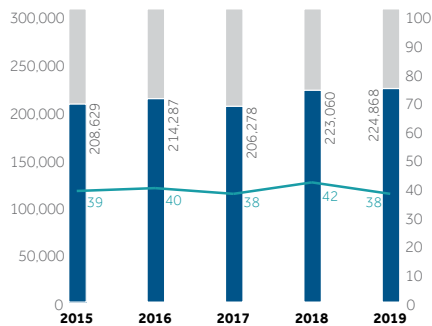
**Work Towards Optimised Use of Raw Materials**

Our converting operations send paper clippings back to our mills, delivering high-quality recovered fibre. Recycled paper from our corrugating and converting operations comes with minimal auxiliary materials, decreasing waste from the recovered fibre pulping process.

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 at supporting product design for recyclability and calls for the development of optimised collection systems and appropriate recycling infrastructures.

**Non-hazardous wastes**

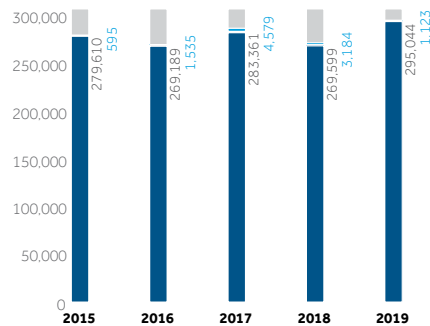
**European mills**



**Key:**

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

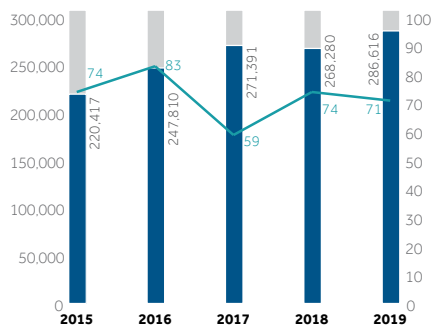
**European mills**



**Key:**

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

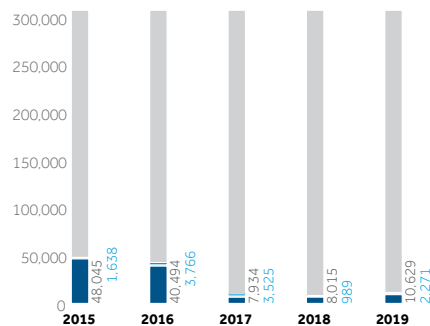
**The Americas mills**



**Key:**

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

**The Americas mills**



**Key:**

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



## Back to Black – Reusing Ink Sustainably // Brazil

“We buy a lot of ink – over 178 tonnes,” says Levy Neri Alves, Ink Room Manager at the SK Uberaba plant in South East Brazil, “but we found we weren’t using all of it, so we had to look into that.”

The plant prints over 135 million square metres of paper packaging per year, but every month three tonnes of ink were unaccounted for. Careful research revealed the culprit – ink wastage due to variations in colour.

“The inks are standardised colours when we receive them,” says Levy Neri Alves, “but some inevitably become contaminated during the printing process.” Wasted ink is a financial loss, but also an environmental one because recycling ink is a difficult and costly process, and usable only with some inks.

The Smurfit Kappa commitment to circularity and sustainability made reuse of inks an attractive idea. However, the discarded colours

were non-standard, and combining them only produced a poorly-mixed dark colour.

Over to Mr João and the Paint Preparers to create a new machine – a used ink mixer. Using an old barrel with a perforated compressed air tube across the bottom, the team used air bubbles to agitate the mixture into a near-black. It then needed only a small amount of additional ‘new’ ink to turn it a standardised shade of black. This ingenious device recycled available equipment, so it required no additional investment and took just a few days to build.

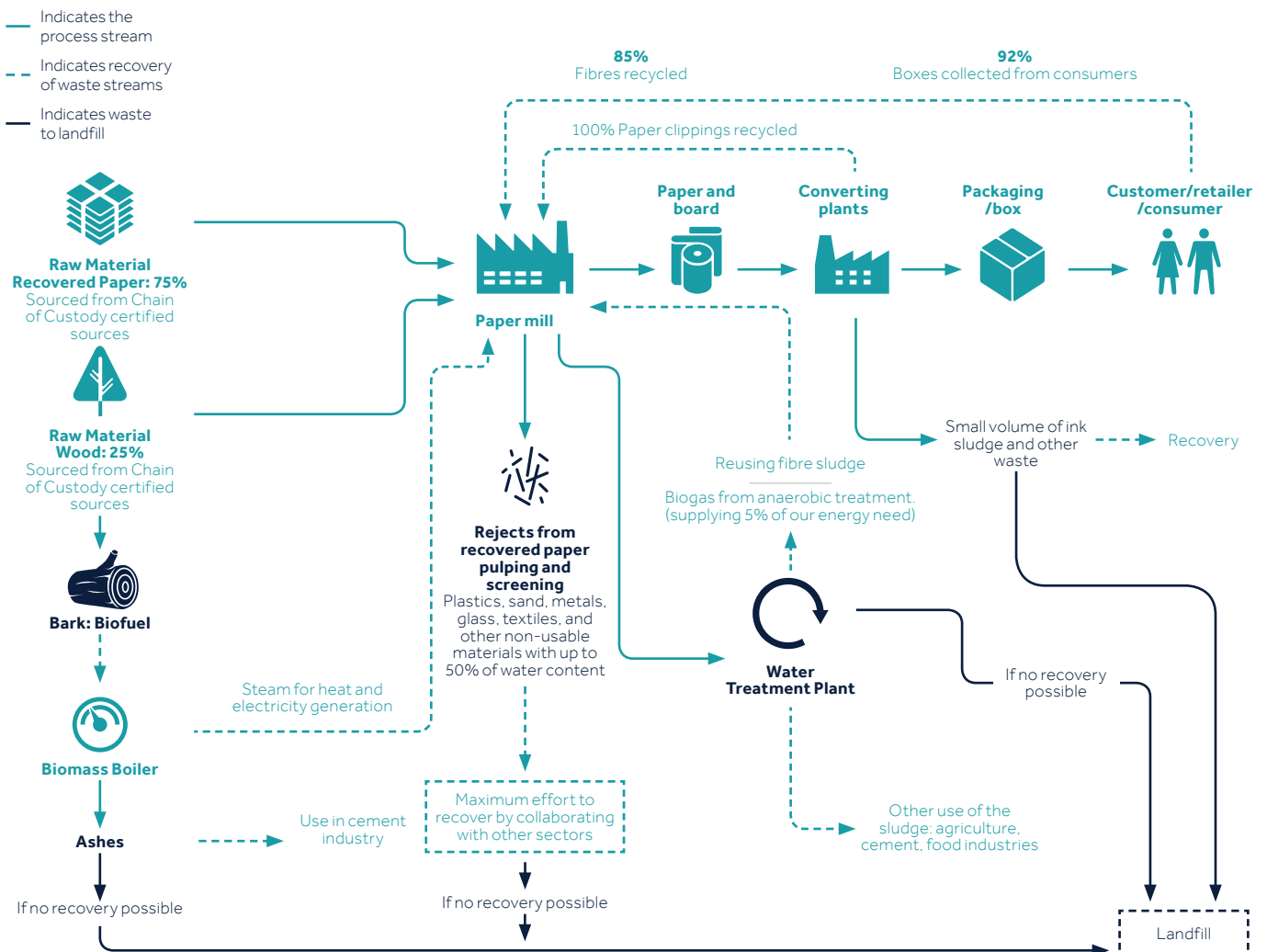
The clever, low-budget solution has reclaimed over 36 tonnes of ink a year, as well as reducing monthly waste from the plant by three tonnes.

It also won an award from the ‘Think Outside the Box’ campaign, run annually in Brazil.

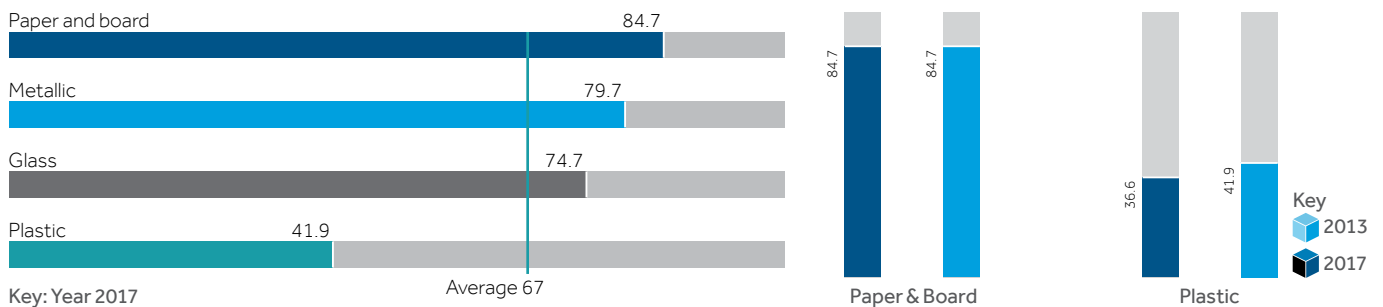
“Sustainability doesn’t always need massive investment,” says Levy Neri Alves. “Sometimes all you need is determination, creativity, and the ability to think outside the box!”



## Production Waste Streams



## Packaging Recycling Rate in 28 EU Countries (%) Source: Eurostat



### In the Core of Circularity // Italy

As circular economy is at the heart of Smurfit Kappa’s operations, and one example of that is how we participate in the recycling of old boxes to new ones.

With our expanding network of 17 recycling depots in Europe, we play our part in being a responsible producer of packaging. The latest addition to our recycling depots is Marlia, in Italy, which was acquired in 2019.

“Lucca in Tuscany has always been the heart of Italian paper production, so it’s remarkable that ours is the first high-quality recycling depot in the area,” says Stefano Mazzei, Manager of the SK Marlia recycling facility. The figures support his claim; 40% of Italian containerboard and 90% of Italian tissue paper is produced in the region, and the nearby plant of SK Ania covers 40% of Italian SK corrugated needs.

Location is just one of the reasons for SK’s Italian Recycling Depot. This area also has the advantage that locally recovered paper can replace raw materials from far away, saving on fuel miles and overall CO<sub>2</sub> emissions. Furthermore, it gives a good synergy with the region in providing local employment.

SK Marlia was inaugurated in 2019, and, as Smurfit Kappa’s 17th European recycling depot, shows our strong commitment to recycling and the circular economy. However, as Stefano says, “A recycling facility is always in a relationship with the local communities and institutions. We used a range of methods to raise awareness about recycling.”

- These included:
- a cardboard Noah’s Ark in the central square of the town hall (later recycled);
  - school visits and presentations;
  - plant employees, 21st local clean up day by cleaning a green area;
  - recovery of white paper grades from hospitals and schools;
  - sponsored the local Labour Festival on 1 May; and
  - sponsored a balloon for the Montgolfier Bicentennial in September.

“We have worked closely with schools, the local council, supermarkets and businesses to collect used paper and board. This is transported to the SK Ania paper mill where it is used to produce new containerboard.”

The information campaign was a huge success – by the end of the year 15,000 tonnes of paper had been recovered, with a target of 25-30,000 tonnes for 2020. As General Manager, Recycling Operations Italy, Luca Mannori says, “the new Marlia plant shows our commitment to the circular economy, and will ensure the availability of good-quality recovered paper to meet the needs of all our customers.”

Recovered paper by the end of 2019 (tonnes)

15,000

## People

# An employer of choice

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 team, across the world.

Reduction of the TRIR since 2018

-17%

Number of employees

46,000

Social investments in 2019

€3.5m





### Inside this section

People Values	46
People Strategy	48
Safety and Well-being	54
Communities	56

### 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 more likely to work harder, take on challenging or unpopular tasks, and collaborate effectively. We aim to create meaningful work with a broader purpose, while ensuring the health, Safety and Well-being of our people at work, on their journey to and from work and home.

This is why Smurfit Kappa strives to constantly evolve and improve its People Strategy and why our four pillars; Employee Experience for Performance; Inclusion, Diversity and Belonging; People Development and Talent Management; and Rewards and Recognition have been developed.

Underpinning these strategic pillars, we focus on our five fundamentals: Safety and Well-being; Legal Framework; Industrial Relations; HR Information Systems; and Internal Communications.

### Key Achievements 2019

In 2019, we evolved our People Strategy. Organised under the four pillars we outlined earlier, it is focused on ensuring we are a globally admired employer of choice in order to attract and retain the best talent.

[Read more on pages 48-53](#)

During 2019, the Group worked on the introduction of its new Group Ethics Management processes and governance, including an updated Code of Business Conduct and a third-party online tool for whistleblower and good-faith reporting called 'Speak Up' services.

[Read more on page 46](#)

2019 was our first full year delivering against our target to annually reach a 5% reduction in Total Recordable Injury Rate. We reached a 17% reduction in comparison with 2018.

[Read more on pages 54-55](#)

In 2019, Smurfit Kappa made approximately €3.5 million in social investments across many projects in the areas in which it is located.

[Read more on pages 56-59](#)

## Delivering for SDGs

### Smurfit Kappa Impacts

The Health and Safety of everybody on our sites is a key priority for our stakeholders. We focus on being an employer of choice, offering meaningful jobs. We are also committed to a 5% reduction in our Total Recordable Injury Rate annually, and have an ambition to deliver zero accidents on our sites. By doing all of this, we can directly impact the SDG3, as well as the good safety and well-being of our employees.



### Smurfit Kappa Contributes

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, reducing social inequality and ensuring that every member of our 46,000 strong team feels a sense of belonging.

Additionally, both Smurfit Kappa and its teams are committed to making a contribution to each of the communities in which we operate.



### Smurfit Kappa Supports

As a responsible employer, we are committed to the UN targets to end poverty and hunger, along with offering a quality education. We support these efforts through the work our teams do in their communities and through the Smurfit Kappa Foundation, all of which are focused on disadvantaged children's health and nutrition, basic care, and early education.



## People continued

Decent work is part of the UN 2030 Sustainable Development Goals, as well as major Human Rights declarations, and it is the objective of the International Labour Organisation (ILO) agenda. Decent work involves 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 there is equality of opportunity and treatment for all women and men.

Smurfit Kappa unites some 46,000 people around the world. Our inclusive culture is dedicated to leveraging our expertise and diversity, and to working together to drive the organisation forward. Together, we are committed to building a better tomorrow for our customers, our shareholders, our communities and for all of our employees. Our materiality assessment shows that the key areas of focus for us as an employer are being a responsible employer, diversity in the workplace, with health and safety as our most important areas of focus.

We constantly drive a culture of innovation, with our colleagues across all our sites leveraging their passion, expertise and manufacturing capabilities. We work to develop packaging solutions and products that can deliver new growth opportunities for our customers, and help build a more sustainable planet.

We see this as an opportunity for both the Company and our people, ensuring we are all ready to step up, as and when required; and that those talented individuals who are not yet part of the Smurfit Kappa story, find their way into our organisation.

## Responding to our Stakeholders

	What we believe	What our stakeholders expect from us	Our commitments
<b>People values</b>	<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 over 46,000 people, fostering diversity, inclusion and belonging is important to us. 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 46,000 people across the world. To respect their human rights and those of anyone who comes into contact with organisation, while providing a fair working environment where everyone feels included and respected.</p>	<p>We are committed to:</p> <ul style="list-style-type: none"> <li>Stimulate and encourage employee engagement through regular company-wide surveys and follow-ups</li> <li>Maintain a good faith 'Whistleblower Code' for reporting any unethical or illegal conduct</li> </ul>
<b>People strategy</b>	<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. 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 &amp; Development and Rewards and Recognition programmes. We are also expected to be inclusive to all employees, no matter what their background.</p>	<p>We are committed to empowering all employees to reach our business objectives. We:</p> <ul style="list-style-type: none"> <li>Offer employees at all levels the chance to broaden their skillsets and knowledge, fulfil their potential and improve their career prospects</li> <li>Compensate fairly, review performance regularly and offer gender neutral career opportunities and pay</li> </ul>
<b>Safety and Well-being</b>	<p>As an industrial business operating in 35 countries with around 46,000 employees, we are responsible for the health and safety of a large number of people. At Smurfit Kappa, we believe that health and safety extends from work to home. 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 promote a health and safety culture that encompasses all who work with us, whether it is directly or indirectly.</p>	<p>We are committed to:</p> <ul style="list-style-type: none"> <li>Maintain a productive and safe workplace by minimising the risk of accidents, injury and exposure to health hazards for every employee and all sub-contractors, aiming at a zero-accident working environment</li> <li>Reduce our TRIR by 5% annually. In 2019, we reached a level of 0.84, totalling a 17% reduction in comparison with 2018</li> </ul>
<b>Communities</b>	<p>We see ourselves as a 'corporate citizen' in the communities in which we're privileged to operate around the world, and we actively make positive and lasting changes. By supporting local education, income generation, collaboration and participation, we can strengthen communities and keep them attractive to our future workforce.</p>	<p>Our impact is not only 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 significant employer.</p>	<p>Across Smurfit Kappa, we are committed to the communities in which we operate, while our Foundations empower people to improve their lives. Where the cycle of poverty and dependence is an issue, we aim to help end this, strengthening communities around the world.</p> <ul style="list-style-type: none"> <li>In 2019, €3.5 million was donated in cash and in kind</li> </ul>

Over the past number of years, we have built a solid foundation of employee welfare and care, based on our safety-first approach; instigated a people development programme emphasising personal strengths, and we have also developed an extensive rewards and recognition programme. During the past year, the Group HR team has been further evolving the HR Strategy to build on this work, with a series of new initiatives based around our people's development and engagement. The strategy is explained later in this section.

## Risks and Opportunities

### Attracting Talent and Maintaining Diversity

One of the most important challenges for Smurfit Kappa is attracting the talent we need for internal succession planning and leadership continuity. Due to our industry's nature, and the business-to-business environment in which we operate, we need to identify new ways to attract and recruit talent, with specific focus on younger people and 'millennials'. In addition, many of our operations are in sparsely populated rural areas, making it a challenge to recruit people with the necessary qualifications. Furthermore, given our strong manufacturing basis, attracting female applicants is a particular challenge and we have developed

programmes to promote recruitment of women, ensuring we get the best people for our Company.

Additionally, we have also made significant changes and improvements to our recruitment processes to ensure we are attracting the best and most diverse top-talent available, while also introducing a more flexible approach to working arrangements to ensure our workforce can see a way to build a better work/life balance.

Over the couple of years, we have increased our female population from 16% to 19% across all employees and from 16% to 21% in managerial roles. Additionally, our employee workforce with disabilities is 2% of overall workforce, representing 748 employees, with this being a specific area of focus for us in the years ahead.

Training and developing our people is a key focus for us. Some of the highlights during 2019 have included: promoting global career opportunities; continuing our Leadership Development Programme with INSEAD; further developing our Global Smurfit Kappa Academy for managers; and focusing on our 'Women in Leadership' programme. We have also kept a continued focus on 'EveryOne', our Group-wide Inclusion and Diversity programme.

### Health and Safety Culture

As any manufacturing company operating with large machinery, complex logistics and round-the-clock shift work, a company culture that emphasises Health and Safety is a challenge and an opportunity. At Smurfit Kappa, we promote a Health and Safety culture founded on authenticity, empowerment and accountability. Our vision is to operate with Health and Safety as a core value. We believe that safe operation is non-negotiable – no task is so important it cannot be done safely. Our overall Health and Safety performance improved again in 2019 with our key metric and reduced our Total Recordable Injury Rate by 17%. This was due to actions and initiatives implemented during the year, and we continually reinforce Health and Safety values to all our managers and employees with an ultimate goal of zero accidents globally. Regrettably, we had three fatal incidents in 2019, and are working hard to learn what we can from these events to ensure we continue to reduce future incidents.



## 'Pavilion' for Employee Development // Mexico

**We want to make sure that each employee finds opportunities for personal and professional growth at Smurfit Kappa, because we believe that only by developing our people, can we grow our business.**

In order to improve job satisfaction, engagement and employee retention and the efforts made by all of us to grow and develop our careers must be communicated in a clear, timely and appealing manner. That is why in Smurfit Kappa Tijuana, we developed a central area, where our employees could view our people initiatives in one place.

Our 'Pavilion for Employee Development' is a wall, which extends over 50 feet and is over 9 feet in height. It is a large, colourful and highly engaging mural, with graphics that provide our employees and visitors with information on career development, internal promotions, events, sustainability and social responsibility activity, and even some family achievements. It is also used to publicise and congratulate our employees on their career development milestones and to recognise the people and teams that have performed above and beyond what was expected.

"The initial idea for the mural came from our employees. Due to its central location, it is something we all pass every day and it never fails to grab your attention. It is not only enjoyed by our employees, but surprisingly it has become the favourite place for visitors during site tours. We have found it is as engaging for employees, as for customers. It is the place where everyone wants to take pictures, to share them with their own HR teams. That makes us very proud," says Alejandro Ordaz, HR Manager of SK Tijuana.

**"We have found it is as engaging for employees, as for customers."**

**Alejandro Ordaz,**  
HR Manager of SK Tijuana





# People values

We are committed to managing our employees in accordance with our 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 Declaration of Human Rights and the Fundamental Principles and Rights at Work, developed by the 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.

## No Discrimination

Smurfit Kappa prohibits discrimination on the grounds of race, ethnicity, gender, sexual orientation, age, religion, national origin, disability or other legally protected status in the countries in which we conduct business. This commitment extends from our own employees and on-site contractors, through external suppliers and other business partners, to communities near our operations.

## No Forced Labour

Smurfit Kappa prohibits child labour and does not employ anyone under minimum school-leaving age or minimum employment age in any country. We do not tolerate forced labour, human trafficking, or physical or mental abuse. We expect our suppliers, contractors and sub-contractors to adhere to these principles. In 2019, no violations of these principles were identified and 22 of our operations were subjected to SEDEX Members Ethical Trade Audits covering these topics.

## Compliant Acquisition Practices

In any of our acquisition processes, due diligence involves examination of the target organisation's policies and practices on human 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. No such issues arose during the three acquisitions in 2019.

## Freedom of Association and Collective Representation

We support 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 2019, we have not had a confirmed case where either the association or bargaining rights of any individual or group of employees have been denied. Collective agreements cover 70% 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. More about these councils can be found in our Annual Report 2019 (p.43).

## Ensuring Ethical Behaviour

During 2019, the Group has been working on a project dedicated to the review of our Group Ethics Management processes and governance in order to:

- provide a reporting channel and case management process that aligns 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; and
- provide a voice and an opportunity for our employees, to report wrongdoing or potential wrongdoing in full confidence, through an independent channel with no fears of retaliation.

It was our ambition to move from a decentralised, manual process, to a hotline-based service, available to all employees from office to production; as well as interested third parties and stakeholders across all key communication channels including telephone, email and online.

To this end, the Speak Up platform has been launched, which allows our employees and any third party to easily and confidentially report any issue or instance of wrongdoing. The service is available 24/7/365 days a week and will guarantee users confidentiality and/or anonymity, and assurance of non-retaliation.

In support of this new initiative, we also reviewed our Code of Business Conduct and merged it with the Good Faith Reporting Policy & Whistleblower Code to make it one single policy.



# An Opportunity to Thrive // Ireland

"Everyone deserves the same opportunities in life, so we want to promote real inclusion in education and society," says Marie Devitt, Pathways Coordinator for the Trinity Centre for People with Intellectual Disabilities (TCPID).

TCPID was established in 2004 after the Dublin Special Olympics World Summer Games (2003), to continue creating opportunities for people with intellectual disabilities. The initial idea was to offer them a college-level education, helping to prepare them for working life.

In 2016, the programme was completely redesigned. "We realised that it is not enough for our students to earn a university qualification" says Marie, "there are still barriers to them entering the workforce. We are incredibly grateful to our TCPID business partners, who now work closely with us to provide tailored, year-two work placements, as well as graduate internships. These help our students and graduates gain experience for their CVs".

The students and graduates also benefit companies by joining their teams. Their presence promotes a real sense of inclusion, and provides companies with talented employees who bring a huge enthusiasm and determination to succeed.

In return, the students get an opportunity to develop their capabilities and confidence.

"We work very closely with our partners, students and graduates to carefully match the individual to the role," explains Marie. "We look at specific skills to ensure maximum benefit from the experience. Ultimately, we hope that the internships will be a step towards helping the graduates build long-term careers."

As part of its EveryOne diversity strategy, Smurfit Kappa became a TCPID Business Patron in 2019, providing TCPID with an inclusive environment and work opportunities. "Our graduate has started an internship with the IT Compliance team in Smurfit Kappa and is already thriving in the role," says Marie. "His employment has been welcomed as an enrichment to the SK team."

**“ We hope that the internships will be a step towards helping the graduates build long-term careers.”**

**Marie Devitt**  
Pathways Coordinator for the Trinity Centre for People with Intellectual Disabilities



People continued

# People strategy

We have evolved our People Strategy for 2020-2023, which we believe will continue to ensure that the business is set for success from a people perspective.

Our People Strategy has four key pillars:

- Employee Experience for Performance
- Inclusion, Diversity and Belonging
- People Development and Talent Management
- Rewards and Recognition

Underpinning these new pillars are the five fundamentals of our HR strategy: Safety and Well-being, Legal Framework, Industrial Relations, HR Information Systems and Internal Communications.

We focus on these five fundamentals to ensure the health and well-being 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.

For more information on our strategy, see the diagram below.

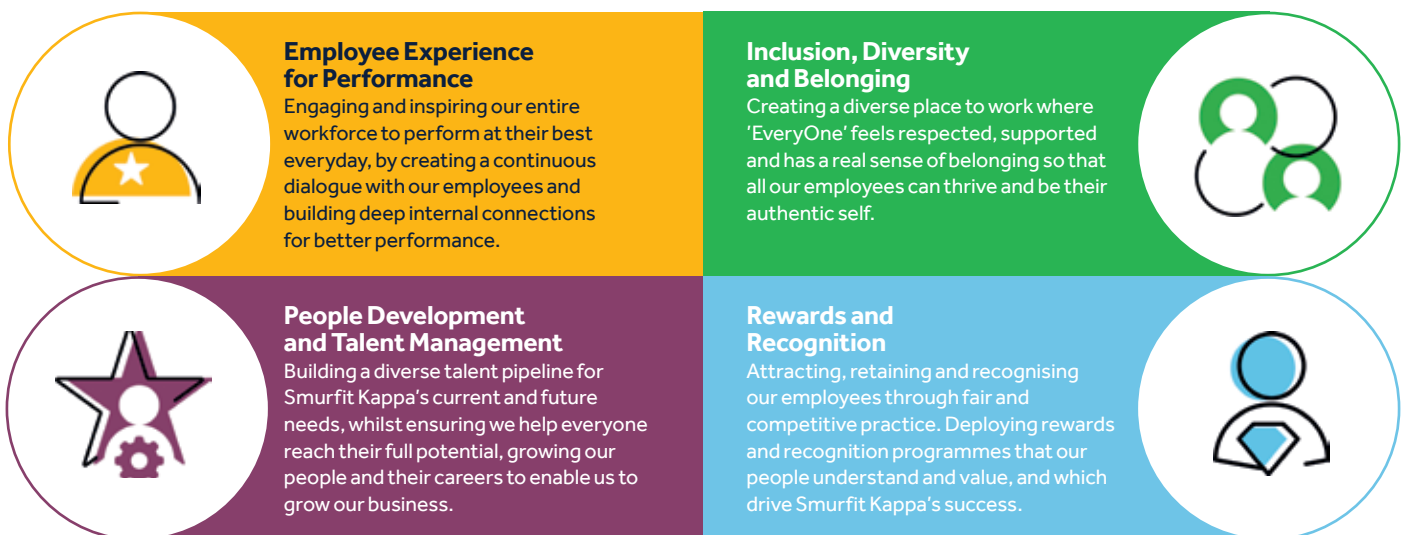
### Employee Experience for Performance

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 them to perform at their best every day. 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 50% of our workforce have service exceeding 11 years, which provides a great mix of experience in the workplace.

It is our belief that these 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 moment they are hired, to the time they depart the organisation or they choose to retire.

## Smurfit Kappa People Strategy 2020-2023



### Five Fundamentals of our HR Strategy

Safety and Well-being

Legal Framework

Industrial Relations

HR Information Systems

Internal Communications



### Employee Engagement – MyVoice

Since 2014, to make sure we engage our employees to be part of the Smurfit Kappa success, we have deployed MyVoice, a staff engagement survey which reaches all of our people at our mills, plants and offices. The full survey was repeated in 2017, with a pulse survey in 2019. Last year's pulse survey attracted a record participation level of 85%. We have also seen an engagement score improvement of 3% from 2014 to 2017, and a 7% shift from 2017 to 2019. We will also be striving to achieve a further 3% increase when the full survey is undertaken again in 2020. These shifts may be in some part due to the 1,000+ actions implemented following the survey in 2017.

We believe that the continued success and engagement levels with the survey is driven by the fact that out of every survey, we have taken all feedback seriously and have implemented extensive employee action plans, from the top of the organisation, right across all of our sites and offices.

We are also using the momentum created by the various surveys to improve our change management systems and use this information to provide better insights and inform our decision-making, such as considering how to better accommodate a more diverse workforce, which includes significantly more women than ever before on some of our more industrialised sites.



**MyVoice**  
2019

### Progress in 2019

- We evolved our HR Strategy to align more closely with our business objectives
- We launched our new Code of Conduct and Speak Up service, to ensure every employee has the opportunity to report wrongdoing
- We continued to develop our career frameworks in order to help our people grow and deliver on their potential
- We began to progress our Employee Engagement Strategy, which will continue to develop into 2020 and beyond

## Innovation and Participation // Europe

**Recycled Paper West (RPW) is a cluster of eight mills, spread across five countries: France, Italy, Serbia, Spain and the UK.**

The mills are quite isolated, so a potential wealth of innovatory practices and innovation were not being shared. In fact, it was one of the key themes, which arose from the MyVoice staff engagement survey. Our employees asked to see increased participation and recognition of our innovation. Therefore, we decided to create the 2019 Innovation Awards.

The Awards culminated in a celebratory event, where representatives from all eight mills, came together to meet and celebrate their achievements. The event was a mix of presentations about the range of innovations developed across our five countries, dinner and, of course, the Innovation Awards presentations.

"The atmosphere was amazing," says Jelte, "29 high-level innovative projects were submitted, with 12 receiving prizes, across four categories:

- **Process Improvement:** This Award was won by the Avignon team, which had ingeniously extended their machine to a 2.8m paper width, meaning a greater range of products could be produced
- **Supply Chain Optimisation:** This Award was won by the Ania Proximity Warning System for forklifts

- **Product Development:** SSK won this Award for use of a drone to monitor the stockyard
- **Social Responsibility:** SK Belgrade took the Award for 'Cooperation and Support within their local community'

However, the overall prize was awarded to Avignon. Their prize was a visit to the Swedish Piteå mill. Unlike Avignon, this is a Kraft Paper Mill, so it will provide lots of opportunities to learn, and share innovations.

Jelte adds, "This has become more than just an innovation competition. It has started a torrent of ideas, which come to us on a quarterly basis and are shared by the central team in our newsletter, to inspire all of us with innovative ideas and good practices of our colleagues."

This initiative has also led to:

- an Innovation Co-ordinator in each mill;
- regular local recognition of good ideas, across all eight mills;
- local competitions, all feeding into the RPW Innovation Awards;
- continual flow of innovation projects – not just annually, but quarterly; and
- managers and workers being inspired by other teams.



# People continued

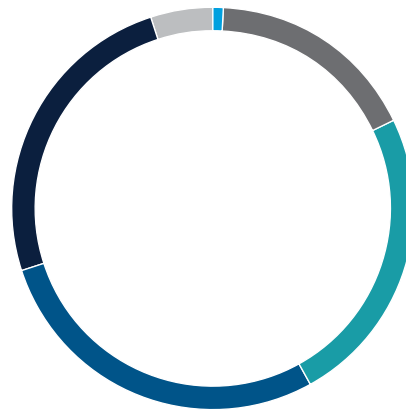
## Inclusion, Diversity and Belonging

Our ambition is to create a diverse workplace where everyone has a real sense of belonging and can be their authentic self at work, every day.

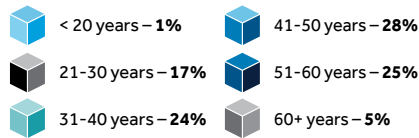
Fostering Diversity, Inclusion and Belonging at Smurfit Kappa is important to us. We value our diverse mix of people, who add value in terms of leadership, culture, perspective and innovative thinking to our organisation. Building on our Global Diversity Programme 'EveryOne', which was launched in 2018, we have continued to advance our commitment to nurturing a diverse culture, where all employees can contribute to our success. Likewise, our enhanced focus is always on abilities not disabilities – if you have the skills to work with us, we will do what is necessary to make that happen.



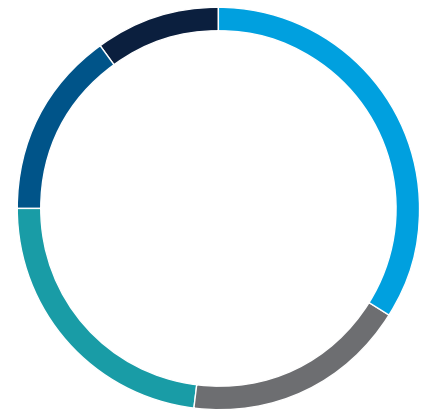
Employee by Age Group



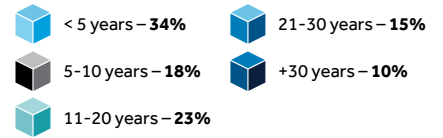
Key:



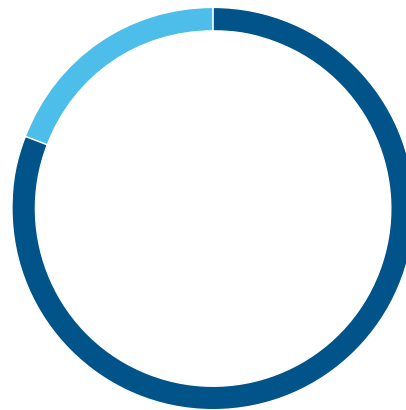
Length of Service



Key:



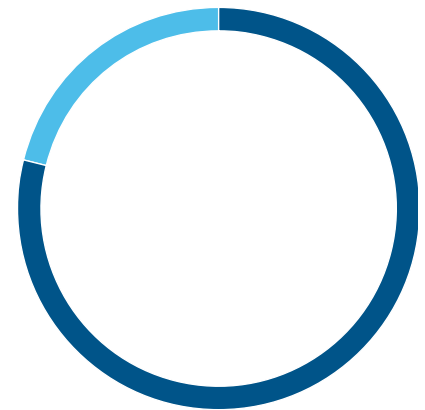
Total Employees by Gender



Key:



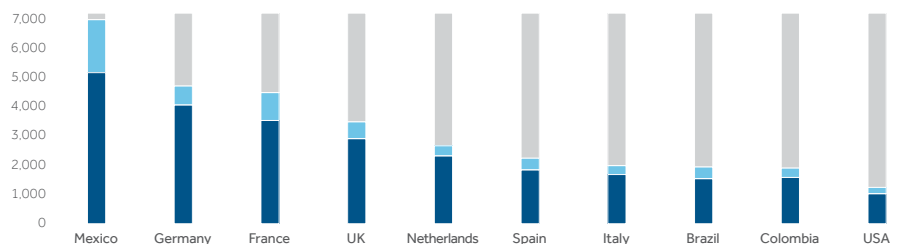
Management by Gender



Key:



Top 10 Countries, Total Employees by Gender



Key:



## People Development and Talent Management

Our ambition is to help our people grow their careers and deliver on their potential, so we can realise our ambition for the organisation and drive forward.

People development is another area where our work in establishing the Smurfit Kappa Academy and its related programmes have extended right across 2019. Year-on-year, we have continued to increase our investment in people development.

One of our key areas of focus is leadership. As an organisation, Smurfit Kappa understands the importance of strong leadership, to align, empower and inspire our people. To this end, we have developed our Open Leadership programme, which clearly outlines the leadership behaviours we believe will ensure the success of the organisation.

Open Leadership identifies four key activity areas to deliver strong leadership:

- Leading Self
- Leading People
- Leading the Organisation
- Leading the Market

These four areas contain nine leadership capabilities:

- Empower and develop people
- Take a strategic perspective
- Balance global and local
- Inspire and engage people in change
- Maximise value and innovation for the customer
- Be authentic
- Open and make the most of diversity
- Deliver operational excellence and results
- Know yourself and embrace learning

In addition to the Group training events, there are also extensive training programmes organised regionally, to address the needs of specific sites and individuals. In 2019, just over 480 people attended training provided by the Group, with many more participating in their further development via locally organised events. This mix of training programmes, combined with our ongoing performance dialogue and 360 degree feedback programme for our senior teams should extend our reputation as a great place to work.

The success of the Academy and other training programmes, along with our focus on recruitment of talent directly from third-level institutions is ensuring we have the right mix of talent and experience at every level of the organisation. In 2019, our focus on graduate recruitment provided a graduate pool of 86, across many disciplines including accounting, marketing, engineering and HR, to name but a few.

### 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.

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. As an organisation, we are also committed to gender pay equality and will continue to proactively monitor the pay of male and female colleagues, in similar roles, to ensure it is comparable. For example, under new legislation, UK employers with more than 250 employees are required to publish key metrics on their gender pay gap. Our UK business has published a report as required by legislation.



## Smurfit Kappa Academy – Participants 2019

	Number of Participants
<b>Graduate Programme</b>	86
<b>Advanced Management Development Programme (AMD)</b>	27
<b>Global Manager Programme</b>	31
<b>Open Leadership Programme @ INSEAD Business School</b>	270
<b>English Immersion Programme</b>	67

## A Globally Mobile Workforce

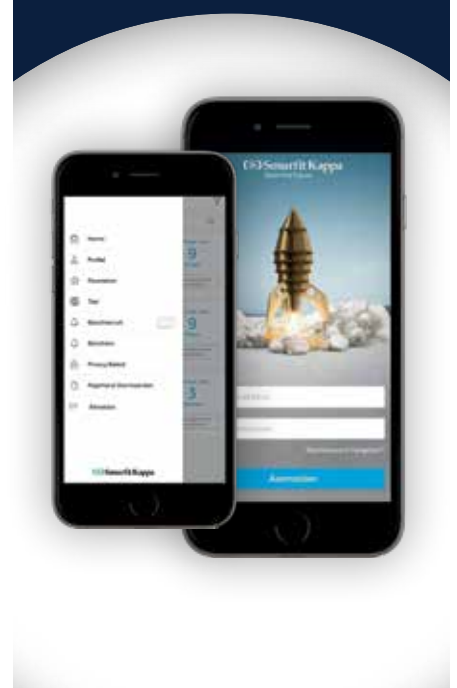
// Global

**As a global employer, we have the opportunity to develop all our capability and training initiatives, with the additional benefit of being able to offer a truly mobile career.**

In 2019, we began highlighting our open roles across the world using 'MyVacancies', an internal app, which ensures all employees have access to vacant positions across all our sites.

In addition, during the end of 2019, to further our ambitions to offer globally mobile careers, we launched our new Talent Management and Succession Planning process, at our European and Americas HR Talent Management workshops.

This will enable leadership teams to implement a new approach to talent management, which will allow them to clearly understand and define their teams and where the ambition exist to further increase workforce mobility. During next year, we will initially focus this activity on our senior teams in every country, before expanding it out to other roles in the months and years ahead.





## People continued

We recognise the success of our people in a variety of different ways. Different people feel rewarded and 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.

Our key objectives for our Rewards Policy is to:

- create a framework to enable the Group to attract and retain talented employees;
- motivate employees at every level of the organisation to achieve the Group's strategic objectives; and
- provide competitive rewards and benefits that are clearly linked to performance.

The Group ensures that positive employee and trade/labour union relations are maintained to ensure fair and sustainable Collective Labour Agreements. In setting our rewards 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.

We are increasingly looking at total rewards when benchmarking our remuneration levels. The overall rewards package is tailored to help meet both short and long-term financial needs, but also the development and well-being of our employees.

## Everyone Can Make a Difference // Global

**Advanced Management Development (AMD), part of the Smurfit Kappa Academy is one of the global training and development programmes we offer our employees.**

The Academy has been developed to complement many local programmes, held across all our sites, which are tailored to meet local needs.

Each year, the AMD programme delivers five Group-designed projects to help participants learn about teamwork, project management, and leadership, as well as delivering fresh ideas for the Group to implement. Each project group is made up of colleagues from around the world, working in different functions and jobs; all bringing unique, individual and collective perspectives to the projects they work on. In 2019, one project focused on Inclusion and Diversity.

Luis Alvarez from Mexico and Elisa Romanello from Italy worked with their project team, whose other members were from Colombia, Poland and Belgium, to present a plan for how the Group can continue its focus on Inclusion, Diversity & Belonging programme. The idea was to find ways to ensure the Company and all of its employees find ways to benefit from the opportunities Inclusion and Diversity offer.

"We have a very diverse workplace," explains Luis, "So the challenge was to encourage inclusion and belonging within the Group." Elisa continues, "Because gender is such an issue in our industry we tend to focus on it exclusively, and we needed to get beyond this. Working with a team of five SK colleagues from all regions was a great opportunity to listen to and appreciate different perspectives,

and see the value of a really diverse group working together."

The team concluded that diversity is a continuous journey, with every SK employee having a role to play. Elisa explains: "An effective way to educate about Inclusion, Diversity & Belonging is to be open to others' stories and listen to their opinions, no matter what their background, gender, sexuality or abilities."

The project team recommended that everyone questions their own openness to listening to others, to ensure it becomes part of their ways of working. They also proposed a four-stage approach for the management to implement including: awareness-raising, Executive Diversity Committee, reviewing ways of working and improving our diversity data. Their project was well-received by the executive team and will be incorporated into the work the Group will do over the coming year in the area of Inclusion, Diversity and Belonging.

"The AMD programme and our project have been an excellent way of learning about ourselves and how we can become better leaders," concludes Luis.



### 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 and other consideration.

Wherever possible, we engage with unions, works councils and employee representatives to ensure fair and sustainable collective labour wage agreements. Employees are rewarded with their individual and business performance.

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.



# Human Library – Building Tolerance and Understanding // UK

Understanding and tolerance of different people is at the core of Smurfit Kappa's EveryOne Inclusion and Diversity programme.

In its 2019 Management Conference, Smurfit Kappa UK facilitated a 'Human Library' event. The event was attended by 140 managers across the SK UK operations. In keeping with the conference theme 'Working Together, Delivering Together', the objective of the Human Library event was to bring to life the Inclusion and Diversity agenda in a surprising and engaging way.

Human Library, is an international organisation that first started in Denmark in 2000, which aims to address people's prejudices. This is done by helping participants to talk to different types of people they would not normally meet, such as someone with an alcohol addiction, someone with Autism or ADHD, someone who has depression or bipolar, someone who is homeless, is HIV+ or has been a refugee.

The Human Library works with experts who are called books, who represent different experienced prejudices. Eighteen 'books' from the Human Library were invited to the SK UK Management Conference, and the delegates were given an opportunity to have three readings, or in-depth conversations, with the 'books' to explore topics such as race, being a refugee, having an addiction, sexual orientation, and political views, amongst other topics. Delegates found the sessions hugely thought-provoking, challenging and engaging. "For us, this was an efficient and interesting way to bring inclusion and diversity to the attention of our managers," explains Trudy Rush, HR Director SK UK. "We are very pleased to have been able to use a creative way to introduce a topic that may challenge people and their thoughts."

Number of managers that participated in the Human Library event

# 140

For us, this was an efficient and interesting way to bring inclusion and diversity to the attention of our managers"

Trudy Rush  
HR Director, SK UK

# Safety and well-being

The well-being of our staff is something we take very seriously. Health and Safety comes as the most material topic that Smurfit Kappa has in the area of Corporate Social Responsibility.

Having our products produced in a safe and healthy environment is important to all of our stakeholders, especially our employees, their families and the communities where we operate.

Health and Safety in the workplace actually starts at home, it is a mindset. At Smurfit Kappa, we are working towards the ambition of instilling 'safety first' thinking, so deep in the company culture that we eventually remove all serious accidents from our operations. Therefore, our Health and Safety focus is 'Safety for Life' and our message is that every Smurfit Kappa employee must return home safely to their families.

This concept applies equally not only to our own employees but also to contractors, sub-contractors and anybody visiting our sites.

Our Health and Safety community has identified six high-risk areas for which specific tools have been developed to promote safe choices at work. The areas are: Energy Isolation, Contractors and Visitors, Contact with Moving Machines, People and Vehicle Interactions, Warehouse and Backyards, and Working at Heights.

## Health and Safety Policy

We are committed to continuously reviewing and improving 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 culture of openness, involvement and dignity in the workplace; we are all responsible for each other's Health and Safety;
- 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;
- review workplace incidents so there is consistent reporting, investigation and, where appropriate, identification of improvement opportunities that strengthen our Health and Safety management systems;

- comply with all applicable legal requirements and implement good Health and Safety practice by effective deployment of our Health and Safety Management Systems;
- 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 and Safety 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.

## Safety Conversations

As part of our Safety for Life initiative, in 2019 we launched an extensive internal safety campaign titled 'Safety Conversations'. The campaign showed our people at work and at home, serving to remind everyone how important it is to get

## Mental Health and Safety // UK

**"Most of us know of someone with a mental health issue and are aware it can happen to anyone," says Jackie McDermott, Head of Engagement and Communication at Smurfit Kappa UK, "We all want to support, but often aren't sure how to."**

Back in 2018, SK UK's Human Resources and Health and Safety teams worked together to form the SK UK Mental Health and Well-being Strategy. Whilst there was some confidential provision from the Employee Assistance Programme (Lifeworks), more was needed to provide in-house support. Nigel Elias, UK Health Safety and Environment Manager, says: "In our lives today there is a genuine need. Managers can be faced with a serious mental health issue and be unable to help, because we've tended to focus on safety, not health."

The strategy was launched in April 2019 with the full backing of senior SK UK managers. "People believed in it and wanted to be involved," says Jackie, "Almost 200

colleagues volunteered to be Mental Health First-Aiders and were taught how to spot early problems, approach people, create safe spaces, and signpost to appropriate services. The volunteers chose the green ribbon logo, and we supported with information posters, identifying them."

"As it's a confidential service, our first-aiders need support," adds Nigel, "So we set up a community site, and quarterly support calls to talk about issues." The Mental Health First-Aiders also set up 'Let's Talk' rooms on-site where people can talk about their problems in confidence.

The training, provided by 'Everyday People', started on International Labour Day 2019

and there are now 195 Mental Health First-Aiders, covering 90% of UK sites – with 10 sites having active Well-being Committees. Over 350 managers are now trained Mental Health Champions, focusing on how to spot problems and support staff.

"The initiative is already benefitting colleagues," says Jackie. "From April to December 2019, a significant number had received support from a Mental Health First-Aider – it's definitely helping to reduce stigma and allow colleagues to quickly access vital help."



home safely from work every day. Its objective was to progress and further embed our safety culture and ensure we are all looking out for each other.

Safety conversations are part of daily work and they help build relationships and morale. Talking safety can empower people to take personal responsibility for their own safety and that of their colleagues. When safety conversations become an instinctive part of our employees' everyday lives, we will be well on our way to delivering on our aspiration that at Smurfit Kappa everyone goes home safely every day.

**Progress in 2019**

In 2019, our global Health and Safety performance continued the positive trend set in recent years, achieving a 17% reduction in TRIR compared with 2018. There are focused safety improvement plans and strategies across our business that

have proved to be effective in delivering stronger performance. It is notable that this is the second full year that our primary measure of performance was TRIR – we changed in the knowledge that achieving 'zero' will be more progressive.

A specific initiative for 2019 was to focus on managing higher-level risks within our business, the ones that have been identified through incident investigations and external industry research that have the potential to cause significant injuries. We also paid specific attention to the mental health of our people, as a Health and Safety factor. Despite our ambition to have all our employees, contractors, sub-contractors and anybody visiting our sites to return safely to home from work on our premises, we regrettably had three sub-contractor fatal injuries in 2019. These happened in the Piteå mill in Sweden, the Anzio plant in Italy, and the Forestry Operations in Colombia.

## Lifeline – Communicating Health and Safety // North America

**Lifeline is an interactive, two-way communication tool that takes ideas and concerns from workers at sites.**

“Smurfit Kappa takes employee safety very seriously – our worldwide initiative, Safety for Life, demonstrates that,” says Greg Marino, Health, Safety and Environment Director, North America, “but some incident types keep repeating – for example, contact with in-running nip points. We needed a way of making sure employees engage with safety information in a meaningful way, and that it wasn’t just another briefing or report. That’s why the team, led by our HSE Graduate Management Trainees, partnered with the SKNA Communications department to develop Lifeline”.

Lifeline is an interactive, two-way communication tool that takes ideas and concerns from workers at sites, incident trends and SKNA corporate initiatives, and turns them into safety concepts. The bulletin transforms these concepts into eye-catching visuals which, in turn, facilitates dialogue between employees and supervisors on the shop floor. “Many people are visual learners,” explains Greg, “A graphic on a large corrugated display can reach many more people – and is much more memorable – than a four-page report.”

The materials are developed by HSE and Communications teams, and each facility discusses how to use them, so they have

ownership of the final message. They may decide to put them in highly trafficked areas, or feel that a more detailed message requires formal training. Typical topics include hand safety, accident-reporting, lockout-tagout procedures and the SKNA Martor knife initiative.

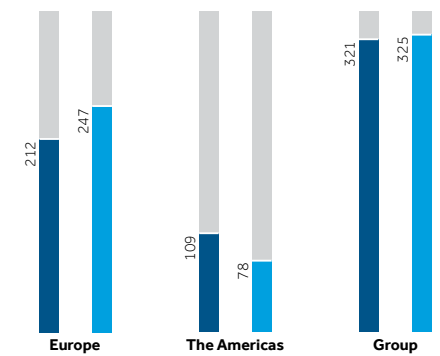
“Because the plant-level implementation is so adaptable, the facilities take it up enthusiastically,” explains Greg. “They find creative ways of displaying and communicating it to their employees, giving them still further ownership of the message.”

Lifeline goes out a minimum of four times a year. “Our mission is to be ahead of the curve – get the message out before it happens,” says Greg. “For that reason we’d like Lifeline to be more frequent. Many requests come in from plants and mills that help us inform the bulletins – we get much better buy-in that way.”

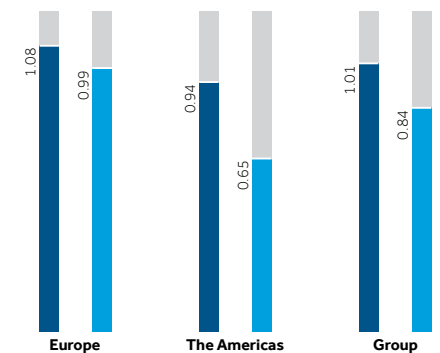
“Lifeline is one of many SKNA initiatives that has contributed to our cluster’s 44% drop in safety-related incidents from 2018 to 2019. Our cluster is on the right path, but there’s always more work to do to achieve a zero-incident culture.”



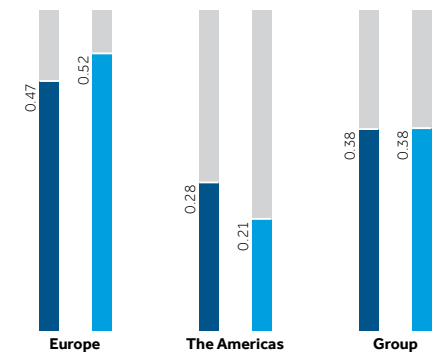
**Number of Accidents**



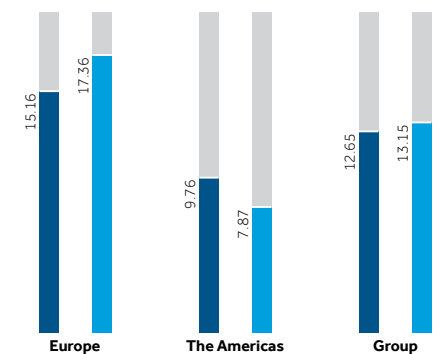
**Total Recordable Injury Rate**



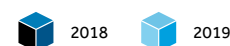
**Lost Time Accident Frequency Rate**



**Lost Time Accident Severity Rate (%)**



Key



# Communities

Smurfit Kappa is committed to the communities in which we operate, while our Foundation empowers people to improve their lives.

In Smurfit Kappa, we actively support local communities through our Smurfit Kappa Foundation and local operations. Internally and externally, we adhere to high ethical and professional standards, making the well-being of people a priority throughout our organisation. Smurfit Kappa invests significantly in its host communities, contributing to their economic and social development. The aim is to keep generating well-being and improvement through our core business in areas vital for the future, such as education, income generation, collaboration, and participation. By doing this, we can make positive, long-lasting changes in the communities with which we are privileged to work.

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

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
- Supporting municipality water treatment systems with our effluent that 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
- Collecting city-recovered paper in Malaga, Spain

## Employee Engagement Through Community Activity // UK

Smurfit Kappa SSK is a paper mill located in a deprived area in Birmingham, UK. After the second MyVoice Survey, the UK HR team focused on how they could improve engagement within the workforce and how we could invite more ideas from employees.

"We know that our employees feel strongly about supporting different charitable initiatives, and we thought that this could be a key for engaging our employees as well," says Maria Ryan, Head of HR SK UK, "So the idea was born, but we had to determine how best to encourage our people to share with us the Charitable Organisations closest to them and the activities they would be willing to get involved with."

An autonomous committee of members across all areas of the workforce who could independently decide which projects to support was established. Having people from different departments of the mill made the initiative easily accessible for the employees, and nominations for projects to support started to pour in. After the Giving Back initiative was launched in March 2018, over 50 nominations were shared with the committee. In 2019, £10,000 was donated to projects such as children's cancer charities, local homeless charities, a local children's hospital and even a local dog rescue shelter. While the SSK budget for these donations in 2019 was £5,000, the remaining funding came from the employees and their families, showing the engagement power of this initiative.

"We can measure success in many ways," says Maria, "the employees are engaged by choice and through a feeling that their employer is ready to invest in initiatives

close to their hearts; the perception of SSK as an employer and corporate citizen in the area has increased and all this while the site has been doing good for the community."



## The Smurfit Kappa Foundation

The Smurfit Kappa Foundation was formed in 2011 and supports sustainable projects in the countries where we operate. We focus on projects involving disadvantaged children in the areas of health and nutrition, basic care and early education. We are particularly interested in projects in which Smurfit Kappa employees or their families are involved and where they would benefit from support from our Foundation. Any support we give is in addition to and not a substitute for funding such projects might already receive from the local Smurfit Kappa operations.

The Foundation's goal is to end the cycle of poverty and dependence that exists in some of the communities and countries in which we operate, using the UN 2030 Agenda for Sustainable Development as a guide. The projects we support tackle global issues with local relevance, and operate under the ethos: 'Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime.' Thus, we support sustainable projects which involve input from the local community and are capable of becoming self-sufficient in the long-term.

## Progress in 2019

We estimate that as a Group, including our Smurfit Kappa Foundation, approximately €3.5 million was donated in cash and kind in 2019. This was for a wide range of activities, including children's education, health and social inclusiveness projects and research. Some of the activities have been presented in case stories throughout this report.

## Helping Communities Transform Themselves

// Colombia

**"We work with rural communities that lack opportunities, with citizens rarely consulted on municipality development projects. That's why they're so enthusiastic and empowered when they can propose ways to improve their lives," says Beatriz Mejía, Director of Smurfit Kappa Colombia Foundation.**

The Foundation has been working with rural communities for over 50 years and, a decade ago, launched the highly successful 'Integral Territorial Development' programme. In 2019, this programme was awarded the prestigious RedEAmérica CSR award for community development.

The focus was in South West Colombia and took a grassroots approach to implementing sustainable initiatives, mostly benefiting the communities neighbouring our forest plantations. As Beatriz points out, "We build invaluable partnerships with these neighbours. For example, they can be the first to inform us of risks like forest fire. In the last year, the SK Foundation has spent over €1.1 million on long-term and large-impact social development projects in Colombia."

We work with communities, designing and implementing local development initiatives which focus on creating sustainable communities. These are based on a shared vision of the territory, strengthening participatory processes, planning and territorial management. The Foundation gives them tools, capabilities and knowledge to influence their own territory, enabling local leaders to work with government and other organisations to bring the projects about.

For example, El Tambo is one of the four municipalities for which the RedEAmérica CSR award was given. Here, community leaders identified income generation as the main issue – 86% of the rural population qualified as impoverished by a multi-dimensional poverty index. The Foundation provided financial, technical and infrastructure support to help improve productivity. We also helped other projects such as microfinance, water resource management and flora and fauna conservation.

To reduce youth urban migration, we developed productive projects in institutions and established Technical, Agricultural and Forestry Institutes. These offered basic and intermediate, secondary and technical schooling for young farmers.

As Beatriz says,

**"The award is for creating ownership and leadership – particularly important for Colombia today. We work by the Colombian saying – don't give fish, teach to fish!"**





# World Cleanup Day // Global

World Cleanup Day is a global social event which encourages people to pick up litter on a designated day every year. The simplicity of the idea has inspired thousands of people to take part since the initiative began in 2018.

Over 8,000 employees from Smurfit Kappa came together to take part in World Cleanup Day activities in September 2019. The volunteers, who came from all parts of the business, joined with family and friends to clean designated areas in 28 countries across Europe and the Americas.

As part of a global effort, and in line with its Better Planet Packaging initiative, the Smurfit Kappa Group encouraged employees across the world to support the event in their local communities.

Smurfit Kappa's Better Planet Packaging initiative seeks to reduce packaging waste, and address the challenges of waste and litter that ends up in oceans and landfill, so there was a natural synergy between us and the World Cleanup Day.

'BPP Starts with Me' is an internal campaign which encourages Smurfit Kappa employees to make sustainable changes both at home and in the workplace so there was a huge appetite to get on board with World Cleanup Day.

Almost 20,000 hours were devoted by Smurfit Kappa employees and friends to the World Cleanup Day activities. Volunteers were easily recognisable in brightly coloured World Cleanup Day hats, t-shirts and hi-vis vests.

Over 10,000 bags and boxes of litter were collected from a diverse range of locations including beaches, rivers, parks, streets and woodlands. A group of employees from the UK even took to their kayaks to remove rubbish from the sea.

Some of the more unusual items found on the day included a wig, a bubble-gum dispenser, a doll's head, a message in a bottle, half a pair of spectacles and a passport. In El Salvador, volunteers found a tiny turtle which they safely delivered to the local wildlife centre.

A healthy and clean environment is vital for us all, and we are very proud of Smurfit Kappa's involvement in this important day.

Sustainability is at the core of Smurfit Kappa's business. As industry leaders, we have a responsibility to address the serious environmental challenges facing us today and believe our global participation in World Cleanup Day further demonstrates our commitment to help make packaging waste extinct.

All of us have seen the devastating impact that packaging waste has had on marine life in particular. It was encouraging to see many Smurfit Kappa volunteers making a difference to the locations they were cleaning up.

Many sites rewarded volunteers with meals afterwards or combined it with additional activities including mushroom gathering, tree planting and even trying out a zip wire! Many passers-by stopped to commend people and join in. For example, in Oosterhout in the Netherlands, a local catering service was so impressed by the World Cleanup Day initiative, they spontaneously offered to sponsor lunch on the day.

The feel-good event got an excellent response from Smurfit Kappa employees who gave a lot of positive feedback including that it was 'an ideal combination of business and pleasure' with 'lots of sunshine, lots of litter, lots of humour' and that it encouraged 'great camaraderie between colleagues.'

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#### Bags & boxes of litter collected

10,000

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#### Hours spent volunteering

20,000





All of us have seen the impact that packaging waste has had on marine life in particular. It was encouraging to see many Smurfit Kappa volunteers making a difference to the locations they were cleaning up.

Smurfit Kappa Mendellin Corrugated team from Colombia contributing to the World Cleanup Day 21 September, 2019.



## Impactful Business

# An impactful business

Sustainability creates value and is part of our competitive advantage. We use our size and resources to work 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.

Customers welcomed on Global Better Planet Packaging (BPP) Day

+650

Use of our PackExpert and Paper to Box in a day

+11,400

Awards won in 2019

63



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## Key Principles

Making sustainability performance measurable, transparent and tangible for our stakeholders, is an approach that Smurfit Kappa has implemented since it started reporting its progress in sustainability in 2007. 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.

Smurfit Kappa is committed to managing its business ethically, in accordance with its declared values which recognise that good social citizenship, reflected in the manner in which it interacts with its employees, business partners and local communities, is an integral ingredient in creating and maintaining 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 in improving future performance.

To be able to grow our business, our materials, goods and services must have the right quality and cost, but also be securely and responsibly sourced.

## Key Achievements 2019

Smurfit Kappa's engagement with customers, both current and prospective, on the Better Planet Packaging initiative was best illustrated with two flagship events: our biennial innovation event in May hosting over 350 customers from across the globe; and our inaugural 'Global Better Planet Packaging Day' on 21 November, which involved over 650 brand owners and retailers across our global operations with our Global Experience Centre network providing a unique platform for the day.

[Read more on pages 16-19](#)

In 2019, the Group's leadership in innovation was recognised with 63 national or international awards for packaging innovation, sustainability, design and print. The Group's operations received awards in Argentina, Austria, Belgium, Brazil, Bulgaria, Colombia, the Czech Republic, France, Ireland, Mexico, the Netherlands, Russia, Sweden and the UK.

[Read more on pages 64-65](#)

The Group is listed on the FTSE4Good, Euronext Vigeo Europe 120, STOXX Global ESG Leaders, Ethibel's sustainable investment register, and the Green Economy Mark from the London Stock Exchange. The Group was also included in the newly formed Solactive ISS ESG Beyond Plastic Waste Index, which recognises companies active in the reduction of plastic pollution. Smurfit Kappa also performs strongly across a variety of third-party certification bodies, including MSCI, CDP, Sustainalytics and EcoVadis.

[Read more on page 62](#)

During 2019, we audited 112 suppliers through our seven pillar sustainable sourcing audit programme.

[Read more on pages 68-69](#)

## Delivering for SDGs

### Smurfit Kappa Contributes

To sustain long-term profitability, it is essential to integrate the three pillars of sustainability into our business. For Smurfit Kappa, this means making impactful business through our products and production, respecting people and having responsible governance. These in turn have a positive impact on the communities we have operations in. Our product offers a great opportunity for innovation that can have a positive impact for society.



### Smurfit Kappa Supports

Smurfit Kappa supports local communities through its paper recycling operations and its charitable foundations is part of the infrastructure for building sustainable communities.



## Impactful Business continued

We all want our food, clothing and household goods delivered securely and safe from damage or theft. 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 – wood fibre can be recycled up to eight times before new fibre needs to be introduced to the loop. It also helps reduce product waste. 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.

At Smurfit Kappa, we maximise this sustainability for ourselves, our customers and suppliers, through continuous research. Our experience and expertise inspire innovative packaging solutions, making sustainability integral.

### Sustainable Value Chain is our Business

Sustainability creates value and is part of our competitive advantage. We use our size and resources to work 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 investors want long-term profitable businesses, so environmental and social responsibility are key factors when choosing companies for investment. This can be seen in the many investor ratings and disclosure programmes that we participate in, such as FTSE4Good, Euronext Vigeo Europe 120, STOXX Global ESG Leaders, Ethibel's sustainable investment register, the Green Economy Mark from the London Stock Exchange, CDP, SEDEX and EcoVadis. Furthermore, growing consumer demand will increase the paper-based packaging market share. CEPI and the Paper and Packaging Org surveys show increased awareness of environmental issues – for example, over 80% of European and American consumers prefer paper-based packaging.

## Responding to our Stakeholders

	What our stakeholders expect from us	What we believe	Our commitments
<b>Innovation</b>	To deliver fit-for-purpose, cost-effective and sustainable packaging solutions to our customers. They expect us to respond to the challenge the world faces with litter and develop innovative packaging solutions.	As a leader in sustainable packaging we believe we have a responsibility to respond to the challenge facing the environment and society today – to inspire more sustainable packaging solutions. A fundamental challenge with packaging waste is litter, but we believe that by offering fit-for-purpose packaging solutions we can minimise material waste. Packaging can help to lower a product's environmental footprint, and to promote and protect our customers products. We work to realise these believes through our data-driven innovation approach.	We are committed to inspiring more sustainable packaging solutions through: <ul style="list-style-type: none"> <li>the development of our Better Planet Packaging initiative;</li> <li>using our data to improve our processes, products, supply chains, logistics and markets; and</li> <li>optimising the use of our InnoTools to support our innovation and design, and leverage our global ideas.</li> </ul>
<b>Governance and Human Rights</b>	For our stakeholders, it is fundamental that we comply with regulations and guidelines, have effective corporate governance and respect Human Rights.	As a global company, we operate in an environment with diverse legislations, regulations and cultures. Our Code of Business 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. Our Code of Business Conduct expects adherence to ethical standards, and commitment to quality and service.	We are committed to: <ul style="list-style-type: none"> <li>ensuring that our Code of Business Conduct is available for anyone interested;</li> <li>ensuring our stakeholders adhere to the principles of the Code; and</li> <li>offering an independent and unbiased channel to raise concerns about breaches to the Code.</li> </ul>
<b>Sustainable Sourcing</b>	That we extend the ethical and sustainable manner of conducting business to our supply chains, and that we require our suppliers to continually advance their sustainable footprints.	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, our materials, goods and services must have the right quality and cost, but also be securely and responsibly sourced.	We are committed to: <ul style="list-style-type: none"> <li>working with suppliers that adhere to our Sustainable Sourcing Policy, Supplier Code of Conduct, are Chain of Custody certified where applicable, and commit to our Modern Slavery Act statement; and</li> <li>regularly auditing our preferred suppliers to ensure adherence with our key sustainable sourcing principles.</li> </ul>

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

Like all ecologically responsible companies, we work to minimise climate change by maximising the efficient use of resources, thereby reducing pressure on the environment. Our raw material – wood-based fibres – is the starting point of our circular business model (see diagram below). Managed sustainably, it enables global carbon management; from the forests that capture atmospheric carbon, to CO<sub>2</sub> neutral bioenergy.

When we balance the use of virgin and recovered fibres, we maintain a positive, sustainable balance of renewable raw material circulation.

**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 sustainable 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.

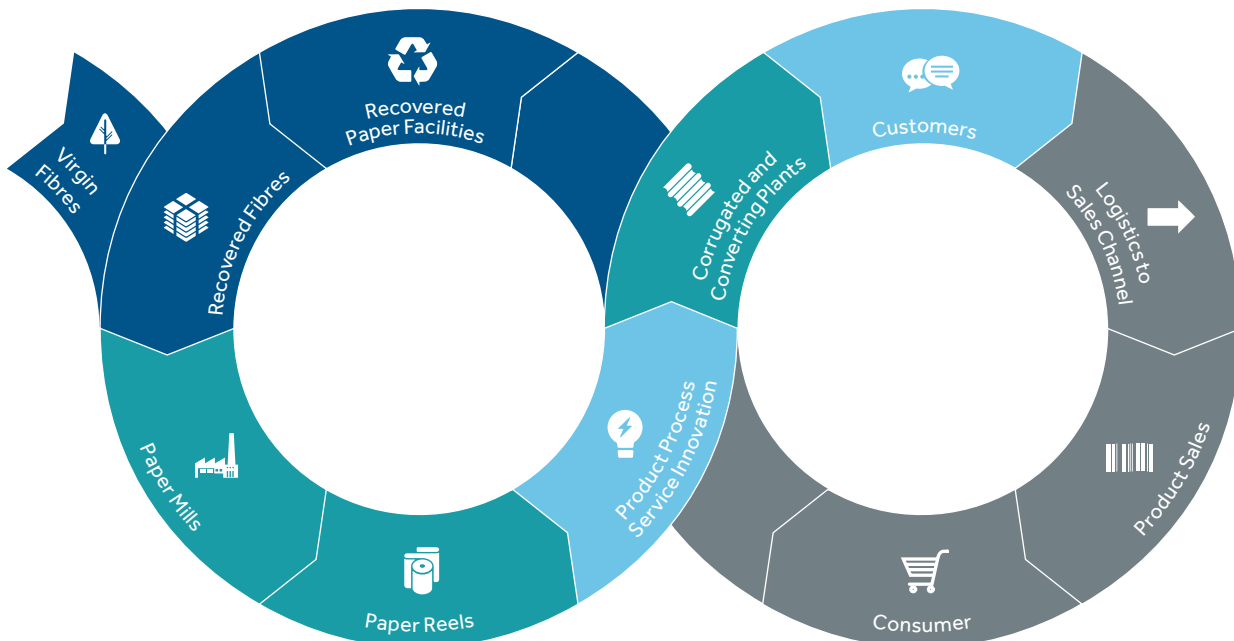
**Our Circular Business Model**

We are involved at all stages of the supply chain.

We believe that an integrated model, from the sources of fibre to end products, is the most efficient way to provide innovative packaging, logistics solutions and high-quality service to our customers. This we do by embedding circularity, innovation and inclusiveness through our circular business model.

We manufacture a range of papers mainly used for packaging purposes. Our recycling, wood procurement and forestry operations provide raw material to our mills, which is processed into paper primarily for our corrugated plants. Our integrated system of mills and plants also produce a full line of containerboard, which is converted into corrugated containers.

We currently produce 6.6 million tonnes (12.9 billion m<sup>2</sup>) of corrugated packaging, using most of the 7.0 million tonnes of containerboard produced within our own mill system.



**Circularity**

Working with a circular business model starts with finding opportunities to reduce linear elements and find synergies that drive efficiencies and process improvements. In the modern business environment, this enables long-term profitability, supports risk management and compliance. Embedding circular economy within a business model helps to manage operational continuity combined with growth.

**Innovation**

Rethinking services for customers and manufacturing processes drives innovation. An innovative approach to business makes a business strive to continue adding value to the business, products and services. Sustainability offers a lens through which innovation can be projected, delivering business growth, efficiency and operational continuity.

**Inclusiveness**

Engaging employees who feel included in the Company's projects and processes is at the core of an innovative environment. This, along with customer and supplier participation, can lead to new solutions and innovative approaches that deliver value, efficiencies and growth.



# Innovation

Examining the entire supply chain, including packaging, transport, storage and product presentation, identifies more sustainable improvement possibilities than considering each step in isolation.

## Holistic Approach

We do not just sell packaging to our customers, we work closely with them, developing value-adding solutions to their supply chains. We use a holistic approach to find solutions that are impactful and can be realised on a large scale. Eventually, this leads to fit-for-purpose packaging solutions that ensure that the packaged product is delivered, stored safely and sold 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. 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.

We focus on circularity, by optimising both primary and secondary packaging, we can deliver efficiencies in transport, storage and display and finally ensure recovery of our packaging products in recycling channels. Our scorecards help follow-up sustainable progress and Smart Services help customers to see through the new solutions from idea to implementation.

We focus both on our own and our customers' supply chains. Our virgin and recycled-fibre based packaging is designed to minimise resource use, reduce environmental footprint and use material sourced through certified Chain of Custody 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 performance packaging for which we use our Paper to Box tool.

## Better Planet Packaging





Smurfit Kappa focuses on circularity in its packaging design. One of our focus points is to support our customers to work against litter. For this, we launched our Better Planet Packaging initiative in 2018. A large part of our initiative involves ensuring packaging materials are recycled effectively. We are confident that with our innovation, we can apply all the Research and Design resources we have, to find ways to reduce the global litter issue. Paper packaging is recyclable, renewable and has consistently had the highest recycling rate in recent years. Even if it does end up as litter, it is still biodegradable and from a consumer perspective, anything from newspapers to corrugated boxes can go into the same recycling stream. We aim to share what information is necessary to make the recycling system work.

With Better Planet Packaging we accelerate and bring a new dimension to our core business but we cannot do this on our own. Smurfit Kappa will collaborate with existing and new partners to inspire new ideas and encourage change. We will instigate meaningful discussions and action on how we can all be more sustainable in our design and use of packaging.

Delivering on the Better Planet Packaging ambition will only be achieved by ensuring the entire Smurfit Kappa community understand the role we want to play in addressing this global issue. We are already working with our customers to create new and alternative solutions for unsustainable packaging especially in the area of plastic substitution (not only single-use). We design paper and packaging solutions that are fit-for-purpose, efficient and favoured by customers but that are also renewable and recyclable. These aspects have been explained in the table on the next page.







Examples of our Better Planet Packaging initiative can be found on pages 14 to 19.

## Our Approach

	<p><b>Knowledge, experience and passion</b></p> <p>Our primary goal is to support our customers through the dedication and creativity of our people. Our people are highly motivated, well trained and have unrivalled packaging expertise, which provides the foundation for our innovation.</p>
	<p><b>Customer focus, understanding our customers' markets</b></p> <p>We look past our products and go one step further to provide our customers with the best data and analysis to make better business decisions with minimal risk. Innovation challenges the status quo and is a fundamental part of our strategy. Our approach to innovation is market-driven and focused on solving our customers' challenges, whether through customer insights, packaging solutions development, process improvement or optimising supply chain efficiency.</p>
	<p><b>Science of innovation</b></p> <p>At Smurfit Kappa, innovation is data driven. We have a supporting network of laboratories, facilities and applications to help us create fit-for-purpose, cost-effective and sustainable packaging solutions.</p>
	<p><b>Creative design thinking</b></p> <p>With over 1,000 designers across our business and over 7,500 packaging concepts, we use cutting-edge technology to provide innovative designs in packaging and displays for our customers.</p>

## Circular Aspects of our Products

Our products are designed to protect the packaged goods. While doing so, they have direct and indirect (through our operational sustainability strategies) impacts on our customers' value chains.

Impact of our Products	Direct Impact	Indirect Impact
<b>Impact 1</b> <b>Reduce</b> 	<p>Ensuring that resources 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.</p>	<p>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 investment in measures to reduce fossil CO<sub>2</sub> emissions and investment in further energy efficiency.</p>
<b>Impact 2</b> <b>Reuse</b> 	<p>Ensuring that where reusing is economically and environmentally unfavourable, our recyclable packaging solutions offer a more sustainable alternative with less environmental impact than using a reusable solution.</p>	<p>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.</p>
<b>Impact 3</b> <b>Recycle</b> 	<p>75% of the raw material we use consists of recycled fibres. All paper-based packaging we produce is recyclable.</p> <p>Recycling of our packaging product delivers new corrugated products with the same quality, whereas the majority of plastic packaging, for example, is downcycled.</p>	<p>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.</p>
<b>Impact 4</b> <b>Recover</b> 	<p>Ensuring all paper-based packaging manufactured by Smurfit Kappa can be recovered. For example, offering single-material solutions that are easy to recover for our customers and consumers.</p>	<p>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, wherever possible, and circulating heat. We also seek synergies with our neighbours where possible.</p>
<b>Impact 5</b> <b>Renew</b> 	<p>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 Chain of Custody certified by an internationally accepted forest management standard, FSC, PEFC or SFI.</p>	
<b>Impact 6</b> <b>Biodegrade</b> 	<p>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<sub>2</sub> and water.</p>	

# 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 expect 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 57-61 of the 2019 Smurfit Kappa Group 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.

During the year, we formed a Sustainability Committee of the Board, which has the responsibility to drive and provide overall strategic guidance of our sustainability strategy for the benefit of all our stakeholders. The sustainability strategy will focus on the three key pillars: People; Planet; and Business. In addition, the development and implementation of the Group's sustainability strategy, objectives and policies are managed by the Group Executive Committee led by the Group CEO.

The Executive Committee is supported in this work by a Sustainability Working Group. This is led by our Group Vice President Development, and includes key representatives from operations in Europe and the Americas. The Working Group primarily monitors the implementation of the Group's sustainability strategy and ensures that targets are met across all material areas. It also promotes sustainability targets among our customers, suppliers and corporate peers.

## 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 2019, one of the Group's subsidiaries, Smurfit Kappa Italia S.p.A. (SKI) was found to have engaged in anti-competitive practices in

Italy, and was levied a fine of €124 million by the Italian Competition Authority (ICA). We are very disappointed with the decision of the ICA on many levels and are vigorously appealing this decision on both administrative and substantive grounds. This process may take a number of years. Smurfit Kappa is committed to the highest standards of conduct in its business and does not tolerate any actions that are inconsistent with its values.

During 2019, no other 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 Business on pages 20-69. Our entire Sustainable Development Report is assured by KPMG, in accordance with the 'Comprehensive' level of 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 2019, performed 72 detailed internal financial and IT audits.

## Code of Business Conduct and Corporate Policies

The Smurfit Kappa Group Code of Business 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, which was updated in 2019, is available in 17 languages to ensure accessibility and worldwide compliance.

The Code takes account of the following international conventions and codes:

- International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work (core conventions)
- UN Declaration on Fundamental Human Rights
- Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises
- UN Global Compact

The Code provides accessible and understandable guidance for employees in every jurisdiction. Each Smurfit Kappa Company 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 expects adherence to ethical standards, and commitment to quality and service.

During 2019, there were no material incidents reported, which the Group considered to be non-compliant with the Code of Business Conduct.

The Code is supplemented by policies relating to our operational and managerial practices. These policies cover Environment, Sustainable Forestry and Fibre Sourcing, Sustainable Sourcing, Social Citizenship, and Health and Safety. All our codes and policies are available on our website: [www.smurfitkappa.com](http://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 demands 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 Sourcing Section on pages 68-69.

The Group is subject to the provisions of the UK Modern Slavery Act and publishes an annual Modern Slavery Act Statement, which is available on the Group website at [www.smurfitkappa.com](http://www.smurfitkappa.com). We also expect our suppliers to comply with the Modern Slavery regulations and conduct audits on them to ensure compliance.



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 operations, 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

- Asociación de Corrugadores del Caribe Centro y Sur América (ACCCSA). Smurfit Kappa's CFO for the Americas 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 Supplier Ethical Data Exchange (SEDEX)
- 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 of Business Conduct, and the local laws and regulations which apply to the Group's operations. There were no significant criticisms of the Group in this respect in 2019. In line with the Group's Code

of Business Conduct, no financial contributions were made to political parties in 2019. No national government is a direct investor in Smurfit Kappa.

### Safe Products and Satisfied Customers

Ensuring our packaging solutions are safe is an integral part of our business. As our packages are used to deliver and store food products, our products must meet all food safety standards. These include OECD guidelines for Multinational Enterprises and providing statements on food safety and REACH to our customers. These are available on request through our website.

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 (CRM) tools enable us to follow up on customer feedback and capture insights that can maximise customer satisfaction. This drives customer value and loyalty.

## Copame – Giving Children a Better Life // Brazil

**“We are grateful to see our children grow and find permanent homes,” says Derk Lambers, fundraiser for Copame, the Children's Aid Communitarian Association in Santa Cruz do Sul in Brazil.**

Copame's facility can host 45 orphaned, abandoned or maltreated children, from newborn to age 18. The project is more than just a place to stay, however. Since its foundation in 1984, the charity has found placement homes for 302 of the children who went there. All others, 1,702 of them, were returned to parents, grandparents or family members, or moved on to a facility for older children.

The site includes residential and play facilities as well as an on-site bakery which supplies bread to the area and is an important source of income. Other financial support comes from individual donations, corporations, members' fees, projects, resources provided by the municipality and overseas donations.

Management and maintenance of the facilities remains a major challenge, however, and is dependent on external funding. The Smurfit Kappa Foundation supported this, to ensure that resident children have the best quality accommodation possible.

The facility also provides for its children's future well-being by partnering with the local university. University teachers and students offer expertise with medicine, dentistry, psychology and nutrition. Copame employees and volunteer-drivers also commute between three different schools, taking the children to sport, musical and religious events, as well as medical and dental appointments.

“Our 26 permanent and 38 on-call volunteers are indispensable in supporting these young people,” says Derk Lambers. “They help our children get a better start in their lives.”



# Sustainable sourcing

In 2019, we spent €5.3 billion on raw materials, energy, transportation, maintenance/repair, and investment goods. Sourcing materials, goods and services represents the single largest cost item for Smurfit Kappa. As such, sustainable 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 and responsibly. 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 sourcing programme, which helps us deliver against our three pillars of sustainability: Planet, People and Business. The programme itself is built on seven pillars. These are: quality, hygiene and safety, business continuity, operations, continual improvement, service and technical support, environmental 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; and reducing waste by meeting food safety requirements.

The sourcing of raw materials, goods and services is governed by international, national and regional regulations. But our approach to sustainable 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 Sourcing Policy, Sustainable Forestry and Fibre Sourcing Policy (see: [www.smurfitkappa.com/policies](http://www.smurfitkappa.com/policies)).

We encourage 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; reporting social data to SEDEX, and adhering to ISO 9001, ISO 14001 environmental, ISO 50001 energy management systems and OHSAS 18001/ISO 45001 on safety. These standards add to our credibility, as well as that of our suppliers.

### Reducing Supply Chain Risk

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, respecting employee contributions, fair compensation, encouragement of continuous training and development, health and safety at work, non-

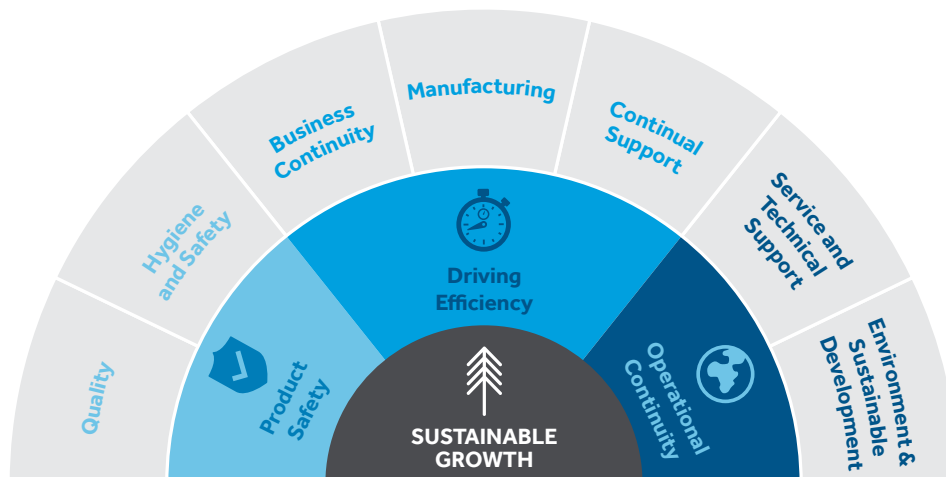
discrimination, and promoting community involvement. Suppliers are also required to follow our Sustainable Sourcing Policy, and all other relevant policies which also cover the safeguarding of the natural environment. We monitor our suppliers' compliance through our sustainable sourcing programme.

Our sustainable sourcing programme is founded on risk mapping against our key criteria: overall spend, global presence, technological innovation, excellent service and reputation. Risk mapping considers the sourcing categories with the highest impact on our products, and therefore our stakeholders. The most relevant sourcing category is raw materials.

Sustainable sourcing of wood and recovered paper is vital for our fibre-based products. Wood, pulp, paper and recovered-paper sourcing, as well as our own forestry operations, is controlled by our Forestry and Fibre Sourcing Policy. A more detailed report on these activities can be found in the Forest section on pages 30-31.

We require our key materials, goods and services to be managed sustainably. Since launching our sustainable sourcing programme in 2010, we have been auditing all our preferred and multinational suppliers to ensure they meet our standards.

## Seven Pillar Supplier Audit Programme



We also monitor whether suppliers are members of SEDEX or are assessed on their ethical practices by EcoVadis. We believe on-site audits increase competence and commitment in our supplier base, while enhancing our mutual understanding of key requirements. Based on their scoring at the audit, follow-up programmes are established on a supplier-by-supplier basis. This includes further strengthening their understanding of, and compliance to, Smurfit Kappa sustainable sourcing principles and indicators.

Audits result in a rating against each of the seven pillars of our sustainable sourcing programme. If the result is below satisfactory (scoring less than 40%), an improvement programme is devised. Failure to commit to the improvement action list may, ultimately, lead to termination of the business relationship.

Our risk mapping, combined with supplier audit results, show that 81% of our important suppliers of key materials, goods and services audited in 2019, carry moderate to low risk. Our sourcing network includes suppliers ranging from small-scale local companies to large multinationals. In total, an estimated 76% of our suppliers' deliveries can be classified as local. In 2019, supplier improvement opportunities typically included Environmental Management systems (37 times), Health and Safety systems (35 times), Brand Protection (34 times), and Continuity management (31 times). Overall, there were no material findings on our audits that would impact safe and timely deliveries of our products to our customers.

We hold annual global sourcing seminars in which part of the programme is to train and update the knowledge of our sourcing managers on sustainable sourcing. This seminar was also held in 2019. The sustainable sourcing programme on these events covers developments, achievements and challenges in the area of sustainable sourcing. In 2019, in-depth training for local sourcing teams were held in France, Poland, Spain and Sweden.

**Progress in 2019**

New developments in the auditing process this year included a special focus on Sweden, Poland, Spain and France. We have implemented the requirements to exclude modern slavery practices by our suppliers in our sourcing programme, and increased supplier screening on human rights. Adding transport to the auditing process supports this, as illegal trafficking is a factor in modern slavery. In addition, we continued adding suppliers of pallets and paper machine clothing audits to the programme to enhance its scope.

As part of our work with the UN SDGs, we have started to include the selected SDGs in our sustainable sourcing programme. This development has been targeted on our multinational and preferred suppliers. We ask our suppliers to support, where material, at least our strategic SDGs: 15 (Forest), 13 and 7 (Climate change), 12 (Waste), 6 (Water), and 3 (People).

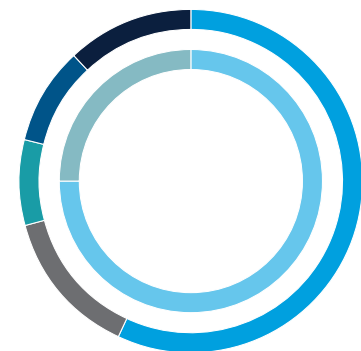
In 2019, a total of 112 external supplier audits were performed, and 61 of these were first-time audits, and 106 supplier companies. Of these, 21% were conducted on multinational and preferred suppliers, reflecting our increasing emphasis on large national and regional suppliers (in particular the hauliers). A total of 87% of all suppliers audited during 2019 scored a satisfactory mark (2018: 85%), 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. 18 suppliers audited in 2019, 13 of which are national or regional suppliers, were included in a close monitoring programme.

In 2019, we changed the classification of suppliers, from preferred/strategic/important, to preferred/multinational/national-regional. For consistency, this new classification has been applied to the data from 2010-2018. Since the start of the programme in 2010, we audited 137 Preferred suppliers, 31 other Multinational suppliers and 155 National suppliers, on top of our internal audits.

The audit results differ per industry sector. The best compliance to our sustainability objectives has been consistently achieved by suppliers of starch, energy, forklifts and chemicals. Furthermore, none of our audited suppliers in these industry sectors score an unsatisfactory mark. Typically, suppliers of external paper, adhesives and inks demonstrate a good compliance. Thirty-four sourcing categories have been identified as being particularly relevant to our sustainable sourcing programme. They are classified into three groups: key materials, goods and services, and commodities needed to operate. We monitor 72% of the relevant spend in these groups, with the best compliance from sourcing categories in the group of key materials.

We have increased the number of external independent auditors affiliated with international certification bodies in Poland, Spain and France to 13.

**Total Sourcing Costs**  
(€5.3 billion)

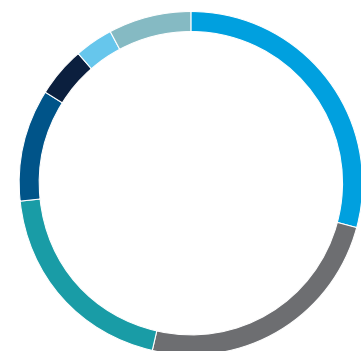


**Key:**

- Raw materials and consumables – 3,003
- Logistics – 732
- Maintenance and repairs – 430
- Energy – 485
- Capital equipment – 620
- SK Europe – 75%
- SK The Americas – 25%

**Supplier Audits by Country**

(112 audits, 106 companies audited)

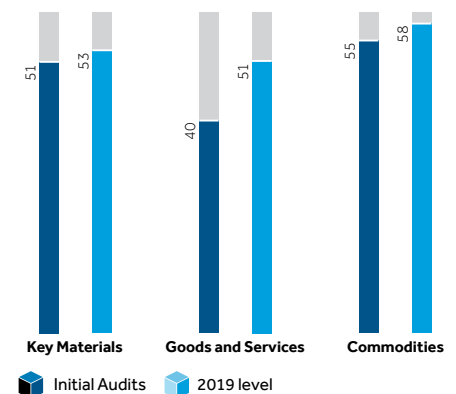


**Key:**

- NEE – 31
- DACH – 26
- UK/IR – 21
- BNL – 11
- FR – 5
- ES/PT – 4
- Rest of World – 8

**Average Audit Score**

(Initial vs 2019)





# Supporting data

Input/Output	72
Environmental Data	74
Management System Certifications	81
Social Data	82
Sourcing Data	83



# Input/Output 2019

## Europe

### Input

Wood and fibre		
Wood <sup>1</sup>	4,934	ktonnes ar
Market virgin pulp	78	ktonnes ar
Other pulp	19	ktonnes ar
Recovered paper	4,669	ktonnes ar
Paper or board purchased	1,542	ktonnes ar
Plastic films, other plastic item (BIB)	24	ktonnes
Starch (all types)	293	ktonnes ar
Inorganic raw materials	362	ktonnes ar
Other organic raw materials	173	ktonnes ar

Energy		
Energy from fossil fuels	28,201	TJ (terajoule)
Energy from purchased biofuels	5,375	TJ
Electricity from grid	2,217	GWh

Water		
Water intake <sup>2</sup>	107	Mm <sup>3</sup>

### Output

Production		
Papers (all grades)	5,431	ktonnes
Corrugated packaging*	5,050	ktonnes
Board and laminated boards*	410	ktonnes
Converted board*	110	ktonnes
Sacks*	–	ktonnes
Other packaging	23	ktonnes

Direct emissions to air		
CO <sub>2</sub> fossil	1,667	ktonnes
CO <sub>2</sub> biogenic	3,403	ktonnes
Dust from fuels	0.40	ktonnes
SO <sub>x</sub> from processes	0.75	ktonnes
NO <sub>x</sub> from processes	3.6	ktonnes

Energy output		
Electricity to third party	306	GWh
Thermal energy to third party	314	TJ
Biomass sold	577	TJ

Wastes		
Hazardous wastes	7.9	ktonnes
Non-hazardous wastes sent to landfill	231	ktonnes
Non-hazardous wastes recovered	333	ktonnes
Other non-hazardous wastes	11	ktonnes

Discharges to water		
Water released	99	Mm <sup>3</sup>
COD	26	ktonnes
BOD	12	ktonnes
Total suspended solids	4.8	ktonnes
N	0.45	ktonnes
P	0.062	ktonnes

### Notes

- 1 Wood and sawmill chips as delivered to the mill.
  - 2 Water intake includes rainwater and waste water from another operation ktonnes ar: kilotonnes as received.
- \* Partly produced with Smurfit Kappa paper or board.

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 with those on pages 74 to 75. The latter pages show the energy consumption for the production of the paper or board manufactured.



## Input/Output 2019

### The Americas

#### Input

Wood and fibre		
Wood <sup>1</sup>	870	ktonnes ar
Market virgin pulp	3.5	ktonnes ar
Other pulp	3.9	ktonnes ar
Recovered paper	1,501	ktonnes ar
Paper or board purchased	404	ktonnes ar
Plastic films, other plastic item (BIB)	3.6	ktonnes
Starch (all types)	67	ktonnes ar
Inorganic raw materials	64	ktonnes ar
Other organic raw materials	59	ktonnes ar

Energy		
Energy from fossil fuels	13,222	TJ
Energy from purchased biofuels	2,235	TJ
Electricity from grid	857	GWh

Water		
Water intake <sup>2</sup>	30	Mm <sup>3</sup>

#### Output

Production		
Papers (all grades)	1,523	ktonnes
Corrugated packaging*	1,579	ktonnes
Board and laminated boards*	94	ktonnes
Converted board*	73	ktonnes
Sacks*	54	ktonnes
Other packaging	3.2	ktonnes

Direct emissions to air		
CO <sub>2</sub> fossil	885	ktonnes
CO <sub>2</sub> biogenic	700	ktonnes
Dust from fuels	0.20	ktonnes
SO <sub>x</sub> from processes	1.5	ktonnes
NO <sub>x</sub> from processes	1.4	ktonnes

Energy output		
Electricity to third party	–	GWh
Thermal energy to third party	–	TJ
Biomass sold	–	TJ

Wastes		
Hazardous wastes	1.7	ktonnes
Non-hazardous wastes sent to landfill	309	ktonnes
Non-hazardous wastes recovered	17	ktonnes
Other non-hazardous wastes	2.6	ktonnes

Discharges to water		
Water released	27	Mm <sup>3</sup>
COD	16	ktonnes
BOD	5.7	ktonnes
Total suspended solids	3.1	ktonnes
N	0.51	ktonnes
P	0.05	ktonnes

#### Notes

<sup>1</sup> Wood and sawmill chips as delivered to the mill.

<sup>2</sup> Water intake includes rainwater and waste water from another operation ktonnes ar: kilotonnes as received.

\* Partly produced with Smurfit Kappa paper or board.

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 with those on pages 76 to 77. The latter pages show the energy consumption for the production of the paper or board manufactured.

# Environmental Data 2019

## Paper and Board Mills, Europe

		Nettingsdorf, Austria	Sangüesa, Spain	Facture, France	Piteå, Sweden	Morava, Czech Republic	Wrexen, Germany <sup>5</sup>	Hoya, Germany <sup>5</sup>	Zülpich, Germany	Mengibar, Spain
		bkl, t	mg paper	bkl, wtkl	bkl, wtkl, wtkl	tl, fl	wtkl, sb, fl, t	tl, fl, cart	fl, t	fl, t
<b>Production</b>	<b>ktonnes</b>	<b>431</b>	<b>81</b>	<b>483</b>	<b>663</b>	<b>66</b>	<b>302</b>	<b>449</b>	<b>489</b>	<b>233</b>
<b>Energy</b>										
<b>Electricity</b>										
Co-generated	GWh	153	51	350 <sup>1</sup>	314	–	65	129	167	105
Self-generated	GWh	–	–	–	–	–	–	–	–	–
Hydro power	GWh	–	–	–	–	1.6	0.1	–	–	–
Net grid supply	GWh	121	89	24	256	21	30	43	26	– <sup>2</sup>
Total electricity	GWh	274	140	374	570	22	95	171	193	105
<b>Fuel usage</b>										
Biofuels	TJ	3,650	2,002	8,755	9,839	16	55	50	335	–
Fossil fuels	TJ	1,017	197	715	149	326	1,466	2,575	2,836	1,539
Total fuels	TJ	4,667	2,198	9,470	9,987*	342	1,521	2,624	3,171	1,539
<b>Water withdrawal</b>										
Surface	Mm <sup>3</sup>	12.7	4.5	7.9	28.5	0.4	0.5	–	1.7	1.3
Ground	Mm <sup>3</sup>	–	–	0.7	–	0.0	0.7	2.2	0.4	0.0
Grid	Mm <sup>3</sup>	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0
Total water <sup>4</sup>	Mm <sup>3</sup>	12.9	4.6	9.1	29.0	0.4	1.2	2.4	2.1	1.3
<b>Discharges</b>										
<b>To air</b>										
CO <sub>2</sub> fossil direct	ktonnes	58	13	41	13	18	82	145	226	86
CO <sub>2</sub> fossil indirect	ktonnes	–	22	1	3	11	13	19	11	–
CO <sub>2</sub> biogenic	ktonnes	404	212	1,051	1,048	1	4	6	35	7
Dust	tonnes	54.3	6.6	46.0	246.5	0.2	0.0	0.0	0.1	0.0
NO <sub>x</sub> as NO <sub>2</sub>	tonnes	376	96	764	621	7	42	98	221	422
SO <sub>x</sub> as SO <sub>2</sub>	tonnes	37	116	66	61	0	1	1	142	118
<b>To water</b>										
Process water	Mm <sup>3</sup>	5.08	4.13	9.05	12.07	0.27	0.30	1.72	–	1.08
Cooling water	Mm <sup>3</sup>	7.02	–	–	17.22	–	0.52	0.07	1.21	–
COD	tonnes	7,808	230	3,807	1,952	30	63	216	–	303
BOD	tonnes	5,276	45	1,063	258	1	3	13	–	13
Total suspended solids	tonnes	803	91	709	280	4	4	63	–	76
Total N	tonnes	42.5	8.2	105.6	36.1	7.1	0.6	22.3	–	33.9
Total P	tonnes	4.2	0.8	15.4	10.0	0.2	0.1	2.0	–	1.4
<b>Wastes</b>										
Total non-hazardous wastes	tonnes	23,285	14,453	53,710	34,007	9,144	10,995	32,651	18,971	22,684
Landfill	tonnes	3,749	7,498	8,701	1,689	4,493	–	–	6,495	22,521
Recovery	tonnes	19,536	6,956	44,689	32,318	4,651	10,667	32,538	12,476	163
Other	tonnes	–	–	320	–	–	329	113	–	–
Hazardous wastes	tonnes	485	490	151	187	22	31	57	2,209	22

### Notes

1 CHP partly or totally outsourced.

2 Electricity exported by CHP.

\* 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.

Alfa d'Avignon, France	Rethel, France	Saillat, France	Ania, Italy	Roermond, the Netherlands	Parencio, the Netherlands	SSK, United Kingdom	Townsend Hook, United Kingdom	Herzberger, Germany	Nervión, Spain	Total mills
tl	tl	fl, tl	fl, tl	tl, fl	grap pap, fl, tl	tl, fl	fl, tl	sb	sack p	
<b>72</b>	<b>66</b>	<b>256</b>	<b>226</b>	<b>610</b>	<b>579</b>	<b>206</b>	<b>226</b>	<b>259</b>	<b>146</b>	<b>5,841</b>
–	–	44 <sup>1</sup>	68	113	–	59	74	75	118	<b>1,886</b>
0.0	–	–	–	–	–	–	–	0.0	–	<b>0.0</b>
–	–	1.5	–	–	–	–	–	0.8	–	<b>4.0</b>
28	23	67	– <sup>2</sup>	52	403	– <sup>2</sup>	11	16	65	<b>1,274</b>
28	23	113	68	165	403	59	86	92	183	<b>3,164</b>
–	0	103	56	226	1,202	30	63	–	3,390	<b>29,771</b>
347	272	1,354	1,351	2,645	1,557	1,279	1,673	1,615	120	<b>23,033</b>
347	272	1,457	1,407	2,871	2,759	1,309	1,736	1,615	3,510	<b>52,805</b>
0.6	–	1.8	–	2.0	19.5	–	1.0	4.4	2.8	<b>89.5</b>
–	0.4	–	1.6	–	5.4	1.0	0.6	0.0	–	<b>12.9</b>
–	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	<b>0.8</b>
0.6	0.4	1.8	1.7	2.2	25.2	1.1	1.6	4.4	3.0	<b>105.3</b>
19	15	76	75	150	89	72	94	90	8	<b>1,371</b>
1	1	4	–	24	187	0	3	7	16	<b>325</b>
1	3	11	4	18	150	3	10	–	379	<b>3,349</b>
0.0	0.0	0.6	0.0	0.0	1.8	0.0	0.0	1.5	33.9	<b>391.7</b>
17	8	33	34	126	153	106	43	36	275	<b>3,478</b>
8	13	5	0	20	6	0	30	3	77	<b>707</b>
0.49	0.39	1.49	1.42	1.64	4.80	0.82	0.79	1.29	2.16	<b>49.00</b>
–	–	–	–	–	19.45	–	0.48	2.89	–	<b>48.87</b>
29	50	216	132	279	693	6,650	109	151	1,374	<b>24,093</b>
3	3	8	19	7	32	4,166	3	11	327	<b>11,249</b>
7	8	77	17	33	136	1,935	28	24	176	<b>4,469</b>
6.3	4.6	22.1	15.8	38.4	51.3	15.0	6.6	2.2	1.9	<b>420.3</b>
1.0	0.7	1.5	0.9	2.7	7.5	10.7	0.7	0.5	0.3	<b>60.6</b>
3,996	1,838	16,998	15,453	43,778	60,323	23,435	23,750	26,607	84,956	<b>521,036</b>
2,494	1,125	16,713	6,851	5,544	27,447	12,287	17,403	–	79,859	<b>224,868</b>
1,502	713	275	8,602	38,078	32,876	11,148	6,347	26,413	5,097	<b>295,044</b>
–	–	11	–	156	–	0	–	195	–	<b>1,123</b>
17	3	14	35	18	60	89	30	51	13	<b>3,985</b>

bkl: brown kraftliner  
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

Water discharges: in italic mills that do not discharge their process water to surface.



# Environmental Data 2019

## Paper and Board Mills, The Americas

		Bernal, Argentina	Coronel Suárez, Argentina	Bento, Brazil	Pirapetingsa, Brazil	Uberaba, Brazil
		tf, fl	tf, fl	fl, tf	tf, fl, wttl	tf, fl
<b>Production</b>	<b>ktonnes</b>	73	45	50	122	59
<b>Energy</b>						
<b>Electricity</b>						
Co-generated	GWh	–	–	–	–	–
Self-generated	GWh	–	–	–	–	0.0
Hydro power	GWh	–	–	–	–	–
Net grid supply	GWh	32	14	19	60	34
Total electricity	GWh	32	14	19	60	34
<b>Fuel usage</b>						
Biofuels	TJ	–	–	415	1,090	546
Fossil fuels	TJ	393	263	3	44	8
Total fuels	TJ	393	263	418	1,134	554
<b>Water withdrawal</b>						
Surface	Mm <sup>3</sup>	0.1	–	0.1	1.2	–
Ground	Mm <sup>3</sup>	0.6	0.2	–	–	0.4
Grid	Mm <sup>3</sup>	–	–	0.0	0.0	–
Total water <sup>1</sup>	Mm <sup>3</sup>	0.7	0.2	0.1	1.2	0.4
<b>Discharges</b>						
<b>To air</b>						
CO <sub>2</sub> fossil direct	ktonnes	22	15	0	3	0
CO <sub>2</sub> fossil indirect	ktonnes	12	5	2	7	4
CO <sub>2</sub> biogenic	ktonnes	1	–	44	116	55
Dust	tonnes	0.0	0.0	66.5	53.4	34.6
NO <sub>x</sub> as NO <sub>2</sub>	tonnes	25	11	48	131	86
SO <sub>x</sub> as SO <sub>2</sub>	tonnes	3	0	0	8	0
<b>To water</b>						
Process water	Mm <sup>3</sup>	0.33	0.14	–	0.84	0.24
Cooling water	Mm <sup>3</sup>	0.28	–	–	–	–
COD	tonnes	40	36	–	369	1,103
BOD	tonnes	6	7	–	130	411
Total suspended solids	tonnes	10	17	–	44	53
Total N	tonnes	4.4	1.8	–	2.4	1.0
Total P	tonnes	0.1	0.1	–	0.8	0.4
<b>Wastes</b>						
Total non-hazardous wastes	tonnes	6,909	3,558	4,520	19,104	7,810
Landfill	tonnes	2,566	3,511	3,369	18,847	7,387
Recovery	tonnes	4,343	47	1,151	257	423
Other	tonnes	–	–	–	–	–
Hazardous wastes	tonnes	59	7	37	13	14

### 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
	p&w, sack p, cart, bkl, ti, sc ft, pulp, wtkl	ti, fl	fl, ti	fl, ti	ti, cart, fl	fl, ti	ti, fl	
	273	66	114	126	315	34	339	<b>1,617</b>
	214	35	46	–	–	–	36	<b>332</b>
	0.1	–	0.0	–	–	–	–	<b>0.1</b>
	–	–	–	–	–	–	–	<b>–</b>
	117	3	9	68	159	19	111	<b>646</b>
	331	38	55	68	159	19	147	<b>978</b>
	4,645	–	–	–	–	–	262	<b>6,958</b>
	5,594	665	742	723	1,375	253	1,595	<b>11,658</b>
	10,239	665	742	723	1,375	253	1,857	<b>18,616</b>
	21.7	0.6	1.0	–	–	–	–	<b>24.5</b>
	0.1	–	–	0.3	1.4	0.1	–	<b>3.2</b>
	–	0.0	–	–	–	0.1	1.1	<b>1.2</b>
	21.8	0.6	1.0	0.4	1.4	0.2	1.1	<b>29.2</b>
	437	37	50	41	77	14	90	<b>787</b>
	–	–	–	31	74	9	48	<b>193</b>
	431	–	–	–	–	0	30	<b>676</b>
	36.8	1.7	1.1	0.0	1.9	0.0	1.9	<b>198.0</b>
	845	18	62	23	40	13	61	<b>1,363</b>
	1,327	0	98	0	1	0	14	<b>1,451</b>
	21.66	0.48	0.84	0.15	0.93	0.10	0.66	<b>26.37</b>
	–	–	–	–	–	–	–	<b>0.28</b>
	6,890	2,344	3,816	32	722	67	713	<b>16,132</b>
	1,993	1,170	1,627	3	77	5	246	<b>5,674</b>
	1,762	249	648	3	86	16	175	<b>3,063</b>
	436.9	10.5	11.5	0.7	7.7	1.4	28.7	<b>506.8</b>
	32.6	0.1	1.2	0.2	2.4	0.2	7.1	<b>45.3</b>
	122,797	3,285	9,307	13,664	45,827	4,887	57,847	<b>299,515</b>
	119,100	3,153	8,146	13,138	45,048	4,834	57,517	<b>286,616</b>
	1,426	132	1,161	526	779	53	331	<b>10,629</b>
	2,271	–	–	–	–	–	–	<b>2,271</b>
	190	8	8	10	34	4	0	<b>383</b>

bkl: brown kraftliner  
 cart: carton board  
 fl: recycled fluting  
 sc ft: semi-chemical fluting

p&w: printing and writing paper  
 pulp: virgin pulp sold externally  
 ti: testliner

wtkl: white top kraftliner  
 wttl: white top testliner  
 sack p: sack paper

# Environmental Data 2019

## Operations Total, Europe

		Paper and Board Mills	Integrated Corrugated Operations	Other Packaging Operations	Other Operations	Total Operations
<b>Production</b>	<b>ktonnes</b>	<b>5,841</b>	<b>4,745</b>	<b>438</b>	<b>3,098</b>	
<b>Energy</b>						
<b>Electricity</b>						
Co-generated	GWh	1,886	–	–	–	<b>1,886</b>
Self-generated	GWh	0	0	–	–	<b>0</b>
Hydro power	GWh	4	–	–	–	<b>4</b>
Net grid supply	GWh	1,274	547	198	4	<b>2,023</b>
Total electricity	GWh	3,164	547	198	4	<b>3,914</b>
<b>Fuel usage</b>						
Biofuels	TJ	29,771	168	1	–	<b>29,940</b>
Fossil fuels	TJ	23,033	4,253	146	81	<b>27,513</b>
Total fuels	TJ	52,805	4,420	147	81	<b>57,453</b>
<b>Water withdrawal</b>						
Surface	Mm <sup>3</sup>	89.5	0.0			<b>89.6</b>
Ground	Mm <sup>3</sup>	12.9	0.3	0.0		<b>13.2</b>
Grid	Mm <sup>3</sup>	0.8	1.4	0.1	0.0	<b>2.3</b>
Total water <sup>1</sup>	Mm <sup>3</sup>	105.3	1.7	0.1	0.0	<b>107.1</b>
<b>Discharges</b>						
<b>To air</b>						
CO <sub>2</sub> fossil direct	ktonnes	1,371	243	9	6	<b>1,628</b>
CO <sub>2</sub> fossil indirect	ktonnes	325	155	63	1	<b>544</b>
CO <sub>2</sub> biogenic	ktonnes	3,349	18	0	–	<b>3,366</b>
Dust	tonnes	392	4	0	0	<b>395</b>
NO <sub>x</sub> as NO <sub>2</sub>	tonnes	3,478	85	3	4	<b>3,570</b>
SO <sub>x</sub> as SO <sub>2</sub>	tonnes	707	37	1	4	<b>749</b>
<b>To water</b>						
Process water	Mm <sup>3</sup>	49.0	0.6	0.0	–	<b>49.7</b>
Cooling water	Mm <sup>3</sup>	48.9	0.1	0.0	–	<b>49.0</b>
COD <sup>2</sup>	tonnes	24,903	1,732			<b>25,825</b>
BOD <sup>2</sup>	tonnes	11,249	504			<b>11,753</b>
Total suspended solids <sup>2</sup>	tonnes	4,469	336			<b>4,805</b>
Total N <sup>2</sup>	tonnes	420	31			<b>452</b>
Total P <sup>2</sup>	tonnes	61	1			<b>62</b>
<b>Wastes</b>						
Total non-hazardous wastes	tonnes	521,036	40,290	6,862	6,758	<b>574,946</b>
Landfill	tonnes	224,868	4,516	568	718	<b>230,670</b>
Recovery	tonnes	295,044	26,354	5,838	6,025	<b>333,261</b>
Other	tonnes	1,123	9,421	456	15	<b>11,015</b>
Hazardous wastes	tonnes	3,985	3,494	463	2	<b>7,944</b>

### 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 2019

### Operations Total, The Americas

		Paper and Board Mills	Other Operations	Total Operations
<b>Production</b>	<b>ktonnes</b>	<b>1,617</b>	<b>3,392</b>	
<b>Energy</b>				
<b>Electricity</b>				
Co-generated	GWh	332	–	<b>332</b>
Self-generated	GWh	0	0	<b>1</b>
Hydro power	GWh	–	–	<b>–</b>
Net grid supply	GWh	646	207	<b>853</b>
Total electricity	GWh	978	208	<b>1,185</b>
<b>Fuel usage</b>				
Biofuels	TJ	6,958	221	<b>7,179</b>
Fossil fuels	TJ	11,658	1,564	<b>13,222</b>
Total fuels	TJ	18,616	1,785	<b>20,401</b>
<b>Water withdrawal</b>				
Surface	Mm <sup>3</sup>	24.5	0.1	<b>24.6</b>
Ground	Mm <sup>3</sup>	3.2	0.3	<b>3.5</b>
Grid	Mm <sup>3</sup>	1.2	0.4	<b>1.6</b>
Total water <sup>1</sup>	Mm <sup>3</sup>	29.2	0.8	<b>30.0</b>
<b>Discharges</b>				
<b>To air</b>				
CO <sub>2</sub> fossil direct	ktonnes	787	98	<b>885</b>
CO <sub>2</sub> fossil indirect	ktonnes	193	71	<b>264</b>
CO <sub>2</sub> biogenic	ktonnes	676	23	<b>700</b>
Dust	tonnes	198	3	<b>201</b>
NO <sub>x</sub> as NO <sub>2</sub>	tonnes	1,363	38	<b>1,401</b>
SO <sub>x</sub> as SO <sub>2</sub>	tonnes	1,451	39	<b>1,490</b>
<b>To water</b>				
Process water	Mm <sup>3</sup>	26.4	0.1	<b>26.5</b>
Cooling water	Mm <sup>3</sup>	0.28	0.00	<b>0.28</b>
COD <sup>2</sup>	tonnes	16,132	58	<b>16,190</b>
BOD <sup>2</sup>	tonnes	5,674	21	<b>5,695</b>
Total suspended solids <sup>2</sup>	tonnes	3,063	30	<b>3,093</b>
Total N <sup>2</sup>	tonnes	506.8	1.1	<b>507.9</b>
Total P <sup>2</sup>	tonnes	45.3	0.2	<b>45.4</b>
<b>Wastes</b>				
Total non-hazardous wastes	tonnes	299,515	28,708	<b>328,224</b>
Landfill	tonnes	286,616	21,993	<b>308,609</b>
Recovery	tonnes	10,629	6,397	<b>17,026</b>
Other	tonnes	2,271	318	<b>2,589</b>
Hazardous wastes	tonnes	383	1,328	<b>1,712</b>

## Notes

- Total water includes rainwater and waste water from another organisation.
- Sum of available data (for mills details are reported in individual tables).



# Environmental Data 2019

## Total Group Operations

		All Operations				
		2019	2018	2017	2016	2015
<b>Energy</b>						
<b>Electricity</b>						
Co-generated <sup>1</sup>	GWh	<b>2,218</b>	2,282	2,413	2,297	2,239
Self-generated	GWh	<b>1</b>	8	15	33	26
Hydro power	GWh	<b>4</b>	4	4	5	6
Grid supply	GWh	<b>2,876</b>	2,356	2,344	2,422	2,379
Total electricity	GWh	<b>5,099</b>	4,650	4,778	4,757	4,651
<b>Fuel usage</b>						
Biofuels	TJ	<b>37,119</b>	36,580	37,158	36,014	35,232
Fossil fuels	TJ	<b>40,735</b>	40,469	43,623	43,802	42,715
Total fuels	TJ	<b>77,854</b>	77,049	80,781	79,816	77,948
<b>Water withdrawal</b>						
Surface	Mm <sup>3</sup>	<b>114.2</b>	99.1	101.0	102.2	100.8
Ground	Mm <sup>3</sup>	<b>16.7</b>	10.9	12.7	13.7	14.2
Grid	Mm <sup>3</sup>	<b>3.9</b>	3.9	4.2	4.0	3.8
Total water <sup>2</sup>	Mm <sup>3</sup>	<b>137.1</b>	115.3	119.5	121.2	120.1
<b>Discharges</b>						
<b>To air</b>						
CO <sub>2</sub> fossil direct	ktonnes	<b>2,513</b>	2,489	2,670	2,684	2,607
CO <sub>2</sub> fossil indirect	ktonnes	<b>808</b>	652	647	691	678
CO <sub>2</sub> biogenic	ktonnes	<b>4,066</b>	3,944	4,038	3,936	3,764
Dust	tonnes	<b>596</b>	631	666	590	442
NO <sub>x</sub> as NO <sub>2</sub>	tonnes	<b>4,971</b>	5,072	5,385	5,313	5,239
SO <sub>x</sub> as SO <sub>2</sub>	tonnes	<b>2,237</b>	2,694	2,569	3,034	2,951
<b>To water</b>						
Process water	Mm <sup>3</sup>	<b>76.2</b>	74.0	76.4	77.1	79.1
Cooling water	Mm <sup>3</sup>	<b>49.2</b>	29.7	30.2	33.9	31.5
COD*	tonnes	<b>42,015</b>	41,316	40,425	41,794	37,690
BOD*	tonnes	<b>17,449</b>	15,022	14,988	14,326	14,072
Total suspended solids*	tonnes	<b>7,898</b>	8,004	8,756	8,596	9,205
Total N*	tonnes	<b>960</b>	1,228	1,374	983	877
Total P*	tonnes	<b>107</b>	224	89	126	139
<b>Wastes</b>						
Total non-hazardous wastes	tonnes	<b>903,341</b>	853,599	851,241	847,521	825,844
Landfill	tonnes	<b>539,450</b>	519,000	504,522	487,186	450,914
Recovery	tonnes	<b>350,287</b>	323,045	325,585	347,328	367,754
Other	tonnes	<b>13,604</b>	11,553	21,133	13,007	7,175
Hazardous wastes	tonnes	<b>9,655</b>	10,614	8,242	6,826	7,112

### Notes

1 CHP partly or totally outsourced.

2 Total water includes rainwater and waste water from another organisation.

\* Sum of available data (for mills details are reported in individual tables).

## 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	OHSAS 18001	ISO 45001	EN 15593	FSSC 22000	ISO 50001	FSC	PEFC	SFI
<b>Europe</b>											
<b>Wood sourcing</b>											
ES	Central Forestal			YES					YES	YES	
FR	Comptoir du Pin d'Aquitaine			YES					YES	YES	
<b>Virgin mills</b>											
AT	Nettingsdorf	YES	YES		YES	YES			YES	YES	
ES	Nervión	YES	YES		YES	YES		YES	YES	YES	
ES	Sangüesa	YES	YES	YES		YES			YES	YES	
FR	Cellulose du Pin	YES	YES	YES		YES			YES	YES	
SE	Piteå	YES	YES	YES			YES	YES	YES	YES	
<b>Recycled mills</b>											
CZ	Morava	YES	YES	YES		YES		YES	YES	YES	
ES	Mengibar	YES	YES	YES		YES			YES	YES	
FR	Alfa D'Avignon	YES	YES			YES			YES	YES	
	Rethel	YES	YES			YES			YES	YES	
	Saillat	YES	YES	YES		YES		YES	YES	YES	
DE	Wrexen <sup>1</sup>	YES	YES	YES		YES		YES	YES	YES	
	Herzberger	YES	YES	YES		YES		YES	YES	YES	
	Hoya <sup>1</sup>	YES	YES	YES		YES		YES	YES	YES	
	Zülpich	YES	YES	YES		YES		YES	YES	YES	
IT	Ania	YES	YES	YES		YES			YES	YES	
NL	Parenco		YES					YES	YES	YES	
	Roermond	YES	YES		YES	YES		YES	YES	YES	
UK	SSK	YES	YES	YES		YES		YES	YES	YES	
	Townsend Hook	YES	YES	YES		YES		YES	YES	YES	
<b>The Americas</b>											
<b>Forestry</b>											
CO	Colombian Forest								YES		
<b>Virgin mills</b>											
CO	Cali		YES						YES		
<b>Recycled mills</b>											
AR	Bernal		YES					YES	YES		
	Coronel Suárez		YES						YES		
BR	Bento	YES							YES		
	Pirapetinga	YES							YES		
	Uberaba	YES							YES		
CO	Barbosa		YES						YES		
	Barranquilla		YES						YES		
ME	Cerro Gordo	YES	YES						YES		
	Los Reyes	YES	YES						YES		
	Monterrey	YES	YES						YES		
USA	Forney		YES		YES				YES	YES	YES

Note

<sup>1</sup> Both Hoya and Wrexen consist of two mills on one site, data are aggregated data per site.

## Social Data

### Social Citizenship and Health and Safety

	2019	2018	2017	2016	2015
<b>Social citizenship (full time employees)</b>					
Total number of employees <sup>1</sup>	<b>46,237</b>	44,959	46,418	45,314	44,599
of whom female (%) <sup>2</sup>	<b>19%</b>	19%	19%	18%	17%
Employees leaving the company <sup>3</sup>	<b>4,842</b>	6,224	1,666	1,687	1,971
of whom resignation and retirement (%)	<b>64%</b>	58%	74%	64%	62%
Employees joining the company <sup>3</sup>	<b>5,038</b>	6,675	2,318	2,054	2,217
Age distribution (%)					
<20 years	<b>1%</b>	1%	1%	1%	1%
21-30 years	<b>17%</b>	17%	17%	17%	17%
31-40 years	<b>24%</b>	24%	25%	25%	25%
41-50 years	<b>28%</b>	28%	29%	29%	30%
51-60 years	<b>25%</b>	25%	24%	24%	23%
>60 years	<b>5%</b>	5%	4%	4%	4%
Employees turnover (%)	<b>11.7%</b>	15.5%	4.0%	4.1%	4.9%
Length of service, above 11 years (%)	<b>48%</b>	49%	49%	50%	50%
Female in management (%)	<b>21%</b>	19%	20%	19%	17%
Parental leave	<b>1,178 employees took parental leave and 1,028 returned from parental leave</b>	1,260 employees took parental leave and 1,126 returned from parental leave	1,095 employees took parental leave and 733 returned from parental leave	490 employees took parental leave and 401 returned from parental leave	
Average training hours per employee	<b>22</b>	24	26	20	22
<b>Health and safety</b>					
Lost time accidents (LTA)	<b>325</b>	321	327	352	364
Contractor lost time accidents (CLTA)	<b>46</b>	48	30	45	62
Days lost due to accidents (DLA)	<b>11,177</b>	10,683	11,711	11,166	9,924
Accident severity rate (ASR) (%)	<b>13.15%</b>	12.65%	13.88%	13.43%	13%
Frequency rate (FR)*	<b>0.38</b>	0.38	0.39	0.42	0.47
Total Recordable Injury Rate <sup>4</sup>	<b>0.84</b>	1.01			
Number of Restricted Workday Cases (RWC) (SK Employees) <sup>5</sup>	<b>135</b>				
Number of Medical Treatment Cases (MTC) (SK Employees) <sup>5</sup>	<b>253</b>				
Total Recordable Injuries (LTA/RWC/MTC) <sup>5</sup>	<b>713</b>				
<b>Fatalities</b>					
Own employees	<b>0</b>	0	2	1	0
(Sub) contractors	<b>3</b>	0	0	1	1

#### 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.

## Sourcing Data

### Sourcing and Sustainable Fibre Data

	2019	2018	2017	2016	2015
<b>Sourcing data</b>					
<b>Number of audits</b>					
Preferred and Multinational suppliers	<b>37</b>	32	55	47	53
Regional and Local suppliers	<b>75</b>	41	40	28	39
<b>Satisfactory scores</b>					
Preferred and Multinational suppliers	<b>34</b>	31	46	46	48
Regional and Local suppliers	<b>60</b>	28	33	21	29
<b>Sustainable fibre</b>					
Wood supplied from certified forests <sup>1</sup>	<b>58%</b>	55%	57%	59%	56%
Wood supplied from non-controversial sources <sup>1</sup>	<b>42%</b>	45%	43%	41%	44%
Paper produced as certified <sup>1</sup>	<b>93%</b>	91%	91%	91%	93%
Packaging sold as certified <sup>1</sup>	<b>92.1%</b>	88.4%	88.0%	74.0%	74.0%
External papers purchased as certified <sup>1</sup>	<b>98.9%</b>	99.5%	98.5%	<sup>2</sup>	<sup>2</sup>
Recycled fibres in global production	<b>75.8%</b>	74.5%	74.4%	74.0%	74.2%

Notes

1 Either FSC, PEFC or SFI.

2 Data not assured.



# 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 2019, and also includes some information for early 2020, where mentioned specifically.

### Acquisitions in 2019

In January, the Group completed the acquisition of the FHB containerboard mill and Avala Ada corrugated plant in Serbia. In March, our geographic footprint in the Balkan region was further strengthened by the acquisition of a corrugated plant in Bulgaria. In April, we completed the acquisition of a second corrugated plant in Bulgaria.

Environmental data on the acquired sites is not included in the 2019 data presented in this report. The acquisitions do not significantly impact our targets that are being measured on specific volume performance.

Smurfit Kappa applies a two-year integration process to the acquired operations. The new operations have to put in place third-party certified management systems as required by the Group within this period. The operations start to report about these systems immediately after their certification. This process has the greatest effect on the certified Chain of Custody related reporting.

### Acquisitions and Divestments in 2020

There have been no acquisitions and/or divestments during 2020 until the date of this report.

### Topics, Issues and Targets

Smurfit Kappa 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 data from all its manufacturing operations that were operational at the end of 2019, with the exception of the sites acquired in 2019.

Our targets are measured against produced tonnes of paper rather than absolute values as the Group is in dynamic growth mode, and also subject to opening and closing facilities. Other information is reported in absolute figures, unless otherwise stated.

During 2019, the impact from green electricity certificates was included in our Scope 2 CO<sub>2</sub> emission reporting. Apart from this, no significant changes in the scope, boundary and measurement methods were applied to the report compared with previous years.

The reporting of employee and Health and Safety data reflects the situation at the end of 2019.

### Reporting Guidelines, Data Collection

This report has been prepared in accordance with the GRI Standards: Comprehensive option.

Among the various references used for the development and identification of baseline data included in this report are the GRI Standards issued by the Global Reporting Initiative (GRI). 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.

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. As the information is stored centrally, this allows for easier and faster processing.

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. CO<sub>2</sub> emission calculations have been based on established fuel consumption and specific CO<sub>2</sub> emission factors. Definitions and calculations for the performance indicators can be found in the glossary on pages 94-99.

Ongoing initiatives continue to further standardise the data gathering system at Smurfit Kappa to improve data quality and consistency in the use of Group definitions and scope requirements of our key indicators.

We appointed an external assurance provider, KPMG, to provide limited assurance on the data and the text of the report. KPMG's assurance report can be found on page 100.



## GRI Index

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
<b>Category: general disclosures</b>				
<b>GRI 102: general standard disclosures</b>				
<b>Organisational profile</b>				
GRI 102	GRI 102:1	Name of the organisation	SDR	Cover
GRI 102	GRI 102:2	Activities, brands, products, and services	SDR	2-3
GRI 102	GRI 102:3	Location of headquarters	SDR	back cover
GRI 102	GRI 102:4	Location of operations	SDR/AR	2-3/4-5
GRI 102	GRI 102:5	Ownership and legal form	AR	54-83
GRI 102	GRI 102:6	Markets served	Website/SDR	2-3
GRI 102	GRI 102:7	Scale of the organisation	SDR/AR	2-3/2-5
GRI 102	GRI 102:8	Information on employees and other workers	SDR/AR	42-59, 82, 86/46-53
GRI 102	GRI 102:9	Supply chain	SDR	62-63, 67-69, 83
GRI 102	GRI 102:10	Significant changes to the organisation and its supply chain	SDR/AR	86/158-159
GRI 102	GRI 102:11	Precautionary Principle or approach	AR	30-33, 57
GRI 102	GRI 102:12	External initiatives	SDR	7, 62-64, 66-67
GRI 102	GRI 102:13	Membership of associations	SDR	7, 66-67
<b>Strategy</b>				
GRI 102	GRI 102:14	Statement from senior decision-maker	SDR	8-9
GRI 102	GRI 102:15	Key impacts, risks and opportunities	SDR	4-7, 20-69
<b>Ethics and integrity</b>				
GRI 102	GRI 102:16	Values, principles, standards and norms of behaviour	SDR/AR	66-67/59-61
GRI 102	GRI 102:17	Mechanisms for advice and concerns about ethics	SDR/Website: Whistleblower policy/AR	66-67/53
<b>Governance</b>				
GRI 102	GRI 102:18	Governance structure	AR	54-83
GRI 102	GRI 102:19	Delegating authority	SDR	66-67
GRI 102	GRI 102:20	Executive-level responsibility for economic, environmental, and social topics	SDR	66
GRI 102	GRI 102:21	Consulting stakeholders on economic, environmental, and social topics	SDR/AR	10-11/38-39
GRI 102	GRI 102:22	Composition of the highest governance body and its committees	AR	54-83
GRI 102	GRI 102:23	Chair of the highest governance body	AR	54-56
GRI 102	GRI 102:24	Nominating and selecting the highest governance body	AR	54-83
GRI 102	GRI 102:25	Conflicts of interest	AR	57-58
GRI 102	GRI 102:26	Role of highest governance body in setting purpose, values, and strategy	AR	54-83
GRI 102	GRI 102:27	Collective knowledge of highest governance body	AR	58-59
GRI 102	GRI 102:28	Evaluating the highest governance body's performance	AR	59
GRI 102	GRI 102:29	Identifying and managing economic, environmental, and social impacts	SDR	12-13, 66
GRI 102	GRI 102:30	Effectiveness of risk management processes	AR	30-33
GRI 102	GRI 102:31	Review of economic, environmental, and social topics	AR	42-45
GRI 102	GRI 102:32	Highest governance body's role in sustainability reporting	SDR/AR/WEBSITE	66/57, 80
GRI 102	GRI 102:33	Communicating critical concerns	SDR/AR	66/57-61
GRI 102	GRI 102:34	Nature and total number of critical concerns	SDR	66-67
GRI 102	GRI 102:35	Remuneration policies	AR	65-67
GRI 102	GRI 102:36	Process for determining remuneration	AR	65-67
GRI 102	GRI 102:37	Stakeholders' involvement in remuneration	AR	65
GRI 102	GRI 102:38	Annual total compensation ratio	AR	65-67
GRI 102	GRI 102:39	Percentage increase in annual total compensation ratio	AR	72-73



## GRI Index continued

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
<b>Stakeholder engagement</b>				
GRI 102	GRI 102:40	List of stakeholder groups	SDR/AR	10-11/38-39
GRI 102	GRI 102:41	Collective bargaining agreements	SDR	46
GRI 102	GRI 102:42	Identifying and selecting stakeholders	SDR/AR	10-11/38-39
GRI 102	GRI 102:43	Approach to stakeholder engagement	SDR/AR	10-11/38-39
GRI 102	GRI 102:44	Key topics and concerns raised	SDR	13, 21-22, 43-44, 61-62
<b>Reporting practices</b>				
GRI 102	GRI 102:45	Entities included in the consolidated financial statements	AR	159-160
GRI 102	GRI 102:46	Defining report content and topic boundaries	SDR	13, 21-22, 43-44, 61-62, 86
GRI 102	GRI 102:47	List of material topics	SDR	12-13
GRI 102	GRI 102:48	Restatements of information	SDR	86
GRI 102	GRI 102:49	Changes in reporting	SDR	86
GRI 102	GRI 102:50	Reporting period	SDR	This report covers the period 2019
GRI 102	GRI 102:51	Date of most recent report	SDR	Published: 16 May 2019
GRI 102	GRI 102:52	Reporting cycle	SDR	Annual, 86
GRI 102	GRI 102:53	Contact point for questions regarding the report	SDR	Back cover
GRI 102	GRI 102:54	Claims of reporting in accordance with the GRI Standards	SDR	86
GRI 102	GRI 102:55	GRI content index	SDR	87-91
GRI 102	GRI 102:56	External assurance	SDR	100-101
<b>GRI 103: management approach</b>				
<b>Reporting practices</b>				
GRI 103	GRI 103:1	Explanation of the material topic and its boundary	SDR	21-22, 43-44, 61-62
GRI 103	GRI 103:2	The management approach and its components	SDR/AR	66/80
GRI 103	GRI 103:3	Evaluation of the management approach	SDR/AR	66/80
<b>Category: economic</b>				
<b>GRI 201: economic performance</b>				
GRI 201	GRI 201:1	Direct economic value generated and distributed	AR	4-5
GRI 201	GRI 201:2	Financial implications and other risks and opportunities due to climate change	SDR/AR	23-24/30-33
GRI 201	GRI 201:3	Defined benefit plan obligations and other retirement plans	SDR/AR	52, 66-67/130-135
GRI 201	GRI 201:4	Financial assistance received from government	SDR	67
<b>GRI 202: market presence</b>				
GRI 202	GRI 202:1	Ratios of standard entry-level wage by gender compared with local minimum wage	SDR	52
GRI 202	GRI 202:2	Proportion of senior management hired from the local community	SDR	46
<b>GRI 203: indirect economics impacts</b>				
GRI 203	GRI 203:1	Infrastructure investments and services supported	AR	95-96, 139
GRI 203	GRI 203:2	Significant indirect economic impacts	AR	30-33
<b>GRI 204: procurement practices</b>				
GRI 204	GRI 204:1	Proportion of spending on local suppliers	SDR	68-69
<b>GRI 205: anti-corruption</b>				
GRI 205	GRI 205:1	Operations assessed for risks related to corruption	AR	43
GRI 205	GRI 205:2	Communication and training about anti-corruption policies and procedures	SDR/AR	66/43
GRI 205	GRI 205:3	Confirmed incidents of corruption and actions taken	SDR	67

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
<b>GRI 206: anti-competitive behaviour</b>				
GRI 206	GRI 206:1	Legal actions for anti-competitive behaviour, anti-trust and monopoly practices	SDR/AR	66/33
<b>Category: environmental</b>				
<b>GRI 301: materials</b>				
GRI 301	GRI 301:1	Materials used by weight or volume	SDR	72-73
GRI 301	GRI 301:2	Recycled input materials used	SDR	30, 72-73
GRI 301	GRI 301:3	Reclaimed products and their packaging materials	SDR	N/A SK produces packaging materials for other industries
<b>GRI 302: energy</b>				
GRI 302	GRI 302:1	Energy consumption within the organisation	SDR	26-29, 80
GRI 302	GRI 302:2	Energy consumption outside of the organisation	SDR	29, 80
GRI 302	GRI 302:3	Energy intensity	SDR	27, 74-77
GRI 302	GRI 302:4	Reduction of energy consumption	SDR	26-27, 74-77
GRI 302	GRI 302:5	Reductions in energy requirements of products and services	SDR	27, 62-65
<b>GRI 303: water</b>				
GRI 303	GRI 303:1	Interactions with water as a shared resource	SDR	34-36
GRI 303	GRI 303:2	Management of water discharge-related impacts	SDR	21-22, 34-36
GRI 303	GRI 303:3	Water withdrawal	SDR	35, 74-77
GRI 303	GRI 303:4	Water discharge	SDR	36, 74-77
GRI 303	GRI 303:5	Water consumption	SDR	34-36, 74-77
<b>GRI 304: biodiversity</b>				
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	Website	
GRI 303	GRI 304:2	Significant impacts of activities, products, and services on biodiversity	SDR	31
GRI 303	GRI 304:3	Habitats protected or restored	SDR/Website	31
GRI 303	GRI 304:4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	SDR/Website	31
<b>GRI 305: emissions</b>				
GRI 305	GRI 305:1	Direct (Scope 1) GHG emissions	SDR	28-29, 72-77
GRI 305	GRI 305:2	Energy indirect (Scope 2) GHG emissions	SDR	72-77
GRI 305	GRI 305:3	Other indirect (Scope 3) GHG emissions	SDR	29
GRI 305	GRI 305:4	GHG emissions intensity	SDR	6, 9, 21, 27
GRI 305	GRI 305:5	Reduction of GHG emissions	SDR	28-29, 72-77
GRI 305	GRI 305:6	Emissions of ozone-depleting substances (ODS)	SDR	SO <sub>x</sub> , NO <sub>x</sub> , 74-77
GRI 305	GRI 305:7	Nitrogen oxides (NO <sub>x</sub> ), sulphur oxides (SO <sub>x</sub> ), and other significant air emissions	SDR	74-77
<b>GRI 306: effluents and waste</b>				
GRI 306	GRI 306:1	Water discharge by quality and destination	SDR	74-77
GRI 306	GRI 306:2	Waste by type and disposal method	SDR	74-77
GRI 306	GRI 306:3	Significant spills	SDR	No significant spills in 2019
GRI 306	GRI 306:4	Transport of hazardous waste	SDR	74-77
GRI 306	GRI 306:5	Water bodies affected by water discharges and/or runoff	Website	
<b>GRI 307: environmental compliance</b>				
GRI 307	GRI 307:1	Non-compliance with environmental laws and regulations	SDR	66

## GRI Index continued

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
<b>GRI 308: supplier environmental assessment</b>				
GRI 308	GRI 308:1	New suppliers that were screened using environmental criteria	SDR	68-69, 83
GRI 308	GRI 308:2	Negative environmental impacts in the supply chain and actions taken	SDR	68-69, 83
<b>Category: social</b>				
<b>GRI 401: employment</b>				
GRI 401	GRI 401:1	New employee hires and employee turnover	SDR	82
GRI 401	GRI 401:2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	SDR	46, 51-52
GRI 401	GRI 401:3	Parental leave	SDR	82
<b>GRI 402: labour/management relations</b>				
GRI 402	GRI 402:1	Minimum notice periods regarding operational changes	SDR	46
<b>GRI 403: occupational health and safety</b>				
GRI 403	GRI 403:1	Occupational health and safety management system	SDR	54-55
GRI 403	GRI 403:2	Hazard identification, risk assessment, and incident investigation	SDR	54-55, 82
GRI 403	GRI 403:3	Occupational health services	SDR	54-55
GRI 403	GRI 403:4	Worker participation, consultation, and communication on occupational health and safety	SDR	46, 54-55
GRI 403	GRI 403:5	Worker training on occupational health and safety	SDR	54-55
GRI 403	GRI 403:6	Promotion of worker health	SDR	54-55
GRI 403	GRI 403:7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	SDR	54-55
GRI 403	GRI 403:8	Workers covered by an occupational health and safety management system	SDR	54-55
GRI 403	GRI 403:9	Work-related injuries	SDR	54-55, 82
GRI 403	GRI 403:10	Work-related ill health	SDR	54-55, 82
<b>GRI 404: training and education</b>				
GRI 404	GRI 404:1	Average hours of training per year per employee	SDR	82
GRI 404	GRI 404:2	Programmes for upgrading employee skills and transition assistance programs	SDR	45, 48, 51-52
GRI 404	GRI 404:3	Percentage of employees receiving regular performance and career development reviews	SDR	45, 48, 51
<b>GRI 405: diversity and equal opportunity</b>				
GRI 405	GRI 405:1	Diversity of governance bodies and employees	SDR/AR	45, 50/79
GRI 405	GRI 405:2	Ratio of basic salary and remuneration of women to men	SDR	51-52
<b>GRI 406: non-discrimination</b>				
GRI 406	GRI 406:1	Incidents of discrimination and corrective actions taken	SDR	46, 50, 52, 66-67
<b>GRI 407: freedom of association and collective bargaining</b>				
GRI 407	GRI 407:1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	SDR	46, 66-69
<b>GRI 408: child labour</b>				
GRI 408	GRI 408:1	Operations and suppliers at significant risk for incidents of child labour	SDR	46, 66, 68-69
<b>GRI 409: forced or compulsory labour</b>				
GRI 409	GRI 409:1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	SDR	46, 68-69

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
<b>GRI 410: security practices</b>				
GRI 410	GRI 410:1	Security personnel trained in human rights policies or procedures	N/A	
<b>GRI 411: rights of indigenous peoples</b>				
GRI 411	GRI 411:1	Incidents of violations involving rights of indigenous peoples	SDR	No incidents were recorded in 2019
<b>GRI 412: human rights assessment</b>				
GRI 412	GRI 412:1	Operations that have been subject to human rights reviews or impact assessments	SDR	46
GRI 412	GRI 412:2	Employee training on human rights policies or procedures	SDR	SDR 2014 p 26
GRI 412	GRI 412:3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	SDR	46
<b>GRI 413: local communities</b>				
GRI 413	GRI 413:1	Operations with local community engagement, impact assessments and development programmes	SDR	10-11, 56
GRI 413	GRI 413:2	Operations with significant actual and potential negative impacts on local communities	SDR	10-11, 56
<b>GRI 414: supplier social assessment</b>				
GRI 414	GRI 414:1	New suppliers that were screened using social criteria	SDR	68-69
GRI 414	GRI 414:2	Negative social impacts in the supply chain and actions taken	SDR	62-63, 68-69, 83
<b>GRI 415: public policy</b>				
GRI 415	GRI 415:1	Political contributions	SDR	66-67
<b>GRI 416: customer health and safety</b>				
GRI 416	GRI 416:1	Assessment of the health and safety impacts of product and service categories	SDR	67
GRI 416	GRI 416:2	Incidents of non-compliance concerning the health and safety impacts of products and services	SDR	67
<b>GRI 417: marketing and labelling</b>				
GRI 417	GRI 417:1	Requirements for product and service information and labelling	SDR	N/A*
GRI 417	GRI 417:2	Incidents of non-compliance concerning product and service information and labelling	SDR	N/A*
GRI 417	GRI 417:3	Incidents of non-compliance concerning marketing communications	SDR	66-69
<b>GRI 418: customer privacy</b>				
GRI 418	GRI 418:1	Substantiated complaints concerning breaches of customer privacy and losses of customer data		No substantiated complains identified
<b>GRI 419: socioeconomic compliance</b>				
GRI 419	GRI 419:1	Non-compliance with laws and regulations in the social and economic area	SDR	66-67

\* Our products are business-to-business and in general no such information is required.



## Business in the Community, Ireland

*Delivering a Better Tomorrow* is the 13th Annual Sustainable Development Report produced by Smurfit Kappa Group (SKG), a leading global provider of paper-based packaging solutions. SKG operates in 35 countries with 46,000 employees on over 350 production sites and with revenue of €9 billion in 2019.

The ambition of this company is bold – to be *the most sustainable company* in paper-based packaging. The *purpose* of Smurfit Kappa Group is clearly articulated front and centre – to meet the needs of customers, generate superior returns for shareholders, invest in their people, the communities in which they operate and the environment.

We noted that Smurfit Kappa's Board of Directors formed a Sustainability Board Committee in 2019 to drive, guide and monitor the company's sustainability strategy. According to the Group CEO, climate change, resource efficiency, human rights, safety and wellbeing, training and development, diversity and inclusiveness are major global issues and Smurfit Kappa Group "are well placed to be part of the solution to these long-term sustainability challenges".

The processes of Stakeholder Engagement & Assessing Materiality are taken seriously, as evidenced by the continued, multi-level engagement with customers, investors, employees, communities, suppliers and industry organisations such as the World Business Council for Sustainable Development. The primary objective of ongoing and thorough consultation is "to ensure the continued delivery of innovative and ever-increasing circular solutions for customers, adding value across the full value chain".

For SKG, continued sustainable growth is based on the three pillars of Planet, People & Business. The UN 2030 Sustainable Development Goals (SDGs) provide the foundation of the company's approach to sustainability. The report highlights the instances where the company has set measurable targets, contributes to, or supports A Greener, Bluer Planet, being recognised as an Employer of Choice and operating as an Impactful Business.

### A Greener, Bluer Planet

75% of Smurfit Kappa's raw material is recycled fibre, the remaining 25% coming from sustainably-managed forests through Chain of Custody certified supply chains.

We note that 92% of packaging solutions delivered to customers were Chain of Custody certified – providing assurance about the sustainable origin of the raw material used, traceability and proof of resource efficiency – enabling end to end transparency across the supply chain. The full value of this Certification process is articulated well by employees on page 32.

In 2019, SKG achieved a reduction of 35% in the water discharge chemical oxygen demand (COD) following significant investment in best practice water treatment. A 7% reduction was achieved in the amount of waste sent to landfill. We enjoyed reading about the clever low budget solution to reclaim over 36 tonnes of ink per year (as well as reducing monthly waste from the plant by three tonnes).

Over 50% of SKG consumed energy is from renewable sources. In 2019, the company reduced their fossil CO<sub>2</sub> emission intensity by 32.9% on 2005 figures. Key to this achievement was the investment in efficient CHP energy production at two key paper mills, supported by new boilers. With all of the work underway to reduce GHG emissions, SKG should frame their low carbon ambitions in line with Science Based Targets.

We are interested in the commitment of Smurfit Kappa to biodiversity and ecosystems conservation and as awareness of the intrinsic importance of this activity is growing globally, we recommend further detail is given in the next report about the work being undertaken to preserve watersheds and habitats.

### An Employer of Choice

Regarding safety in 2019, SKG achieved a commendable reduction of 17% in the Total Recordable Injury Rate in comparison to 2018.

With Diversity & Inclusion as a specific area of focus, we note SKG increased the numbers of females employed from 16% to 19% across the group, and from 16% to 21% in key managerial roles. The employee workforce with disabilities was at 2%. It is important that these figures continue moving in an upward trajectory and that targets are set on various inclusion and diversity dimensions to demonstrate the impact of the People strategy.

We noted the launch of the 24/7/365 Speak Up platform to enable employees, and any third party, to confidentially report an issue or instance of wrongdoing; and alongside this, the Code of Business Conduct was merged with the Good Faith Reporting Policy & Whistleblower Code to make one single policy. We encourage further disclosure of examples of the promotion and awareness of staff and contractors of the Speak Up platform and the single policy and to provide data on instances reported and remedial action in place.

It is stimulating to learn how the sharing of innovative practices are encouraged across employee teams, most recently via the company's 2019 Innovation Awards. The Case Study on the tool of the Human Library, used as part of the 2019 UK Management Conference, to build tolerance and understanding is fascinating. We were inspired by the Smurfit Kappa UK Mental Health & Well-Being Strategy launched in April 2019 with 195 colleagues trained as Mental Health First Aiders and hope this will extend to other countries and divisions within the Group.

Employee Engagement is a core tenet of the SKG People Strategy 2020-2023 and we look forward to hearing more about the various initiatives being rolled-out as part of this and the impact of the social investment of the company.

We noted that the UK Smurfit Kappa business has recently published a Gender Pay Gap Report as required by legislation there. We recommend this is done across all geographies so as to further enforce the commitment in place to gender pay equity.

### An Impactful Business

SKG's products are distinctive in that they fully support the circular economy by being renewable, recyclable and biodegradable while improving customer environmental footprints and efficiencies.

We welcome the inclusion of an array of case studies and examples of packaging solutions that meet customer needs such as that provided for Topro, a producer of mobility aid products. The paper-based tapered box specifically designed by SKG, allows better pallet fill of 180 more products per truck, reducing Topro logistic costs by 40% and enabling their packaging line to be 100% automated.

SKG are well placed to seize arising market opportunities to design alternatives to plastic and other unsustainable solutions such as the BanaBag, a substitute for plastic bagging now used on Colombian banana farms and resulting in the removal of more than 43 tonnes of plastic.

The SKG InnoTools suite of design software is able to show customers the carbon footprint for each packaging unit and track its development over time. We recommend focusing even more on this aspect in the next report.

In 2019, SKG spent €5.3 billion on raw materials, energy, transportation, maintenance/repair and investment goods. As a consequence, sourcing sustainably is of paramount importance. The company draws on the services provided by Sedex and Ecovadis and also carries out onsite audits, with follow-up programmes established on a supplier by supplier basis. We would be interested in learning more about the work being done with individual suppliers to support them to improve their performance.

Annual global sustainable sourcing seminars are run to train and update sourcing managers, followed by in-depth trainings for local sourcing teams. It is an example of leadership that multinational and preferred suppliers are asked to support SDGs where they are material to their business such as SDG 15 (Forest); SDGs 13 & 7 (Climate Change); SDG 12 (Waste); SDG 6 (Water); and SDG 3 (People).

The importance SKG places on community engagement and collaboration is illustrated by the SK Morava paper mill in the Czech Republic, where the mill has joined forces with the village municipality to treat the waste water of the mill and the village at the same time, in an operation that creates efficiencies for both parties.

Similarly, the Pitea mill in Sweden has a partnership with the local energy corporation where excess sustainable green energy from the plant supplies 95% of district heating that includes 3,800 buildings, three indoor swimming pools and de-ices the main pedestrian street.

Finally, in relation to investor engagement, we would like SKG to share data on how sustainability and the company's strategy influences investor choice and how membership of key sustainable investment indices positions the company as a leader.

### Leadership in Innovation

In 2019, SKG's leadership in innovation was recognised with 63 national or international awards for packaging innovation, sustainability, design and print and was included in the Solactive ISS ESG Beyond Plastic Waste Index which recognises companies active in the reduction of plastic pollution.

Smurfit Kappa Group's commitment to sustainability is clearly conveyed in this report, with the steady achievement of continuous positive progress, illustrated well by the narrative and accompanied by detailed data. For some years now, the company has been reporting in accordance with the Global Reporting Initiative (GRI) Guidelines (Comprehensive), with external assurance provided by KPMG.

In order to add a more forward looking dimension, we recommend including at the end of the report, a summary of the key objectives and targets for the focus areas of the business for the coming year.

It is evident that the major sustainability challenges we face, the transition to a low carbon economy and meaningful social inclusion to tackle inequality can only be solved through leadership, collaboration and concerted effort. Business has to play a fundamental role in this transition and we sincerely hope to see SKG as a leader through its innovation and influence.

**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 87-91 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
<b>Human rights</b>	
1 Businesses should support and respect the protection of internationally proclaimed human rights; and	403:1,4; 405:1-2; 406:1; 407:1; 408:1; 409:1; 410:1; 411:1; 412:1-3; 414: 1-2; 418:1
2 Businesses should make sure that they are not complicit in human rights abuses.	406:1; 407:1; 408:1; 409:1; 410:1; 411:1; 412:1
<b>Labour</b>	
3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	402:1; 403:1,4
4 Businesses should uphold the elimination of all forms of forced and compulsory labour;	410:1
5 Businesses should uphold the effective abolition of child labour; and	409:1
6 Businesses should uphold the elimination of discrimination in respect of employment and occupation.	203:1; 401:2; 405:2; 407:1; 414:1-2
<b>Environment</b>	
7 Businesses are asked to support a precautionary approach to environmental challenges;	201:2; 305:4-5; 306:5
8 Businesses should undertake initiatives to promote greater environmental responsibility; and	301:1-2; 302:1-5; 303:1-5; 304:1-4; 305:1-7; 306:1-5; 307:1; 308:1-2; 417:1-2
9 Businesses should encourage the development and diffusion of environmentally friendly technologies.	301:2; 302:3-5; 303: 3-5; 305:4-5; 306:5
<b>Anti-corruption</b>	
10 Businesses should work against corruption in all its forms, including extortion and bribery.	205:1-2; 413:2



## Glossary

### Climate change, energy and air emissions

<b>Bioeconomy</b>	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.
<b>Bioenergy</b>	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.
<b>Biofuels</b>	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.
<b>Biomass</b>	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.
<b>Black liquor</b>	Residue from pulping containing organic compounds (such as lignin). This residue is burnt to produce energy and to recover the chemicals.
<b>By-product</b>	Secondary or incidental products deriving from manufacturing process and are not the primary product. A by-product can be marketable.
<b>Carbon dioxide equivalent CO<sub>2</sub>-eq</b>	A measure used to compare the emissions from various greenhouse gases based upon their climate change potential (CCP). The CO <sub>2</sub> -eq carbon dioxide equivalent for other emissions is derived by multiplying the amount of the emission by the associated CCP factor.
<b>Carbon footprint</b>	Carbon released to the atmosphere during the life cycle of a product from cradle to grave.
<b>CDP</b>	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. In 2015, nearly 5,500 businesses reported climate change data to CDP.
<b>CHP</b>	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.
<b>CHP (outsourced)</b>	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.
<b>Climate change</b>	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.
<b>Co-generated electricity</b>	Electricity generated by a CHP system belonging to Smurfit Kappa or from an outsourced CHP system.
<b>CO<sub>2</sub> biogenic</b>	Carbon dioxide emitted when burning biofuels. This CO <sub>2</sub> is considered to be carbon neutral as it is removed from the atmosphere and stored in biomass within a short period of time.
<b>CO<sub>2</sub> fossil</b>	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).
<b>CO<sub>2</sub> indirect</b>	Fossil carbon dioxide generated externally in the production of electricity purchased from the grid. Source: IEA CO <sub>2</sub> Emissions from Fuel Combustion, OECD/IEA, Paris, 2016.
<b>Energy efficiency</b>	Energy efficiency is the goal to reduce the amount of energy required to provide products and services.
<b>Energy Union</b>	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.
<b>European Union Emissions Trading System – EU ETS</b>	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. As of 2013, the EU ETS covers more than 11,000 large factories, power stations and other installations in 31 countries.
<b>Dust</b>	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.
<b>Fossil fuels</b>	Fuels originating from non-renewable resources (gas, oil, coal, peat and lignite).



## Glossary continued

<b>GHG emissions</b>	A greenhouse gas (GHG) is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, that 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.
<b>GJ</b>	Gigajoule, a unit of energy that generally applies to fuel. 1 gigajoule (GJ) = 1 billion joules = 10 <sup>9</sup> joules.
<b>Green electricity certificate</b>	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.
<b>Grid supply</b>	Electricity purchased from a national distribution network.
<b>GWh</b>	Unit of energy, generally applies to electricity. 1 GWh (GigaWatt hour) = 1 million kWh (kiloWatt hour).
<b>NO<sub>x</sub></b>	Mix of nitrogen oxides (NO and NO <sub>2</sub> ) calculated as NO <sub>2</sub> (nitrogen dioxide) coming from combustion of fuels. They can contribute to the acidification of soil and water. NO <sub>x</sub> emissions are measured mainly by the mills. Where NO <sub>x</sub> is not measured (converting plants), emissions are calculated from fuel consumption using the emission factors listed in the Ecoinvent database version 2.1.
<b>Paris Agreement</b>	Agreement within the framework of the United Nations Framework Convention on Climate Change dealing with greenhouse gases, emissions mitigation, adaptation and finance starting in the year 2020. An agreement on the language of the treaty was negotiated by representatives of 195 countries during COP21.
<b>Self-generated electricity</b>	Electricity generated by an electricity generator without recovery of steam.
<b>Sequestration</b>	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.
<b>SO<sub>x</sub></b>	Mix of sulphur oxides calculated as SO <sub>2</sub> coming from combustion of fuels. Sulphur dioxide contributes to the acidification of soil and water. SO <sub>x</sub> emissions are measured mainly by the mills. Where SO <sub>x</sub> is not measured (converting plants), emissions are calculated from fuel consumption using the emission factors listed in the Ecoinvent database version 2.1.
<b>PJ</b>	Petajoule, a unit of energy. 1 petajoule = 1,000 terajoules = 1,015 joules.
<b>TJ</b>	Terajoule, a unit of energy that generally applies to fuel. 1 terajoule = 1,000 gigajoules = 1,012 joules.
<b>21st Conference of the Parties – COP 21</b>	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.
<b>Organisations</b>	
<b>Asociación de Corrugadores del Caribe Centro y Sur América (ACCCSA)</b>	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.
<b>CEPI</b>	CEPI, the Confederation of European Paper Industries. It is a non-profit organisation representing the European pulp and paper industry.
<b>DJSI</b>	The Dow Jones Sustainability Index tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria.
<b>EcoVadis</b>	EcoVadis brings Buyers and Suppliers together to efficiently drive CSR & sustainability performance across 150 sectors and 120 countries to reduce risk and drive innovation in their supply chains.
<b>ELCD</b>	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).
<b>ERT</b>	The European Round Table of Industrialists (ERT) is a forum bringing together around 50 Chief Executives and Chairmen 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.
<b>ESG</b>	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.
<b>Ethibel</b>	The Ethibel Sustainability Index Excellence Europe lists 200 European companies that display the best performance in terms of corporate social responsibility.
<b>Euronext Vigeo</b>	The Euronext Vigeo indices comprise the highest-ranking listed companies as evaluated in terms of their performance in corporate social responsibility.
<b>FAO</b>	The Food and Agriculture Organization (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.
<b>FEFCO</b>	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.

<b>FTSE4Good</b>	The FTSE4Good Index series is designed to measure the performance of companies demonstrating strong environmental, social and governance practices.
<b>Global Reporting Initiative (GRI)</b>	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.
<b>ICCA</b>	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.
<b>ILO</b>	International Labour Organization (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.
<b>Irish Business and Employers Confederation (IBEC)</b>	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.
<b>OECD</b>	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 compare data to predict future trends, establishes international standards in a wide range of aspects, from agriculture and taxes to the safety of chemical products.
<b>SDGs</b>	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.
<b>SEDEX</b>	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.
<b>STOXX Global ESG Leaders</b>	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 Sustainalytics. 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.
<b>UN 2030 Agenda</b>	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'.
<b>UN Global Compact's CEO Water Mandate</b>	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.
<b>WBCSD</b>	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.
<b>Certifications: forest and other</b>	
<b>Afforestation</b>	Afforestation is the establishment of a forest or stand of trees (forestation) in an area where there was no previous tree cover.
<b>Certified wood product</b>	Certification is given to companies and landowners to verify that their forestry practices are consistent with requirements laid down in these standards. Only certified wood product may carry a label. The label on wood products guarantees that consumers can trust the sources. Actual certification is carried out by independent certification organisations that are accredited by FSC or PEFC or SFI to carry out audits.
<b>CoC. Chain of Custody</b>	Chain of Custody certification applying to wood/fibre material and products. Chain of Custody is an information trail about the path taken by-products from the forest or, in the case of recycled materials, from the reclamation site to the consumer including each stage of processing, transformation, manufacturing and distribution where progress to the next stage of the supply chain involves a change of ownership, in order to provide assurances that wood and wood-based products originate from sustainably managed forests.
<b>Deforestation</b>	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.
<b>FSC</b>	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.

## Glossary continued

<b>FSSC 22000</b>	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.
<b>ISO 9001</b>	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of quality management.
<b>ISO 14001</b>	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of environmental management.
<b>ISO 50001 Energy Management Systems</b>	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.
<b>Non-controversial origin</b>	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.
<b>OHSAS 18001</b>	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of occupational health and safety management.
<b>PEFC</b>	Programme for the Endorsement of Forest Certification. PEFC is an independent, non-governmental organisation that promotes sustainably managed forests through independent third-party certification.
<b>Reforestation</b>	Reforestation is the natural or intentional restocking of existing forests and woodlands (forestation) that have been depleted.
<b>SFI</b>	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.
<b>EU Timber Regulation</b>	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.
<b>Water</b>	
<b>AOX</b>	Absorbable Organic Halogens: amount of organic compounds containing chlorine and other halogens. AOX can be produced during bleaching of pulp when using halogenated bleaching agents.
<b>BOD</b>	Biochemical Oxygen Demand (unit: mg O <sub>2</sub> /litre) refers to the level of oxygen uptake by microorganisms in a sample of water measured over a period of five days.
<b>COD</b>	Chemical Oxygen Demand (COD) is the most commonly used test to measure the amount of organic compounds in water (unit: mg O <sub>2</sub> /litre). The result indicates the level of all organic compounds that can be oxidised by a strong oxidising agent.
<b>Process water</b>	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.
<b>Total N (nitrogen)</b>	Sum of organic nitrogen, ammonia (NH <sub>3</sub> ) and ammonium (NH <sub>4</sub> <sup>+</sup> ) discharged with the process water.
<b>Total P (phosphorous)</b>	Sum of phosphorous compounds discharged with the process water.
<b>Total suspended solids (TSS)</b>	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.
<b>Water impact assessment</b>	Assessing potential risk from water availability and quantity, covering multiple aspects specific to each geographical locations.
<b>Products and raw materials</b>	
<b>Containerboard</b>	Papers and boards mainly used in the manufacture of corrugated board. They are made from virgin or recovered fibres. Included are kraftliner, testliner, semi-chemical fluting and recycled fluting.
<b>Corrugated board</b>	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).
<b>Fluting</b>	The wave-formed middle layer in corrugated board.
<b>Kraftliner</b>	Paper manufactured mainly from virgin wood fibres.
<b>Testliner</b>	Paper manufactured from recycled fibres.
<b>Inorganic raw materials</b>	Raw material used for manufacturing our products that are not organic, such as fillers, sodium hydroxide, sodium sulphate and calcium oxide.
<b>Other organic raw materials</b>	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.

<b>Raggers</b>	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'.
<b>Recovered paper</b>	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.
<b>Recovery</b>	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.
<b>Recycling</b>	Converting material into new materials and products. In the paper industry this refers to converting recovered fibres back to paper and finding new uses for other raw materials produced alongside recovered paper instead of sending them to landfill.
<b>Reduction</b>	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.
<b>Renewing</b>	Using renewable raw materials in a sustainable manner and maintaining the natural ability of the material to be renewed.
<b>Reuse</b>	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.
<b>Virgin fibre</b>	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.
<b>Health and safety</b>	
<b>Accident</b>	An undesirable or unfortunate happening that occurs unintentionally and usually results in harm, injury, damage or loss.
<b>Lost time accident (LTA)</b>	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.
<b>Lost time accident frequency rate</b>	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.
<b>Lost time accident severity rate</b>	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. We refer to LTA severity rate when speaking about our target to reduce the injury rate by 5% annually during 2013-2017.
<b>Number of days lost</b>	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.
<b>Total recordable incident rate</b>	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.
<b>Universal Declaration of Human Rights</b>	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.
<b>Workforce</b>	The workforce or labour force, is the labour pool in employment; it is generally used to describe those working for a company or industry.
<b>Wastes</b>	
<b>Wastes</b>	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.
<b>Total non-hazardous wastes</b>	Sum of all non-hazardous waste whatever its destination. Each category of non-hazardous wastes is defined and reported.
<b>Non-hazardous wastes landfill</b>	Part of the non-hazardous wastes that are disposed of in either internal or external landfill in accordance with national legislation.
<b>Non-hazardous wastes recovery</b>	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.
<b>Non-hazardous wastes other</b>	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.
<b>Hazardous waste</b>	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 readers of the Sustainable Development Report 2019 of Smurfit Kappa Group plc

### Our Conclusion

We have reviewed the Sustainable Development Report 2019 for the year ended 31 December (hereafter 'the Report') of Smurfit Kappa Group plc (hereafter 'Smurfit Kappa') based in Dublin, Ireland. A review is aimed at obtaining a limited level of assurance.

Based on the procedures performed nothing has come to our attention that causes us to believe that the Report is not, in all material respects, prepared in accordance with reporting criteria as included in the section 'Applicable Criteria'.

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 performed our review on the Report in accordance with Dutch law, including Dutch Standard 3810N Assurance engagements relating to sustainability reports ('Assurance-opdrachten inzake maatschappelijke verslagen'), which is a specified Dutch standard based on the International Standard on Assurance Engagements (ISAE) 3000 'Assurance Engagements other than Audits or Reviews of Historical Financial Information'.

Our responsibilities in this regard are further described in the 'Auditor's responsibilities' section of our report.

We are independent of Smurfit Kappa Group plc 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 evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

### Applicable Criteria

The Report needs to be read and understood together with the reporting criteria. Smurfit Kappa is solely responsible for selecting and applying these reporting criteria, taking into account applicable law and regulations related to reporting.

The reporting criteria used for the preparation of the Report are based on the Sustainability Reporting Standards of the Global Reporting

Initiative (GRI) and the applied supplemental reporting criteria as disclosed on pages 86-91 of the Report.

### 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. We do not provide any assurance on the assumptions and achievability of prospective information in the Report. The references to external sources or websites in the sustainability information are not part of the sustainability information as reviewed by us. We therefore do not provide assurance on this information.

### Directors' Responsibilities

Directors of Smurfit Kappa are responsible for the preparation of the Report in accordance with reporting criteria as included in the section 'Applicable Criteria', including the identification of stakeholders and the definition of material matters. The choices made by the Directors regarding the scope of the Report and the reporting policy are summarized on pages 10-13 of the Sustainable Development Report 2019.

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.

### Auditor's Responsibilities

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 at determining the plausibility of information and differ in nature, timing and extent as compared to reasonable assurance engagements. The level of assurance obtained in a limited assurance engagement is substantially less than the assurance that would have been obtained had a reasonable assurance engagement been performed.

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 applicable legal and regulatory requirements.

We have exercised professional judgement and have maintained professional skepticism throughout the review, in accordance with the Dutch Standard 3810N, ethical requirements and independence requirements.

Our review included among others:

- Performing an analysis of the external environment and obtaining an understanding of relevant social 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 stakeholder dialogue and the reasonableness of estimates made by the Management Board;
- Obtaining an understanding of the reporting processes for the Report, including obtaining a general understanding of internal control relevant to our review;
- Identifying areas of the Report with a higher risk of misleading or unbalanced information or material misstatements, whether due to fraud or error. Designing and performing further assurance procedures aimed at determining the plausibility of the sustainability information responsive to this risk analysis. These procedures included among others:
  - Interviewing management and relevant staff at corporate and local level responsible for the sustainability strategy, policy and results;
  - Interviewing relevant staff responsible for providing the information for, carrying out internal control procedures on, 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 Hoya, Los Reyes Mill, Los Reyes Corrugated, Naucalpan, St Petersburg, St Petersburg South, Turnhout and Eindhoven in Germany, Mexico, Russia, Belgium and The Netherlands are aimed at, on a local level, validating source level data and evaluating the design and implementation of internal controls and validation procedures;
  - Obtaining assurance information that the Report reconciles with underlying records of the company;
  - 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.

We have communicated with the Board of Directors regarding, among other matters, the planned scope and timing of our review and any significant findings that we identify during our review.

Amstelveen, April 29, 2020

**KPMG Accountants N.V.**  
Danielle Landesz Campen RA

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