



SUSTAINABILITY IN EVERY FIBRE

Sustainable Development Report 2015

Sustainability in every fibre

As one of the world's largest paper-based packaging businesses, Smurfit Kappa maintains a relentless commitment to sustainable business that underlies everything we do.

From the production line through to the consumer, packaging can make a difference: through new ideas, it has the potential to shape the way you do business.

For more information visit:
openthefuture.info

We use sustainability as a lens through which to focus our innovation, our strategy and our processes. The transparency and detail we offer our stakeholders is industry leading.

For many years we have focused on designing our operations around a circular economy model – a truly closed-loop system in which the productivity of the resources we use is maximised and waste, including CO₂ emissions, generated through our products is minimised. Simultaneously, we endeavour to promote sustainable use of renewable raw materials, to reduce the use of and to replace non-renewable raw materials with renewable ones where feasible and ultimately to reuse resources we take out.

Our innovative, right-weighted, recyclable packaging delivers real savings in cost and carbon for our customers and for consumers. It is an approach that has delivered consistent business growth and long-term partnerships with some of the world's most respected brands as well as with local customers.

But current technology means paper cannot be recycled indefinitely; new wood fibre must be introduced into the system, creating an impact for which we must take responsibility. True closed-loop thinking starts in the forest, which is why we are unique among our peers in committing to 100% sustainably sourced new fibre from forests where biodiversity and human rights are assured to the highest globally recognised standards.

Our customers have unrivalled visibility of the environmental impact of the products they buy from us, helping them in turn to realise their own sustainability strategies and better manage their impact.

This is how we do business. It is what drives our success, our competitive energy, our appetite for fresh challenges. Every day, we prove how our way of working contributes to a better world and a brighter future.

That is why we are proud to say that running through our people, our processes and our products, we have **Sustainability in every fibre.**

WE DRIVE INNOVATION AND SUSTAINABILITY FOR LONG-TERM SUCCESS

Sustainable Development Report 2015

This report contains an overview of our 2015 performance, a focus on our strategic direction, and a review of the businesses underpinning our strategy. The flow chart below maps the structure and flow of the report.

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Our vision and operations
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Our five strategic sustainability priorities

As a global company, our operations create value for our customers, employees, investors, suppliers and the communities in which we operate.



Forest

Some 81% of our packaging is sold as certified by FSC® or PEFC™ standards.

 Full review on page 40



Climate change

We have achieved a reduction of 22.6% of fossil CO₂ emissions per produced tonne of paper since 2005.

 Full review on page 48



Water

We have finished mill specific water risk assessments in six of our 36 paper mills.

 Full review on page 54



Waste

We set ourselves a target to reduce the waste sent to landfill from our paper and board mills by 30% by 2020.

 Full review on page 60



People

As we grow our business worldwide we welcomed 3,000 new employees to our team now of some 45,000 men and women in 34 countries in Europe and the Americas.

 Full review on page 65

Our business in numbers

Paper and board mills

36



Converting plants

247



Other production plants

33



Recovered fibre/ wood procurement

51

facilities



Customers

60%

of customers in the FMCG segments

Employees

45,000

people employed worldwide

Suppliers

302

strategic and important suppliers worldwide

Local and national governments

€186m

income and other taxes

Forests

103,000

hectares of forest plantation

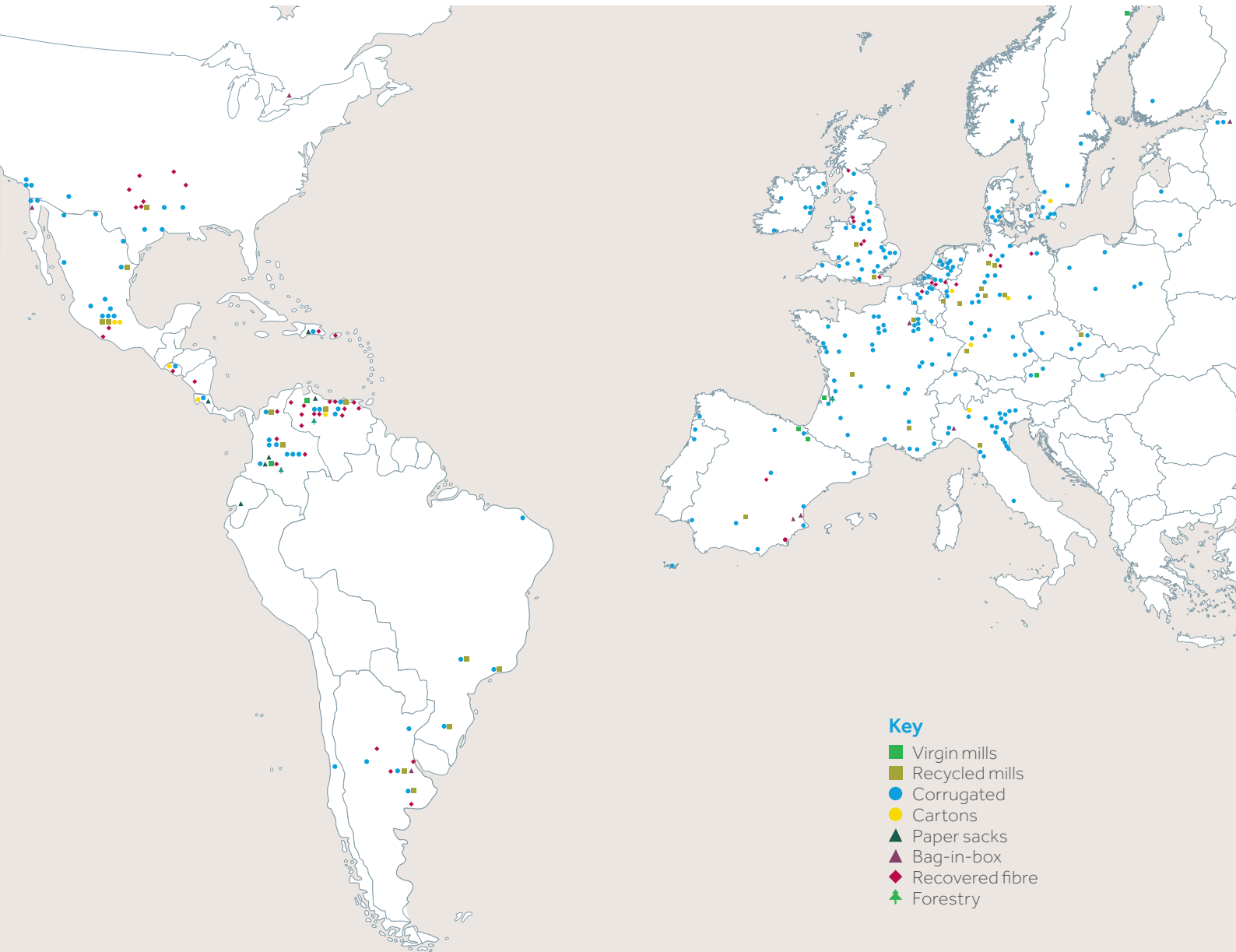
Investors

34%

dividends €141m of €413m profit were distributed this fiscal year

Our Group operations

Smurfit Kappa is one of the leading providers of paper-based packaging solutions in the world, with around 45,000 employees in approximately 370 production sites across 34 countries and with revenue of €8.1 billion in 2015.



Key

- Virgin mills
- Recycled mills
- Corrugated
- Cartons
- ▲ Paper sacks
- ▲ Bag-in-box
- ◆ Recovered fibre
- ▲ Forestry

The Americas

Operations

Virgin mills	2
Recycled paper and board mills	13
Corrugated	47
Cartons	5
Paper sacks	6
Recovered fibre	35
Other	8

Sales

Volumes	(million tonnes)
Containerboard	1.3
Other paper and board	0.3
Corrugated	1.3

Including full-year volumes for the Brazilian operations acquired in late 2015

Europe

Operations

Virgin mills	5
Recycled containerboard mills	12
Other recycled paper and board mills	4
Corrugated	157
Cartons and solidboard packaging	5
Recovered fibre	14
Other	54

Sales

Volumes	(million tonnes)
Kraftliner	1.6
Recycled containerboard	2.9
Other paper and board	0.8
Corrugated	4.4
Solidboard packaging	0.1

Excluding the output of the solidboard operations sold in April 2015

Overview

Our year in highlights

Vision into action: what we are doing

Business

Listings in investor rating systems

Smurfit Kappa was listed by the FTSE4Good, Euronext Vigeo Europe 120 and Ethibel investor rating systems recognising sustainability achievements.

Smurfit Kappa Sustainability Awards

The competition was held for the third time for our European operations.

Customer award

Continuous Improvement Supplier of the Year 2015. Philips Lighting recognised Smurfit Kappa as "the only strategic supplier in packaging with global coverage" and its "continuous support on packaging development, value engineering, innovation and sustainability."

92% of our suppliers audited against our sustainable sourcing criteria met our standards. Nine suppliers were asked to respond to corrective actions and report back during 2016.

Acquisitions

In 2015 Smurfit Kappa completed the acquisition of two businesses in Brazil which have a market share of approximately 5% in the largest market in Latin America. In total six businesses were acquired in 2015 with facilities in:

- Brazil
- Costa Rica
- El Salvador
- France
- Mexico
- Netherlands
- Nicaragua
- Spain
- United Kingdom

Forest

Certified by nature

We sold 74% of our packaging as certified according to FSC® or PEFC™ standards by the end of 2015.

Achievement: By the end of Q1, 2016 we had reached a level of 81%.

New Chain of Custody certifications

We finalised our programme to certify our production sites' raw material origin management systems according to FSC®, PEFC™ and/or SFIT™ Chain of Custody standards.

Achievement: The paper mills we acquired in Brazil will finalise an FSC Multisite Chain of Custody certification in May 2016.

Climate change



Progress with our CO₂ emission reduction target

We reached a reduction of 22.6% of CO₂ emissions per tonne of paper produced relative to the base year of 2005.

Investments in energy efficiency

Our Hoya mill in Germany had its new Combined Heat and Power plant operational for its first full year and we notably improved energy usage at the Mengibar (Spain), Nettingsdorf (Austria), Coronel Suarez (Argentina) and Cali paper machines and mills.

Water



Six water risk assessments finalised

Following our overall paper mill water risk assessments, we started a follow-up programme to assess water-related risk at our individual mills.

Achievement: Six mills have now completed the assessment with an outcome that the risks are well controlled at the relevant sites.

Investment in Waste Water Treatment Plants

We invested in cleaner water discharges at our Saillat (France) and Forney (USA) mills.

Achievement: We have now achieved a 29% reduction of the COD discharges from our paper mills, a step closer to our 2020 target to reduce our specific COD discharges by one-third relative to 2005.

Waste



Waste assessment finalised

We finalised the assessment of non-hazardous waste sent to landfill by our paper and board mills during 2015.

Achievement: The result of this assessment led to us setting a new target to reduce such waste sent to landfill by 30% per tonne of paper produced by 2020 relative to 2013.

Circular economy

Smurfit Kappa participated in several cross sectoral collaborations in the area of circular economy and life cycle assessment during 2015.

People



Health and safety

We saw good progress in our health and safety targets during 2015 when the number of Lost Time Accidents (LTA) reduced by 12.1% and the LTA Frequency rate, as well as the severity rate, dropped by 14.6% each.

Employee engagement survey results into action

As a result of the MyVoice 2014 survey on employee engagement, we are implementing 1000+ actions throughout our operations to improve the working experience of our 45,000 employees, with specific focus on internal communication, people recognition and career opportunities.

MyVoice
2014

Social investments in local communities

Smurfit Kappa and its related Foundations donated over €4 million in 2015, with outstanding projects in a number of countries such as Chile ('Make a Wish'), Ireland ('Barnardo's'), Mexico ('La Casita') and the UK ('Merseyside Forest').

Strong grip: we helped the environment by creating a strong cardboard grip rather than plastic.



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Our approach to sustainable business



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A letter from our Group Chief Executive Officer

Achieving sustainability for now and for the future

Environmental responsibility, circular business models and corporate social responsibility are rapidly becoming imperative to do business globally. These three elements have been at the core of our sustainable business model since we started our business more than 80 years ago.



I am pleased to introduce Smurfit Kappa's ninth annual Sustainable Development Report. 2015 was an important year with the adoption of the Paris Agreement at the COP21 and the adoption of the 2030 Agenda for Sustainable Development by the UN.

From a sustainability perspective, 2015 was an important year for our planet, with world leaders agreeing to bring a halt to climate change in Paris at the COP21, and the adoption of the 2030 Agenda for Sustainable Development by the UN. On a regional level, there was significant momentum from governments with the push for a clean energy economy by the Obama administration in the USA, while in Europe the EU is launching an ambitious Circular Economy Package and the EU Emission Trading System is being reformed. Throughout all this, Smurfit Kappa continued during 2015 to contribute to making the world more sustainable, and in this report we will highlight the progress we made on our ambitious sustainability journey.

Environmental responsibility, circular business models and social responsibility are rapidly globally becoming an imperative to do business. These three elements have been at the core of our sustainable business model since we started our business more than 80 years ago. We therefore welcome these global developments and embrace the challenge to make our products, operations, raw materials and supply chain more environmentally sustainable, more circular and more socially robust year on year, thereby contributing to halting climate change. After all, it is our responsibility as a global corporate citizen to lead by example where we can in these areas. By doing this we will also respond to the sustainability goals of our customers as a business partner, be valued by consumers for our sustainability efforts and be a more attractive investment for investors who are today as much aware as our customers are of the importance of investing in sustainably and responsibly managed assets.

Summary

- Recognised by FTSE4Good index and the Euronext Vigeo Europe 120 index
- On track to reach our 2020 CO₂ emissions reduction target
- Entire production system now Chain of Custody certified
- Decrease in lost time accidents rate, frequency rate and severity rate

Our progress in 2015

We are satisfied with the progress we have made on our sustainability journey during 2015, making further progress in reaching our long-term targets for 2020. We continued our listing on the FTSE4Good index, the Euronext Vigeo Europe 120 index and were included by Ethibel in their sustainable investment register. We were also recognised by one of our major customers, Philips Lighting, as their 'Continuous Improvement Supplier of the Year 2015'. We clearly deliver value by our efforts to minimise our environmental impact and by increasing the social benefits we create.

We continue to achieve this in three ways: using our power to innovate, we make our processes more sustainable; deliver products and services which increase the efficiency of our customers' value chains; and invest in the development of our employees and the communities in which we have the privilege to operate.

By the end of 2015 we achieved a reduction of 22.6% in our relative CO₂ emissions compared to 2005, bringing us closer to our target of a 25% reduction by 2020.

With the certification of the last remaining production sites we achieved our target to Chain of Custody certify our entire global production system. In combination with the sole use of sustainable raw material, we are able to label substantially all of our packaging as Chain of Custody certified, which, given our size, is unique in our industry.

As one of our sustainability commitments we performed a company-wide waste to landfill assessment during 2015, resulting in setting a target to reduce the waste we send to landfill by 30% on a per tonne of product basis compared to 2013. In 2015, we achieved a decrease of 2% compared to 2014.

In 2015, we continued investing in increasing the standard of the water treatment plants of our operations. A completely new water treatment plant was commissioned in early 2015 in Forney (USA) and significant improvements were made in Piteå (Sweden) and Saillat (France). As one of our sustainability commitments, water impact assessments were performed in four paper mills, all confirming that these operations have negligible impact on the water availability for the surrounding areas.

During 2015, our new leadership model was launched clarifying the leadership qualities we expect our managers to develop. Training programmes with well-known business schools under the heading of 'Open Leadership' were initiated. The objective of this leadership model is to employ an empowering and inspiring management style that should broaden our people's thinking, foster innovation and deliver more value to customers.

Following up on our first company-wide employee engagement survey, *MyVoice*, more than 1,000 actions were initiated at an operating unit level as a response to employees' suggestions for improvement. Also at a company-wide level, actions with specific focus on internal communication, career opportunities and performance recognition were initiated.

We remain unconditionally committed to the health and safety of our employees and premises in which they work. In 2015 the work we have invested in health and safety started to bear fruit with a reduction of lost time accidents by 12.1% and lost time frequency and severity rates reducing by 14.6% each in comparison to 2014.

We deliver value by our efforts to minimise our environmental impact and by creating value in the communities we operate in.



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A letter from our Group Chief Executive Officer continued

It is our responsibility as a global corporate citizen to lead by example where we can.

As part of our commitment to the local communities in which we have the privilege to operate, our local operations made, in cooperation with our related foundations, close to €4 million of social investments focusing on the education of disadvantaged childhood and youth.

In this report, you will find a detailed account of our progress and targets in five key priority areas: Forest, Climate Change, Water, Waste and People.

2016 and beyond

At Smurfit Kappa, sustainability is in every fibre of our business. We believe sustainability creates business value, and we understand that to be a responsible company, we need to create value for our customers, shareholders, employees, suppliers and the communities in which we operate.

For many years, our distinctive focus has been on designing for a circular economy – a closed-loop system in which the productivity of the resources we use is maximised and the CO₂ emissions generated through our products are minimised. At the same time, we endeavour to promote the sustainable use of renewable raw materials, to reduce the use of non-renewable raw materials where feasible, and ultimately to reuse natural resources that we process. Our innovative, fit-for-purpose, recyclable packaging delivers real savings in cost and reduces carbon emissions for our customers and consumers. It is an approach that has delivered consistent business growth and long-term partnerships with our customers.

It also means that our operations will continue to work hand-in-hand with their local communities, supporting research and education for the present and the future. It is a vision which drives us to create sustainable economic and social development as an employer, and also as a partner of our foundations focused on social investments.

In 2015, the world set the strategy to tackle the environmental and social challenges we all face. Starting in 2016, the business community has the opportunity to show leadership in taking on those challenges. We at Smurfit Kappa are ready to do our part, both on the environmental and on the social front. In order to do so, being able to operate under fair, predictable and competitive conditions is a prerequisite for companies such as Smurfit Kappa. We believe that when these conditions are met, business will ultimately be more competitive and we will then be able to make the required investments for our sustainability journey.

I hope you will find the content of our Sustainable Development Report 2015 both interesting and informative and look forward to any feedback that you may have (sustainability@smurfitkappa.com).



Tony Smurfit

Group Chief Executive Officer
30 May 2016



CIRCULAR BY NATURE

Our raw material is renewable and 75% of it comes from recovered sources. Our products can be recycled and increasingly we recover our production side streams.





Our approach to sustainable business

“ I started as an apprentice in mechanical engineering technology at Smurfit Kappa Nettingsdorf. Our training was very practice-oriented, it was challenging for us and we were carefully mentored from the start. We could take part in the Managing For Continuous Improvement (MFCI) process and bring new ideas to our jobs. One of our successful MFCI proposals was implemented and is being used to this day. ”

Manuel Maier
Smurfit Kappa Nettingsdorf
(Austria)



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How we create sustainable value

Instilling sustainable value throughout our business

We have a responsibility as one of the world's largest paper-based packaging manufacturers to use our resources efficiently.

Summary

- Smurfit Kappa understand that from the materials we use, to the partners that we work with, sustainability is part of our competitive advantage
- We work with our customers to support their sustainability approach as part of their strategic goals
- 88% of investors see sustainability as a route to competitive advantage, making this a business-critical issue

Why sustainability matters

People need food, clothing and household goods for their daily life:

With growing global wealth, the world consumer demand for packaged products and goods is growing. Consumers and businesses need their goods to be delivered securely, safe from damage and theft, and this demands robust packaging solutions.

Products need packaging: A package's purpose is to protect, support, communicate on and transport a product to its user.

Paper-based packaging is an efficient and sustainable option: Paper-based packaging helps fulfil these purposes in an efficient and sustainable way. In comparison to alternative recyclable packaging materials, paper-based packaging has the highest recycling rate. Wood fibre is a renewable raw material and the same fibres can be recycled up to eight times before new virgin fibre needs to be introduced.

Packaging helps to deliver sustainable value: Packaging helps to reduce waste within the packaged products supply chain. According to FAO 20-50% of food becomes waste in its supply chain in developing countries simply because of no packaging or poor packaging. The same figure is only about 3% in developed countries due to fit-for-purpose packaging. Packaging also delivers social value by making it possible to transport products and also make them available for people in remote areas.

Our responsibility to use resources efficiently and produce our products as sustainably as we can, covers not only our own operations, but extends to those of our customers and suppliers. We do this through continuous research, putting facts and data into practice and delivering innovative packaging solutions, ensuring sustainability is at our core – in every fibre.

We understand that from the materials we use, to the partners we work with, sustainability forms part of our competitive advantage. We believe that sustainability creates business value, and that collaboration with our customers and suppliers can grow businesses sustainably throughout the supply chain. By reducing the use of raw materials and designing innovative packages, we are able to offer a more sustainable package to our customers. This has a direct impact on our customers' value chains, and enables them to make positive business choices, helping them to deliver their sustainability targets.

Sustainability is business critical

To grow our business: We always work to help our customers embed sustainability in their business. For our customers, a sustainable supply chain is increasingly becoming part of their strategic goals. As part of this process, customers want a long-term partner to drive sustainability in their operations offering innovative packaging designs and solutions.

To continue operating tomorrow:

To continue operating tomorrow, we must ensure that our strategy for today is not only sustainable for Smurfit Kappa but sustainable for all our customers. The resources that are most fundamental to our operations – wood fibres – have an impact on our ability to manage carbon globally; from the forests that capture carbon from the atmosphere to moving to efficient use of bio-based energy.

The impact of climate change is clear, and the role of companies and governments in minimising its impact is becoming more explicit. We believe it is our duty to constantly evolve and improve to meet this challenge.

Our investors are interested in long-term profitable businesses. Therefore, for them, diligence in corporate environmental and social responsibility are key elements of the decision-making process when selecting companies in which to invest.

To drive efficiency: Using the resources we need more efficiently reduces our costs. This provides a clear incentive to maximise efficiency programmes in the use of resources relied upon and the impact we have on the environments in which we operate.

Diligence in corporate environmental and social responsibility are key elements of the decision-making process when selecting companies in which to invest.

Award-winning packaging



Elaborate client studies conducted by Smurfit Kappa Bates in South Texas looked at the process for packing, storing and shipping produce such as potatoes, grapefruits, onions and watermelons. Both current and potential customers explained their processes and indicated

the problems they deal with. A chance for Smurfit Kappa to differentiate itself and help customers to improve their efficiency.

The main problem that kept showing up was that these customers often are not able to fully utilise the loading space in a truck due to their current style bulk bins not stacking. Standard bulks vary from rectangular laminated combined sheets to triple wall options. The set-up is needed to counter the effect of bulging as the product settles in the packaging. This makes it impossible to stack multiple bins as they would potentially collapse or damage the product.

“We intended to solve this issue and reduce the amount of fibre needed. This opened a whole new business growth potential and allowed us to compete with, and outperform, the triple wall bins currently available,” explained designers Mark Herman and Kevin Forbis.

They teamed up with contributors Guy Sanders and Jeff Schroeder and came up with a solution called ‘Widowmaker’.

The Widowmaker is an octagon shaped A/C double wall bulk bin constructed from a single sheet. The centre divider is glued to the inner walls to prevent liquid or granular products from pushing the sidewalls outward. As a result, the Widowmaker is able to maintain a vertical stance and reduce outward deflection. An independent lab performed compression test comparisons between a standard HSC bulk bin and the Widowmaker. Test results indicated that the Widowmaker outperforms the standard bulk bins with a 10% higher compression value. Reason enough for RISI, the leading information provider for the global forest products industry, to reward the innovation with an award.



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ECO-DESIGN FIT FOR PURPOSE

We work with our customers to produce innovatively designed and sustainably sound packaging solutions.

Sustainability is a value differentiator

Sustainability is to the forefront of our business model: We use sustainability as a lens through which to focus our innovation, strategy and processes. The transparency and detail we offer our stakeholders is industry leading. It guides the way we do business throughout our own operations to those of our suppliers, and helps to advance sustainability in the businesses of our customers.

An opportunity, not just risk

management: We see reducing our impact on the environment in which we operate as part of our competitive advantage – going above and beyond to ensure we are among the most sustainable paper-based packaging companies globally. Rather than merely mitigating the risks of climate change and resource inefficiency in our

business, our ambition is to be a sustainability leader and partner of choice to our customers.

Global CEOs believe sustainability is essential to their business strategy. The study also unveiled that 88% of investors see sustainability as a route to competitive advantage.

The effects of our sustainability strategy:

For customers and investors it is key that we demonstrate a tangible link between sustainable business and corporate value. Sustainability stimulates innovation and creates new customer demands. Smurfit Kappa seeks efficiencies and collaborates with customers and suppliers to find innovative solutions throughout our value chain. In short, our sustainability efforts drive competitive differentiation that in turn will boost brand value and growth.

Integrated indicators: Smurfit Kappa has truly integrated sustainable metrics into its business strategy and aligned them throughout its global operations, so we can monitor all our efforts. As a result, we are aware of the effects of our sustainable strategy and can communicate the facts and figures, as stated in this report, to enable investors to understand Smurfit Kappa's sustainable accelerators and forecast the effects of sustainable performance on our business. Many variables, including revenue growth, lower costs and less environmental and legal risks, can and are directly linked to the sustainable strategies that we implement.

Running for Spanish Cancer Association



"On your marks, get set, go!" echoed from the speakers as more than 3,000 people took off at the Smurfit Kappa Run in Spain. Smurfit Kappa got everyone involved to support the work of the Spanish Cancer Association. Clients and suppliers offered sponsorships and participants raised money.

Javier Villate, Quality & Food Safety & Sustainability Manager from the Smurfit Kappa Burgos plant, states: "Every year 14,000,000 people around the globe are diagnosed with cancer. With a local initiative the employees of our Spanish corrugated division in Burgos took it upon themselves to make a difference. It did not take long before they came up with the idea to organise a Smurfit Kappa Run and to sell tickets for this large scale 10 km and 5 km event."

To gain awareness, a team of dedicated employees and the Burgos chapter of the Spanish Cancer Association actively promoted the Smurfit Kappa Run on

social and traditional media. Even Juan Carlos Higuero, athletics world champion 1,500 m, voluntarily participated and helped promote the event in a special video recording. The efforts resulted in an increase in social awareness, extra funding and in dedicated teamwork. Smurfit Kappa employees and their families felt they could make a difference and collaborated closely to make the event a big success.

The run raised €18,000 which was handed over to the Spanish Cancer Association for research purposes and to support ill and recovering cancer patients young and old. Recovering juveniles and young adults often have a disadvantage physically and emotionally to get back into normal school and working routines. The event will be held on a yearly basis. "With the involvement of everyone – colleagues, friends and family – the final result was very emotional," concludes Javier.



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Our approach to sustainable business
Delivering sustainable value

Better sustainable solutions

Sustainability drives what we do and how we do it, creating value for our business and the communities in which we operate.

Summary

- We want to link engineering-based thinking with creative solutions to deliver innovation throughout our operations
- Increasing resource productivity through a more circular model of production and consumption is an important contributor to economic competitiveness
- We work hard to empower, align and inspire our people across our business
- To create a circular economy, we use 100% renewable, sustainable raw materials that are recovered for recycling

A holistic approach

By examining the entire product chain including all packaging, transport, storage and product presentation, we are better able to find significant sustainable improvements rather than when each step is considered in isolation.

Sustainability runs across all aspects of our operations in three ways: driving innovation, embedding circularity and doing it inclusively. These three approaches run through the activities we have with our stakeholders: customers, investors, employees, communities and suppliers.

Innovation

Innovation is the engine that drives sustainability throughout our business. It drives how we operate – from analysing customer challenges to understanding specific customer markets and finding the right solutions. Fundamentally, we want to link engineering-based thinking with creative solutions to deliver flexible innovation throughout our operations.

Innovation exists in product and process development. Product development seeks to answer the question: what kind of paper or packaging do our customers need? Process innovation answers: how do we produce our paper and packaging as efficiently as possible? Innovation is also important when looking at a customer's supply chain: we want to offer our customers a holistic approach to packaging that goes beyond the box and examines the total impact of our customer's value chain and instils sustainability.

We partner with both customers and retailers to understand the level of their need, and invest in operational innovation to meet these needs and enable sustainability in their businesses.

Innovation is key for the development of our business and drives our operations by:

- **Driving innovation in paper-based packaging:** We design packaging solutions that contribute to reduce our customers' environmental footprint by making efficient use of renewable raw materials. We help our customers see through to the new solution, delivering shared value from an innovative idea to implementation
- **Driving innovation through the supply chain:** With innovation we drive sustainability through our supply chain to ensure that our packaging contributes to the sustainable supply chain of our customers. We are one of the first companies in the packaging industry to be fully Chain of Custody certified according to FSC, PEFC and/or SFI™ standards. Our sustainable sourcing programme includes a risk assessment of suppliers and aims at supporting continuous development
- **Driving innovation in processes:** With innovation we drive sustainability in paper and develop fit-for-purpose, eco-designed packaging with a lower environmental footprint. We do this through innovative tools such as:
 - Paper-to-Box, which allows us to measure environmental impact at a material and packaging level

Fit-for-purpose

Cost-efficient and sustainable packaging solutions.

The reasons stack up: the Schnapp Klapp

This easy-to-use multi-layer display makes it easy to shelf the product one batch or one layer at a time.



Shipped and protected by our protective wings – tablet

A new packaging solution for shipping tablets of various sizes. A special way of folding corrugated wings offers optimal protection.



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Our approach to sustainable business Delivering sustainable value continued

Our ambition is to be authentic and to foster a company culture that supports and rewards proactivity in areas including customer satisfaction, innovation, improving processes or a healthier and safer workplace.

- Sustainability Scorecard, which measures and reports against sustainability metrics and
- Performance Packaging, Smurfit Kappa's unique way to ensure fit-for-purpose packaging with the lowest environmental footprint.

Circularity

Our ambition is to closely follow a circular economy business model – a closed-loop system. This means ensuring our operations are, as much as possible, restorative. This involves replacing the natural resources needed for our production processes and reusing, in the best way we can, those resources that we take out as well as collaborating with our stakeholders to find synergies.

The circular economy provides Smurfit Kappa with new business opportunities and innovative solutions to reduce material costs, ensuring our business is resilient in the face of growing resource constraints. In our view, increasing resource productivity through a more circular model of production and consumption is an important contributor to economic competitiveness.

We do this through four pillars:

- **Reduce:** We use renewable energy where economically feasible. This will involve additional use of biomass and scaling up proven ways to utilise our organic waste to generate energy. It will also involve investment in measures to reduce fossil CO₂ emissions and investment in further increasing energy efficiency
- **Recycle:** Ensuring all paper-based packaging manufactured by Smurfit Kappa can be recycled. This also means creating right-weighted packaging to ensure resources are maximised and waste materials are minimised
- **Reuse:** Ensuring that, where possible, we reuse resources in our production process. For example, this could mean using the organic by-product of our production process as biomass fuel or reusing the materials that are separated in the paper-making process
- **Recover:** 75% of the raw material we use consists of fibres that are recovered. We are continually finding ways for reuse of the metals, plastics, wood and other non-paper components that are separated from the recovered paper delivered to our mills

Inclusiveness

Our people are at the heart of our operations. Our ambition is to be authentic and to foster a company culture that supports and rewards proactivity in areas including customer satisfaction, innovation, improving processes or a healthier and safer workplace. This is not limited to the company operations. For us it is important that our employees see Smurfit Kappa as a great place to work but also the communities in which we work see us as a good corporate citizen.



'Flap and stand': this single-piece box can be set up in a second, literally, with one simple movement.

Smurfit Kappa employees

45,000

We include our employees through three approaches:

- **Align:** We take a strategic perspective within our leadership to maximise value and innovation for our customers and to deliver operational excellence and results
- **Empower:** We empower and develop our people; we also inspire and engage our people to change and engage across our diverse network of people

- **Inspire:** We are authentic and consistent across our global and local activities, and we always strive to support individuals to embrace a culture of learning

For Smurfit Kappa, we make it our responsibility to engage in the communities in which we are located. We are transparent about our activities, and our mills and plants have an open door policy for our different stakeholder

groups. Our related foundations are focused on education and health programmes, dedicated to supporting children and young people who are in vulnerable situations. Alongside our commitment to making social and community investments, we also support scientific study on environmental and biodiversity issues.

Increasing recycling by simplifying



Thule Group is a world leader in products that make it easy to carry the things you care for when leading an active life, under the motto Active Life, Simplified. Among other products that facilitate an active lifestyle, Thule Group offers equipment for cycling, water sports and winter sports such as roof boxes, bike trailers, baby joggers, laptop and camera bags. The products are sold in 139 markets globally.

Thule Group's approach to sustainability is to be part of a sustainable and functioning society, in line with their brand promise to make active people's lives easier. Waste management and recycling are part of the Thule Group's sustainability focus. Therefore, it was logical to have a look at the packaging in which Thule products are being transported and sold to customers.

During 2015, Thule approached Smurfit Kappa Poland to develop packaging that would be easily recyclable and with Styrofoam inserts being replaced by a corrugated solution. Today, Smurfit Kappa delivers to Thule corrugated packaging solutions that have two inserts that create support for the product and a one-piece package pattern with a label that emphasises the Thule brand.

"This joint development project successfully delivers the requirements for our packaging," says Pontus Alexandersson, Director Sustainability, Thule Group. "We wanted packaging that protects the product, is logistically optimal and more environmentally friendly."



In addition to the above, the new solution helps to reduce CO₂ emissions in the transport as it enables a full truckload, allows more space in the warehouse as well as reducing the amount of raw materials used for the package. This all came with great flexibility in the production process for the package. "The great thing is that the product fits well with both Thule Group's and Smurfit Kappa's sustainability strategies. With this fully corrugated packaging solution, we were able to increase the amount of recyclable material which is well aligned in Smurfit Kappa's circular approach to its paper-based packaging business," concludes Beata Patalan, Marketing Manager for Smurfit Kappa Poland.



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Delivering sustainable value continued

Pioneering a circular economy

For years we have been calibrating production processes to become as material-efficient as possible. Simply put, this means minimising the waste outputs from our production process as much as possible, and reusing or recycling side and waste products to reduce our impact on the environment.

Ultimately, operating a closed-loop system is good business practice. For Smurfit Kappa, this means working 100% with renewable, sustainable raw materials that are recovered for recycling. It also involves innovating to find new and alternative uses for non-paper materials that we receive with the recovered paper streams. Of these materials – for example metal, plastic, wood and sand – approximately 55% are currently recovered elsewhere, with the remaining material still sent to landfill. We also use organic by-products of our production process as biofuel or use the material that is separated in the water treatment in the paper-making process.

We close the loop by partnering with other sectors; for example, our virgin paper mills extract turpentine and tall oil in the virgin paper production process to be used as raw material in the chemical, medical and pharmaceutical industries.

Closing the loop also means investing to reduce the use of fossil fuels by replacing them with renewable fuels.

Paper recycling is fundamental for closing the loop on our production process. Globally, 75% of our raw material comes from recovered sources. Producing paper from recovered raw material converts waste into valuable products. This creates a circular loop at a macro level.

The importance of closing the loop

For Smurfit Kappa, closed-loop systems are the future of production processes globally. In our view, there are three reasons for this.

- Closing the loop enables us to minimise our impact on the environments in which we operate. Crucially, this is as much about ensuring our business for the future, as it is about acting in a responsible manner
- Fundamentally, closing the loop on production enables us to be a more sustainable business. Leading in sustainability offers us a competitive edge in our industry and makes us a positive choice for our customers
- There is a strong business case for moving to closed-loop systems as it reduces cost and risk in the production process – making us a more financially sustainable business

Challenges and solutions

Processing of auxiliary materials:

Smurfit Kappa collects and processes large volumes of recovered paper and packaging. This helps reduce society's waste burden and elongates the life cycle of wood fibre.

Closing the loop



One of the challenges for our industry is finding ways to process the supplementary materials added to paper by downstream industries. Although paper is recyclable, these auxiliary materials cannot be sorted from the recovered paper in the dry-sorting steps before they reach the paper mill.

75%

Meeting customer demand for lower-weight packaging: To balance between lightweight trends and necessary packaging functionalities, it is important to find the correct paper composition to deliver fit-for-purpose packaging. This means looking beyond the packaging: understanding the customer's product, specifics of production and packaging processes and supply chains from producer to customer. By analysing this information and combining it with our know-how and tools, we are able to deliver fit-for-purpose packaging solutions combining correct design and best suitable paper composition from recycled and virgin papers that delivers an environmental and economic best fit.

Managing recovered fibre in the value chain: We strive to continually meet and exceed the highest standards of food safety and this requires us to anticipate emergent risk areas in our production process. One of these is the management of mineral oils from recovered fibre. To ensure complete safety we have developed an innovative recycled paper and board that mitigates any migration of mineral oil from packaging to food. The solution is based on MB12 adsorption technology which traps harmful mineral oils and keeps them away from food during transit and storage.

We are working with a number of stakeholders to establish processes to identify non-recyclable and non-reusable components earlier in the production cycle.

We close loops and create circularity in our energy production through fully utilising, where possible, any by-products that have a high energy value. In addition to traditional bioenergy usage at pulp and paper mills – burning black liquor at integrated pulp and paper mills and utilising the biogas produced during the anaerobic water treatment at our recycled paper mills as fuel – we are currently exploring further options for creating energy and heat from our side streams that have otherwise no other valuable use.

Forests are a closed loop from which we can positively benefit when using them sustainably. They are fundamental for both local climate and water cycles and, when managed sustainably, they provide raw materials to industry and employment. Within our industry we have pioneered full Chain of Custody certification that enables us to drive a sustainable loop for our raw materials.

For Smurfit Kappa, circularity is the future of production processes globally.



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Meeting the evolving needs and demands of all stakeholders

As a responsible business we provide opportunities for stakeholders to learn about and influence the way we do business at each stage of the value chain.

Summary

- We run 10 Experience Centres for which the primary goal is to facilitate discussions in different areas of collaboration, including sustainability
- We are listed on the FTSE4Good index, the Euronext Vigeo index and Ethibel, investor rating systems
- Our Group health and safety policies are consistent with those of the internationally recognised OHSAS 18001 occupational health and safety system application
- Smurfit Kappa-related foundations support several projects in Argentina, Chile, Colombia, Germany, Ireland, Mexico, the Netherlands, the USA, the UK and Venezuela
- Participated in the World Economic Forum Project Mainstream project with our value chain partners

Stakeholder engagement

It is not only critical to ensure we are 'on the right track' but also to continually innovate and improve.

At Smurfit Kappa, stakeholder engagement is guided by the materiality of the issues important to the groups relevant to our business; whether that is employees whose safety we are responsible for, customers and suppliers in our value chain, investors in our business or authorities responsible for our regulation. Our key stakeholders are: customers, investors, employees, communities and suppliers.

Affecting and creating sustainable value

We have a unique place in the paper-based packaging value chain. As a large consumer of raw materials, including wood fibre, we have a responsibility to both influence how sustainable value is created through our value chain and create sustainable value for our stakeholders.

Influencing the creation of sustainable value means that as a company we can support stakeholders to meet and drive their sustainability commitments. For example, ensuring that our packaging is 100% Chain of Custody certified, helping to manage supply chain risks or innovations in reporting that better measure environmental footprint or social impact and making it transparent for our stakeholders.

Creating sustainable value for our stakeholders means ensuring that through our operations we enable the benefits of sustainable value to flow – from requiring high standards of sustainability in our supply chain to supporting customers to reduce their carbon footprint through right-weighted packaging.

Fundamental to Smurfit Kappa's offerings are service, innovation and sustainability. These are elements that are reflected in the solutions we offer our customers to deal with their sustainability challenges, but also in sustainability efforts that deal with investors and indeed suppliers, as it is about an ongoing partnership.

Engagement aims and outcomes

Smurfit Kappa pursues a holistic approach to sustainability engagement of stakeholders. This means we engage with stakeholders at multiple levels and at different points within the value chain.

Through continuous engagement with our customers, investors and employees, as well as other stakeholders, we are able to determine which issues are most important to them.

We do this to:

- **Ensure what we do is relevant:**
We remain in constant conversation with our stakeholders to ensure we understand their sustainable business drivers and support them to expand their capabilities
- **Positively influence:** We care deeply what our stakeholders think of our business and work hard to ensure that their opinion is heard and listened to. More importantly, we can share our experience and best practice from working with the wide range of suppliers and customers in our value chain

- **Understand where we add value:**
To ensure we are delivering the maximum sustainability value for all our stakeholders, it is paramount that we understand the sustainability drivers throughout our value chain
- **Affect:** Smurfit Kappa takes a multifaceted approach to developing strong, lasting relationships with its stakeholders. For us cooperation is natural. Through sharing knowledge and expertise with our customers and suppliers, we are able to increase understanding and find sustainable solutions for all parties, which we do through training courses, round-table discussions, and gatherings including awards and events such as partnership debates

As a large consumer of raw materials, we have a responsibility to influence how sustainable value is created through our value chain.

Inclusiveness: a path to joint success



Established in 1858, Crespel & Deiters, a family-run company based in the German town of Ibbenbüren, has been producing starches and proteins from wheat for five generations. For decades Crespel & Deiters has been producing starch-based adhesives and delivering them to the Smurfit Kappa corrugating plants and paper mills throughout Europe.

Adhesives are a key material when bringing paper layers together to create a

corrugated sheet. Crespel & Deiters also manages to join together employees, suppliers and customers to do their business in the most sustainable manner.

Collaboration is a cornerstone in the environmental performance of both Crespel & Deiters and Smurfit Kappa. "Our sustainable operations focus on the future, constant improvement and increased efficiency," explains Stefan Schröder, sales director at Crespel & Deiters. "Product performance and on-site customer support are also key factors."

Water usage and treatment play a central role in the approach of Crespel & Deiters to improve its environmental performance. The company has set ambitious targets to reduce water consumption in its production process and maximise resource efficiency of, for instance, the wheat that forms the main renewable resource of their adhesives. A circular system guarantees that no raw material (less than 0.2%) is left unused. A new combined heat and power plant provides a very efficient use of natural gas for the

production of heat and electricity for the complete plant at the Ibbenbüren site.

Crespel & Deiters also supports Smurfit Kappa on-site at the corrugating machine to ensure an efficient process with as few rejects as possible. The adhesives producer makes sure it invests continuously in communication, training and support to reduce the environmental footprint of their products and those of Smurfit Kappa.

Peter Carroll, sourcing manager for starch and adhesives at Smurfit Kappa adds: "The integral approach from Crespel & Deiters delivers efficiency and environmental benefits directly to our value chain. Having inclusive consultations with our supplier helps us to tackle issues fast and keeps our performance up to par. At the same time, we have the assurance that Crespel & Deiters constantly shares its best practices to benefit all partners involved."



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Our stakeholders and sustainable value continued

We are transparent about our sustainability efforts and have a robust reporting system, so we can monitor and quantify our efforts to improve ourselves and demonstrate our impact.

We provide a variety of opportunities for our stakeholders to discuss and give feedback on our business, including:

- Direct meetings with individual customers and collecting their feedback
- Audits of suppliers
- Investor days and one-to-one meetings with investors
- Round-table discussions organised by Smurfit Kappa or our stakeholders
- Our company-wide employee engagement survey, *MyVoice*
- Dialogue with our communities

Customers

Approach

At Smurfit Kappa we are committed to being a trusted partner and expert on packaging solutions for our customers, helping them to deliver their products to consumers. We work closely with our customers at multiple points in the value creation process, such as through our sales channels, to generate a continuous feedback loop and through knowledge sharing to support a deeper understanding of how we create sustainable value. Together with our suppliers we ensure our supply chain enables the creation of sustainable value.

We engage them through round-table discussions, joint sustainability projects, representation at customer conferences and support for customer sustainability initiatives.

Being a sustainable partner means understanding the sustainability priorities of our customers.

We help our customers to achieve this through leveraging our innovation to offer credible alternatives.

How value is affected

Over the years we have devoted ourselves to make sure Smurfit Kappa has all the right fundamentals in place to help customers meet their increasingly complex sustainable packaging needs. We believe our people and our strong global network of machines, systems, processes and solutions are well placed to deliver the most efficient and value enhancing options for clients in the industry. By listening to our customers and anticipating their needs, we are able to incorporate innovation and sustainability in the service we provide.

Our integrated sustainability approach spans two pillars: compliance and enabling.

Compliance

The fibre in our packaging products is sourced sustainably. This makes us the preferred supplier for many businesses and has driven our sustainability targets including:

- Sourcing our wood fibres from both forests and recovered paper through Chain of Custody certified supply chains
- Ensuring 100% of our paper mills and converting operations are now Chain of Custody certified according to FSC, PEFC and/or SFI standards
- Meeting the national and international emission saving targets, e.g. the EU Emission Trading System targets



PRODUCT-SPECIFIC CARBON FOOTPRINTS

Our carbon footprint calculations help customers track their product and packaging CO₂ reduction targets.

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Our stakeholders and sustainable value continued

Creating sustainable value means ensuring that the benefits created through our operations have a positive impact on our stakeholders.

Enabling

We believe in supporting our customers to embed sustainability throughout their businesses. To help them to do so, we have added sustainability modules to our suite of software tools – Innotools.

Alongside our bespoke design systems, our efficiency-focused software tools include Paper-to-Box and Pack Expert to optimise the direct and indirect environmental impact of the packaging on the supply chain and reduce the carbon footprint of packaging. This allows our customers to measure and track progress over a number of years.

How value is delivered

Across a number of different industries, customers are increasingly looking to optimise packaging weight, increase packaging efficiency and recyclability, and manage sustainable origin of the raw material. Our job is to develop, produce and deliver packaging that meets those targets. We do this through leveraging our innovation to offer credible alternatives. We focus on evidence-based sustainability, meaning, for example, that the resources, energy and carbon footprint of each packaging can be calculated. This allows our customers to measure the impact of their products more accurately.

We aim to deliver a holistic 'fit-for-purpose' eco-design packaging with a lower environmental footprint. This is accomplished through collaboration with our customers and being innovative right where it adds value. The benefits for the customer range from:

- Computing environmental impact at both paper and packaging level with the special Paper-to-Box software tool
- Presenting reliable sustainability data through our Sustainability Scorecard
- Applying insights from other industries to design our materials

- Making the environmental footprint of our customers' supply chain tangible with our unique Pack Expert tool
- Currently, 81% of any packaging delivered is Chain of Custody labelled regardless of whether it has been produced from virgin or recovered fibres, and this will increase further

Smurfit Kappa's customers can benefit from our circular integrated business model that helps us to develop packaging that reduces the total environmental impact of the final product delivered to the consumer. Specific examples include:

- We reuse as much material as possible, keeping costs lower and enhancing the cost-effective value for our customers
- We support circularity in our production by the fact that our packaging is 100% recyclable, minimising waste sent to landfill

To successfully drive sustainability means ensuring our packaging, and packaging innovation, becomes closer to our customers. This means sharing our collective knowledge through a network of 10 Experience Centres and making our expertise available for our customers so that we are able to help them with their sustainability strategy and goals by using the following:

- Training courses and workshops to develop shared insights and inspire new initiatives
- Round-tables to re-engineer the industry vision on sustainability and how paper-based packaging can truly make a sustainable difference in the customer value chain
- Awards to bring sustainability alive by inviting value chain partners to judge and identify best practices in sustainability

Our packaging is recyclable

100%

Investors

Approach

Many investors see sustainability as a route to competitive advantage. They, just like our customers, like to see a tangible link between sustainable business and corporate value. After all, sustainability stimulates innovation and in turn this creates new customer demands that are triggered by innovative solutions throughout our value chain. Our sustainability efforts drive competitive differentiation, boost brand value and stimulate growth.

Our job is to align our sustainability priorities with drivers that motivate investors. Fundamentally this is about:

- How we create financial business stability, e.g. supply chain integrity

- How we minimise risks, e.g. Chain of Custody certification
- How we decrease costs and increase efficiency, e.g. closed-loop resource management
- How we use our know-how in sustainability, e.g. marketing smart sustainable solutions

How value is affected

Investors value financially sustainable companies that are able to minimise risks across their operations. Smurfit Kappa is transparent about its sustainability efforts and has aligned its global operations, so we can monitor and quantify our efforts to improve ourselves and demonstrate the effects to stakeholders like investors. Smurfit Kappa is listed on the FTSE4Good

index, the Euronext Vigeo index and Ethibel, investor rating systems that recognise sustainability achievements.

By focusing our efforts on making operations as sustainable and efficient as possible, we reduce risks and costs in our business. Internally, for example, we reduce the energy used in our mills, which reduces costs and ensures our business is financially, as well as environmentally, sustainable. Externally, for example, we partner with customers and suppliers to streamline supply chains, reducing fossil CO₂ emissions and general waste, and we use our technology leadership in the industry to drive sustainable innovation. Ensuring we comply with the highest sustainability standards minimises reputational risk to our business, our customers and the investors who invest in it.

Circular Economy – sustainable business model measured



Continued investment in a linear economy results in long-term, system-wide impacts and risks. As a consequence, moving to a circular economy is increasingly recognised as an opportunity to reduce risk, lower costs and uncover new growth opportunities. Circular economy, an industrial model which looks into resource efficiency from a holistic perspective and aims at no-waste scenarios, has become

one of the leading topics in production business model sustainability in recent years. However, it has not yet been made tangible for the stakeholders who have an interest to invest in businesses working towards circular models.

ACTIAM, a responsible fund and asset manager organisation, wanted to take a deeper look at the opportunities of measuring its customers' circularity and initiated a project ('The Circle Assessment') to develop an online tool to measure companies' circularity together with Circle Economy, a social enterprise that creates tools and services to accelerate the transition to a circular economy. Through the use of an online survey, the Circle Assessment measures companies against predefined circular objectives and provides recommendations on how to capitalise on opportunities to adopt circular business practices and minimise future risks.

ACTIAM desired a more comprehensive assessment for circularity and the ability to dive deeper into the non-financial

criteria beyond the ESG scores they use currently. ESG Analyst Bas Wetzelaer of ACTIAM stated, "We are interested in deploying this assessment to multiple companies within our investment portfolio in order to identify leaders in the realm of circularity and reward them accordingly." As a long-standing shareholder of Smurfit Kappa, ACTIAM approached the Group with the goal of understanding the nuances and challenges in conducting a circularity assessment for companies and refining the tool to address those challenges.

As the data is gathered from more companies within their portfolio, ACTIAM will have the opportunity to identify the key change makers and boost engagement with those investees that need help achieving circular objectives. This tool will provide investors with an overview of their portfolio and illustrate where each company lies in regards to the circular objectives measured during the Circle Assessment.



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Our stakeholders and sustainable value continued

We believe employees who are engaged feel a greater degree of ownership of their work and, ultimately, a greater level of commitment to their jobs.

How value is delivered

The effects of our sustainable strategy can often be directly expressed in terms of lower costs, better efficiency, less waste and revenue growth. Furthermore, Smurfit Kappa's sustainable approach to business helps us mitigate a range of environmental, regulatory and health and safety risks to our operations. The practical impacts of this range from reduction in our exposure to an increasing price of carbon to minimising time lost to safety incidents.

A further practical example of sustainability efforts that directly translate to enhanced value include a focus on renewable energy. Our ambitions to reduce fossil fuel energy use, while increasing energy production from renewable sources, is both about ensuring we are sustainable and also about minimising our costs. Our renewable energy is harvested from various sources like:

- Unusable wood waste from our paper production
- Waste in recovered paper streams from our mills
- Sludge fibrous materials from our water treatment processes

Investors help Smurfit Kappa remain at the forefront as a global industry leader in sustainable packaging concepts. We are well aware of the importance to truly integrate sustainability into our way of doing business to be able to maintain a circular investment model in which a single idea is developed into a potential profit centre. Only a truly integrated sustainability approach will generate the longevity needed to really make a difference and makes it possible to quantify the results that stem from sustainable innovations. This is crucial to being able to continually invest in further improvements, to attract outside investments, and to prove that sustainable innovations do not only require substantial capital, but can also deliver a very attractive return on investment.

Indeed, sustainability is increasingly being recognised by the investment community as a building block to long-term value creation. As a responsible business, we encourage our investors to participate in discussions with all our stakeholders. Through continual engagement with our investors we understand the issues most important to them and incorporate those elements to make our business even more sustainable and a strong choice for those who choose to invest in it.

Employees Approach

Smurfit Kappa employs approximately 45,000 people around the globe. Our people are our most important asset. Their commitment to Smurfit Kappa drives our success and enables us to deliver an innovative approach to packaging for our customers. We want both our current and prospective employees to see that Smurfit Kappa is a great place to work.

To achieve and maintain that objective:

- We are committed to develop the skills of our employees through a wide range of development and training programmes
- We are committed to listen to our employees and we did so through a company-wide survey, *MyVoice*
- We recognise and acknowledge excellence in our employees' work through our Innovation and Sustainability Awards
- We maintain a number of works councils with which we have regular meetings and communications

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How value is affected**Ownership of quality output**

We believe employees who are engaged feel a greater degree of ownership of their work and, ultimately, a greater level of commitment to their jobs. We measure the engagement of our employees through our global employee survey, *MyVoice*. Through regular communication we seek to inform and educate personnel with regard to our sustainability principles. This enables sustainable operations to be a driver of our growth.

Safe operations

We believe that a safe and healthy workplace is a fundamental right of every person and also a business imperative. We have a structured and systematic approach to health and safety and are confident of making further improvements to safety performance. The commitments within our Group health and safety policies are consistent with those of the internationally recognised OHSAS 18001 occupational health and safety system application.

How value is delivered

The constant progress of our employees illustrates how we continually evolve as a company. We invest in training programmes throughout our operations to ensure our employees have access to new opportunities throughout their career at Smurfit Kappa. We strongly believe in offering employees, at every level within our company, the chance to improve and broaden their skill sets and knowledge.

Innovation in Design and Sustainability Awards 2015

'Open the future to Shopper Marketing' was the theme of the Smurfit Kappa Innovation Event 2015. More than 200 customers from across Europe and the Americas, joined a crowd of 450 attendees in the Netherlands. Participants witnessed the launch of more than 100 Smurfit Kappa innovations and got a chance to vote for their favourite solutions.

The highlight of the event were the 15 Innovation in Design finalists and 12 Innovation in Sustainability finalists who competed for an overall award in the two categories and for a chance to be recognised with the Audience Winner Award. So many original, creative and sustainable ideas made it very tough for the external jury, made up of customers, sustainability experts and attendees to decide who to vote for.

"Smurfit Kappa embraced the opportunity to engage with customers and create new connections, demonstrating the latest packaging solutions and sustainability innovations. Next to the market-leading Shelf Smart system and EyeSee eye-tracking solution, all the innovations gave unique insights in how Smurfit Kappa provides customers with proven, game changing solutions for top line growth," explains Mike Drummond, Vice President Pan European Sales at Smurfit Kappa.

Overall Winner of the Innovation in Sustainability Awards was the Dutch entry titled 'Frontrunner in the circular economy'. This entry represents a sustainable and environmentally friendly way of closing the loops in the paper production process. The process

separates the waste from paper so the raw waste materials can be reused in other industries.

The British entry 'Investing in human capital' was nominated as the Audience Winner of the Innovation in Sustainability Awards. This entry introduced the decision to keep on key staff during a mill closure that lasted 18 months. During this time a range of training and development opportunities was offered to employees, some of which also benefited local communities.

These awards, happening every second year, are a great way to showcase the commitment of Smurfit Kappa to continually improve and develop innovative products that boost performance and feature the best environmental and social sustainability solutions, in order to progress on a journey towards a sustainable future. "This is not just an event to show our customers and investors what we do. The event creates great excitement and motivation for all Smurfit Kappa teams involved to always be frontrunners," concludes Mike Drummond.



Our approach to sustainable business

Our stakeholders and sustainable value continued

Across our operations we actively encourage our employees to contribute to their local communities.

We strive to support them to fulfil their potential and widen their career prospects in our global and culturally diverse organisation. Managers act according to our Open Leadership approach that defines nine capabilities, which enable our leaders across the company to align, empower and inspire our people. This will help employees to anticipate and meet the changing demands of the markets and to deliver exceptional and sustainable outperformance.

To achieve sustainable long-term success, our goal is to attract and retain the best people by being a leading and attractive employer. This means we place great emphasis on issues like health and safety, rights and fair treatment, training and personal development, diversity, and the balance between performance, pay and participation. These fundamentals allow for a working environment in which our people feel free to innovate, perform to the best of their capabilities and shape a sustainable future.

Smurfit Kappa's approach to employees aims to attract new talent, further develop and retain current employees and assist all with health issues, offer career counselling to parting employees and provide retirement plans for the elderly.

We want our employees to feel that Smurfit Kappa is a great place to work. At every level of our organisation we want our employees to be part of a team; to be fully included as a valued team member. Outstanding performances are rewarded with Innovation and Sustainability Awards. Smurfit Kappa is committed to creating and maintaining a working environment that is safe, respects individuality, is non-discriminatory, appoints and promotes people on the basis of suitability, rewards fairly, encourages personal and professional development, and has effective mechanisms of communication.

Communities Approach

In the communities where Smurfit Kappa operates we are proud to contribute to sustainable economic, environmental and social development, as an employer, as a partner and through the work of our foundations in addressing the principles of the UN Global Compact. Our approach contributes to the neighbourhoods in which we are active and contributes to our own success as well.

Most of our attention is on social projects around early childhood and youth health and education, employment, and the environment regarding local communities our facilities are based within. Across our operations we actively encourage our employees to contribute to their local communities, in particular in the Americas operations, where our social programmes are focused on improving the quality of people's lives. This is supported and supplemented through the Smurfit Kappa Foundation and other foundations at a national level.

Printable wooden tubes:

For wines or liqueurs, we use veneers to create special eye-catching gift boxes.



Social investments in local communities in 2015

€4 million

How value is affected

Smurfit Kappa affects value by engaging with our local communities. We involve the people through local initiatives and high-impact and/or long-term social programmes, encourage employee volunteering and also make appropriate charitable donations. Across all our operations we strive to share value from our business growth with the communities in which we operate. Smurfit Kappa aims to contribute to end the cycle of poverty and dependence that exists in some of the communities and countries directly surrounding our commercial operations.

It is not a one-way relationship. Communities also help us with valuable local knowledge to optimise our operations. Often our operations are located in rural

areas where we are a significant employer, providing employment and development opportunities to local people. Through our investments in those operations we also provide significant indirect employment opportunities to local suppliers of equipment, material and services.

How value is delivered

Foundations and voluntary activities

The Smurfit Kappa Foundation supports local community initiatives with a strong focus on young disadvantaged children. We help them in the areas of health and nutrition, basic care and early education. Currently, our Foundation supports several such projects in Argentina, Chile, Colombia, Germany, Ireland, Mexico, the Netherlands, the USA and the UK.

Smurfit Kappa's community stakeholders include neighbours, neighbourhoods, schools, volunteer initiatives, charities, community development groups, environmental societies, development organisations, citizen associations and non-governmental organisations. We make sure our community stakeholders know that they have been heard. We listen to what people have to say and communicate issues of importance through regular dialogue. Open and transparent communication creates trust and benefits to stakeholder communities and Smurfit Kappa. It makes us more sensitive to the concerns of communities and reduces or eliminates conflicts. A positive neighbourhood makes it easier to attract local employees.

Optimising paper life cycle in circular economy



Paper is highly recyclable material and its recycling processes are already very mature. However, paper is usually converted by various downstream industries that add auxiliary materials onto paper. This leads to problems when solving paper-based products back into fibres and new paper.

Project MainStream, a collaboration between World Economic Forum, the Ellen McArthur Foundation and the McKinsey Center for Business and Environment seeks to remove bottlenecks in the large-scale transitioning to the circular economy. Smurfit Kappa and its supplier Nalco Company participated in the cross-sectoral working group whose task was to understand design and management for circularity from paper perspective. This work resulted as a World Economic Forum White Paper 'Design and Management for Circularity – the Case of Paper' which was published in January 2016.

"The report gives a thorough view of the paper-based products value chain and actors who add value to the products," explains James L Thomas, Director of Global Paper Technical Services at Nalco Company and the co-chair of the working group. "There are plenty of opportunities to improve paper fibre's recyclability when the products are being

designed thinking about the recovery of paper in the end of the life cycle. We ended up with two management areas that need to be included: Eco-design and Eco-management."

The Eco-design looks into the value chain from papermaking, converting and printing all the way to logistics, handling and distribution as well as order initiation and marketing. The core idea is that fibre recovery positive actions are being taken through all decision making phases. The Eco-management gives recommendations for use, collection and sorting of paper.

"This was a great cross-industry effort involving all value chain participants. We were happy to have Smurfit Kappa to support the project outside World Economic Forum members and offer its integrated paper-based packaging industry perspective," James L Thomas concludes.



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Auditing of suppliers ensures that the materials, goods and services we source are sustainable and meet our high standards.

Sustainable societies

To promote sustainable societies, we are guided by the following two principles: research and creating a win-win situation. Through both approaches we are able to understand or close loops, develop local business environments and thus positively impact the well-being of our surrounding communities.

Research

We focus on scientific research related to our business. Examples of this are our cooperation with universities in Colombia where research is focused on forestry and biodiversity. By better understanding the natural environment where our plantations are based in Colombia, we are able to develop our forestry operations and support our forests' natural cycles.

Creating mutual benefit

We increasingly work with other local industries seeking mutual benefit for our respective waste and side products. Examples are the use of baby food production waste as a nutrient for the bacteria in our waste water treatment plants, using the fibrous sludge of a tissue paper mill taking advantage of this material that hinders production of softness in tissue but can be used as a raw material in paper for containerboard. We have been supplying, for a number of years, black liquor to a pilot using DME as fuel for trucks also transporting our paper. This pan-industrial cooperation has delivered both financial and environmental benefits. These side streams were previously simply going to landfill.

Suppliers

Approach

Smurfit Kappa has thousands of suppliers globally and we believe that our suppliers are an integral part of the value chain of our business. We are committed to working with our suppliers in accordance with our own sustainability principles and objectives whereby we distinguish the areas of compliance, performance, risk management, social responsibility and governance.

Maintaining transparent and long-term relationships with suppliers is essential for our business. This partnership approach ensures we can audit suppliers on their compliance with our sustainable supply chain standards and, where they fall short, work with them to improve sustainability in their business.

How value is affected

Ensuring suppliers meet our standards:

For Smurfit Kappa, sustainable sourcing means requiring our suppliers adhere to basic sustainable development principles, addressing the concerns of key stakeholders, complying with regulatory frameworks, adhering to best practice and managing supply risks and safeguarding our and our customers' reputation.

Collaboration: Sharing knowledge, experience and expertise on sustainability strategies with our suppliers, including those of our customers, we can further work towards increased sustainability of our complete value chain. Innovation, circularity and inclusiveness require an open approach to developments. By testing new products from our suppliers before these come to market we contribute to optimise our suppliers' product developments.

How value is delivered

Key to our commitment is Sustainable Forest Management certification and Chain of Custody certification. This means a commitment to support vital forest ecosystems, protect biodiversity and ensure fair pay for the forest owner as well as fair working conditions in forests and plantations. It is this commitment that guides our sourcing and management approach with regard to our principal raw materials.

Our objective is to contribute to a circular economy. Together with the recovered paper that we use, all our fibrous raw materials are part of a closed-loop cradle-to-cradle system.

We stimulate our suppliers to constantly further develop their product lines. This allows us to offer product innovations to our customers. An important area for innovation is that materials that are used in our packaging solutions such as inks for printing, starch and glue, are food safe, easily soluble and highly efficient in use. In 2015, we participated in the World Economic Forum Project Mainstream to define guidelines to improve the lifespan of the wood fibre in collaboration with our value chain partners.

We partnered with our suppliers to develop an anaerobic (without oxygen) water treatment process which has since been adopted across the international paper industry. This anaerobic treatment transforms the pollution in water into biogas that is used to replace natural gas.

In addition, we work in partnership with suppliers to develop new ways to ensure the stability and robustness of our papers. For example, we embarked on a project to develop a chemical process to be used as an additive that improves the mechanical properties of paper for containerboard.

We also engage with our suppliers in the improvement of their policies, management systems and procedures with regard to quality, hygiene and safety in factories and offices, business continuity, skills, continuous improvement tools, strict ethical business practices, going beyond compliance and homologation, community involvement and projects to reduce their impact on the environment as well as any reputational risk.

Where possible we endeavour to procure our products and services from local suppliers. The procurement of a number of major items of expenditure is coordinated centrally to achieve economies of scale. Nevertheless, a significant part of the actual supplier deliveries for these categories could be considered as local as many of the goods and services are provided by suppliers whose production locations are in the same geographical area as our operations. These interactions between our operations and the local operations of suppliers provide support for local economies.

100% of our paper mills and converting operations are now Chain of Custody certified according to FSC, PEFC and/or SFI.



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EMBRACING LOCAL CULTURES

**We embrace local cultures and prefer to
employ from the local community at all levels,
where feasible.**

Doing business ethically and responsibly

We believe that sustainability must come from all areas of our business. We have embedded our commitment from the boardroom to the factory floor and throughout all our business operations.

Summary

- We adhere to the highest standards of reporting and audit through GRI, including our latest report that meets GRI G4 requirements
- Our products meet all food safety standards, including OECD guidelines for Multinational Enterprises
- We have audited 100% of our strategic suppliers, and 61 suppliers are currently listed as members of Sedex
- During 2015, no material fines were imposed on the Group in respect of any breaches of such laws and regulations

Lead from the top

The Board and Management of Smurfit Kappa support and strive for the highest standards of corporate governance and ethical business conduct. We believe this should be promoted from the most senior levels of the business and must be fostered throughout the whole organisation.

Complying with regulations and guidelines

It is Group policy to comply, as a minimum, with the applicable laws and regulations in each of the countries in which we operate and to ensure that our employees are aware of this and conduct themselves appropriately. Reflecting this, during 2015 no material fines were imposed on the Group in respect of any breaches of such laws and regulations.

To demonstrate our commitment, we go above and beyond wherever we can in compliance with all relevant regulations and adhering to the highest standards of reporting and audit through GRI, including our latest report which meets GRI G4 requirements.

In addition, each significant business unit is the subject of an external and independent financial audit conducted on an annual basis by the Group's external auditors. Most of our other business units are the subject of local statutory financial audits. We also have our own Internal Audit department which performed 75 detailed internal financial and IT audits during 2015. There were also a further 16 internal audits covering capex, health & safety and specific themes. All the Group operating

companies must adhere to the Group's Financial Monitoring Policy. This includes completing risk assessment analyses covering more than 50% of the Group's larger facilities, carried out by accredited professionals within each country.

Using this system we have identified the following audit risks: significant material misstatement of financial results, deliberate or otherwise, arising from a poor control framework. During 2015, no such misreporting was identified.

Demonstrating leadership

Our goal is to globally be the most sustainable paper-based packaging solutions company. The Board has overall responsibility for ensuring Smurfit Kappa demonstrates leadership within the paper-based packaging sector, promoting an actionable sustainable development agenda. To this end, our Group CEO sponsors the development and implementation of Smurfit Kappa's sustainability policies.

Along with sharing our sustainability learning with customers and suppliers, we believe it is important to share these and potential challenges within our industry and even our competitors. To be an example to our peers and competitors but most importantly our own employees, we have created specific policy statements in key areas of sustainability that we believe are integral to improving Smurfit Kappa's performance. These policy statements cover environment, sustainable forestry, sustainable sourcing, social citizenship and health and safety issues.



Our approach to sustainable business

Corporate governance continued

The Code of Conduct makes it clear that personal and professional integrity is core to conduct business in an ethical manner.

Code of Business Conduct and corporate policies

The Smurfit Kappa Code of Business Conduct (the 'Code') applies to the Group's Board of Directors, officers and employees worldwide. We require all individuals, entities, agents or anyone acting on the Group's behalf to comply with the Code, which has been translated into 17 languages to ensure full accessibility.

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

1. International Labour Organisation (ILO) Declaration on Fundamental Principles and Rights at Work (core conventions)
2. UN Declaration on Fundamental Human Rights
3. OECD Guidelines for Multinational Enterprises
4. UN Global Compact

The Code provides accessible and understandable guidance for each and every employee in every jurisdiction. It sets out our position and expectations from employees in relation to compliance with local, regional and national law, adherence to ethical standards and commitment to quality and service.

Each Group company and its employees, regardless of geographic location, is required to apply the Code and abide by the particular laws and practices applicable to their industry and/or required by the jurisdiction in which they operate. The Code makes it clear that personal and professional integrity is core to conduct business in an ethical manner, which is the duty and the responsibility of each employee.

During 2015, there were no significant incidents reported that the Group considered to be non-compliant with the Code of Business Conduct.

The Code is supplemented by a series of policies covering a number of areas relating to our operational and managerial practices, sustainability and corporate social responsibility. All of these Codes and policies are available on our website www.smurfitkappa.com.

Benchmarking our performance

We are involved with a number of trade bodies to influence understanding and share knowledge on 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 Europe is currently vice-president of the board
- International Corrugated Cases Association (ICCA). Smurfit Kappa's Group CEO is currently a board member
- Asociación de Corrugadores del Caribe Centro y Sur América (ACCCSA). Smurfit Kappa Dominican Republic General Manager is currently a member of the Board of Directors

Strategic suppliers audited

100%

In addition, we are active participants in and signatories to a number of mainly environmental reporting and sustainability organisations:

- CDP (formerly Carbon Disclosure Project)
- The Forest Stewardship Council (FSC)
- The Programme for the Endorsement of Forest Certification (PEFC)
- The Supplier Ethical Data Exchange (Sedex)
- The UN Global Compact
- The Water Footprint Network (WFN)
- The European Round Table of Industrialists (Smurfit Kappa's Group's CEO is a member)
- World Business Council for Sustainable Development (WBCSD)

Our products meet all food safety standards, including OECD guidelines for Multinational Enterprises.

Influencing public policy for good

As a multinational organisation, our businesses are subject to legislation and rules determined by the jurisdictions in which they operate. In that context, Smurfit Kappa adopts positions on a variety of matters that are material to our business, representing our positions to the parties concerned, either directly or through industry bodies such as the Confederation of European Paper Industries (CEPI), the European Federation of Corrugated Board Manufacturers (FEFCO) and 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.

At all times those representing the views of Smurfit Kappa do so having due regard to its Code of Business Conduct and the local laws and regulations applying to the Group's operations. There were no significant criticisms of the Group in this respect in 2015. In line with the Group's Code of Business Conduct no financial contributions were made to political parties in 2015. No national government is a direct investor in Smurfit Kappa.

Supplier compliance

Sourcing of materials, goods and services represents the single largest cost item for Smurfit Kappa. In 2015, we purchased products and services such as raw materials, energy, transportation, maintenance and repairs, and investment goods to the value of €4.8 billion. Our sourcing network includes suppliers ranging from small-scale local companies to large multinationals. In total, approximately 74% of our suppliers' deliveries can be classified as local.

To ensure we meet our sustainability commitments, a robust sustainable sourcing policy is required. Smurfit Kappa's Sustainable Sourcing programme includes a risk assessment of suppliers across the following areas:

- Quality
- Hygiene and safety
- Order processing
- Manufacturing
- Continuous improvement
- Service and technical support
- Environment and sustainable development

Our risk mapping shows that nearly all of our strategic or important suppliers of key materials, goods and services are in the moderate to low-risk area of the risk map.

Minimising risk of non-compliance

Our sustainable sourcing programme started in 2010. We have audited 100% of our strategic suppliers. Auditing of suppliers ensures that the materials, goods and services we source are sustainable and meet our high standards.

Following an initial audit, we work with each supplier on continuous improvement opportunities identified. During 2015, 27 more suppliers delivering both key materials, and important goods and services have been audited for the first time under the sustainable sourcing scheme. Just short of 92% of all suppliers scored satisfactorily, the remaining 8% will be compliant once they successfully complete their defined continuous improvement plans in specific areas of attention.

Improvement opportunities for these suppliers cover areas including hygiene and environmental management systems. The supplier audits also included questions on social governance covering GRI, Sedex, UNGC and CDP. We aim to increase the number of suppliers of key raw materials, goods and services who commit to the 10 principles of the UNGC and who report on social data to Sedex. Sixty-one of our suppliers, mostly strategic, are currently listed as members of Sedex.



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Our priorities and performance

The picture reflects a session in our 'Quality Wall'. A quality awareness centre where all employees of Smurfit Kappa Van Dam, no matter what their role is within the company, learn to combine the quality of our product with the best practice for our client and their individual influence on this process.

From left to right:
Inge Hoevenaars,
Daniëlle van Cruchten
and Bas van Gool
Smurfit Kappa Van Dam
(Netherlands)



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Materiality

Understanding our impact areas

We take a robust approach to identifying the environmental, social and economic factors on which our business operations have an impact.

Summary

- Smurfit Kappa focuses on those sustainability topics that are relevant to us
- Our sustainability topics are assessed through our own operations' impact and by engaging with our stakeholders to reflect their priorities against ours
- The materiality process has confirmed our focus on five strategic priorities: forest, climate change, water, waste and people

Our process has three stages:

1. Assessing internal and external factors material to our business
2. Benchmarking factors material to our stakeholders
3. Stress testing issues identified with stakeholders

We limit the issues considered in this report to only those which have a direct impact on our activities, the environment or our stakeholders.

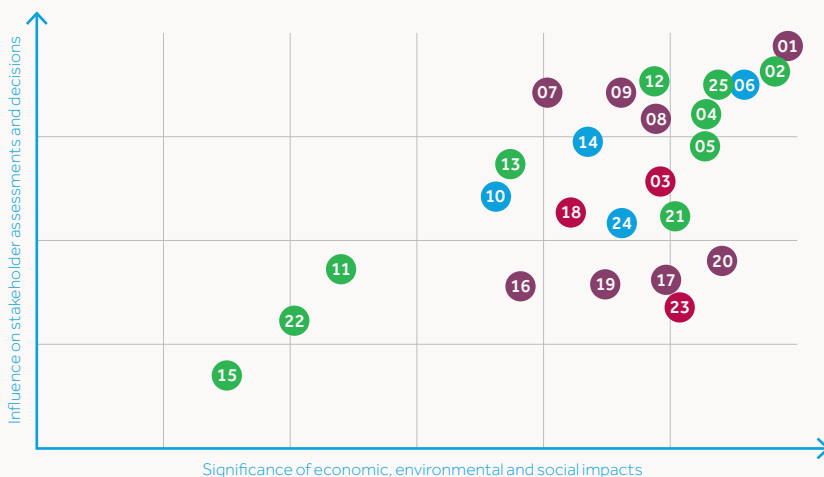
Internal and external factors

When examining the way we operate, our assessment involves a series of internal and external factors including our overall mission, vision on sustainability, long-term strategy, and the Code of Business Conduct which governs Group behaviours and activities.

We mirror the internal factors with the business environment in which we operate. To ensure we are always maintaining the highest standards, and that we understand the relevance of the various internal factors, we follow closely regulatory developments and developments of environmental standards, i.e. certifications and participating in different collaborative projects.

The assessment of internal and external factors is then compared with results of consultations with our stakeholders. Through this, we are able to identify, clarify and prioritise a range of aspects that are important to our stakeholders. Prioritisation is determined using both a qualitative and quantitative approach. When assessing aspects that are material to our stakeholders, a qualitative approach is used to determine factors. This is based on the views of our management,

Material aspects facing Smurfit Kappa



- | | |
|---|--|
| Key | 11 Biodiversity |
| Environment topics | 12 Climate change |
| Social topics | 13 Environmental awareness |
| Economic topics | 14 Responsible sourcing |
| General topics | 15 Sustainable agriculture |
| | 16 Career development and employee training |
| Topics | 17 Well-being of employees |
| 01 Health and safety | 18 Compliance and transparency |
| 02 Energy use | 19 Employee benefits and remuneration |
| 03 Governance, business ethics and value | 20 Labour relations |
| 04 Water intake and discharge | 21 Natural raw material sourcing |
| 05 Waste | 22 Transport and distribution |
| 06 Sustainable packaging | 23 Quality management |
| 07 Diversity | 24 Food safety |
| 08 Community involvement | 25 Sustainable forestry |
| 09 Human rights | |
| 10 Sustainable product development | |

sustainability, purchasing and sales teams. We discuss the ways we interact with our stakeholders in chapters 'Our stakeholders and sustainable value' (page 20) as well as 'Doing business ethically and responsibly' (pages 33-35).

We group the aspects under four main categories:

- Environmental
- Social
- Economic
- General

We then determine the significance and prioritisation of material aspects through a quantitative analysis of the issues identified.

Stakeholder benchmarking

The material aspects identified as a result of our analysis are then benchmarked against the views of customers, investors, suppliers and corporate peers. Here we concentrate on benchmarking the annual sustainability reporting of our stakeholders. Based on our stakeholder assessment we have been able to identify 82 relevant customers, investors, suppliers and corporate peers whose reports we use to quantify the importance of each material aspect. This is done by assessing companies performing a materiality analysis and the frequency with which material aspects were referenced, as an indicator of importance to the business.

The sustainability aspects most relevant to Smurfit Kappa address the interest most significant to our stakeholders as well as to the business itself. Please refer to the matrix on page 38. Some of the sustainability aspects may overlap with each other but have a focus that clearly differentiates the issue from other similar topics.

Stress testing

Material aspects vary across countries and regions. For example, in Europe we have found environmental aspects to have a higher priority, whereas in the Americas social aspects have a more substantial relevance than in Europe.

Acknowledging these regional differences, the final phase is to stress test their relevance and priority with our national and international stakeholders. We do this in a number of ways:

- Organising meetings and round-table discussions with sustainability representatives from our customers
- Participating in sustainability discussions within our industry, especially through our membership at CEPI and with other industries through our membership at WBCSD
- Participation in CDP, DJSI and FTSE4Good surveys
- Engagement with investors
- Community engagement through the Smurfit Kappa Foundations in various countries
- Benchmarking against UN Global Compact guidelines

We then determine the significance and prioritisation of material aspects through quantitative analysis of the feedback received. These aspects are then assessed against two axes:

1. Whether their impact is significant enough to warrant attention and action
2. Their priority to our business and to our stakeholders

The higher in each axis the aspect is, the more material relevance it has for Smurfit Kappa.

The materiality matrix represents the three-step assessment. Although not all aspects highlighted in the graph opposite have the same relative importance for Smurfit Kappa, for transparency reasons they have been considered in determining issues material to our business, and indeed our sector, and are plotted in accordance with GRI guidelines.

As the final result of the materiality analysis, we have come to five key strategic sustainability priorities that we concentrate on in our daily operations and reporting. These five key strategic priorities are:

- Forest, under which we look into sustainable forestry, biodiversity and natural material sourcing
- Climate change, under which we look into energy use, climate change and transport and distribution
- Water, under which we look into water intake and discharge
- Waste, under which we discuss avoiding waste to landfill and hazardous waste
- People, under which we look into health and safety, diversity, human rights, career development and employee training, well-being of employees, labour relations and community involvement

The material relevance of each priority is explained in the following chapters. Other topics we consider to be part of responsible business as such and have therefore commented on these topics throughout the report.



Our priorities and performance

Forest

Managing our forests sustainably

At Smurfit Kappa we produce paper from virgin and recycled fibres. In this chapter we discuss our approach to sustainably sourcing our fibres, covering both fibre sourcing and forest management at our own plantations and forestry operations.

Summary

- Smurfit Kappa is certified by various schemes including Forest Stewardship Council® (FSC), Programme for Endorsement of Forest Certification™ (PEFC) and Sustainable Forestry Initiative™ (SFI)
- We expect to reach a level of 90% Chain of Custody certified packaging for the Group in the course of 2016
- We work with local universities to manage our forests sustainably, such as Cauca, Valle and Quindío universities in Colombia, studying the flora and fauna populations in and around our protected and planted forests in Colombia

Smurfit Kappa produces paper and paper-based packaging solutions for its customers. It is material for us and our stakeholders that we have a strategy to sustainably manage the sourcing and processing of our key raw materials. The forest sector is one of the major users of forest raw materials and has a significant impact in driving sustainable forest management. Therefore, both the industry and Smurfit Kappa have a material role in ensuring the resource is used in a responsible way. This means using for the production of our paper and packaging virgin fibres from sustainably managed forests in combination with recovered fibres from recycled paper as efficiently as possible.

Throughout the paper production process there will always be a need for virgin wood fibres. Fibre can only be recycled approximately eight times before the quality becomes too poor. As a result we have to source virgin raw material from forests. We use both wood fibres and recovered paper to produce virgin and recycled paper globally at a ratio of 25% to 75% respectively.

We believe forests can supply sufficient quantities of sustainable, renewable sources of fibre when managed well. Smurfit Kappa manages its own eucalyptus, pine and gmelina plantations in Colombia and Venezuela and manages a small number of hectares of forest in Spain and France. We also procure pulp wood from a sustainable origin from suppliers throughout Europe, among which are Austria, Baltic states, France, Germany, Spain and Sweden.

Everything we do is subject to strict principles of sustainability and the highest standards of practice to ensure sustainable forest management. We believe that this is best achieved through implementing sustainable forest management certification and related Chain of Custody systems throughout the value chain from forest to end product. We hold our suppliers to the same standards.

Risks, challenges and opportunities Deteriorating quality of recovered fibre

Across the globe more and more paper is being recycled. This has a positive impact on the fibre supply when more paper and paper-based packaging is needed, especially in developing and emerging economies. But using more fibre that has been recycled also reduces the quality of recovered paper and hence that of newly made recycled paper. At a global level forest areas are still decreasing and the issue of deforestation clearly is a concern for stakeholders. Since wood fibres cannot be recycled endlessly, the paper industry also needs inflow of new wood fibres that need to come from sustainably managed forest areas.

The opportunity is to find a balance between sustainable use of virgin and recovered fibres. Sustainable forest practices and only using material from sustainable origin/Chain of Custody certified material is key to striking that balance and to maintaining an equilibrium. The forest sector can still do much to improve its situation as, according to the UNECE/FAO Forest Products Annual Market Review, only 29% of industrial

99.9%

Tackling climate change in forestry



Changing climate patterns in the areas where Smurfit Kappa manages forests and plantations challenges foresters to find solutions to mitigate risks in the forests and to the sustainable supply of timber to our mills. John Byron Urrego who leads our forestry research team in Colombia and Jean-Michel Boulay, CEO of forestry operations at Smurfit Kappa Comptoir du Pin in France discuss this situation.

"In France, we have experienced increased storms that damage forests in the past 15 years," explains Jean-Michel. "This leads to many issues from lost revenues for the forest owners and disturbances in the wood supply to our Cellulose du Pin mill in Bordeaux to forest diseases and insect damage." "For us in Colombia, the changes in rain patterns are an issue," adds John Byron and continues "We have droughts in areas where availability of water wasn't a problem before and floods in other areas."

Forests and tree plantations are an important element in the natural water cycles. They help regulate the amounts of water available, purify ground water and capture nutrients from flowing to the water bodies. The forests and tree plantations play an important role to provide good quality water for domestic and agricultural needs. Therefore it is important that we can also support these



ecosystems through good forest and plantation management practices. We believe that commercial forestry plays a positive role in maintaining these cycles.

John Byron emphasises the role of forest management practices in Colombia. They are the first means we have to address the impact of climate change and through learning from nature we can improve and quickly adapt. "Paying attention to the local water system is a key element of sustainable management of a forest or a plantation," he says. It also means that growing trees for industrial use doesn't compete with the other needs for water such as agriculture or drinking water.

In Aquitaine where our forestry operations in France are located, adapting forest management to the new situation was challenged with another issue: how to keep forest owners, mainly families, interested in managing their forests and selling timber. "We wanted to establish a solution that at the same time increases the resistance of our forests against storms and other damages and engage forest owners with a more frequent income from their forests," says Jean-Michel. "The solution we tested in collaboration with French forest research institutes originates from typical southern hemisphere plantation

management practices. We apply shorter rotation times of 25 years instead of 45 years in a small percentage of the forest area." This solution has proven to bring many benefits to the local forestry: work, income and sustainable supply of wood to the mill.

In Colombia we also work together with the Faculty of Agricultural Sciences at the National University in Palmira (Valle) to understand the mechanisms of water usage of the commercially used tree species in Colombia. Currently, the analysis concentrates on *Eucalyptus grandis*, a hybrid of *Eucalyptus grandis* and *Eucalyptus urophylla* and will be soon followed by studies in pine. "Here a collaboration with Smurfit Kappa's tree nurseries is relevant," says John Byron. We have a good traceability to the parent trees and can make good analytical choices.

"Another positive effect is that we capture more CO₂ from the atmosphere when the trees grow in an efficient manner," concludes Jean-Michel. In Aquitaine we collaborate with FCBA, a French research institute, and can show that the carbon sequestration increases by 92 tonnes per hectare with this new life cycle management, while the goal is to cover 5% of the 1,000,000 ha of the Aquitaine forest area. In Colombia we collaborate with the National Centre for Coffee Research (CENICAFÉ). Together we developed the 'Carton de Colombia Carbon Fixation Program' or 3CFix, for the calculation of carbon fixed by our plantations. As a result, we established in 2015 that the inventory of carbon captured by 25,500 ha of pine and 16,000 ha of eucalyptus reached 2.5 million tonnes. Since the start of our Colombian forestry activity, the amount of carbon dioxide removed from the atmosphere by 41,000 ha of plantations is 9.2 million tonnes.



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Forest continued

Roundwood is certified according to the internationally accepted forest management standards.

Simultaneously, FSC certification of recovered fibres has been relying on a high content of post-consumer material which can lead to lower quality recycled paper products that can be recognised as sustainable through forest certification labelling. Smurfit Kappa therefore welcomes the FSC's advice note on the Chain of Custody standard approach which now accepts a wider definition for acceptable recovered fibre origin, thus enabling the promotion of recycled paper products as sustainable under the FSC label.

The paper-based product industry can also do much to improve the quality and lifespan of the fibres. The World Economic Forum Project Mainstream published a set of guidelines for improving the recyclability of paper including guidance from use of inks and glues that can be more easily removed from the recovered fibre and thus improving the fibre quality to increasing the recycling of paper. Smurfit Kappa participated in this cross-sectoral work.

Wood-based subsidies and their effects on wood markets

The 2020 EU Renewable Energy Policy targets are supported by subsidy schemes that both increase the price as well as impact the availability of our raw materials. For the 2020-2030 period the target for renewable energy has been increased, and participants are expected to reach 27% of their energy from renewable sources by 2030. The EU calls for an improved biomass policy to allow for fair competition between the various uses of biomass resources in, for example, paper and pulp industries. This in effect supports our favoured concept of resource hierarchy with policy support for the highest added value applications for fibre, such as producing paper, over lower added value applications, such as energy generation.

Regulation and certification

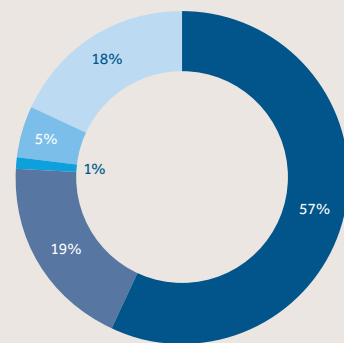
The EU and the USA have implemented legislation to tackle illegal timber in their marketplaces. As a company operating across a number of European and American countries, we are subject to managing our wood sourcing in a manner that is traceable to legal sources, applying a due diligence system in our wood-based material sourcing. We believe that this is the minimum requirement for wood sourcing and places emphasis on voluntary forest certification that adds the sustainable forest management requirements on top of the legal origin requirement.

For us, the best way to meet these requirements is to implement forest certification and Chain of Custody certification that aims at providing traceability to the origin of the wood source. We believe that the three international forest management certification schemes, Forest Stewardship Council (FSC), Programme for Endorsement of Forest Certification (PEFC) and Sustainable Forestry Initiative (SFI), give best assurance of sustainable wood material.

However, FSC and PEFC have also faced issues with the integrity of their Chain of Custody systems. To tackle this, both schemes have made efforts to improve their systems including revising their Chain of Custody and Controlled Wood standards and creating platforms that enable increased transparency for certificate holders' data. As an active member of FSC International and PEFC International, Smurfit Kappa has been supporting these processes.

Fibre origin 2015

All operations*



- Recycled pulp produced internally
- Wood pulp produced internally
- Market virgin pulp
- Virgin papers purchased
- Recycled paper purchased

*All operations include paper and board mills, corrugated, board converters, sack plants

CHAIN OF CUSTODY CERTIFIED PROOF

We continually increase the amount of products sold as certified according to FSC[®] or PEFC[™] standards. Approximately 80% of our products are sold as certified.

Our priorities and performance

Forest continued

Transparency throughout our supply chain is key to the delivery of our sustainability responsibilities.

Our commitment to sustainable fibre

Our target is to source fibres that originate from certified, well-managed forests or are of a non-controversial origin and our recycled fibres are traceable to the collection point. All materials should be delivered through a third-party verified, Chain of Custody certified, supply chain. We accept FSC, PEFC and SFI certified wood and the Chain of Custody systems at our mills and plants also cover recycled fibre sourcing.

The packaging products we deliver to our customers should therefore not only meet the above requirement but also meet the commitments we make in our various policy statements (Forestry policy, Code of Business Conduct, Social Citizenship, etc.). Most of these have been covered in Chain of Custody certification. This concerns all fibres and fibre-based products we use or manufacture, whatever the origin or form of the fibres.

A total of 56% of the wood used in the Smurfit Kappa mill system for producing virgin paper or pulp is currently Chain of Custody certified under the FSC, PEFC and/or SFI schemes and the remaining 44% is wood from non-controversial origin. This status has been risk-assessed through our FSC and/or PEFC Chain of Custody system and verified by a third party.

Smurfit Kappa recycling operations handle some 4.2 million tonnes of recovered paper annually in Europe and 1.2 million tonnes in the Americas. We have a network of 14 recycled paper depots in Europe and 35 in the Americas that supply recovered paper from municipalities, retailers, industrials and our own corrugating and converting operations.

Chain of Custody certification

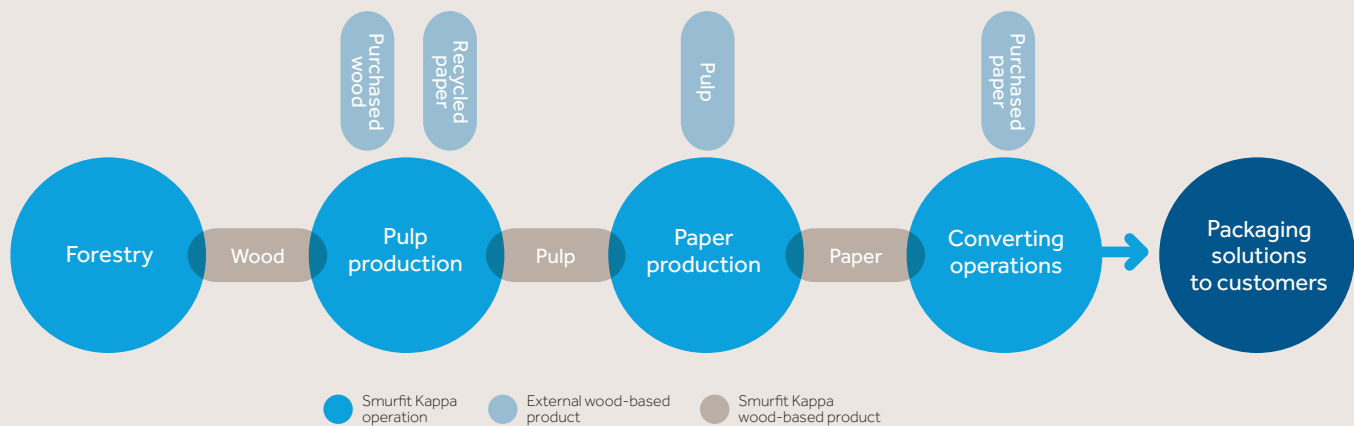
Transparency throughout our supply chain is key to the delivery of our sustainability responsibilities. We are committed to maintaining a robust monitoring and third-party auditing of our supply chain to ensure sourced fibre is compliant with our sustainability principles. While Smurfit Kappa does not source wood fibre from areas where the risk of deforestation is high, it is nevertheless an important issue that affects the reputation of the whole industry. The best practice to deliver our commitment is forest certification and Chain of Custody certification.

At the end of 2015 the availability of certified fibres at our paper mills reached a level that enables us to produce some 93% of our paper as Chain of Custody certified according to the FSC, PEFC and/or SFI. The remaining 7% are non-controversial fibres managed through the mills Chain of Custody certified risk assessment systems.

Wine gift boxes: this unique gift box presents a single bottle of wine, but can also be combined to create an even more beautiful set of bottles.



Tonnes of recovered paper

5.4 million**Chain of Custody model**

The complete Smurfit Kappa paper and board mill system in Europe is Chain of Custody certified under either one or both schemes we support in Europe (FSC and PEFC) since 2010. Since January 2015, when our Venezuelan paper mills were certified, all of our paper mills in the Americas are certified under FSC certification standards. Forney (USA) is also certified by SFI. This means that we have reached a 100% production capacity with Chain of Custody certification for our paper and board production. Currently, depending on the product line, the level of produced certified paper varies between 47% and 100%.

The Chain of Custody certification of our converting operations in the Americas was completed by March 2015. In Europe, substantially all of our converting operations are Chain of Custody certified. With this complete coverage of both certified paper and board produced and converting operations under Chain of Custody certification we are quickly increasing the level of our packaging sold as certified. By the end of 2015 we reached a level of 74% for the Group as a whole, by the end of the first quarter of 2016

a level of 81% was reached, with Europe and the Americas reaching 90% and 50% respectively. We expect to reach a level of 90% for the Group in the course of 2016, one year later than our initial commitment. Reasons for this one-year delay are insufficient certified material supply from external suppliers and necessary adaptation of internal IT systems.

Forest and plantation management**The Americas**

Smurfit Kappa owns and manages 103,000 ha of forests and plantations in Colombia and Venezuela that provide almost all the virgin wood fibre we require in those countries. They are all subject to protection programmes managed by Smurfit Kappa based on the best sustainable development principles promoting responsible use of natural resources alongside economic development and social inclusiveness.

We also conform to comprehensive legal, technical and environmental regulations set by local governments and international bodies, and subject to annual review.

Colombia

Our largest forest plantation area is in Colombia. In total we own or manage approximately 68,000 ha, including:

- 43,000 ha of commercial plantations, of which 5,300 ha are partnerships with private landowners
- 22,000 ha of protected natural forest
- Just over 3,100 ha of land used for infrastructure

60% of our plantations are planted with pine trees and 39% by eucalyptus trees, while 1% is dedicated for research.



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Forest continued

Forests are a closed-loop system from which we can positively benefit when using them sustainably.

Venezuela

Our forests in Venezuela are situated in the three western states. Totalling some 35,000 ha of forest and plantations, they include:

- 21,000 ha of commercial plantations
- 13,000 ha of natural forest
- Approximately 1,000 ha of land given over to infrastructure

60% of our plantations are dedicated to short fibre species (eucalyptus and gmelina) and 31% to pine which provides long fibre. The remaining 9% is used for research and development, including silviculture, plantation management and forest protection activities.

Certification

Our Colombian forest management programmes have been certified by FSC since 2003.

Our Venezuelan forests and plantations are managed to the highest standards. By the end of 2015, 45% of the area was certified to FSC Controlled Wood standards.

We finalised a FSC Forest Management standard certification process for 31% of the plantations in December 2014 and received the certificate in March 2015.

Conservation

Of the forest land owned by Smurfit Kappa in Colombia and Venezuela, 32% and 37% respectively is dedicated to protect the sustainability of forests. Not converted to plantations, this land helps to maintain the rich biodiversity of the area, preserving watersheds and conserving habitats and ecosystems.

To maintain the biodiversity and sustainability of forests in these areas, our guiding principles are to:

- Conserve natural forests under our stewardship, protecting and promoting species diversity, thereby sustaining ecosystems and contributing to the protection of water sources and habitats for flora and fauna
- Identify appropriate species and practices that increase plantation yields while protecting the environment
- Continuously and systematically develop research programmes to preserve and enhance soil productivity

Plantation forestry offers a means to produce sustainable fibres for paper production in an efficient manner. In our Colombian and Venezuelan holdings this is done in carefully selected areas, avoiding valuable ecosystems and protected forest areas.

Protecting and promoting biodiversity and natural habitats is an important part of our approach. To achieve this, we work with third-party institutions and through our own research centre in Colombia.

In Colombia we have worked with three local universities in Cauca, Valle and Quindio since 2009, studying the flora and fauna populations in and around our protected and planted forests.

Examples of our work include:

- A partnership with the Biology Programme of the Natural Science School of Universidad del Valle began in 2013 to study the 'diversity of birds, mammals and plants in the natural forests of the forestry nucleus in Sevilla'
- A literature review, carried out in 2014, which aimed to inform conservation planning by identifying areas of special biodiversity in close proximity to the company's plantations and natural forests in the Santa Rosa-Pereira core areas

During the past three years, studies developed by Smurfit Kappa identified 990 species in our forests. This includes 458 trees, 473 birds, and 59 mammals of which 30 species have been declared to some extent endangered by the IUCN. It is clear to us that our plantations and the neighbouring protected natural forests form important wildlife corridors that contribute to species conservation in the Andean ecosystem, and therefore need careful management.

In addition to our work in biodiversity and nature protection, we work in close cooperation with the communities neighbouring our plantations. In the communities in which we operate we endeavour to engage local people around decision-making processes.

Europe

In Europe we offer forest management services through our wood supply companies in Spain and France. In France we also own some 600 ha of forest. In both countries we follow local best practices for forest management, as certified by PEFC.

Our wood handling operations are Chain of Custody certified according to FSC and PEFC standards, while our complete paper and board mill system has been certified since the end of 2010.

Forest



Boundary: This strategic priority discusses relevant issues around sustainable forest management, biodiversity and natural material sourcing. We limit our reporting to our own forest management, raw material sourcing, production and labelling our products.

We implement sustainable forest management principles for our own plantations and forests and aim to achieve FSC and PEFC certification for all of our plantations and forest.

We certify our own Chains of Custody according to FSC and PEFC standards, covering both virgin and recycled fibres. We expect our suppliers to be able to deliver fibrous raw materials through complete FSC, PEFC or SFI certified Chains of Custody.

Commitment #1: All fibre produced and purchased is Chain of Custody certified under FSC, PEFC or SFI or is from non-controversial sources according to these schemes.

Timeframe: Target to be reached by 2015.

Progress made: We produced and purchased 99.9% of our fibre under fibre origin management systems that are Chain of Custody certified in 2015, which is within our threshold of 1% of having been able to reasonably keep the commitment.

Commitment #2: More than 90% of our packaging is labelled as Chain of Custody certified under FSC, PEFC or SFI.

Timeframe: Target to be reached by 2015.

Progress made: We reached 74% Group wide by the end of 2015. The expected delay of one year in achieving the initial target is acceptable taking into account the challenges we faced and the progress we have made in the first quarter of 2016.

Our perspective: Independent third-party verified certification is the most reliable means to promote sustainable forest management and combat deforestation. We manage our forest holdings based on our sustainable development principles, promoting economic growth, responsible use of natural resources and fostering social equity in the regions where our plantations and forests are located.

The recyclability of paper fibres is an important contributor to the sustainable nature of our products. Recovery of used paper is a global necessity and policies should stimulate setting up well-functioning paper recovery systems. For Smurfit Kappa, communicating the sustainable nature of our products is important. Therefore we have included the sourcing of recovered paper in the scope of our Chain of Custody certifications.

FSC, PEFC and SFI currently offer the most reliable standards that deliver credible sustainable fibrous raw materials.



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Putting commitment into practice

In December 2015, governments agreed through the COP21 'Paris Agreement' that global warming must be held well under 2°C and set a goal to pursue efforts to limit warming to no more than 1.5°C above pre-industrial levels. The current year 2016 will begin to show what this commitment means in practice.

Summary

- Between 2005 and 2015 we achieved a reduction of 22.6% of our relative fossil CO₂ emissions for our paper and board mills
- We improved the energy usage per tonne of paper produced at our paper mills by 10% between 2005-2015
- Biofuels currently represent 45% of our paper mills' fuel mix compared to 37% in 2005
- Our Paper-to-Box and Pack Expert tools help to determine and track the carbon footprint of the packaging solutions we supply to customers

The production and use of fossil energy is one of the major contributors to greenhouse gas emissions (GHG) and climate change globally. Paper production is energy intensive and the cost and supply of energy are key decision factors for our sector. Our industry's challenge is to reduce the energy intensity of production and move, where economically feasible, from fossil fuels to renewable sources, including biomass.

Use of energy, carbon footprint and GHG emissions are all material to Smurfit Kappa's business. We also recognise that these issues are relevant to wider society, and indeed a factor closely followed by our stakeholders.

As a company we strike a balance between using wood (and recovered) fibres for the production of paper and using wood fibres such as sawdust, bark, black liquor and fibre containing sludge for bioenergy production. By the nature of its processes, the paper-producing industry is one of the most efficient users of wood and energy alike. We only use wood biomass that cannot be used in any higher value production for energy generation. In addition, we reuse as much as we can of the by-products of bioenergy production, including black liquor, as a fuel in our own production processes.

Risks, challenges and opportunities

Climate change represents a global risk. More intense and extreme weather poses a risk not only to society but also businesses. The risks vary from physical damage to operating sites and risks in supply chains to changing consumption patterns.

In the global drive to decrease fossil CO₂ emissions a shift towards the use of renewable energy is needed. This shift could be achieved by embracing biomass energy. However, this may limit the availability of wood fibres for paper production. Cost is also a risk and a challenge. Increased cost of the raw material, possibly as a result of government incentives that encourage the use of biomass, could create a competitive disadvantage compared to less energy-intensive packaging materials.

Tackling climate change through encouraging circular economy is an opportunity to our business. Smurfit Kappa continually seeks ways of utilising its resources more efficiently and welcomes synergies with stakeholders. One of the fields where circular thinking has advanced our efficiency is energy production either from our side streams or in the form of more efficient use of different forms of energy.

Smurfit Kappa supports efforts to curb climate change while maintaining a global level playing field for business. Following the 'Paris Agreement', the business sector is looking for governments to design stable and predictable long-term policy frameworks that ensure continuity,

Relative CO₂ emissions compared to 2005

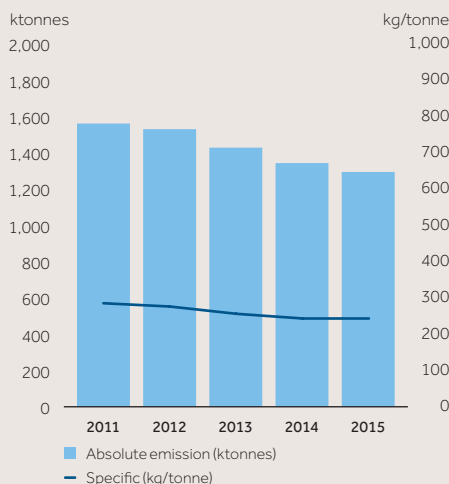
-22.6%

coherence and effectiveness needed for the transition to a low-carbon society offering certainty to support innovation and investment decisions.

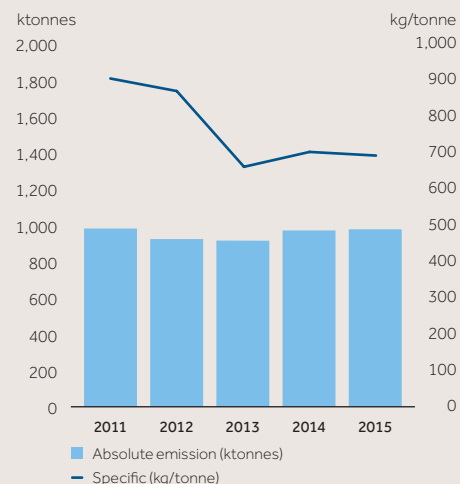
Specifically for Europe, where we have 75% of our business, we are closely following how the follow-up of the COP21 has an effect on the EU ETS and how the EU can avoid the so called 'carbon leakage' – the transfer of business operations to countries with less robust environmental targets. The EU approved its policy framework on climate change for the period of 2020-2030 but its implementation has not yet been decided.

For the paper industry, it is fundamental that the region remains competitive and costs hindering global competitiveness can be avoided, including emission trading.

Direct fossil (scope 1) CO₂ emissions European mills



Direct fossil (scope 1) CO₂ emissions The Americas mills



Energy efficiency in Sweden and Denmark



To tackle climate change Smurfit Kappa is moving to a lower fossil-fuel, less CO₂ intensive, energy mix, promoting renewable sources where economically feasible and closing loops to create circularity in our production processes. Recently Smurfit Kappa invested in new energy efficiency approaches in Sweden and Denmark.

Swedish steam solutions

Ulf Landin, plant manager in Brännögård, says: "We invested more than 300,000 euro in a new gas fuel boiler that replaced our existing oil fuel boiler. It produces steam for the corrugating machine, handles corrugator condensate, heats water, and also heats our building. The investment was based on three crucial improvements. The gases from the new gas boiler are used in a loop to heat storage tank water and our plant. Secondly, a separate condensate tank was installed to control the steam power. And finally, it enabled us to close a safety risk our plant called the steam trap. The boiler was repaid in less than one year.

It annually reduces our energy need with yearly energy consumption of 50 households."

Closing the loop in Denmark

"At our CorrPrint plant in Denmark we invested in reusing the hot air coming from the printing press drying sections," explains general manager Michael Larsen. "The hot air replaces the cooler input air needed in the boiler, leading to a much reduced demand in heating and a decline in the consumption of natural gas. In the old situation the 50°C heated air was just wasted, now it is returned to the system loop. This results in yearly gas savings amounting to some 65% of our current gas usage. The annual reduction in fossil CO₂ emissions equals approximately 360 tonnes. The technology has a very short payback time of only 1.6 years and immediately makes a significant sustainability contribution."



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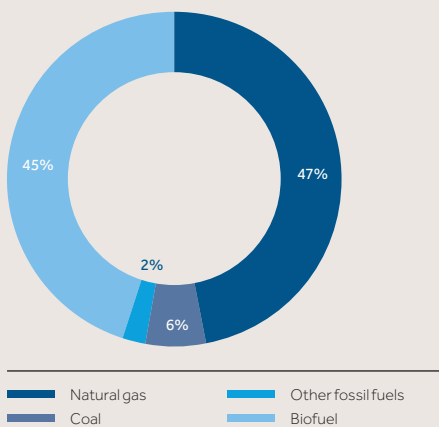
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Climate change continued

Direct fuel consumption

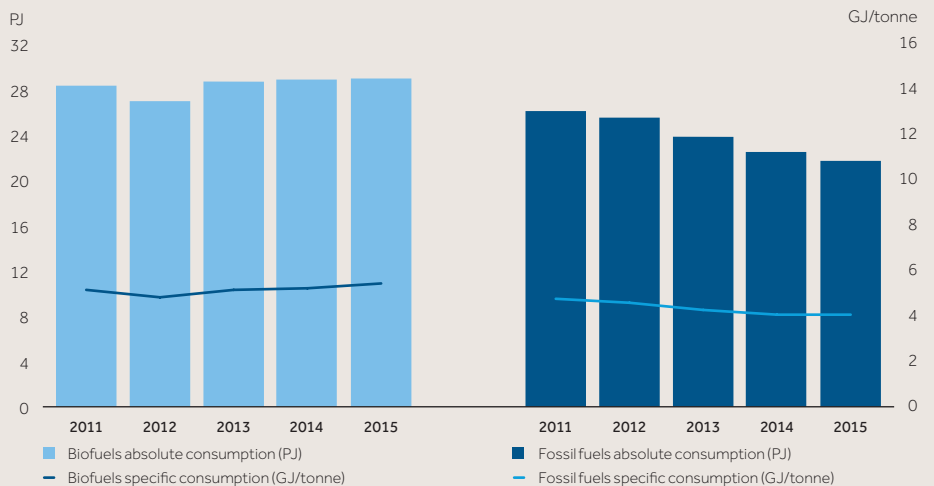
All operations*



*All operations include paper and board mills, corrugated, board converters, sack plants

Biofuels and fossil fuels

European mills



Smurfit Kappa supports the EU initiative for an Energy Union. We believe it will enable European companies to deliver innovative, efficient products and technologies to tackle climate change, provided it is established in the correct way. With the majority of our business based in Europe we are affected by the enduring relative high energy costs in the region. The Energy Union aims, among other things, to address this issue.

Looking further ahead, the Forest Fibre Industry 2050 Roadmap to a low-carbon bio-economy paper showed that a CO₂ reduction for our sector of 50% to 60% compared to 1990 levels is possible based on available and emerging technologies. To reach a reduction of 80% by 2050, the development and availability of breakthrough technologies is necessary but must be available by 2030.

We are participating in a consortium that is investigating the viability of one such breakthrough technology called Deep Eutectic Solvents. To transform the energy consumption of production processes, cooperation within and between businesses across different sectors, particularly around research and development, is essential. Governments and the EU have a central role to play in incentivising projects to meet this challenge.

Progress in 2015

To tackle climate change we are moving to a lower fossil fuel, less CO₂ intensive energy mix, promoting renewable sources where economically feasible and closing loops to create circularity in our production process. We do this through a three-pronged approach:

- Investing in efficient energy generation
 - Investing in highly efficient Combined Heat and Power (CHP) systems. Our industrial need for both electricity and heat means we are well suited to scaling up our use of CHP generated power
 - Improving the efficiency of our current boiler houses, minimising heat losses
- Investing in energy reduction programmes
 - Reducing our absolute use of energy through investment in research and new replacement technologies
 - Investing in fossil CO₂ reductions
 - Reducing carbon emissions through a shift to CO₂ friendlier fuels such as biomass and natural gas

Between 2005 and 2015 we have achieved a reduction of 22.6% of our relative fossil CO₂ emissions for our paper and board mills, which is equal to the relative reduction already achieved in 2014. Both figures are exclusive of the four solid board mills in the Netherlands that were divested in spring 2015. Our target is measured against produced tonnes of paper rather than absolute values. This takes into account the fact that the company is in dynamic growth and also subject to opening and closing facilities.

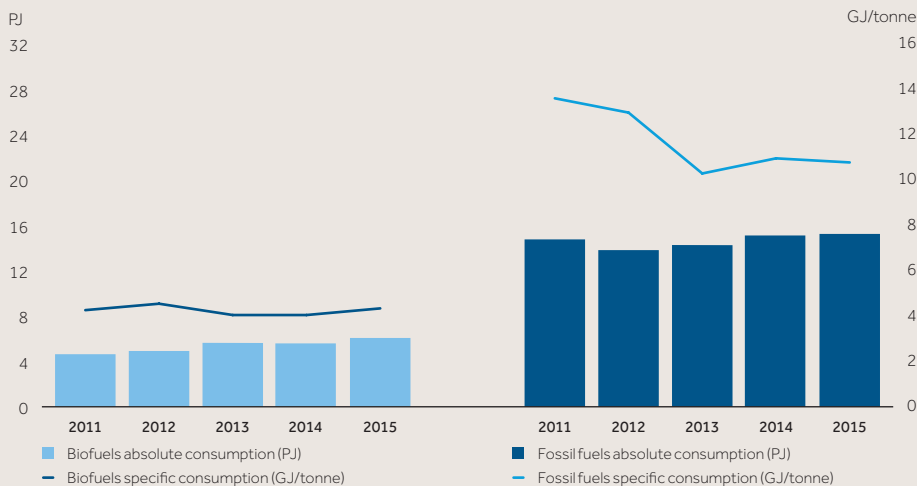
Energy efficiency

While our target in the area of climate change is to reduce our relative fossil CO₂ emissions, it cannot be achieved without progress in becoming more energy efficient. During the 10 years from our target baseline year 2005 to the reporting year 2015 we have been able to improve the energy usage per tonne of paper produced at our paper mills by 10%. This is combining both investments in more efficient energy generation as well as investing in technologies that help reduce use of energy in our processes.

+10%

Biofuels and fossil fuels

The Americas mills



The key events during 2015 resulting in the 22.6% reduction of relative fossil CO₂ emissions in comparison to 2005 were:

- 2015 was the first full year of operation for the newly installed Combined Heat and Power plant in our Hoya mill in Germany. Higher efficiency of electricity generation from CHP compared to external source has led to lower CO₂ emissions from the site
- Improved stock preparation at our Mengibar mill in Spain has led to up to 4% CO₂ emission savings due to lower electricity needs
- Improved refining and reducing vacuum at the press section reduced electricity needs of 5% per tonne of paper in our Nettingsdorf mill in Austria. Changes in the paper machine and the pulp plant also reduced the need for steam leading to less use of natural gas. In total the mill reduced its CO₂ emissions by 12%
- Our Coronel Suarez mill in Argentina changed its vacuum pumps to a fan, leading to 2% CO₂ emission savings at the site

- Our Townsend Hook mill in the UK start-up had an impact on the relative emissions due to higher energy usage than designed, which is common during such a phase
- The sale of four solid board mills in the Netherlands had a significant impact on our CO₂ reduction target in 2015. With the sale of these four mills we have adjusted our CO₂ baseline for 2005 as well

Renewable energy

To become less dependent of fossil fuels, a shift to renewable, CO₂ friendly fuels is required. For Smurfit Kappa this means creating circularity in our energy production through fully utilising, where possible, any by-products that have an attractive energy value. In addition to traditional bioenergy usage at pulp and paper mills – burning black liquor at integrated pulp and paper mills and utilising the biogas produced during the anaerobic water treatment at our recycled paper mills as fuel – we are currently exploring further options for creating energy and heat from our side streams that have otherwise no other valuable use.

Our industry must reduce the energy intensity of production and move, where economically feasible, from fossil fuels to renewable sources, including biomass.



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To be able to reach our relative CO₂ target, we have a programme to move from fossil fuels to renewable sources. Since 2005, we have moved to biofuels where possible and reached a fuel mix where biofuels represent 45% of our paper mills' fuel mix compared to 37% in 2005.

In 2015, a material shift in bio-based energy was realised through the optimisation of the black liquor washing system at our Cali mill's pulp plant 2 in Colombia. More black liquor can be used in the production of energy, which shifts Cali's energy mix to more bio-based.

Working with our customers

Using a suite of tools, including our Paper-to-Box and Pack Expert, we continue to work with customers to determine the carbon footprint of their packaging. These tools give access to CO₂ emissions data and other information to optimise packaging solutions.

In 2015, Paper-to-Box was used more than 3,000 times a day and Pack Expert almost 1,200 times a day on average. As we work towards our 2020 target of 25% reduction of our specific CO₂ emissions, these tools can capture this data for customers' own calculations and benefit. The use of these tools further increased in 2015 compared to 2014.

A new option in our Innotools suite of design software allows customers not only to know the carbon footprint for each packaging unit, but also to track its development over the years.

Emissions from transport

The vast majority of our CO₂ emissions stem from our manufacturing activities at our production locations. Of the remaining CO₂ emissions, those caused by the transport of raw materials, intermediate and final products to and from our production locations are also significant.

We currently report our transport emissions from our European operations, which represent 75% of our business and

Efficient energy use in Colombia and Austria



Smurfit Kappa tackles climate change by investing in efficient energy generation, energy reduction, and fossil CO₂ reductions. Recently projects were finalised in Colombia and Austria which resulted in significant savings in energy input and CO₂ output.

Claudia Marcela Londoño Gómez, corporate environmental engineer, explains: "Smurfit Kappa Colombia optimised the liquor washing system at our Cali mill pulp plant. Now we can use more black liquor to produce energy and need less natural gas. This is a major switch to renewable fuels and less fossil CO₂ emissions. To prevent a total production stop the changes to the pulp line were carried out one step

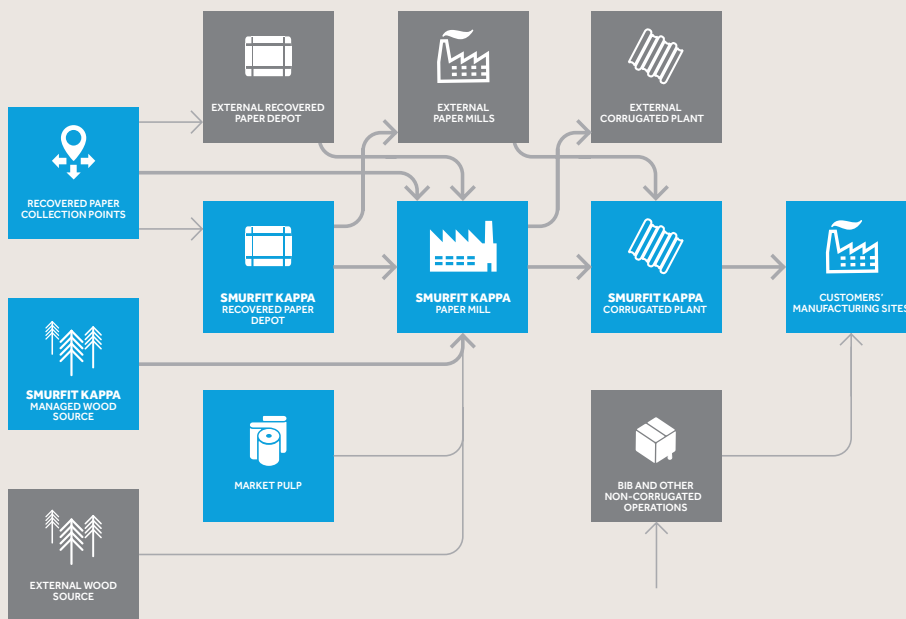


at a time while reducing the production output only temporarily. The whole process took more than six months to finish and involved a budget of 1.2m USD. Washing performance improved greatly. We are now operating with three washers instead of four and the washing quality is much better. The boost in use of black liquor, due to better washing, has led to an increase of 560,000GJ which replaced the same amount of natural gas. This has decreased fossil CO₂ emissions by 30ktonne."

In Austria, Smurfit Kappa Nettingsdorf improved its paper machine and pulp refining process. The plant realised 4.3%

heat savings and total fossil CO₂ savings of 12%. "Support from supervisors and operators is key," says Hubert Mittmannsgruber, Paper Production Manager. "We are on a continuous energy saving journey that started in 2008. Rebuilds have been implemented in three projects. Our focus has been on improvements in press roll doctoring and reduction in press felt vacuum water saving, which correspond to an annual 8GWh power reduction or 1,320t indirect CO₂. Steam savings due to optimised press performance add up to the equivalent of 3,500t fossil CO₂ reduction." Andreas Zeitlinger, Paper Production Manager, adds: "With regard to the pulp refining we wanted to improve both the consistency of the kraft pulp and reduce our energy intake. This process step consumed around 40% of the total power in our paper making process. After no less than 17 full scale trials in five years, we successfully changed the design of the refiner plates and our operating process. The energy intake has dropped by 19% or 19GWh per year with a saving in indirect CO₂ emissions of 3,130t annually."

Transport streams



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

have expanded the scope of this reporting for 2015. The transports and the scope of our reporting has been described in the diagram above. Our aim is to also include in the future transport emissions from the Americas as well.

In the CO₂ emissions reported we include the transport of wood, recovered papers and market pulp used in our mills. We also take into account CO₂ emissions from the transport of intermediate products to paper mills and/or converting plants (reels of paper, corrugated board sheets, solid board sheets, etc.). In 2015, these emissions were 283,000 tonnes of CO₂ equivalent. We also report CO₂ emissions of the transport of finished products to our customers, which mainly focuses on packaging solutions. The latter transports have all been delivered by road and represent in total CO₂ emissions of 94,000 tonnes.

The total of these transport-related emissions in 2015 represented 377,000 tonnes of CO₂ equivalent.

While the calculation of CO₂ emissions for the transport of paper reels between our own mills and the converting plants is accurate (representing 75% of the total volume), we believe we have made a good estimate of emissions for the transport of the remaining reels of paper supplied to our corrugated plants by third parties.

Transportation for the above activities represents approximately 8.9 billion so-called tonne-kilometres. 54% of our transport needs are carried out by road, 35% by sea with the balance carried out by train.

We have adopted a calculation method in which we collect actual data every second year and use this data to extrapolate and adjust the following year's transport emissions unless the acquisitions and divestments made by the Group create a material change to the situation. The data for 2015 is actual 2015 data. The CO₂ emission factors by transport mode are extracted from the European Reference Life Cycle Database version II (ELCD).

Climate change

Boundary: This strategic priority looks into energy use, climate change and greenhouse gas (GHG) emissions. We limit our reporting to our own operations and transport from our suppliers and to our customers' gates.

All CO₂ emissions from our paper and board mills (directly used or indirectly used through buying secondary energy) relate to the production of paper. Only paper production is taken into account given its relative fuel use compared to our converting operations (90%) and hence its contribution to fossil fuel CO₂ emissions.

Commitment #1: A 25% reduction in relative total fossil CO₂ emissions (compared to 2005) (scope 1 and 2) in our mill system by 2020.

Timeframe: Target to be reached by 2020.

Progress made: In 2015, we reached a reduction of 22.6% of relative fossil CO₂ emissions (compared to 2005). We are on steady progress with the target. Our three-pronged approach and its actions deliver expected results.

Commitment #2: Collaborate with customers to determine the carbon footprint of the packaging life cycle.

Timeframe: Continuous.

Progress made: We have developed a suite of tools that help to determine the carbon footprint of our customers' packaging (Paper-to-Box and Pack Expert). In 2015, these tools were used on average more than 4,500 times a day.

Our perspective: The impact of climate change is one of the biggest challenges we as a society face.

Our use of energy, carbon footprint and GHG emissions are all material to Smurfit Kappa's business. We therefore need to find ways to fundamentally re-engineer our operations to be less fossil fuel intensive. In our case it means reducing energy use and increasing energy efficiency and increasing the use of renewable sources where feasible.

Our opportunity is to design products that allow customers to take out energy usage in their supply chain.



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Water

Looking after a much needed resource

Water is an important element in everybody's life and the availability of fresh water is of such concern that as part of the UN Sustainable Development Goals we all need to ensure availability and sustainable management of water and sanitation for all.

Summary

- Sustainable water management is increasingly important as fresh water becomes scarcer and more unequally distributed
- Our target is to reduce the organic content of water (COD) returned to the environment from our mills by one-third by 2020 compared to 2005 levels
- Between 2005 and 2015 the COD content of process water returned to the environment has decreased by 29% relative to production
- We are performing water impact assessments on our sites and developing water usage measures as appropriate

Although only 9% of our paper and board production originates from mills located in areas where there is physical water scarcity and the remainder is from locations where there is typically an abundant supply of water with no scarcity foreseen, sustainable use of water is of key importance to us and of material importance to our stakeholders. To produce paper and board, water is mainly used to process our raw materials and for cooling purposes. Our 33 paper and board operations under review used in 2015 117 million m³ of water of which 110 million m³ was again discharged in good condition. The supply of good quality water is therefore of material concern to our business.

The figures above indicate we are more a processor of water than a consumer. Apart from returning more than 90% of the water we take in, we also reuse water several times at various production stages before it is treated in our water treatment facilities and returned to public water bodies. Of the water discharged, 79 million m³ was used for processing purposes, 31 million was used for cooling. Since 2014, we are performing water risk assessments across our sites.

Risks, challenges and opportunities

A significant decrease in the availability of/or an increase in the cost of fresh water, will materially impact the ability of our business to operate.

Water is vital for the ecosystems and environments in which we operate. Water that is being returned to the environment by an industry can impact its ecosystem either by creating a nutrition imbalance, polluting the water or changing its temperature.

Regulatory requirements and continued scrutiny means that the quality and safety of the treated water we return to the public water bodies must always remain uncompromisingly high, to mitigate any impact on biodiversity. To this end, we have invested €54 million since 2005 in the development of our process water treatment plants.

The challenge for Smurfit Kappa will be to both maintain and demonstrate our responsible approach to water use as a low consumer of water. We must ensure that companies within our sector and more broadly, do not tolerate water waste even when they operate in areas with no water scarcity. Indeed, customers whose production processes are water intensive have demonstrated an interest in sharing knowledge with Smurfit Kappa on water management practices.

We have set ourselves a clear target of reducing the organic content of water (COD) by one-third by 2020 at the mills that are directly discharging to surface water and we are performing water impact assessments at our mills.

Relative COD discharge
compared to 2005

-29%

Investing in cleaner water across the globe



Waste Water Treatment Plants are important for Smurfit Kappa to be able to efficiently manage water discharge and to drive improvements to meet our own sustainability goals. A brief overview of three plants that have invested in cleaner water in 2015 is given below.

"Prior to Smurfit Kappa's acquisition of the Forney Mill in late 2012, the mill had no water treatment system," says technical manager Doug Estridge. "Process water at the plant in Texas (USA) was reused indefinitely, which contaminated the process water." Smurfit Kappa's Paper Production Technology team recommended the installation of a new Water Treatment Plant (WTP) and offered expertise. The biggest challenge was educating the team. Therefore, plant visits and training sessions were organised for the operating crew. On February 22, 2015, the system met its target goal of lowering the mill process water COD from 25,000 to 5,000 ppm. Other improvements included the machine speed (4-12%), cleanliness of process water, and increasing sheet strength while reducing basis weight with about 3.4%. The mill now returns DAF sludge directly to the manufacturing process, rather than to landfill. The BOD load discharged was



reduced while the mill production significantly increased by 3 to 8.6% depending on the paper grade. In the end the financial benefits quantified from the project far exceed the claims made to justify the investment and the team are still learning to optimise the system.

At the Smurfit Kappa plant in the French city of Saillat-sur-Vienne the performance of the existing water treatment plant did not match Smurfit Kappa's own sustainability goals and new local rules and regulations. A new aerobic treatment stage with clarifier was added to the WTP. Plant director Remi Poirson explains: "With the new improvements in place the system is designed to handle a capacity of 330,000 tonnes of paper annually. During a 10-month period, the WTP was modified and remodelled. The costs of the project were kept within budget and totalled three million euro. At the end of 2015 the WTP was fully operational and starting 2016 the COD improvements were already up to 60%, with room for additional optimisation in the near future. Furthermore, extra raw materials savings, like recovered papers, are expected since all aerobic sludges are now recirculated in the process. Initially savings are estimated to be 2.5 tonnes per day."



Converter Smurfit Kappa Bigny, located in Bigny Vallenay (France), faced a challenge when a neighbouring paper mill was closed. The mill used to process Bigny's waste water together with the mill's own waste water. A new system had to be designed and implemented. The project budget amounted to 330,000 euro. Claude Dezelut, plant manager at Smurfit Kappa Bigny elaborates: "The advanced physiochemical WTP that resulted separates water from flexographic ink. This is done in two steps: flocculation and dehydration. Additionally, decanting treatment removes the organic starch from the adhesives out of the water. The clean processed water is recirculated and used in the glue kitchen." Bigny now has its own WTP, eliminating CO₂ emissions due to transport of waste water, and it will recoup the initial investment in only one year.



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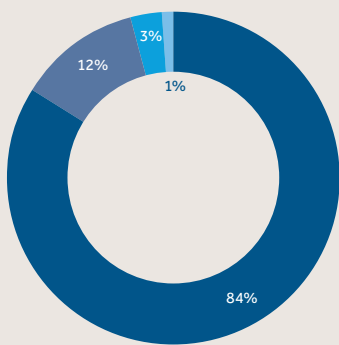
Supplementary
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Our priorities and performance

Water continued

Water sources

All operations*

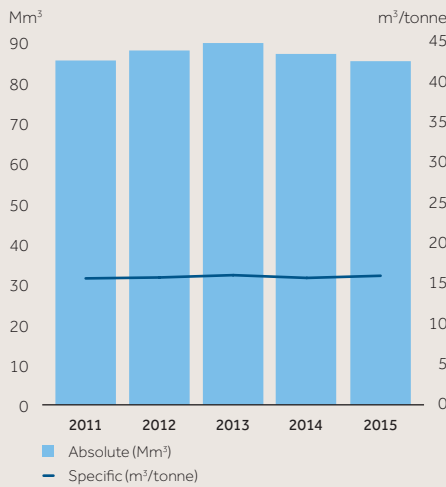


■ Surface
■ Ground
■ Grid
■ Other

*All operations include paper and board mills, corrugated, board converters, sack plants

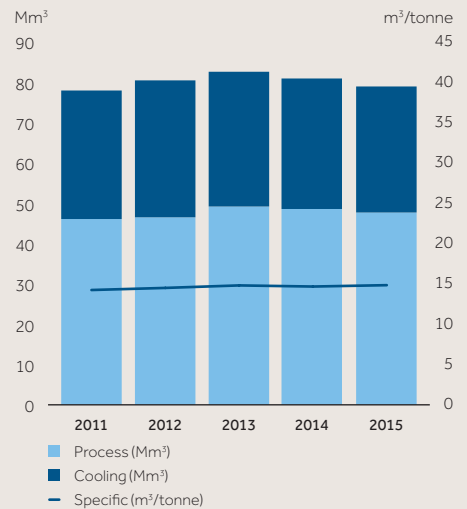
Water intake

European mills



Water released

European mills



Progress in 2015

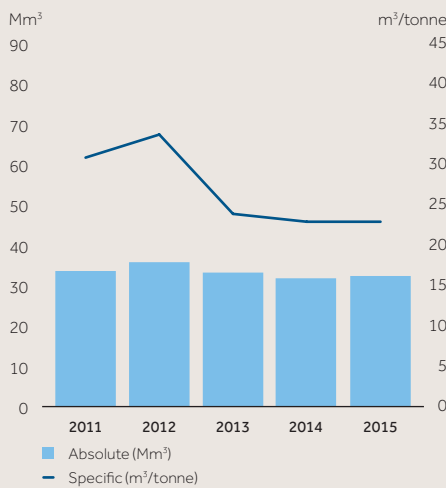
For Smurfit Kappa, understanding our impact on the water we use as well as understanding the environment where we operate in relation to water is crucial. For us there are two material approaches to water: positively impacting the quality of water we discharge and for which we have set a relative target, and understanding the risks associated with water availability and water use. Focusing our actions in these areas we are best able to deliver positive change to the way we operate and influence our peers and working environment as well.

In light of the above we continually implement best practices in water treatment in our mills. In 2015, more than 90% of paper and board was produced at mills where best practice water treatment systems are in place. This involves treating process water to decrease the organic charge of effluent, through anaerobic and/or aerobic treatments, before returning to the public water bodies.

In 2015, we continued our water risk assessment programme aiming to investigate the impact our water use has on the regions where we are located and the risks for our mills related to water

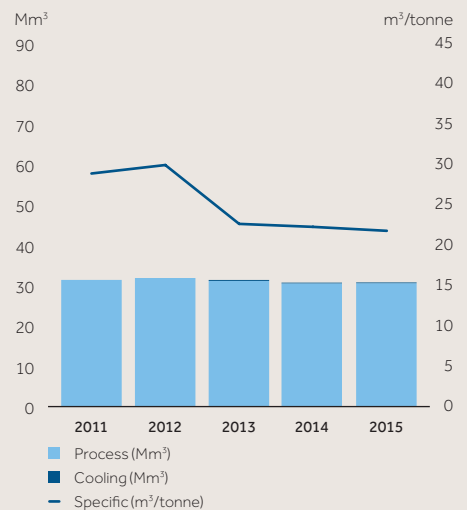
Water intake

The Americas mills



Water released

The Americas mills



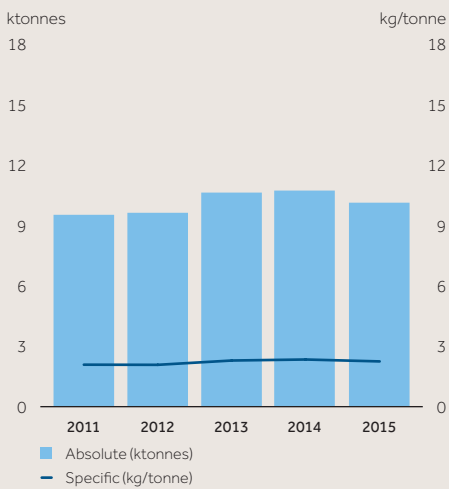
globally. During 2015 and early 2016, we carried out in-depth assessments at our paper mills in Bernal (Argentina), Fature (France), Mengibar and Nervion (both Spain) and Roermond (Netherlands), which all confirmed that our mills' use of water has no material impact on the availability of water to the region where they are located. We expect to be able to assess approximately six mills each calendar year.

We commissioned a complete new water treatment facility at our Forney (USA) paper mill in January 2015. As this mill runs an almost closed-loop water system, water discharge amounts such as COD, and BOD are therefore affected only in a limited way. The capacity of our water treatment facility of the Saillat paper mill in France was expanded to bring it in line with the paper production capacity of the site.

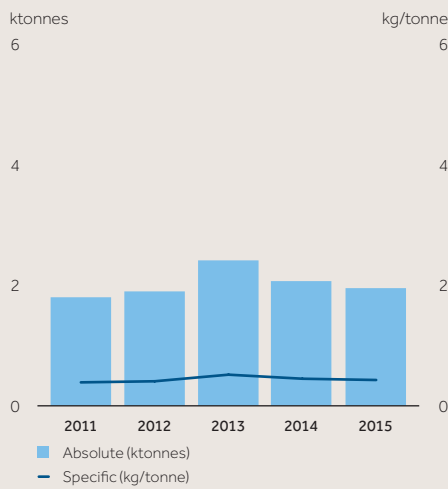
Water risk assessment performed

6 mills

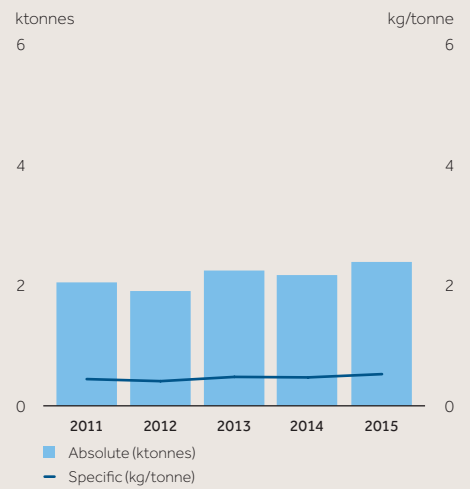
Process water discharges European mills:* COD



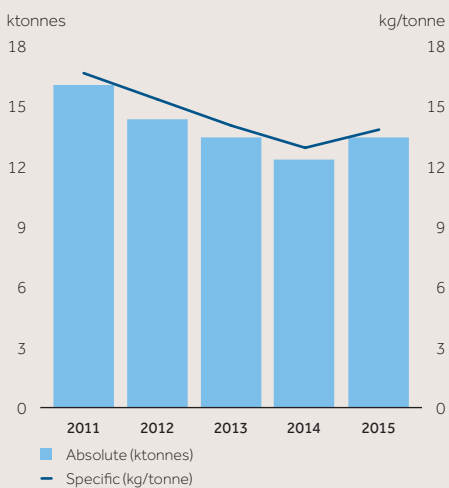
Process water discharges European mills:* TSS



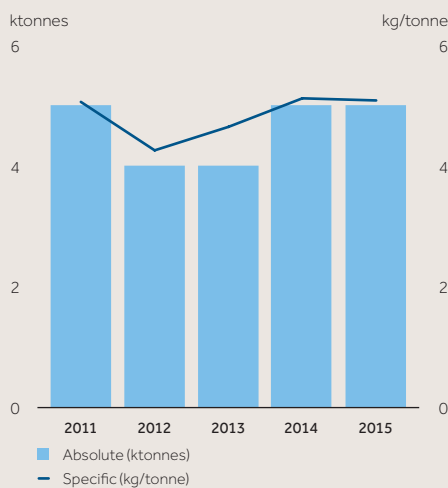
Process water discharges European mills:* BOD



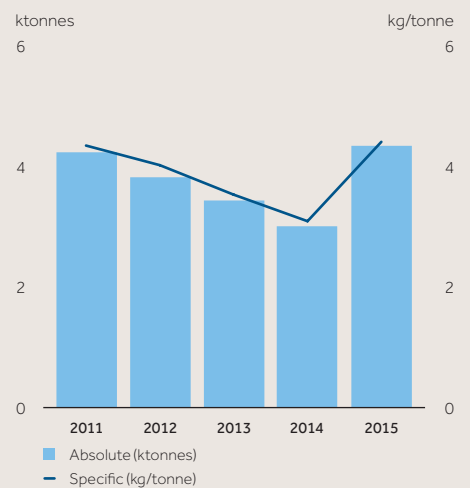
Process water discharges The Americas mills:* COD



Process water discharges The Americas mills:* TSS



Process water discharges The Americas mills:* BOD



*figures of mills releasing to environment (mills that released water to external WWTP are not reported)

Performance in 2015

Between 2005 and 2015 the COD content of processed water returned to the environment has decreased by 29.4% relative to production compared to a decrease of 28.9% in 2014, representing an improvement of 1.7% year on year. These figures are exclusive of the solid board mills in the Netherlands that were divested in the spring of 2015.

In 2015, water intake of all our operations remained stable at 120 Mm³ compared to 121 Mm³ in 2014, which is due to the divestment of the solid board mills in the Netherlands.

For 2015 compared to 2014 and excluding for both years the divested mills, the average water intake by our paper and board mills increased to 17.5 m³ per tonne of paper produced from 17.2 m³ in 2014 an increase of 1.5% year on year.



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Water continued

Translating water risk assessments into opportunities



Water is an important resource for Smurfit Kappa and the communities surrounding our production plants. To make sure our water intake does not impact regional or global water availability, we carried out in-depth assessments at five paper mills in 2015. The research concluded that our mills' use of water has no material impact on the regional availability of water. We expect to be able to assess approximately six mills annually.

Technical manager Eric Gamarra of Smurfit Kappa Cerro Gordo states: "Water availability is decreasing at an alarming rate in Mexico and is scarce in our valley. Water is expensive and availability is protected with many complicated laws and regulations. To optimise our risk assessment, detailed documentation and historical data were made readily available to the auditor. The risk assessment made us even more conscious of our water related responsibilities, though the overall conclusions were that our mill has a very efficient water usage performance and that there is no immediate risk to water availability. We have invested in technical improvements to even further increase our water treatment efficiency, we



are investigating the potential and required treatment to reuse more water and we have become more actively involved in consultations with local authorities."

At Smurfit Kappa Mengíbar in Spain, Ramón Callejo and Juan Jose Durillo explain that the risk assessment has aided them to be more aware of the water scarcity in certain periods of the year. Ramón Callejo: "The assessment gave better insights into the impact of our water usage in comparison to other, mostly agricultural, water users in our region. Water availability greatly depends on weather conditions. We are now more actively looking at hydrological forecasts published by authorities and engaging in dialogues with local governments. Our contacts with water authorities have further improved. We continue to actively optimise the water treatment plant to increase our water reuse and to decrease fresh water intake. We even received several awards for our efforts in 2015."

Water commitments



Boundary: Under this strategic priority we concentrate on the water intake and discharge. It covers all Smurfit Kappa paper mills discharging their process water directly to bodies of water. Mills that have their process water treated externally are not included. Only paper production is taken into account because this contributes to 95% of all organic discharges and 98% of total water intake.

Organic discharges in the process water are measured with the indicator COD.

Commitment #1: A reduction of the organic content of water returned to the environment from our mill plants (COD) by one-third compared to 2005 levels.

Timeframe: Target to be reached by 2020.

Progress made: At end of 2015, we achieved for the mills discharging directly to surface 29.4% of COD reduction per tonne of paper produced compared to 2005.

Commitment #2: Perform environmental impact assessments of the water use of our sites (where relevant) and develop water usage measurements.

Timeframe: Target to be reached by 2017.

Progress made: Overall environmental impact assessment of the water use at our sites was made during 2014. As a result, a tool to assess mill specific risk related to water was created. Six mills have been assessed with this tool since 2014. We expect to assess approximately six mills per year, completing the programme by 2020. Mills in water scarce areas will be assessed by 2017.

Our perspective: Through a programme of investment and technological innovation in the treatment process of discharged water, our vision is to significantly reduce the water impact of our operations over time.





>90%

RESPONSIBLE USE OF WATER

More than 90% of the water we use returns back to nature in good condition. The remaining 10% either evaporates or is bound to the packaging.

Our priorities and performance

Waste

It is more than just recycling

Smurfit Kappa's aim is to contribute to a world without waste, supporting the concept of circularity. Avoiding waste is a material issue for our stakeholders as well and many of our customers have stated objectives to reduce waste.

Summary

- Smurfit Kappa is in the core of the Circular Economy, 75% of our raw material is recovered paper, in other words we help eliminate waste
- The original wood fibre can be used up to eight times as raw material for paper production before it is depleted, and after which it is typically utilised as a source of energy or biodegradable material, particularly in agricultural applications
- Smurfit Kappa introduced a target to reduce waste we send to landfill from its paper and board mills by 30% by 2020 compared to 2013

Food waste, damaged products and packaging waste are major sources of waste sent to landfill and our packaging solutions help to avoid that. Packaging protects food and other products from getting damaged or spoiled and after use our products are recyclable. In addition to protecting the contents, our packaging is reducing its own impacts by employing the concept of being 'right-weighted'.

It seems paradoxical that the products we produce are 100% recyclable and at the same time we generate more than 100 kg of non-hazardous waste per tonne of paper and board we produce, of which approximately 55% is sent to landfill. There is a simple explanation for this. The recovered paper bales we receive from which we produce our recycled paper unavoidably contains plastic, metals, glass, sand and other non-usable parts. On average we need 1,070 kg of recovered paper to produce one tonne of paper and board. To reuse as much of the recovered materials as possible, we separate these elements from the production process by using water. Some of this water is retained by the non-usable materials and therefore contributes as much as 50% of the waste we 'generate'.

To minimise the amounts of waste we have to send to landfill we reuse our waste as much as is economically and technically feasible. Currently, approximately 45% of our waste is already being recovered. Our short-term target until 2020 is to reduce the waste produced at our paper and board mills, which we send to landfill on a per tonne basis, by 30% compared to 2013.

Risks, challenges and opportunities

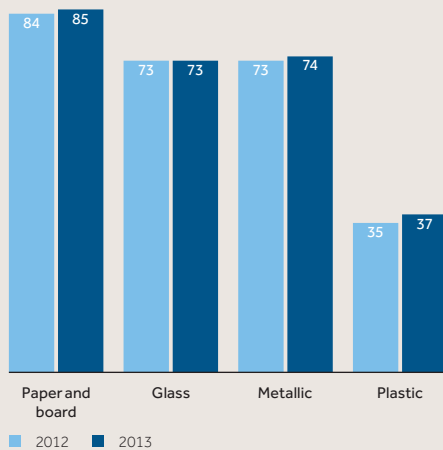
In our view, a main risk is that our principal raw material, recovered paper, is 'wasted' by either being discarded instead of being recovered for recycling or used as fuel for heating or to generate electricity. Our challenge is to prevent that from happening and we are committed to working with not only the recycling and paper-producing industries to achieve this but we also welcome initiatives from other stakeholders in this area and support legislation that promotes to use the value of materials in the economy as long as possible.

Fortunately we have ample opportunities to reduce the amounts we have to send to landfill ourselves, either through partnerships with third parties or by developing creative solutions ourselves. A good example of a partnership with a third party from the recycling industry is our paper mill SSK (UK) where the amount of waste being sent to landfill has been halved from 2014 to 2015. The mill is working with an external company that sorts and cleans metal and plastic particles from the waste stream and then sells them. The fibres resulting from the cleaning process are returned to the mill where they are used to produce paper again. In our San Felipe mill (Venezuela), a system has been developed to compost the waste from its virgin fibre streams on-site, effectively reducing the amounts of waste sent to landfill by 50% in 2015 compared to 2014.

During 2015 we also worked with the World Economic Forum, participating in three pilot programmes through Project Mainstream, to progress the application of the circular economy.

Waste recovery

45%

Packaging recycling rate in EU (%)
Source Eurostat

Paper and paper-based packaging is a highly recyclable material and currently the most recycled packaging material worldwide. While the overall paper industry in Europe generally achieves 72% recycling rates (which is lower than the 84% recycling rate for paper-based packaging shown in the graph opposite), in the USA and in Latin America 67% and 45% recycling rates respectively have upward potential.

The collected waste and by-products from our industry can become new raw materials. A central challenge for our industry is finding a means to process the many auxiliary materials added to paper by downstream industries. Although paper is recyclable, these materials cannot be sorted from paper in the dry-sorting steps before they reach paper mills.

We reuse our waste as much as is economically and technically feasible to minimise the amounts of waste we have to send to landfill.

Corrugator controllable waste reduction in Ireland



Smurfit Kappa Dublin produces corrugated packaging such as standard cases, trays and wraparounds printed in up to six colours. The plant features the only Smurfit Kappa six-colour post-print Flexographic printer in Ireland. Just as

unique is the corrugator plant's approach and dedication to waste reduction. One of the initiatives that has really made a difference is the Corrugator Controllable Waste Reduction project.

Operations manager, Anthony Carroll, explains: "In 2012, we commenced a substantial corrugator upgrade project with the aims of improving our corrugator production efficiencies and reducing waste through a 'closed-loop' process control upgrade. This is in line with our waste reduction target and circularity approach."

A better control of board quality and being able to adjust the corrugator early in the process leads to reduced waste, which benefits the environment and the bottom line. The project was implemented in two phases. The first phase took place at the end of 2012 and beginning of 2013, when the corrugator wet end and double backer were installed. The second installation was completed a

year later and involved the implementation of the corrugator dry end upgrade and syncro process control system. Investments totalled more than €5 million.

Smurfit Kappa Dublin now is in full control over both the dry and wet end. Successful board-grade recipes can be benchmarked or recreated. Real-time data is available to allow more effective production planning and quicker reaction to out of tolerance board results, thereby reducing waste. Controllable waste statistics for an average month show that the results of the target levels were achievable and within a very small threshold of less than 10%. Since the installation the site has achieved and maintained a 1.3% reduction in controllable waste and this year hopes to go beyond this figure.



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Waste continued

Paper recycling is fundamental for our raw material sourcing. Producing paper from recycled raw material converts our customers' waste into valuable raw material.

Progress in 2015

We approach the issue of waste from a pragmatic perspective that defines the materiality of challenges we want to tackle within the spectrum of different wastes and waste generation. Therefore our starting point is to look at the waste sent to landfill generated at our paper mills.

Our objective for 2015 was to finalise our company-wide assessment of non-hazardous waste, waste sent to landfill and hazardous waste and to set targets to minimise such wastes. The assessment of both the non-hazardous waste and waste sent to landfill were completed and we have set a target to reduce the amount of waste sent to landfill by our paper and board mills by 30% on a per tonne basis by 2020 compared to 2013, the year in which

we announced the start of the assessment. The year 2020 is chosen because it provides sufficient time to plan and execute actions needed to realise the reduction target and coincides with the year for which our other measurable targets are set. We will continue with our assessment on hazardous waste in 2016.

More than 90% of our waste is generated in our paper mills. The majority of this waste is generated in the recovered paper pulping and screening process, including reject materials. Other waste sources include sludge from the process water treated in our water cleaning facilities, calcium carbonate residues from lime kilns and ashes from biomass boilers. A large part of what is registered as waste is actually waste with a water content of approximately 50%.

Global attention for recycling at Smurfit Kappa Zülpich



The people at Smurfit Kappa Zülpich in Germany are rather used to having ministers and prominent politicians from all over the globe visiting their plant. Delegations from India, China, Ireland and also German officials all want to witness the unique recycling technology that has earned the recycling mill a cabinet full of awards.

The recycled paper producer is a showcase reference for the German Federal Ministry of Environment. The interdepartmental team actually led by managing director Christian Ludwig is very proud of the major

sustainability achievements made over the past years, namely recovered fibres being the only raw material, not discharging any process water and using rejects from stock preparation as a secondary fuel substituting brown coal.

Christian Ludwig said about one of the recent further developments: "Raggers are a continuous process waste and the only option previously available was to take them to landfill for disposal at significant costs. Typically, raggers comprise a fraction of our total reject sorting, which consists 60% of water, 20% of metal parts, and another 20% made up out of combustible materials. After an extensive technical feasibility study our team developed a completely new concept that has generated a lot of attention for our mill."

"We have implemented a unique new process by working off the raggers from stock preparation and incinerating them on-site," says Josef Herberz, manager Q-E-SH. "Combustible materials are

now separated from all the metal parts and unified through a grinding process. We use the qualities of the combustible materials by incinerating the waste in our in-house Multi Fuel Boiler. As a result, the boiler produces steam and energy in a combined heat and power process (CHP). It is a great way to contribute to a sustainable circular economy."

The project team had to overcome many technological challenges during the five years of development. The biggest challenges were the design of a reliable set-up and to introduce a cost effective process for on-site contract operation without Smurfit Kappa investments or extra staffing. Nowadays Zülpich commercially exploits the recycled iron. A remarkable 100% of the extracted fractions are used for external iron recycling and the fibres/plastics are used in internal thermal CHP-recycling.

Waste to landfill compared to 2013

-13.8%

The amount per tonne of paper and board produced of non-hazardous waste generated in our paper and board mills decreased by 3% in 2015 compared to 2014. Since 2013 this figure has decreased by 8%.

The total amount sent to landfill from our paper and board mills remained stable in 2015 compared to 2014. From 2013 until the end of 2015 the reduction of waste sent to landfill by our mills was 13.8% on a per tonne basis.

Less than 1% of our waste is classified as hazardous. The majority of hazardous waste is generated in our printing and converting operations, with the majority being waste generated from cleaning the machines from printing inks. Another part is irregular hazardous wastes from our paper mills that are generated typically during maintenance. Per operation the amount of hazardous waste is rather small. In our hazardous waste assessment we learned that the key issue we must address is the correct classification of waste. Many materials are being treated as hazardous even if they do not meet the criteria or concentration and thus could be regarded as non-hazardous. We are working on addressing this issue.

The amount of hazardous waste has decreased in 2015 compared to 2014 from 8,800 tonnes to 7,100 tonnes for the Group in total. In Europe volumes were stable, in the Americas, San Felipe (Venezuela) completed a programme that started in 2012 to 'wash' its green liquor, which converts it from hazardous to non-hazardous waste.

Working towards optimised use of raw materials

Paper recycling is fundamental for our raw material sourcing. Globally, 75% of our raw material comes from recycled sources. Producing paper from recycled raw material converts our customers' waste into valuable raw material. This creates a circular loop at a macro level.

Our converting operations send their paper clippings directly back to our paper mills delivering high-quality recovered fibres for the mills.

Our virgin and recycled paper production processes produce various side streams most of which are being utilised in a meaningful way. We continually look for new uses for those side streams that would otherwise be our waste.

Other uses of our side streams include the agriculture, food and medicine industries and we continually collaborate with other sectors to find more outlets for our side streams.

In collaboration with the World Economic Forum Project Mainstream we developed guidelines for the paper-based industry to improve the recyclability of paper including specifications of paper-based products, use of easily solvable inks and glues and up to improving opportunities to increase the already high recycling rates.

Waste



Boundary: Under this strategic priority we report on non-hazardous waste (recovered and landfilled) and hazardous waste generated from Smurfit Kappa's manufacturing processes.

Commitment #1: Company-wide assessment of non-hazardous waste and targets to minimise the burden of such waste.

Timeframe: Target set by end of 2015.

Progress made: We finalised the assessment of non-hazardous waste during 2015 and, based on the results, we developed a target to reduce waste generated at our paper and board mills and sent to landfill by 30% by 2020 in comparison to the baseline year 2013.

Commitment #2: Company-wide assessment to minimise waste to landfill and set targets according to 2014 assessments.

Timeframe: Target set by end of 2015.

Progress made: Target to reduce waste generated at our paper and board mills and sent to landfill to be reduced by 30% by 2020 in comparison to the baseline year 2013 was set.

Commitment #3: Company-wide assessment to minimise hazardous waste and set targets according to 2014 assessments.

Timeframe: Target set by end of 2015.

Progress made: Assessments have begun in 2014 to assess and measure impact. Work to develop targets continued in 2016.

Our perspective: Our objective is to contribute to a circular economy. All paper packaging provided to our customers is already 100% recyclable. We will take all avoidable waste out of our production system and minimise waste to landfill of those materials that are not further recyclable and/or recoverable. Eventually, waste should become somebody's raw material again and there will no longer be waste sent to landfill.



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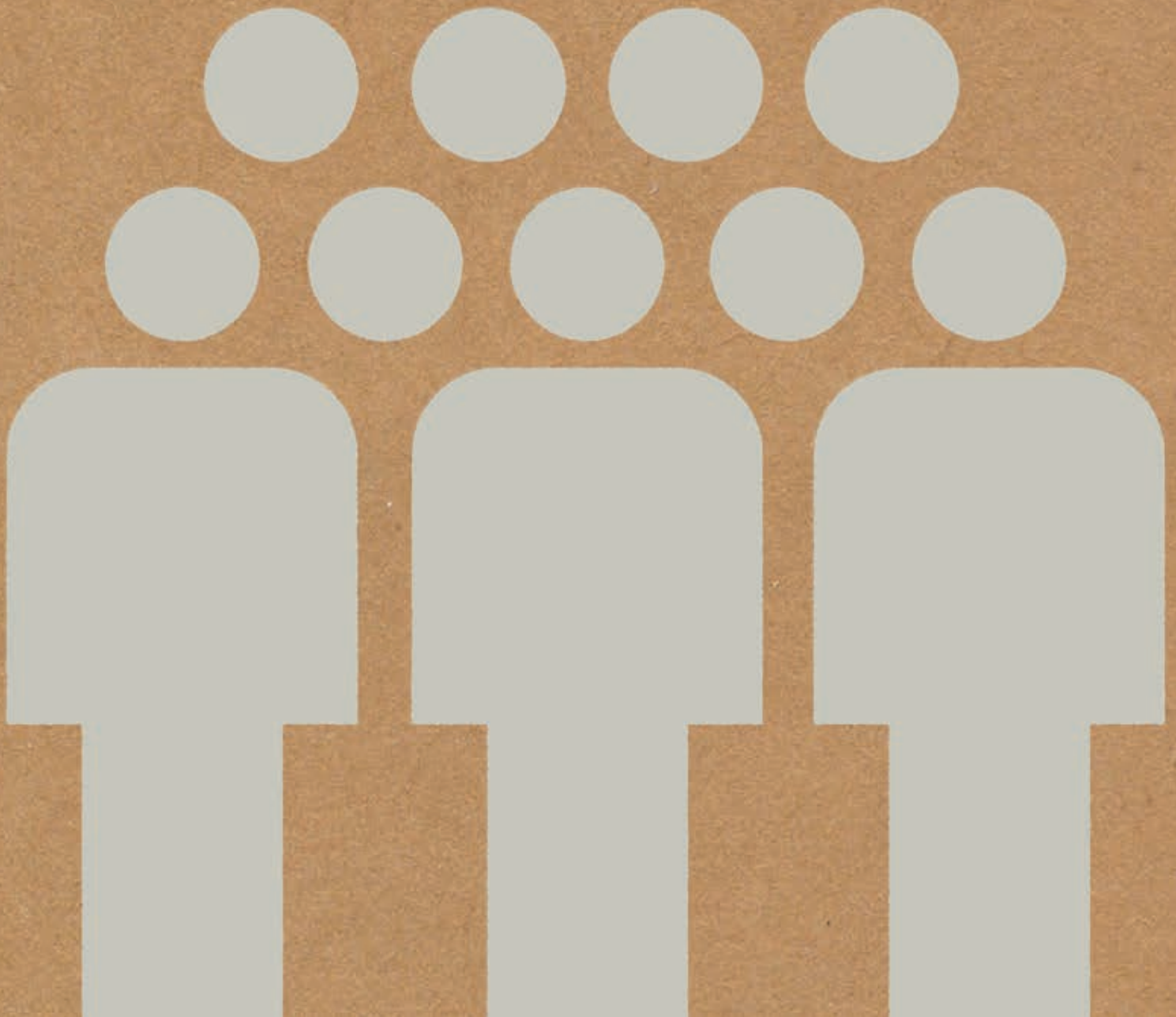
Supporting data



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COMMUNITY INCLUSIVITY

Our operations and our related foundations supported projects that help young people to remain involved in society with funding of some €4 million.



Progress powered by people

Smurfit Kappa unites some 45,000 people around the globe. To achieve sustainable long-term success, our aim is to attract and retain the best people by being a leading and attractive employer. Together our employees make a difference for our customers.

Summary

- We are relentlessly focused on the health, well-being and safety of our employees and have a stated target of reducing injuries by decreasing the lost-time accidents and injury rate by 5% annually over five years (2013-2017) and achieving zero fatalities
- More than 1,000 positive actions were identified from Smurfit Kappa's *MyVoice* survey, and are being implemented at a local level during 2016
- Since 2010, the participation rate of women has increased from 11% to 33% in 2015 in our Advanced Management Development programme
- We want to accomplish an equal gender balance in our graduate programmes and list at least 30% women as on the shortlist for external candidates in management vacancies

At Smurfit Kappa we are committed to making a difference for our team of people by taking our own corporate social responsibility very seriously. We actively support and involve our people to realise their personal goals and reach their full professional potential.

This means we constantly focus on health and safety, rights and fair treatment, training and personal development, diversity, and the balance between performance, pay and participation. Only by having the right fundamentals in place, can we improve and move forward. It allows for a working environment in which our people feel free to innovate, to perform to the best of their abilities, and shape the world of tomorrow.

To be able to be one of world's leading paper based packaging businesses, our global production and services go hand in hand with strong sustainability and corporate social responsibility performance. The success of all these elements depends on our people. We motivate them with our core values, guide them with our corporate code of conduct and policies, and genuinely involve them to make a positive impact. Our worldwide *MyVoice* Employee Survey, conducted in 2014, had an 80% response rate.

We are proud of our people and we want them to be proud of Smurfit Kappa. We strive not only to be well respected by our employees and customers, but also to earn the respect of the people and

the communities where we are active. It is of key importance to us to behave as a good corporate citizen. We engage with, and actively support, local communities through our operations locally and related Smurfit Kappa Foundations. Internally and externally we set and adhere to high ethical and professional standards making the well-being of people a priority throughout our organisation.

Employee demographics

At the end of 2015, Smurfit Kappa had some 45,000 employees, including both our own employees as well as contracted labour. Some 43% of our own employees are 40 years of age or under and almost a third of the total workforce is between the age of 41 and 50 years. 50% of our employees have been with us for 11 years or more, while 9% have been with Smurfit Kappa for more than 30 years. Approximately 5% of our employees are engaged on a temporary contract.

Almost 70% of our workforce is involved in production and manufacturing activities categorised as direct labour. Employees engaged in management, administrative or clerical activities – such as sales and marketing, finance, human resources and procurement – are categorised as indirect labour activities. Of our total workforce, almost 80% were employed in 10 countries (Mexico, Germany, France, the UK, Venezuela, Colombia, the Netherlands, Spain, Italy and Sweden), with the remaining 20% distributed between the other 24 countries where we have a production and/or sales and marketing presence.



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People continued

We believe that a company can only prosper when it is an integral part of the society where it operates.

In 2015, 17% of all Smurfit Kappa employees were female and 83% were male. Of the indirect labour positions, 37% are held by women. In the same year, almost 1% of our workforce took parental leave of which close to 80% returned to work after their parental leave period.

During 2015 some 17 nationalities were represented at the most senior levels in the organisation. While our policy is to select the best person for a position, in practice by far the greater proportion of senior operational positions are held by local managers (same nationality as the country where the operation is located), which is appropriate to our business needs. In general, the composition of the Smurfit Kappa's workforce typically reflects local ethnic diversity, thereby enhancing the bond with local communities.

Employee turnover in 2015 in the organisation was stable at a level of 4.9%. Retirements and the pursuit of other careers or interests were the main reasons for more than 62% of departures of employees in 2015, while rationalisation and redundancies accounted for almost 25% of the departures. There were 3,000 new entrants to Smurfit Kappa during 2015, of which 50% were in the Americas, linked to our recent acquisitions there.

People values

Smurfit Kappa is committed to managing its business in accordance with its declared values which recognise that good social citizenship, reflected in the manner in which we interact with our employees, business partners and host communities, is an essential ingredient in creating and maintaining a sustainable future. Smurfit Kappa fosters meritocracy and respect in a safe and open work environment.

In keeping with the United Nations Guiding Principles on Business and Human Rights and the Fundamental Principles and Rights at Work developed by the International Labour Organisation, the following principles and conditions are maintained in every country in which we have a presence.

Respect

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

Diversity

Having a diverse global workforce and an inherently collaborative culture helps us generate more ideas, which yield more innovative solutions for our customers. In our internal publication titled 'Diversity and Inclusion in Smurfit Kappa' we have published our general policy and guidelines with regard to diversity within our organisation.

Our policy is to promote diversity by employing people without discrimination on the basis of gender, age, ethnic or racial background, disability, religion, and sexual orientation. We want to accomplish an equal gender balance in our graduate programmes and preferably at least 30% women as shortlisted external candidates in management vacancies.

33% female

We strive for an increasing level of participation of women in management roles in the company and pay extra attention to female managers and high potentials when reviewing our succession plans. Since 2010, the participation rate of Women in our Advanced Management Development programme has increased from 11% to 33% in 2015.

Working fairly

We prohibit child labour. We will not employ, in any capacity, anyone who has not either reached the mandated school leaving age or the minimum age set for employment in any country in which we operate. No issues under this heading were identified in 2015. We do not approve or tolerate forced labour or physical abuse, whether it originates from within our

business (and is directed internally or externally) or its source is an individual (or organisation) with whom (or with which) we have a business relationship. No issues under either heading were identified in 2015.

Fair pay, compensation and benefits

We compensate fairly and review wage and salary levels at regular intervals. Smurfit Kappa does not discriminate between men and women in terms of salary, benefits or any other consideration. We apply the policy of 'same job, same pay'.

We strive to operate as a meritocracy, and promote on the basis of suitability, reward fairly, encourage personal and professional development and promote effective communication at every level of the business.

We reward employees based on market best practice. While the basic salary of an individual employee may be different from that of a colleague in an identical or similar role, the difference will generally be a reflection of a difference in responsibility, size of the job, experience, performance, country of residence, and other factors.

In common with many large businesses, Smurfit Kappa provides a range of employee benefits. Some, such as maternity and paternity leave, are provided under the legislation of specific countries. Other employee benefits, such as Pension Plans and Life Insurance, form an integral part of an employee's remuneration package provided by Smurfit Kappa in various countries.

Special attention for children with mental disability



Smurfit Kappa is committed to its social citizenship policy and the values stated therein. Good social citizenship is reflected in the manner in which Smurfit Kappa interacts with its employees, business partners and local communities. It is an essential ingredient in creating and maintaining a sustainable future for everyone, including children.

Many Smurfit Kappa companies are already involved in community-based activities and make appropriate donations. The Smurfit Kappa Foundation fills a gap in terms of what might reasonably be expected of a group of our size and our ability to contribute to sustainable community development. Smurfit Kappa North America is committed to helping local communities in the vicinity of its operations. With the help of the Smurfit Kappa Foundation, they have built a special therapy centre near the Smurfit Kappa Mexicali plant. Mexicali is the 13th largest municipality in Mexico and is located in the north-western part of the country.

The centre, called 'La Casita', the little house, is designed to help children who suffer from mental disability, including brain damage, autism, Down's Syndrome and cerebral palsy. The development of the centre makes it possible to give

special attention to such children in the early stages of their lives. 'La Casita', will give the children a better chance of learning, while improving their attention span and motor skills. As a result, the initiative will give the children the necessary self-confidence to enable them to better adapt. Activities with the children include improving language skills, providing physical therapy to improve their movement capabilities, and occupational assistance for sensory and motor skill development. The curriculum makes the children more self-sufficient, independent and self-motivated and helps them to better control their movements.



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Our priorities and performance

People continued

Acquisition practices

A key aspect of due diligence in any acquisition process involving Smurfit Kappa is an examination of the target organisation's human resource policies and practices, both in terms of their compliance with local, national and international laws and in their day-to-day interpretation and application in the organisation.

In the event of any potentially serious issue arising as a result, such as child labour, continuing with the acquisition will be reconsidered. There were seven acquisitions during the course of 2015 and no such issues arose.

People protection

Health and safety programmes

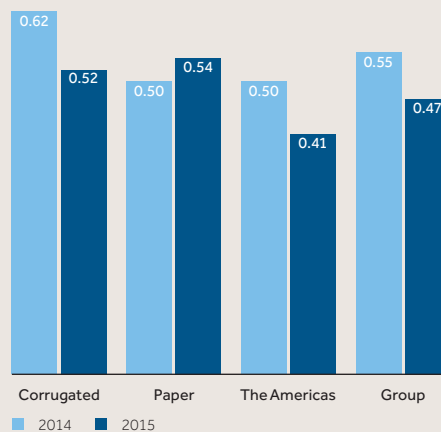
The well-being of our people is of the utmost importance to Smurfit Kappa. Our top management is committed to developing more comprehensive accident reporting across the Group to improve awareness of precise reporting requirements within plant management and closer monitoring by divisional and group management with regard to the health and safety of our people.

We are committed to promoting and ensuring safe behaviour and well-being: reporting near misses and taking pre-emptive action to prevent accidents, with a stated target of reducing injuries by decreasing the lost-time accidents and injury rate by 5% annually over five years (2013-2017) and achieving zero fatalities. We have an unwavering commitment to the health and safety of our workforce.

Smurfit Kappa has a structured and systematic approach to health and safety in place through which we aim to continuously improve our safety performance. The commitments described in our updated Group health and safety policies are consistent with those of the internationally recognised OHSAS 18001 occupational health and safety system application.

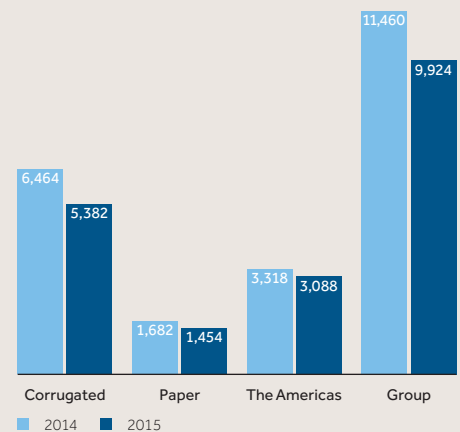
Lost time accident frequency rate

Full year 2014 vs 2015



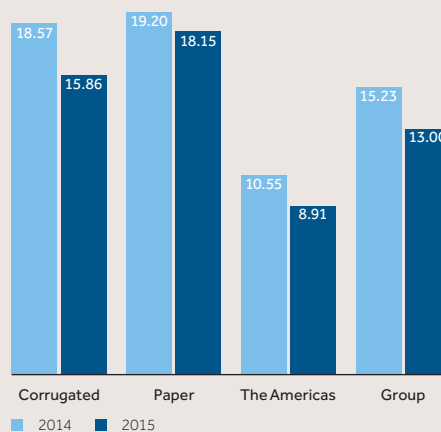
Days lost due to accidents

Full year 2014 vs 2015



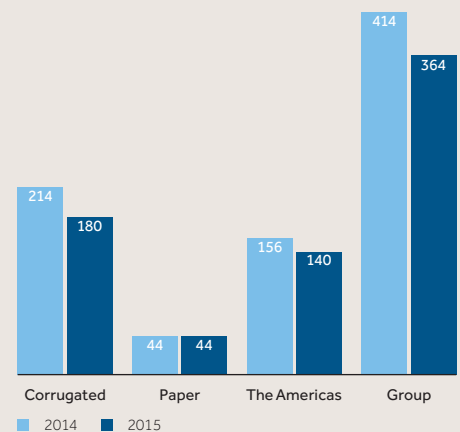
Lost time accident severity rate

Full year 2014 vs 2015



Number of accidents

Full year 2014 vs 2015



Key to our approach are the following principles and measures:

- Educating and engaging safe behaviour through training, briefings, sharing incident information and having H&S regularly on management and employee meeting agendas
- Rewarding H&S through our annual excellence in H&S awards programme
- Promoting technical and engineering improvements and benchmarking performance internally

- Conducting cross audits in H&S involving our panel of trained internal health and safety coordinators.

Compared to 2014, the Group has recorded the following health and safety performance changes in 2015:

- a) a reduction in the number of lost time accidents of 12.1% (364 in 2015 vs 414 in 2014)
- b) a reduction in the lost time accident frequency rate of 14.6% (0.47 in 2015 vs 0.55 in 2014)

Lost time accidents compared to 2014

-12.1%

- c) a reduction in the lost time accident severity rate of 14.6% based on days lost due to a workplace injury (13.0 in 2015 vs 15.23 in 2014).
- In Europe, the Corrugated Operations witnessed an improvement in performance where the total number of lost time accidents reduced from 214 in 2014 to 180 in 2015; in the same period, EU Corrugated Operations' lost time accident frequency and severity rates had a positive trend contributing to the Group performance. The Paper Operations witnessed the same total number of lost time accidents, 44 in 2014 and 44 in 2015; at the same time the EU Paper Operations increased its LTA frequency rate and decreased its LTA severity rate with both having a minor impact on the Group performance
- The Americas Division witnessed an improvement in performance where the number of lost time accidents reduced from 157 in 2014 to 140 in 2015; in the same period, the division's lost time accident frequency and severity rates reduced with a significant positive impact on the Group result
- Accident reporting for contracted staff agency workers was initiated in 2015 with a total of 62 and for sub-contracted labour workers with a total of 229 lost time accidents
- Regrettably, one sub-contractor sustained a fatal injury. At our Cerro Gordo mill in Mexico a worker from a sub-contracted company sustained fatal crush injuries within a non-pedestrian truck loading area

The management of critical hazards with potentially severe or fatal consequence continues to be a key priority and receive special focus during 2015. During the year, the four primary industry sector hazards received special focus during safety reviews in a number of countries. The primary hazards relate to falls from height, exposure to electrical sources, being struck by moving vehicles and contact with moving machine parts. Improvement actions relating to these hazards have been highlighted within plant safety review reports.

All severity level 4 accidents (a severe accident) undergo a detailed accident investigation where deeper underlying causes are identified. It is now established practice that Group management immediately receive a preliminary serious accident notification. A safety incident bulletin is prepared and shared across all divisions.

Safety 4.0 – Our goal, our inspiration



The Smurfit Kappa Corrugated Operations in Germany wanted to put a special focus on changing people behaviour driving safer ways of working. Under the slogan Safety 4.0 – Our goal, our inspiration, the region kicked off a series of actions to create a company culture where everybody aims at zero accidents every day.

"In the centre of our project is the safety handbook that we developed," says Stefan Buchner, Health and Safety Manager for Smurfit Kappa Corrugated Germany. "This handbook covers all the most important safety hazards at a corrugated or converting site, what to do to prevent them and why it is everybody's responsibility to make sure that we have a safe working environment." It is not only about safety at the production sites. The Handbook also covers work on road or at the offices.

The safety booklet is accompanied by a DVD that presents the 10 most safety hazardous situations and how to correctly act in those cases. "We wanted the videos to work in any language. Therefore we worked with an agency who helped us to demonstrate these situations without any speech or text." To create the desired response to the safety culture, all safety gear was

updated at all of our sites in Germany and everybody has similar gear where ever you go. Also to support the initiative we launched safety campaigns for example to reduce hand or eye injuries.

This work was positively recognised at the FEFCO Technical Seminar on November 3 2015. The presentation of the efforts towards safer working environment in the corrugated industry received a special Health and Safety award for inspiring the industry to improve its safety performances.

Stefan Buchner proudly says that "the focus on health and safety is fruitful. We have significantly reduced our Lost Time Accident TRIR (total recordable accident rate) rates since we started and the positive trend continues."



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People positioning

Good leadership

The prize of good leadership is more engaged employees. The roll-out of our new Open Leadership model started in 2015 and will be completed in 2020. To gain awareness, acceptance, and support a host of internal communication channels are used to reach all employees. Leadership development programmes have been implemented and we are engaging in more detailed performance dialogue, personnel feedback, hiring and succession planning.

As a result, we are opening up the system to foster innovation and deliver more benefit to the customer value. The process stimulates employees to broaden their

thinking. Since we work in a highly competitive industry, a key strategic challenge is to out-think the other operators in the market, add value and increase customer loyalty. Our leadership capability is key to growing the business sustainably and profitably, which in turn will increase shareholder value.

Talent development

While leadership and engagement have been the core people focus points of Smurfit Kappa in 2014 and 2015, the Group will place even more emphasis on the themes of talent and diversity in the period ranging from 2016 until 2020. Talent management will take place by attracting, identifying, and finally by developing and training talent. We continue to place importance on

helping employees develop their diverse talents to drive the company's success.

In Smurfit Kappa, employees with talent are able to get the training they need to further develop their skills and knowledge to fulfil their full potential. This ranges from graduate programmes and graduate workshops to Advanced Management Development Programme (AMD), General and Mill Manager Programme (GMMP), leadership programmes (Business Schools, local), and executive education/business schools. To share their expertise and experience employees from all relevant levels within the organisation including top management are actively involved in the programmes.

A passion for lifelong learning



"An organization's ability to learn, and translate that learning into action rapidly, is the ultimate competitive advantage," said Jack Welch, former CEO of GE. Lifelong learning has a business side to it, but also stimulates the personal growth of employees by inspiring them to reach their goals. Smurfit Kappa offers its employees a diverse range of courses around the globe to do just that.

Within Smurfit Kappa Benelux a leadership training programme for middle managers has been developed and embedded



within the current corporate strategy. The Open Leadership model forms the basis for this training, concentrating especially on 'Leading Oneself' and 'Leading Others'. The personal development of these current and aspiring leaders is a key issue, just as much as their personal work situations. Since its inception, some 110 employees have participated in the programme.

"This training taught me a lot about myself in an inspiring way. I benefit from it every day at work and recommended

the course to several colleagues. The programme is not without obligations, but still feels like a gift and shows appreciation and engagement from Smurfit Kappa", concludes Joyce Hoogers from Smurfit Kappa ELCORR (Netherlands).

Another successful educational initiative is the Horner English programme that has been made available by Smurfit Kappa. It provides a one-week intense English Language programme right in the heart of Dublin. An immersion experience in which the students stay with a carefully selected Irish host family.

Stefanie Brunner, from Smurfit Kappa Wellpappenwerk Plattling in Germany, studied in Dublin recently, she says: "I participated and was really excited. The host family was so nice and I really felt comfortable! The lessons were very interesting and diverse. Moreover, I improved my conversation skills and grammar. It was a great week. Colleagues should jump at the chance to join this programme!"

MyVoice prompted

1,000+

actions

Innovation in improving quality of health and safety risk assessments



Assessing health and safety risks on a corrugated site is open to some discretion based on the person assessing the risk. This is a challenge often recognised by the risk assessment team members and at Smurfit Kappa UK, we wanted to find a final solution for it.

"We started a project in 2013 to develop a tool that could standardise health and safety risk assessments," tells Nigel M Elias,

Health, Safety and Environment Manager for the UK. "We came up with a tool which supports all of our assessors to keep the same standard level of the assessments, help the Health and Safety Manager at site to respond to the assessment findings and finally bring best practices from all of the sites using the system under one platform."

Chris Watson, Director, from Conceptual Systems Limited recognises Smurfit Kappa UK's dedication in health and safety as leading edge. "Conceptual Systems was involved from the beginning in the development of the Smurfit Kappa UK Risk Assessment Tool. The combination of four simple steps and the use of tablets at site when making the risk assessment, makes the health and safety assessments faster, more reliable and improves a standard quality. This will help Smurfit Kappa UK with reducing risks and bring company's best practices available using the same equipment to everybody regardless of sites."

The four steps of the assessment made by the health and safety risk assessor consist of an overall hazard assessment where all possible issues are considered and safety procedures to avoid the hazard are being evaluated. In the second step the local Health and Safety Manager will take actions to improve the situation. This can include guidelines, change of behaviour or even investments. In the third phase, the risk assessor revisits the site and evaluates the actions taken. The fourth step means that the re-assessment will be evaluated at site and the site can close the assessment.

"Our target is to continuously improve the health and safety of our colleagues and contractors. The Risk Assessment Tool can respond to the needs in a dynamic business," concludes Nigel M Elias.

People participation

Global employee survey MyVoice 2014

In our quest for continuous improvement we greatly value bottom-up input from our people. To listen to the voices of all employees of Smurfit Kappa around the globe we invited them all to share their views on their work experience in 2014. The project team utilised posters, letters, emails, videos, and presentations to promote our first ever company-wide global survey.

The employee survey MyVoice was conducted in October 2014 and had an excellent response rate of 80%. The key objectives were to listen to our people, to measure the level of engagement and get a better understanding of the underlying

engagement drivers. The survey helped to identify areas that make our company a great place to work, and show areas for improvement. Beforehand it was agreed that the outcome of the survey would be translated into action points, so that the survey results would indeed lead to tangible improvements. Currently more than 1,000 local actions are being implemented. In addition to local actions, there will be company-wide actions with a focus on communication, recognition and career opportunities. Examples of these are the Open Leadership model started in 2015 aiming at improving leadership skills and communication between management and employees; we are working to create full transparency in career opportunities across the

organisation; we will introduce employee recognition schemes in all our sites to recognise individual employees or teams for excellent performance above and beyond the normal job.

The implementation will continue into 2016 and the next MyVoice survey will take place in 2017 and will be repeated every two to three years thereafter.

A company with engaged employees shows better results, higher growth, faster innovation and greater customer satisfaction. The global survey has given each employee a greater voice in shaping the direction of our company. Everyone can play a role in making Smurfit Kappa an even greater place to work.



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People continued

People partnerships

Employee association and representation

Freedom of association and collective representation

We recognise and support the right of our employees to become, and remain, members of trade unions and the right of their representatives to negotiate and bargain collectively on their behalf.

We will provide adequate access for employee representatives and ensure that they do not suffer any disadvantage or discrimination as a result of their role.

We are not aware of any confirmed case in which either the association or bargaining rights of any individual or group(s) of employees have been denied to them during the course of 2015. The collective agreements currently applying in some 90% of the Group's sites and covering 77% of our employees are the result of either local and/or national negotiations in the countries concerned.

Local works councils and the European Works Council

In many countries Smurfit Kappa conducts formal employee consultation processes with the local Works Councils. The collective agreements currently apply in almost all of the Group's sites and cover the vast majority of our employees. By far the largest representative group in Smurfit Kappa in Europe is the European Works (EWC) which acts as a complement of existing local structures. The EWC, which covers the entire workforce of the Group in the European Union, was created to assist in the development of an open two-way communication process with all employees in line with European regulations. An agreement, renewed in January 2012, governs the functioning, rights and duties of the EWC, and will remain in place for four years. During 2015 we had two regular EWC forums and three Select Committee meetings.

The council currently consists of 30 members representing all employees. The procedure for selection, nomination, and election of the various members is in accordance with national regulations or practices. The EWC is not a negotiating forum, but a complement to existing local structures where information dissemination and consultation takes place. Management is represented by the Chief Executive Officer Europe, European Divisional COOs (as appropriate) and assisted by representatives of the HR function (Group VP Human Resources and Europe VP Human Resources).

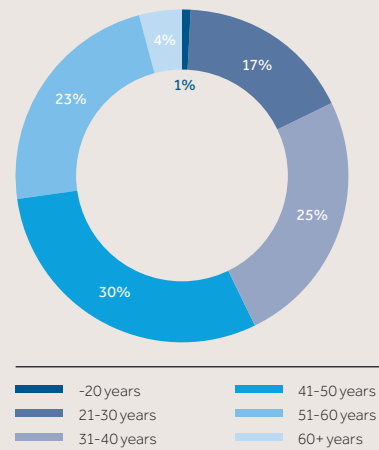
When a decision is taken to introduce change, employee consultation takes place promptly.

In those cases, where a local operation discontinues its operations, any negative economic effects on its host community are mitigated by actions that are agreed with local and, if applicable, country Works Councils. The outcome, reflecting local and/or national custom and practice or legislation, will result in one or more of the following: severance pay, career counselling, job search workshops, financial advice, and/or early retirement where appropriate.

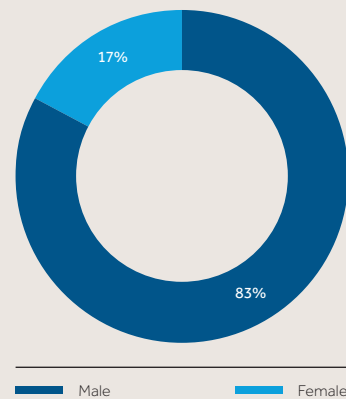
Where the change has transnational implications, and/or decisions that will significantly impact on the interests of its employees in two or more EU member states, a consultation process with the European Works Council must take place prior to any decision being made. This is in addition to local and country actions and consultations.

This set of actions, at the appropriate level, ensures that the needs and requirements of our employees are taken into account in each case where an operation is discontinued, without compromising the Group's ability to take the appropriate action(s) to protect its commercial interests.

Total employees by age 2015*



Total employees by gender 2015*

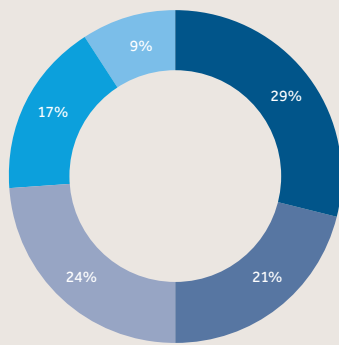


The period of notice, measured in terms of the time between the initial communications to the employees concerned and the introduction of the changes, ranges from six weeks to 24 weeks.

Employees in

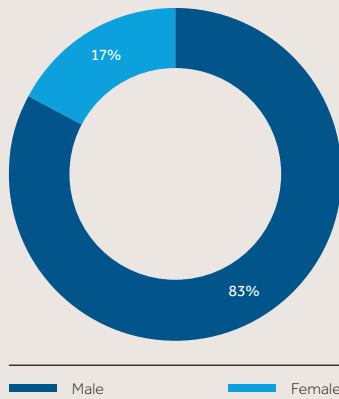
34
countries

Total employees by length of service 2015*



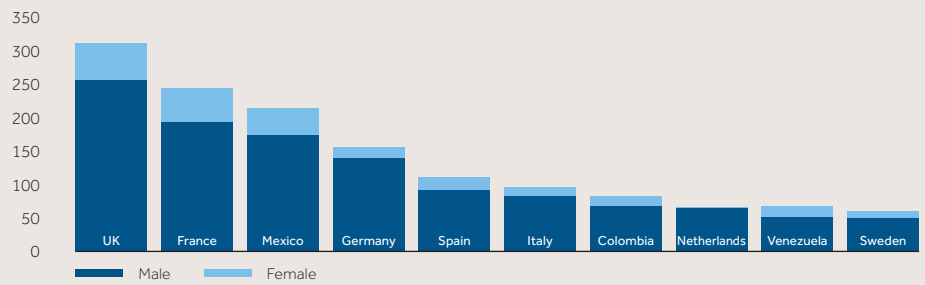
- 5 years
- 21-30 years
- 5-10 years
- 30+ years
- 11-20 years

Management by gender 2015*

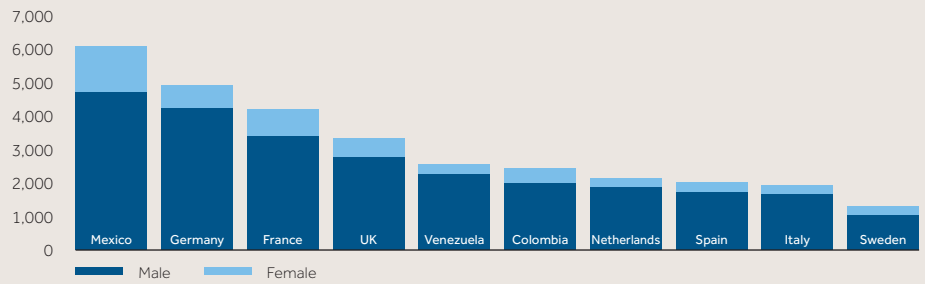


- Male
- Female

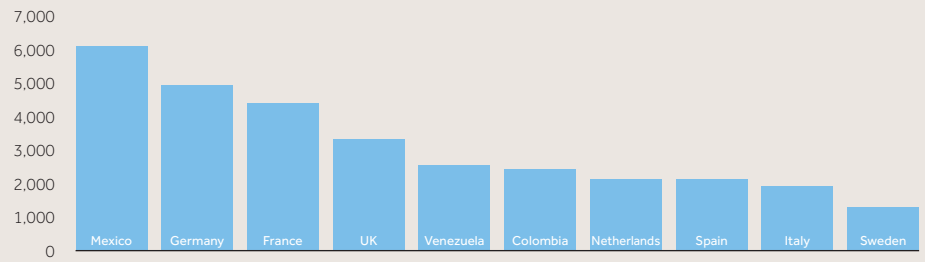
Management by gender – top 10 countries 2015*



Total employees by gender – top 10 countries 2015*



Top 10 countries headcount 2015*



*Data as at 31 December 2015



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A large, light-colored recycling symbol is centered on a brown, textured paper background. The symbol consists of three chasing arrows forming a triangle.

RIGHT-WEIGHTED PAPER PACKAGING

Our approach to virgin and recycled paper offers quality, performance and product safety without compromising sustainability.

Development and recognition

Smurfit Kappa Open Leadership Model

The strength of Smurfit Kappa to be a successful multinational comes from the best source: our employees, who are dedicated to using insight and innovation to achieve customer growth. In order to succeed, everyone within the organisation must anticipate and meet changing market demands. Open Leadership defines nine capabilities, which will enable our managers across the company to align, empower and inspire our people. It will help them to anticipate and meet the changing demands of the markets and to deliver exceptional and sustainable outperformance. We examined current leadership capabilities and explored what adjustments might be required in order to be fit for the future, and as a result created the Open Leadership Model for all leaders, from general manager, mill manager, and equivalent to upward levels.

Employee development

We believe strongly in offering people, in all levels throughout the organisation, the chance to increase and broaden their skillsets and knowledge, helping them to fulfil their potential and widen their career prospects. To achieve this a broad range of training and development initiatives are driven centrally and at local levels. As in previous years, Smurfit Kappa continues to enjoy close ties with leading European and American Business Schools in the area of Executive Development.

Our business language is English. We work with a leading language school to run up to seven programmes a year to improve the English language skills of non-native English speaking employees and we offer an e-learning tool. There are also many additional locally delivered programmes which are often the first step in developing new language skills.

Overall in 2015, each employee spent 22 hours on average in training.

Smurfit Kappa Group Awards

Through our Smurfit Kappa Awards events in both Europe and the Americas, we stimulate the ambition of our people and our business units to always do better. The various award competitions serve several purposes. The core objective is to encourage, recognise and reward entrepreneurship, innovation and superior performance whether it is in the area of operations, innovation, safety or sustainability. The awards are visible to the organisation's entire workforce. This helps in sharing the objectives of the organisation, creating an aspirational climate and enforcing its priorities. In 2015 we recognised our mills, plants and employees in the following categories: overall company of the year, corrugated plant of the year, paper mill of the year

Smurfit Kappa Chile supports Make-A-Wish



Make-A-Wish International is a global charity that tries to grant the reasonable wishes of children with life-threatening medical conditions in order to bring a measure of hope and joy to their lives.

In Chile, for historical and geographical reasons, the main specialised health-care centres are still situated in the capital, Santiago. Many children with serious illnesses, who come from rural areas

outside the city, need to relocate to Santiago for their medical treatment. This entails families separating for extended periods of time, thus placing untold stress and suffering on the affected children. In such cases, the children often wish to have an item like a simple laptop or a cell phone which can be typically used to communicate with their families and loved ones back home.

The Smurfit Kappa Foundation has made a donation to Make-A-Wish International – Chile which will grant the most heartfelt wishes of 30 such children. In addition, Smurfit Kappa Chile facilitated a visit from one of the children to its Santiago plant where he and his family were welcomed by the general manager and the employees. They also designed and made a special large scale aeroplane from corrugated board with his name on it.

Raul Reyezumeta, the plant GM, said: "We are very appreciative of the donation by the Smurfit Kappa Foundation to this good cause which reinforces our philosophy of becoming involved with the local community. We were particularly pleased to be able to welcome one of the children to the plant and I am proud to state that the employees gave him and his family a warm reception with the special aeroplane, which he thoroughly enjoyed."



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People continued

Smurfit Kappa is committed to creating and maintaining positive relationships with its host communities.

and a number of Health and Safety awards to recognise best performance and best improvements.

People post-career

Retired employees

Our retirees have a special relationship with Smurfit Kappa and we are grateful for their contribution to our success over so many years. Today there are approximately 13,000 Smurfit Kappa pensioners and there are a variety of different associations in various countries that manage a host of social activities. Such events help to maintain the bonds the pensioners enjoyed as working colleagues and provide a social platform. While most of the activities are managed by the pensioner associations themselves, there is also ongoing Group support at local level.

Volunteering and donations

Community involvement

Smurfit Kappa is committed to creating and maintaining positive relationships with host communities in a socially responsible manner. We invest significantly in those communities contributing to their economic and social development. We also take into account the concerns and interests of the wider communities at national and international level.

Community involvement builds trust and also serves as a link to issues close to us, such as the value of forests and the education of (young) people. Local general managers are expected to represent the company as part of the local community and play a positive part in its development. We focus on areas such as self-help initiatives, education and health programmes and we contribute through financial donations and through volunteering by local employees.

Smurfit Kappa Foundation

We engage with, and actively support, local communities through our local Foundations. The Smurfit Kappa Foundation supports projects in the countries where we operate, with the focus being on projects involving young disadvantaged children in the areas of health and nutrition, basic care, and early education. Currently, the Foundation supports a number of such projects in Argentina, Chile, Colombia, Germany, Ireland, the Netherlands and the UK.

We estimate that our local operations in cooperation with our related foundations donated close to €4 million in cash and kind in 2015 for a wide range of activities, including education of children and research in areas such as biodiversity.

People



Health and safety

Boundary: Health and safety reporting applies to our own employees. When applicable to sub-contracted labour workers this is specifically indicated.

Commitment:

- Zero fatalities
- Injuries: Reduce the lost-time and injury rate by 5% annually for the period of 2013-2017
- Provide regular health and safety training to employees and sub-contractors
- Promote and ensure safe behaviour of our employees and sub-contractors
- Embed process safety in the way we design, develop and operate all our sites

Timeframe: Continuous

Progress made: No fatalities affecting employees across the Group in 2015. However, regrettably one sub-contractor sustained a fatal injury

The progress against our target in lost time accidents was positive in 2015. The LTAs reduced by 12.1% being 364 for the Group. The positive trend continued also with the LTA frequency and severity rates with a reduction of 14.6% in each being 0.47 and 13.00 respectively.

Our perspective: We believe that a safe and healthy workplace is a fundamental right of every person and also a business imperative. We are committed to maintaining a productive and safe workplace in every part of our company by minimising the risk of accidents, injury and exposure to health hazards for all of our employees and sub-contractors.

Employees

Boundary: All Smurfit Kappa operations both in Europe and the Americas.

Commitment:

- Strive to offer employees at all levels of the organisation the chance to increase and broaden their skillsets and knowledge, helping them to fulfil their potential and widen their career prospects
- Strive to stimulate and encourage employee engagement by regularly surveying our employees company wide and by following up appropriately
- Maintain a good faith reporting policy ('Whistleblower Code') where employees can safely report any unethical or illegal conduct they perceive within the Group
- Support and respect the protection of internationally proclaimed human rights
- Not engage in child labour and disengage from suppliers that do
- Support freedom of association and the recognition of the right to collective bargaining
- Not engage in forced and compulsory labour and discrimination in respect of employment and occupation on grounds such as race, colour, gender, sexual orientation, age, religion, disability or national origin
- Work against corruption in all its forms, including extortion and bribery

Timeframe: Continuous

Progress made: Progress in these areas has been discussed in the chapter 'People'.

Our perspective: We believe in our people and we are committed to reach our business objectives through their expertise, innovation and performance. We want to be recognised as a great place to work by our current employees and as one of the employers of choice by our prospective employees.

Community involvement

Boundary: The local communities or regions where we have the privilege to operate.

Commitment: Smurfit Kappa and our related Foundations' aim is to contribute to end the cycle of poverty and dependence that exist in some of the communities and countries in which we operate by investing in social and research projects.

- Focus on the education of (disadvantaged) youth
- Focus on (scientific) research in areas related to our business (e.g. forestry and biodiversity)
- Benefit the local communities in which we operate

Timeframe: Continuous

Progress made: Our management teams in sites throughout the Group and the foundations related to the Group have undertaken local community initiatives and supported voluntary work ranging from charity fundraising and social inclusiveness investments to volunteering activities in local projects and activities with close to €4 million in 2015.

Our perspective: We believe that a company can only prosper when it is an integral part of the society where it operates. Therefore investing in these communities and helping them flourish is important to us. Our focus is with people who have fewer opportunities to succeed. By supporting them we help to focus our communities reserves in keeping them vital and flourishing.



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Site
Procedures

Saurfit Kapp

Saurfit Kapp

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Grace and Nigel are going through the weekly safety protocol in the control room in the newly built Townsend Hook paper mill.

Grace Gledhill and Nigel Yapp
Smurfit Kappa Townsend Hook (UK)



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Input/output 2015

Europe

Input

Wood and fibre

Wood ⁽¹⁾	5,158 ktonnes ar
Market virgin pulp	92 ktonnes ar
Other pulp	38 ktonnes ar
Recovered paper	4,082 ktonnes ar
Paper or board purchased	1,796 ktonnes ar
Plastic films, other plastic item (BIB)	24 ktonnes
Starch (all types)	252 ktonnes ar
Inorganic raw materials	233 ktonnes ar
Other organic raw materials	175 ktonnes ar

Energy

Energy from fossil fuels	26,929 TJ
Energy from purchased biofuels	4,368 TJ
Electricity from grid	1,846 GWh

Water

Water intake ⁽²⁾	87 Mm ³
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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 SKG 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 to those on pages 40 to 63. The latter pages show the energy consumption for the production of the paper or board manufactured.

Output

Production

Papers (all grades)	4,750 ktonnes
Corrugated packaging*	4,722 ktonnes
Board and laminated boards*	648 ktonnes
Converted board*	141 ktonnes
Sacks*	– ktonnes
Other packaging	24 ktonnes

Direct emissions to air

CO ₂ fossil	1,591 ktonnes
CO ₂ biogenic	3,210 ktonnes
Dust from fuels	0.38 ktonnes
SO _x from processes	0.9 ktonnes
NO _x from processes	3.7 ktonnes

Energy output

Electricity to third party	304 GWh
Thermal energy to third party	143 TJ
Biomass sold	2,004 TJ

Wastes

Hazardous wastes	5.8 ktonnes
Non-hazardous wastes sent to landfill	219 ktonnes
Non-hazardous wastes recovered	316 ktonnes
Other non-hazardous wastes	5.3 ktonnes

Discharges to water

Water released	80 Mm ³
COD	24 ktonnes
BOD	9.6 ktonnes
Total suspended solids	4.1 ktonnes
N	0.56 ktonnes
P	0.09 ktonnes

The Americas

Input	
Wood and fibre	
Wood ⁽¹⁾	1,003 ktonnes ar
Market virgin pulp	0.00 ktonnes ar
Other pulp	– ktonnes ar
Recovered paper	1,214 ktonnes ar
Paper or board purchased	477 ktonnes ar
Plastic films, other plastic item (BIB)	1.9 ktonnes
Starch (all types)	41 ktonnes ar
Inorganic raw materials	75 ktonnes ar
Other organic raw materials	53 ktonnes ar

Energy	
Energy from fossil fuels	16,765 TJ
Energy from purchased biofuels	663 TJ
Electricity from grid	735 GWh

Water	
Water intake ⁽²⁾	33 Mm ³

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 SKG 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 to those on pages 40 to 63. The latter pages show the energy consumption for the production of the paper or board manufactured.

Output	
Production	
Papers (all grades)	1,256 ktonnes
Corrugated packaging*	1,267 ktonnes
Board and laminated boards*	157 ktonnes
Converted board*	58 ktonnes
Sacks*	50 ktonnes
Other packaging	1.8 ktonnes

Direct emissions to air	
CO ₂ fossil	1,071 ktonnes
CO ₂ biogenic	590 ktonnes
Dust from fuels	0.07 ktonnes
SO _x from processes	2.1 ktonnes
NO _x from processes	1.6 ktonnes

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

Wastes	
Hazardous wastes	1.4 ktonnes
Non-hazardous wastes sent to landfill	235 ktonnes
Non-hazardous wastes recovered	47 ktonnes
Other non-hazardous wastes	1.8 ktonnes

Discharges to water	
Water released	31 Mm ³
COD	14 ktonnes
BOD	4.6 ktonnes
Total suspended solids	5.1 ktonnes
N	0.32 ktonnes
P	0.05 ktonnes



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Paper and board mills Europe

		Nettingsdorf, Austria	Sangüesa, Spain	Cellulose du Pin, France	Piteå, Sweden	Morava, Czech Republic	CD Haupt, Germany ⁽⁵⁾	Hoya, Germany ⁽⁵⁾	Zülpich, Germany	Mengibar, Spain
		bkl, tl	tl, mg paper	bkl, wtkl, wttl	bkl, wtkl, wttl	tl, fl	wttl, sb, tl, fl	fl, tl, cart	fl, tl	fl, tl, wttl
Production	ktonnes	460	106	498	699	64	310	435	474	213
Energy										
Electricity										
Co-generated	GWh	160	64	375 ⁽¹⁾	285	–	55	115	165	100
Self-generated	GWh	–	–	–	–	–	–	–	–	–
Hydro power	GWh	–	–	–	–	2.1	0.2	–	–	–
Grid supply	GWh	136	75	47	305	20	41	57	21	– ⁽²⁾
Total electricity	GWh	296	138	422	591	22	97	172	186	100
Fuel usage										
Biofuels	TJ	3,665	2,341	9,084	10,129	13	51	74	258	67
Fossil fuels	TJ	1,173	196	636	125	310	1,451	2,383	3,047	1,474
Total fuels	TJ	4,837	2,537	9,720	10,253 ⁽³⁾	323	1,502	2,457	3,305	1,541
Water withdrawal										
Surface	Mm ³	13.4	5.0	8.7	32.4	0.39	0.54	–	1.7	1.7
Ground	Mm ³	–	–	0.9	–	0.00	0.8	2.3	0.4	–
Grid	Mm ³	0.04	0.00	0.01	0.08	0.00	–	0.15	0.02	0.03
Total water ⁽⁴⁾	Mm ³	13.5	5.1	10	32	0.39	1.3	2.5	2.1	1.7
Discharges										
To air										
CO ₂ fossil direct	ktonnes	68	13	36	12	17	81	134	231	83
CO ₂ fossil indirect	ktonnes	22	23	3.2	3.8	11	20	27	10	–
CO ₂ biogenic	ktonnes	397	256	979	1,120	1.1	3.9	7	26	6.1
Dust	tonnes	23	8.2	30	253	0.17	0.00	0.00	0.3	0.92
NO _x as NO ₂	tonnes	268	142	795	661	8.6	51	89	221	418
SO _x as SO ₂	tonnes	56	298	73	31	6.4	0.22	5.2	76	52
To water										
Process water	Mm ³	5	5	10	13	0.28	0.42	2.0	–	1.4
Cooling water	Mm ³	8.2	–	–	19	–	0.54	0.06	1.05	–
COD	tonnes	7,843	341	4,532	2,842	31	105	277	–	312
BOD	tonnes	5,642	58	1,298	666	0.7	5.8	16	–	14
Total suspended solids	tonnes	669	188	707	317	6.2	3.0	49	–	112
Total N	tonnes	42	6.7	92	43	6.1	0.38	19	–	42
Total P	tonnes	3.2	0.96	25	16	0.54	0.19	2.5	–	2.1
Wastes										
Total non-hazardous wastes	tonnes	22,500	22,330	42,199	30,851	8,318	16,319	32,042	19,402	35,637
Landfill	tonnes	3,311	13,554	12,308	3,006	3,968	–	200	8,043	35,433
Recovery	tonnes	19,189	8,776	29,891	27,845	4,350	16,319	31,431	11,359	204
Other	tonnes	–	–	–	–	–	–	411	–	–
Hazardous wastes	tonnes	263	151	680	244	17.2	29.1	36	70	18

Notes

(1) CHP partly or totally outsourced

(2) Electricity exported by CHP

(3) Part of heat exported outside the Group

(4) Total water includes rainwater and waste water from another organisation

(5) Both C.D. Haupt and Hoya consist of two mills on one site. Data are aggregated data per site

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

Alfa d'Avignon, France	Rethel, France	Saillet, France	Ania, Italy	Roermond, Netherlands	SSK, United Kingdom	Townsend Hook, United Kingdom	Baden Karton, Germany	Herzberger, Germany	Nervion, Spain	Total mills
tl	tl	fl, tl	fl, tl	tl, fl	tl, fl	fl, tl	cart	sb	sack paper	
72	62	254	217	597	214	87	145	258	148	5,314
-	-	0.2	35	114	61	16 ⁽¹⁾	63	77	119	1,804
0.06	-	-	-	-	-	-	-	-	0.01	0.06
-	-	1.6	-	-	-	-	1.3	1.0	-	6.1
28	24	110	37	39	- ⁽²⁾	34	- ⁽²⁾	16	66	1,056
28	24	112	72	152	61	51	64	94	185	2,866
-	20	55	20	147	50	-	-	-	2,989	28,963
360	318	1,170	1,196	2,893	1,280	904	1,111	1,585	85	21,697
360	338	1,226	1,216	3,040	1,330	904	1,111	1,585	3,075	50,659
0.6	-	1.9	-	2.0	-	0.5	1.4	3.4	2.5	76
-	0.48	-	1.5	-	0.9	0.08	-	0.00	-	7.4
-	0.01	0.01	0.01	0.17	0.12	0.00	0.02	0.00	0.02	0.70
0.6	0.51	1.9	1.6	2.2	1.0	0.5	1.5	3.4	2.7	85
20	18	66	66	164	73	51	62	90	5.5	1,292
1.9	1.6	7.6	14.4	17	0.24	16	0.13	7.7	20	207
1.4	2.0	6.0	1.7	10	4.9	2.3	-	-	334	3,160
0.05	0.09	0.07	0.00	0.00	0.00	0.00	0.00	3.1	54	373
15	21	67	61	135	123	66	23.8	76	298	3,540
6.9	1.05	2.1	3.8	18.7	0.71	2.0	0.51	15	171	819
0.48	0.40	1.6	1.3	1.5	0.74	0.42	1.2	1.4	1.9	48
-	-	-	-	-	-	-	0.07	1.9	-	31
89	35	855	106	257	2,452	51	132	179	1,238	21,678
22	5.2	238	14	6.9	711	2.8	18	14	289	9,021
14	8.0	449	15	23	1,063	17	12	25	86	3,764
9.8	2.2	90	15	26	118	23	1.1	1.6	1.3	538
2.0	0.38	13	1.1	2.2	18	0.3	0.11	0.46	0.33	87
4,010	5,193	20,548	29,034	38,398	23,320	14,795	15,123	23,062	85,753	488,834
3,983	1,222	19,876	759	-	9,816	13,428	-	34	83,654	212,595
27	3,971	663	28,275	38,254	13,504	1,337	15,123	23,028	2,099	275,644
0.18	-	9.2	-	144	-	30	-	-	-	595
13	0.90	17	14	19	43	105	43	74	26	1,863

bkl: brown kraftliner
cart: carton board
fl: recycled fluting

mg paper: machine glazed paper
sb: solid board
tl: testliner

wtk: white top kraftliner
wtt: white top testliner



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Operations total Europe

		Paper and board mills	Integrated corrugated operations	Other packaging operations	Other operations	Total operations
Production	ktonnes	5,314	4,434	454	2,619	
Energy						
Electricity						
Co-generated	GWh	1,804	–	–	–	1,804
Self-generated	GWh	0.06	–	–	–	0.06
Hydro power	GWh	6.1	–	–	–	6.1
Net grid supply	GWh	1,056	509	81	3.1	1,649
Total electricity	GWh	2,866	509	81	3.1	3,459
Fuel usage						
Biofuels	TJ	28,963	124	–	–	29,087
Fossil fuels	TJ	21,697	3,999	162	77	25,934
Total fuels	TJ	50,659	4,123	162	77	55,021
Water withdrawal						
Surface	Mm ³	76	0.02	–	–	76
Ground	Mm ³	7.4	0.34	0.01	–	7.7
Grid	Mm ³	0.70	1.3	0.08	0.00	2.1
Total water ⁽¹⁾	Mm ³	85	1.6	0.09	0.00	87
Discharges						
To air						
CO ₂ fossil direct	ktonnes	1,292	228	9.6	5.7	1,535
CO ₂ fossil indirect	ktonnes	207	170	29	1.4	407
CO ₂ biogenic	ktonnes	3,160	14	–	–	3,174
Dust	tonnes	373	3.2	0.03	0.01	376
NO _x as NO ₂	tonnes	3,540	79	3.4	3.8	3,627
SO _x as SO ₂	tonnes	819	33	1.3	3.5	857
To water						
Process water	Mm ³	48	0.61	0.04	–	48
Cooling water	Mm ³	31	0.11	0.00	0.00	31
COD ⁽²⁾	tonnes	21,678	1,782	–	–	23,460
BOD ⁽²⁾	tonnes	9,021	483	–	–	9,504
Total suspended solids ⁽²⁾	tonnes	3,764	347	–	–	4,111
Total N ⁽²⁾	tonnes	538	23	–	–	561
Total P ⁽²⁾	tonnes	87	0.73	–	–	88
Wastes						
Total non-hazardous wastes	tonnes	488,834	28,985	6,157	11,634	535,610
Landfill	tonnes	212,595	5,221	593	434	218,843
Recovery	tonnes	275,644	19,582	5,186	11,01	311,431
Other	tonnes	595	4,182	378	182	5,336
Hazardous wastes	tonnes	1,863	3,384	507	1.7	5,756

Notes

(1) Total water includes rainwater and waste water from another organisation

(2) Sum of available data (details for mills are reported in individual tables)

Paper and board mills the Americas

		Bernal, Argentina	Coronel Suarez, Argentina	Cali, Colombia	Barranquilla, Colombia	Barbosa, Colombia	Los Reyes, Mexico	Cerro Gordo, Mexico	Monterrey, Mexico	Caracas, Venezuela	Valencia, Venezuela	San Felipe, Venezuela	Forney, USA	Total mills
		fl, tl	fl, tl	p&w, sack p, cart, bkl, tl, pulp, sc fl, wtkl	tl, fl	fl, tl	fl, tl, cart	tl, cart, fl	fl, tl	cart, tl	cart	bkl, sc fl	tl, fl	
Production	ktonnes	74	51	262	64	73	80	309	34	13	46	95	313	1,412
Energy														
Electricity														
Co-generated	GWh	–	–	226	36	–	–	–	–	–	23	115	36	435
Self-generated	GWh	–	–	–	–	–	–	–	–	2.8	23	–	–	26
Hydro power	GWh	–	–	–	–	–	–	–	–	–	–	–	–	–
Net grid supply	GWh	35	17	103	2.4	37	49	170	20	5.1	1.0	0.63	110	549
Total electricity	GWh	35	17	329	38	37	49	170	20	7.9	47	115	145	1,010
Fuel usage														
Biofuels	TJ	–	–	4,729	–	–	–	–	–	–	–	753	659	6,141
Fossil fuels	TJ	420	229	5,106	667	409	567	1,325	244	200	1,372	3,465	1,241	15,244
Total fuels	TJ	420	229	9,835	667	409	567	1,325	244	200	1,372	4,218	1,900	21,386
Water withdrawal														
Surface	Mm ³	0.09	–	22	1.2	0.56	–	–	–	0.42	–	–	–	25
Ground	Mm ³	0.66	0.28	0.11	–	–	0.43	1.5	0.11	–	0.78	2.3	–	6.2
Grid	Mm ³	–	–	–	0.01	–	–	–	0.05	0.20	0.04	–	1.1	1.4
Total water ⁽¹⁾	Mm ³	0.75	0.28	22	1.2	0.56	0.49	1.5	0.16	0.62	0.83	2.5	1.1	32
Discharges														
To air														
CO ₂ fossil direct	ktonnes	24	13	396	37	31	32	75	14	12	77	198	70	977
CO ₂ fossil indirect	ktonnes	14	6.6	13	0.30	4.6	22	77	9.0	1.4	0.54	0.17	53	201
CO ₂ biogenic	ktonnes	0.72	–	419	–	–	–	–	0.23	–	–	94	75	589
Dust	tonnes	0.09	0.09	28	2.1	3.2	0.00	2.5	0.00	0.00	0.06	24	4.7	65
NO _x as NO ₂	tonnes	23	13	984	6.8	45	26	70	6.0	12	137	192	62	1,577
SO _x as SO ₂	tonnes	5.9	0.20	1,944	0.19	77	0.06	0.67	0.06	0.40	2.6	6.1	32	2,070
To water														
Process water	Mm ³	0.49	0.22	24	0.94	0.41	0.26	0.89	0.08	0.60	0.33	2.1	0.57	31
Cooling water	Mm ³	0.18	–	–	–	–	–	–	–	–	–	–	–	0.18
COD	tonnes	55	42	6,622	2,531	2,019	35	332	36	734	89	973	664	14,134
BOD	tonnes	10	6.17	1,579	1,430	896	2.22	26	4.7	251	14	115	178	4,514
Total suspended solids	tonnes	7.9	16	2,502	1,601	189	1.4	55	5.9	472	23	93	91	5,058
Total N	tonnes	3.8	6.8	200	19	8.6	1.05	4.3	0.86	15	2.8	29	25	315
Total P	tonnes	0.25	0.16	43	0.26	0.71	0.65	2.4	0.23	0.32	0.08	0.87	2.5	51
Wastes														
Total non-hazardous wastes	tonnes	7,079	2,656	115,450	2,135	6,774	4,074	42,138	5,232	893	9,175	24,823	43,276	263,705
Landfill	tonnes	6,823	2,627	113,544	2,099	5,402	1,442	10,826	4,976	853	9,072	18,840	43,106	219,610
Recovery	tonnes	84	29	1,510	36	1,372	2,632	31,311	255	40	103	4,912	171	42,457
Other	tonnes	172	–	395	–	–	–	–	–	–	–	1,071	–	1,638
Hazardous wastes	tonnes	27	7.4	153	14	6.0	9.3	12	8.9	6.2	13	25	–	282

bkl: brown kraftliner
cart: carton board
tl: testliner

p&w: printing and writing grade
sack p: sack paper
wtkl: white top kraftliner

sc fl: semi-chemical fluting
pulp: virgin pulp sold externally
fl: recycled fluting

Notes

(1) Total water includes rainwater and waste water from another organisation
Water discharges: in *italics*: mills that do not discharge their process water to surface



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Operations total the Americas

		Paper and board mills	Other operations	Total operations
Production	ktonnes	1,412	3,229	
Energy				
Electricity				
Co-generated	GWh	435	–	435
Self-generated	GWh	26	0.45	26
Hydro power	GWh	–	–	–
Net grid supply	GWh	549	181	730
Total electricity	GWh	1,010	181	1,192
Fuel usage				
Biofuels	TJ	6,141	3.6	6,145
Fossil fuels	TJ	15,244	1,521	16,765
Total fuels	TJ	21,386	1,524	22,910
Water withdrawal				
Surface	Mm ³	25	0.02	25
Ground	Mm ³	6.2	0.31	6.5
Grid	Mm ³	1.4	0.38	1.7
Total water ⁽¹⁾	Mm ³	32	0.82	33
Discharges				
To air				
CO ₂ fossil direct	ktonnes	977	94	1,071
CO ₂ fossil indirect	ktonnes	201	70	271
CO ₂ biogenic	ktonnes	589	0.39	590
Dust	tonnes	65	1.5	66
NO _x as NO ₂	tonnes	1,577	34	1,612
SO _x as SO ₂	tonnes	2,070	24	2,094
To water				
Process water	Mm ³	31	0.16	31
Cooling water	Mm ³	0.18	0.01	0.19
COD ⁽²⁾	tonnes	14,134	96	14,230
BOD ⁽²⁾	tonnes	4,514	54	4,567
Total suspended solids ⁽²⁾	tonnes	5,058	36	5,094
Total N ⁽²⁾	tonnes	315	1.0	316
Total P ⁽²⁾	tonnes	51	0.24	51
Wastes				
Total non-hazardous wastes	tonnes	263,705	20,133	283,838
Landfill	tonnes	219,610	15,620	235,230
Recovery	tonnes	42,457	4,312	46,769
Other	tonnes	1,638	201	1,839
Hazardous wastes	tonnes	282	1,074	1,356

Notes

(1) Total water includes rainwater and waste water from another organisation

(2) Sum of available data (details for mills are reported in individual tables)

Total Group operations

		All operations				
		2015	2014	2013	2012	2011
Energy						
Electricity						
Co-generated ⁽¹⁾	GWh	2,239	2,308	2,349	2,405	2,400
Self-generated	GWh	26	44	33	–	–
Hydro power	GWh	6.1	6.0	7.0	5.5	5.5
Grid supply	GWh	2,379	2,333	2,330	2,081	2,049
Total electricity	GWh	4,651	4,692	4,720	4,491	4,456
Fuel usage						
Biofuels	TJ	35,232	34,545	34,461	31,936	33,102
Fossil fuels	TJ	42,700	43,320	43,868	44,723	46,202
Total fuels	TJ	77,931	77,865	78,329	76,659	79,304
Water withdrawal						
Surface	Mm ³	101	101	106	104	103
Ground	Mm ³	14	16	15	16	15
Grid	Mm ³	3.8	3.4	3.4	3.1	3.0
Total water ⁽²⁾	Mm ³	120	121	125	126	122
Discharges						
To air						
CO ₂ fossil direct	ktonnes	2,607	2,647	2,681	2,775	2,860
CO ₂ fossil indirect	ktonnes	678	659	683	584	572
CO ₂ biogenic	ktonnes	3,764	3,698	3,716	3,622	3,606
Dust	tonnes	442	562	561	665	699
NO _x as NO ₂	tonnes	5,239	4,887	4,367	4,688	4,767
SO _x as SO ₂	tonnes	2,951	2,728	2,411	3,334	3,893
To water						
Process water	Mm ³	79	80	81	79	78
Cooling water	Mm ³	32	33	34	34	32
COD ⁽³⁾	tonnes	37,690	39,116	38,188	35,665	36,278
BOD ⁽³⁾	tonnes	14,072	12,100	12,253	11,473	11,638
Total suspended solids ⁽³⁾	tonnes	9,205	9,840	9,526	7,752	8,504
Total N ⁽³⁾	tonnes	877	796	888	711	643
Total P ⁽³⁾	tonnes	139	114	86	91	97
Wastes						
Total non-hazardous wastes	tonnes	819,448	836,816	906,764	919,084	906,389
Landfill	tonnes	454,073	444,604	512,101	565,346	525,854
Recovery	tonnes	358,199	365,411	363,976	322,712	329,880
Other	tonnes	7,175	26,801	30,686	31,026	50,655
Hazardous wastes	tonnes	7,112	8,767	9,523	12,813	10,717

Notes

- (1) For years 2011 and 2012 electricity co-generated and self-generated
(2) Total water includes rainwater and waste water from another organisation
(3) Sum of available data (details for mills are reported in individual tables)



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Management system certifications

Forestry		Forest management	Wood sourcing	Chain of Custody	External paper sourcing	Chain of Custody	
The Americas			Europe		Europe		
CO	Colombia Forest	FSC	ES	Central Forestal	PEFC & FSC	European paper sourcing (EPS)	PEFC and FSC
VE	Venezuela Forest	FSC CW FSC 100%	FR	Comptoir Du Pin Aquitaine	PEFC and FSC		

European Mills		Quality management system	Environmental management system	Health and safety system	Hygiene management for foodstuffs packaging	Energy management system	Chain of Custody
Virgin mills		ISO 9001	ISO 14001	OHSAS 18001	CEN/EN 15 593 (or alternatives)*	ISO 50001 (other)	
AT	Nettingsdorf	•	•	•	•		PEFC and FSC
ES	Sangüesa	•	•		•		PEFC and FSC
	Nervion	•	•		•	•	PEFC and FSC
FR	Cellulose Du Pin	•	•	•	•		PEFC and FSC
SE	Piteå	•	•		*FSSC 22000	•	PEFC and FSC
Recycled mills							
CZ	Morava	•	•	•	•	•	PEFC and FSC
DE	Baden Karton	•	•	•	•	•	PEFC and FSC
	CD Haupt	•	•	•	•	•	PEFC and FSC
	Herzberger	•	•	•	•	•	PEFC and FSC
	Hoya	•	•	•	•	•	PEFC and FSC
	Zülpich	•	•	•	•	•	PEFC and FSC
ES	Mengibar	•	•	•	•		PEFC and FSC
FR	Alfa d'Avignon	•	•		•		PEFC and FSC
	Rethel	•	•		•		PEFC and FSC
	Saillat	•	•	•	•		PEFC and FSC
IT	Ania	•	•		*FEFCO/ESBO		PEFC and FSC
NL	Roermond	•	•	•	•	•	PEFC and FSC
UK	SSK	•	•	•	•	(BS EN 16001)	PEFC and FSC
	Townsend Hook	•	•	•	•		PEFC and FSC

The Americas Mills		Quality management system	Environmental management system	Health and safety system	Chain of Custody
Virgin mills		ISO 9001	ISO 14001	OHSAS 18001	
CO	Cali		•		FSC
VE	San Felipe		•		FSC
Recycled mills					
AR	Bernal		•		FSC
	Coronel Suarez		•		FSC
CO	Barbosa		•		FSC
	Barranquilla		•		FSC
MX	Cerro Gordo	•	•		FSC
	Los Reyes	•	•		FSC
	Monterrey	•	•		FSC
USA	Forney		•		PEFC and FSC and SFI
VE	Caracas		•**		FSC
	Valencia	•	•		FSC

** Passed ISO 14001 in April 2016

Social data

	2015	2014	2013	2012	2011
Social citizenship (FTE)					
Total number of employees	44,599	41,816	40,654	37,757	37,556
of whom female (%)	17%	17%	17%	16%	14%
Employees leaving the company	1,971	1,675	1,598	1,596	1,524
of whom % of resignation and retirement	62%	62%	59%	53%	53%
Employees joining the company	2,217	1,826	1,743	1,890	1,404
Age distribution (%)					
< 20 years	1%	1%	1%	1%	1%
21-30 years	17%	16%	16%	16%	16%
31-40 years	25%	25%	26%	26%	27%
41-50 years	30%	31%	31%	32%	32%
51-60 years	23%	23%	22%	22%	21%
> 60 years	4%	4%	4%	3%	3%
Employee turnover (%)	4.9%	4.4%	4.3%	4.7%	4.4%
Length of service, above 11 years (%)	50%	51%	52%	54%	53%
Females in management (%)	17%	17%	16%	16%	14%
Health and safety					
Lost time accidents (LTA)	364	414	405	440	502
Contractor lost time accidents (CLTA)	62	227	NA	NA	NA
Days lost due to accidents (DLA)	9,924	11,460	10,211	10,362	12,948
Accident severity rate (ASR) %	13.00%	15.23%	13.80%	15.40%	19.40%
Frequency rate (FR)*	0.47	0.55	0.55	0.65	0.75
Fatalities					
Own employees	0	0	1	0	3
(Sub)contractors	1	1	1	2	0
Sourcing data					
Number of audits					
Strategic suppliers	26	22	23	26	12
Important suppliers	23	21	31	9	3
Satisfactory scores					
Strategic suppliers	21	19	22	26	11
Important suppliers	18	18	28	8	2



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“ In our corrugated plant in Cali, we work with our customers who seek to optimise their processes by developing innovative solutions for them. ”

Maria Alejandra Torres
Smurfit Kappa Cali Corrugated
(Colombia)



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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 2015 and also includes some information for early 2016, where mentioned specifically. In this report, we cover the business, environmental and social activities at our own operations, as well as our approach to sourcing and how we support our customers' sustainability targets.

The report also describes Smurfit Kappa's vision and approach to sustainability.

At the end of 2015, our operations comprised 367 facilities in 34 countries across Europe and the Americas. Information from all the operations where Smurfit Kappa has majority ownership is included in this report excluding the operations acquired in 2015 (see below). For these companies, 2015 data is only included when specifically mentioned in the relevant section of the report.

Employee demographics covers our own employees. Contract labour is only included if specifically indicated.

Acquisitions and divestitures in 2015

During 2015, Smurfit Kappa acquired the following companies and/or activities:

- Hexacomb (March) with converting facilities in France, the Netherlands, Spain and Mexico
- Beacon Packaging (March) with a converting facility in the UK
- Inspirepac (March) with converting facilities in the UK
- CYBSA (May) with converting and recovered paper facilities in Costa Rica, El Salvador and Nicaragua
- INPA (December) with two paper mills and corrugating facilities in Brazil
- PAEMA (December) with one paper mill and corrugated facilities in Brazil

There were five closures (Ponts et Marais corrugated operation in France; Viersen paper mill and Hamburg and Kawell corrugating operations in Germany; and Nybro corrugated operation in Sweden), and one divestiture in which we sold the solid board mills in the Netherlands (Coevorden, Hoogkerk, Bad Nieuweschans and Oude Pekela) and four converting operations (Interbox in Belgium, GSF and Trimbach in the Netherlands and Corby in the UK) to Aurelius.

Environmental data on the acquired and closed sites is not included in the 2015 data presented in this report. The acquisitions and closures do not significantly impact our targets that are being measured on specific volume performance in 2015. The sale of the solid board mills in the Netherlands instead has a significant impact on the baseline of the targets that are being measured on specific volume performance. With the sale of these sites, we have removed their data from the 2005 baseline as well as the 2015 data and the 2014 data to which it is compared. Apart from the impact on the baseline mentioned, no significant changes in the scope, boundary and measurement methods were applied to the report compared to previous years.

The reporting of employee and health and safety data reflects the situation at the end of 2015.

Topics, issues and targets

Smurfit Kappa fully recognises that sustainable development embraces social and business issues as well as environmental ones. These issues have been selected on the basis of input from various stakeholder groups. Smurfit Kappa collected data from all its manufacturing operations that were operational at the end of 2015 with the exception of the above-mentioned acquired and closed operations.

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

Reporting guidelines, data collection

Among the various references used for the development and identification of baseline data included in this report are the G4 Sustainability Reporting Guidelines issued by the Global Reporting Initiative (GRI). The GRI is an independent institution whose mission is to provide a trusted and credible framework for sustainability reporting. Smurfit Kappa applied the GRI guidelines at a comprehensive level.

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, a project completed in 2015.

For the most part, data is based on measured or metered quantities, or on best estimates based on industry knowledge and established calculation factors. CO₂ emission calculations have been based on established fuel consumption and specific CO₂ emission factors. Definitions and calculations for the performance indicators can be found in the glossary on pages 101 to 103.

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 commissioned 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 104.

GRI-index

KPMG has provided limited assurance on the full Sustainable Development Report 2015 of Smurfit Kappa. Please refer to page 104 of the report for the Independent Auditor's Assurance Report. Where cross-references are made to sections in the report, the respective information is included in the scope of this assurance engagement. For other references, assurance is not applicable.

GRI-G4	Description	Source/comment	Page(s)
Profile			
1.1	CEO Statement on relevance of sustainability to the organisation and its strategy	SDR	4-6
1.2	Description of key impacts, risks and opportunities	SDR	10-13, 14-18, 20-31, 40-42, 48-50, 54-60, 65-77
Organisational profile			
2.1	Name of the organisation	SDR	Cover
2.2	Primary brands, products, and/or services	SDR	Cover flap page, 1, 17
2.3	Operational structure of the organisation	Website	
2.4	Location of organisation's headquarters	SDR	
2.5	Countries where the organisation operates	SDR	Cover flap page
2.6	Nature of ownership and legal form	AR	
2.7	Markets served	Website	
2.8	Scale of the reporting organisation	AR	2-5
2.9	Significant changes during the reporting period in size, structure and ownership	SDR	92
2.10	Awards received in the reporting period	SDR	2-3
Report profile			
28	Reporting period (e.g. fiscal/calendar year) for information provided	SDR	92
29	Date of most recent previous report (if any)	SDR	92
30	Reporting cycle (annual, biennial, etc.)	SDR	92
31	Contact point for questions regarding the report or its contents	SDR	Outside back cover
32	Report the 'in accordance' option the organisation has chosen	SDR	92
33	Report the organisation's policy and current practice with regard to seeking external assurance for the report	SDR	92
34	Report the governance structure of the organisation	AR	38-42
35	Report the process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees	SDR	33-34
36	Report whether the organisation has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether postholders report directly to the highest governance body	AR	38-42
37	Report processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body	AR	38-42
38	Report the composition of the highest governance body	AR	38-42
39	Report whether the Chair of the highest governance body is also an executive officer	AR	38-42
40	Report the nomination and selection processes for the highest governance body	AR	39
41	Report processes for the highest governance body to ensure conflicts of interest are avoided and managed	AR	38-39
42	Report the highest governance body's and senior executives' roles in the development, approval and updating of the organisation's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	AR	39



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GRI-G4	Description	Source/comment	Page(s)
43	Report the processes for evaluation of the highest governance body's performance	AR	40
44	Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics. Report whether such evaluation is independent or not, and its frequency. Report whether such evaluation is a self-assessment	AR	38-42
45	Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks and opportunities	AR	38-42
46	Report the highest governance body's role in reviewing the effectiveness of the organisation's risk management processes for economic, environmental and social topics	AR	33-35, 38-42
47	Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks and opportunities	AR	At least 5 times per year 40, 42
48	Report the highest committee or position that formally reviews and approves the organisation's sustainability report and ensures that all material aspects are covered	SDR AR Website	33 41
49	Report the process for communicating critical concerns to the highest governance body	SDR AR	33 41
50	Report the nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them	SDR	33-35
51	Report the remuneration policies for the highest governance body and senior executives	AR	39
52	Report the process for determining remuneration	AR	39
53	Report how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable	AR	Views are not actively sought. Independent Directors and AGM have approved remuneration policies and remuneration packages
54	Report the ratio of the annual total compensation for the organisation's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country		No information provided due to privacy reasons
55	Report the ratio of percentage increase in annual total compensation for the organisation's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country		No information provided due to privacy reasons

Economic indicators

	Disclosure on management approach	SDR	
EC1	Direct economic value generated and distributed	AR	10, 68, 88, 90-91
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	CDP 2014 Investor SDR	Module risks and opportunities 48-49
EC3	Coverage of the organisation's defined benefit plan obligations	AR	107-110
EC4	Significant financial assistance received from government		No financial assistance received from government
EC6	Policy, practices and proportion of spending on locally based suppliers at significant locations of operation	SDR	35
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation	SDR	65-67
EC8	Development and infrastructure provided primarily for public benefit	SDR	28-30, 76

GRI-G4	Description	Source/comment	Page(s)
Environmental indicators			
	Disclosure on management approach	SDR	
EN1	Materials used by weight or volume	SDR	80-81
EN2	Percentage of materials used that are recycled input materials	SDR	16, 40, 42, 80-81
EN3	Energy consumption within the organisation	SDR	50-51, 80-87
EN4	Energy consumption outside of the organisation	SDR	52-53
EN5	Energy intensity	SDR	51-52, 80-87
EN6	Reduction of energy consumption	SDR	50-52, 80-87
EN7	Reductions in energy requirements of products and services	SDR	24, 52
EN8	Total water withdrawal by source	SDR	80-87
EN9	Water sources significantly affected by withdrawal of water	SDR	56, 80-87
EN10	Percentage and total volume of water recycled and reused	SDR	56-57
EN11	Location and size of land by protected areas and areas of high biodiversity value	SDR Website	46-47
EN12	Description of significant impacts of activities, products and services on biodiversity	SDR	40-47
EN13	Habitats protected or restored	SDR	46-47
EN14	Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	SDR	46-47
EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	SDR	49
EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	SDR	80-87
EN17	Other relevant indirect greenhouse gas emissions by weight	SDR	52-53
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	SDR	48-52
EN19	Reduction of greenhouse gas (GHG) emissions	SDR	51
EN20	Emissions of ozone-depleting substances by weight	SDR	80-87
EN21	NO _x , SO _x and other significant air emissions by type and weight	SDR	80-87
EN22	Total water discharge by quality and destination	SDR	56-57, 80-87
EN23	Total weight of waste by type and disposal method	SDR	60-63, 80-87
EN24	Total number and volume of significant spills	SDR	No significant spills in 2015
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	SDR	14-22
EN27	Extent of impact mitigation of environmental impacts of products and services	SDR	14-22
EN28	Percentage of products sold and their packaging materials that are reclaimed by category	SDR	Smurfit Kappa produces 61 packaging materials for other industries
EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	SDR	34
EN30	Significant environmental impacts of transporting products and other goods and materials for the organisation's operations, and transporting members of the workforce	SDR	52-53
Labour practice indicators			
	Disclosure on management approach	SDR	
LA1	Total workforce by employment type and region	SDR	65-66, 72-73
LA2	Total number and rate of employee turnover by age group, gender and region	SDR	65-66, 72-73
LA3	Benefits provided to full-time employees	SDR AR	67 107-110
LA4	Percentage of employees covered by collective bargaining agreements	SDR	72



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GRI-G4	Description	Source/comment	Page(s)
LA5	Minimum notice period(s) regarding significant operational changes	SDR	72
LA6	Type of injury and rates of injury, occupational diseases, lost days, absenteeism, and total number of work-related fatalities, by region and by gender	SDR	67-69
LA7	Rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities by region	SDR	67-69
LA8	Education, training, counselling, prevention and risk-control programmes in place to assist workforce members, their families or community members regarding serious diseases	SDR	65-77
LA9	Average hours of training per year per employee by gender, and by employee category	No distinction made between employee categories/gender; training (opportunities) provided where appropriate	
LA10	Average hours of training per year per employee by employee category	SDR	75
LA11	Programmes for skills management and lifelong learning	SDR	75-76
LA12	Employees receiving performance and career development reviews	SDR	75-76
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	SDR AR	
LA14	Ratio of basic salary of men to women by employee category	SDR	67, same job, same pay
LA15	Return to work and retention rates after parental leave, by gender (partial reporting)	SDR	67, detailed information not available
Human rights indicators			
	Disclosure on management approach	SDR	
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	SDR	72
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	SDR	35
HR3	Total hours training on policies and procedures concerning human rights	Employees are made aware of relevant policies through awareness programmes regarding Code of Business Conduct	
HR4	Total number of incidents of discrimination and actions taken	SDR Website	67
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	SDR	35
HR6	Operations with significant risk for incidents of child labour, and measures taken to eliminate	SDR	35, 67
HR7	Operations with significant risk of forced or compulsory labour, and measures to eliminate	SDR	35, 67
HR8	Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations	Not applicable	
HR9	Incidents of violations involving rights of indigenous people and actions taken	SDR	66-67
HR10	Percentage and number of operations subject to human rights reviews	SDR	66-67
HR11	Number of grievances related to human rights addressed and resolved	SDR	34, 67
Social			
	Disclosure on management approach	SDR	
SO1	Percentage of operations with implemented local community engagement, impact assessments and development programmes	SDR	56, 58, 76

GRI-G4	Description	Source/comment	Page(s)
SO2	Percentage and total number of business units analysed for risks related to corruption	SDR	34
SO3	Percentage of employees trained in organisation's anti-corruption policies and procedures	SDR	Awareness campaign completed in 2014
SO4	Actions taken in response to incidents of corruption	SDR	No such incidents occurred in 2015
SO5	Public policy positions and participation in public policy development and lobbying	SDR	4-6, 33-34, 40-42, 48-49, 54, 60-61
SO6	Total value of financial and in-kind contributions to political parties, politicians and related institutions by country	SDR	34, No such contributions were made
SO7	Total number of legal actions for anti-competitive behaviour, anti-trust and monopoly practices and their outcomes	SDR	34
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	SDR	34
SO9	Operations with significant potential or actual negative impact on local communities	SDR In general, we recognise that our operations are of economic significance for the local communities in which they are located. It is our policy to be actively involved socially in our host communities. Environmentally, our paper and board mills may pose a risk of effluent leakages which, if they occur, may temporarily affect local water streams with increased COD/BOD or TSS levels. Our operations do not pose a significant risk of emissions to air of substances that may affect human health. Our operations do not pose a risk to their host communities regarding the use of natural resources with the possible exception of those areas where water is scarce	
SO10	Prevention and mitigation measures in operations with significant potential or actual negative impact on local communities	In general, by complying with local and international laws, there is no need for further prevention and/or mitigation measures with regard to potential environmental risks that could possibly impact host communities	
SO11	Total number of grievances about impacts on society filed through formal grievance mechanisms during the reporting period	No such grievances have been filed during the reporting period	
Product responsibility indicators			
	Disclosure on management approach	SDR	
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	SDR	10-13, 14-30
PR2	Incidents of non-compliance with regulations and voluntary codes on health and safety impacts of products and services during their life cycle, by type of outcomes	SDR	34
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	SDR	Not applicable. Our products are B2B and in general no such information is required
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes	SDR	Not applicable. Our products are B2B and in general no such information is required
PR5	Practices related to customer satisfaction, including results of surveys that measure customer satisfaction	SDR	20-24
PR6	Programmes for adherence to laws, standards and voluntary codes related to marketing communications, including advertising, promotion and sponsorship	SDR	33-34
PR7	Total number of incidents of non-compliance with regulations and voluntary codes on marketing communications, including advertising, promotion and sponsorship by type of outcomes	SDR	Not applicable. Our products are B2B and this indicator is not relevant to our business
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	No substantiated complaints identified	
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	No material fines and/or substantiated claims for non-compliance with laws or regulations concerning the provision and use of products and services were identified	



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Business in the community Ireland

Commentary on the Smurfit Kappa 2015 Sustainable Development Report

Smurfit Kappa Group's ninth annual Sustainable Development Report is industry-leading in the level of detail conveyed regarding the approach of the company to the integration of sustainability and its commitment to transparency. In this first report with Tony Smurfit as Group CEO, we learn how Smurfit Kappa is designing for a circular economy, how innovation is placed centre stage and about the range and breadth of continuous improvement actions being taken in all facets of the business.

As with all leading companies, **stakeholder engagement** is key for Smurfit Kappa. We are impressed both by the approach and combination of methods used (e.g. one to one meetings, workshops and roundtables with customers and investors; audits of suppliers, joint sustainability projects with customers and suppliers; the employee engagement survey and the interaction and regular dialogue with local communities in which company units are based). The material process informed the focus on the company's five strategic priorities: forest, climate change, water, waste and people.

Forest

For example, and as we know from previous years, Smurfit Kappa has committed to 100% sustainably sourced new fibre from forests where human rights and biodiversity are assured to the highest globally recognised standards. More than 80% of packaging is now Chain of Custody Certified. 100% of paper mills and converting operations are Chain of Custody Certified to FSC and/or PEFC.

Climate Change

Through continuing and relentless innovation, the company is taking to the next level, the support provided to customers on how best to implement their strategic sustainability goals through optimal packaging provision. Efficiency-focused software tools such as Paper-to-Box and Pack Expert are able to optimise the direct and indirect environmental impact of the packaging on the supply chain to enable customers to measure and track progress over a number of years. The continued and steady focus on the reduction of Smurfit Kappa CO₂ emissions (reduced overall in 2015 by 22.6% on 2005 figures) also informs customers of the exact carbon footprint of each packaging unit.

In the Report, we are able to see how Smurfit Kappa is investing in more efficient energy generation and technologies to reduce the use of energy in company processes. The case studies from Sweden and Denmark on specific examples of this are very good. The energy usage per tonne of paper produced at Smurfit Kappa paper mills improved by 10% between 2005 and 2015, with biofuels currently representing 45% of paper mill fuel mix compared to 37% in 2005.

Water

Managing the impact of water use is clearly close to the heart of Smurfit Kappa Group and a sectoral leadership role on the responsible use of water is being taken. Since 2005, Smurfit Kappa has invested €54 million in the development of process water treatment plants and between 2005 and 2015, the COD content of processed water returned to the environment decreased by 29%, per tonne of paper. Water risk assessments of all paper and board mills are gradually being carried out to enable specific water reduction targets to be set at each mill, as part of individual mill improvement plans.

Waste

An ambitious target of a 30% reduction in the amount of waste sent to landfill, per tonne of paper, has been set for 2020 compared to 2013! In fact the company vision is to eliminate all waste from all production processes. We noted the collaboration with the World Economic Forum Project Mainstream to develop guidelines for the paper-based industry to improve the recyclability of paper, the specification of paper-based products, the use of easily solvable inks and glues and improving opportunities to increase the already high recycling rates.

People

It is very welcome that health & safety performance continues to do well in Smurfit Kappa with lost time accidents, frequency rate and severity rate all decreasing in 2015. Accident reporting from subcontracted labour workers has also been initiated.

We were interested to learn about the new leadership model being put in place to foster further innovation, deliver increased customer value and improve the leadership skills and communication between management and employees. With the importance of gender diversity becoming more and more understood, we were pleased to see that Smurfit Kappa has a policy to increase the level of participation of women in management roles and have promoted female participation in training such as the Advanced Management Development Programme. Since 2010, the participation rate of women has increased from 11% to 33% in 2015.

Following the first company-wide employee engagement survey of 45,000 employees, Smurfit Kappa companies are now in the midst of acting on 1000 employee suggestions for improvement.

A note re Sustainable Procurement

In 2015, products and services purchased by Smurfit Kappa were to the value of €4.8 billion, with 74% of supplier deliveries classified as local. The Sustainable Sourcing Policy includes the risk assessment of suppliers in quality, hygiene and safety, manufacturing, service and technical support, environment and sustainable development. We were interested to read that 100% of strategic suppliers in Europe have been audited, a process that began in 2010. 92% of suppliers scored satisfactorily, with the remaining 8% to be compliant upon successful completion of their defined continuous improvement plan.

We noted the initiatives carried out in **collaboration with suppliers**, particularly the programme to develop an anaerobic water treatment process, which has since been adopted across the international paper industry.

Conclusion

The material in these pages (which meet GRI G4 requirements) leaves the reader in no doubt just why Smurfit Kappa is one of the world's leading providers of paper-based packaging solutions across 370 production sites in 34 countries with revenue of €8.1 billion in 2015. Smurfit Kappa is clearly embracing the challenge to make their products, operations, raw materials and supply chain more environmentally sustainable, circular and socially robust and is to be wholly commended for the breadth of their efforts.

Following the COP21 Climate Agreement, the company is keeping a close eye on how it will affect the EU ETS. With the 2015 Smurfit Kappa Innovation in Design & Sustainability Awards fostering 100 innovations, we are interested to see how Smurfit Kappa continues on their path to find new and alternative uses for non-paper materials received with the recovered paper streams, and eagerly anticipate reading about these over the coming years.

We noted the strong awareness of the benefit of a diverse culture and workforce and look forward to learning how the company will further develop its 45,000 people and continue to collaborate and partner with key stakeholders.



Tina Roche
Chief Executive
Business in the Community Ireland



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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 are reported in the Environment section. A complete GRI index can be found on pages 93 to 97 of the Report.

The following table shows how our performance in relation to each UN Global Compact principle can be reported using a number of GRI performance indicators. This is based on guidance documents published by the UN Global Compact.

UNGC principles	GRI indicators
Human Rights	
1 Businesses should support and respect the protection of internationally proclaimed human rights; and	HR1-11, LA5, LA7-8, LA13-15, PR8
2 Businesses should make sure that they are not complicit in human rights abuses.	HR1-11
Labour	
3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	LA4-5
4 Businesses should uphold the elimination of all forms of forced and compulsory labour;	HR7
5 Businesses should uphold the effective abolition of child labour; and	HR6
6 Businesses should uphold the elimination of discrimination in respect of employment and occupation.	EC7, LA2, LA13-15, HR4
Environment	
7 Businesses are asked to support a precautionary approach to environmental challenges;	EC2, EN18-19, EN26-27
8 Businesses should undertake initiatives to promote greater environmental responsibility; and	EN1-30, PR3-4
9 Businesses should encourage the development and diffusion of environmentally friendly technologies.	EN2, EN5-7, EN10, EN18-19, EN26-28
Anti-corruption	
10 Businesses should work against corruption in all its forms, including extortion and bribery.	SO2-4



Glossary

Climate change, energy and air emissions

Biofuels	Fuels coming from biomass: wood rejects, bark, black liquor, pitch oil, certain part of mixed wastes and biogas produced during the anaerobic treatment of water.
Black liquor	Residue from pulping containing organic compounds (like lignin). This residue is burnt to produce energy and to recover the chemicals.
Carbon dioxide equivalent CO₂-eq	A measure used to compare the emissions from various greenhouse gases based upon their climate change potential (CCP). The CO ₂ -eq carbon dioxide equivalent for other emissions is derived by multiplying the amount of the emission by the associated CCP factor.
Carbon Footprint	Carbon released to the atmosphere during the life cycle of a product from cradle to grave.
CDP	CDP (formerly the 'Carbon Disclosure Project') is an organisation based in the United Kingdom that encourages large corporations from the world's major economies to disclose their greenhouse gas emissions and climate change strategies. In 2014, nearly 2,000 businesses reported climate change data to CDP.
CHP	Combined Heat and Power: a combination of a boiler and a gas and/or steam turbine that simultaneously produces electricity and thermal energy (steam) by burning fuels. This system is considered to be the most efficient technology in industries using both steam and electricity. When mills sell part of their produced steam to an external party or have net electricity export (selling more to an external party than purchasing), the consumption of fuel and emissions reported for this mill 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.
CHP (outsourced)	A CHP installation, belonging to an external party, located at or near a Smurfit Kappa site for delivering electricity and steam to the Smurfit Kappa production facility. All fuel and electricity used for the production of paper as well as emissions related to that are included in the figures for the Smurfit Kappa production facility.
Co-generated electricity	Electricity generated by a CHP system belonging to our organisation or from an outsourced CHP system.
CO₂ biogenic	Carbon dioxide emitted when burning biofuels. This CO ₂ is considered to be carbon neutral as it is removed from the atmosphere and stored in biomass within a short period of time.
CO₂ fossil	Carbon dioxide emitted when burning fossil fuels for the production of paper. The calculation is made according to international guidelines from the carbon content of each fuel (WRI/WBCSD GHG protocol).
CO₂ indirect	Fossil carbon dioxide generated externally in the production of electricity purchased from the grid. Source: International Energy Agency Data Services for year 2012. 'CO ₂ emissions from fuel combustion – 2014 Edition'.
European Union Emissions Trading System – EU ETS	EU ETS, also known as the European Union Emissions Trading Schemes 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.
Dust	Particles coming from the combustion of fuels. Dust emissions are measured mainly by the mills. Where dust is not measured (converting plants), emissions are calculated from fuel consumption using the emission factors listed in the Ecoinvent database version 2.1.
Fossil fuels	Fuels originating from non-renewable resources (gas, oil, coal, peat and lignite).
GJ	Gigajoule, a unit of energy that generally applies to fuel. 1 gigajoule (GJ) = one billion joules = 10 ⁹ joules.
Grid supply	Electricity purchased from a national distribution network.
GWh	Unit of energy, generally applies to electricity – 1 GWh (GigaWatt hour) = 1 million kWh (kiloWatt hour).
NO_x	Mix of nitrogen oxides (NO and NO ₂) calculated as NO ₂ (nitrogen dioxide) coming from combustion of fuels. They can contribute to the acidification of soil and water. NO _x emissions are measured mainly by the mills. Where NO _x is not measured (converting plants), emissions are calculated from fuel consumption using the emission factors listed in the Ecoinvent database version 2.1.
Paris agreement	Agreement within the framework of the United Nations Framework Convention on Climate Change dealing with greenhouse gases emissions mitigation, adaptation and finance starting in the year 2020. An agreement on the language of the treaty was negotiated by representatives of 195 countries during COP21.
Self-generated electricity	Electricity generated by an electricity generator without recovery of steam.
Sequestration	Carbon sequestration describes the long-term storage of carbon dioxide or other forms of carbon to either mitigate or defer global warming and avoid dangerous climate change.
SO_x	Mix of sulphur oxides calculated as SO ₂ coming from combustion of fuels. Sulphur dioxide contributes to the acidification of soil and water. SO _x emissions are measured mainly by the mills. Where SO _x is not measured (converting plants), emissions are calculated from fuel consumption using the emission factors listed in the Ecoinvent database version 2.1.
PJ	Petajoule, a unit of energy. 1 petajoule = 1,000 terajoules = 10 ¹⁵ joules.
TJ	Terajoule, a unit of energy that generally applies to fuel. 1 terajoule = 1,000 gigajoules = 10 ¹² joules.
21st Conference of the Parties – COP21	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.



Overview



Our approach to sustainable business



Our priorities and performance



Supporting data



Supplementary information

Supplementary information

Glossary

Organisations

CEPI	CEPI, the Confederation of European Paper Industries. It is a non-profit organisation representing the European pulp and paper industry.
ELCD	European Reference Life Cycle Database. The ELCD has been developed within the 'European Platform on Life Cycle Assessment' by the Commission's Joint Research Centre, Institute for Environment and Sustainability (JRC-IES).
DJSI	The Dow Jones Sustainability Index tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria.
Ethibel	The Ethibel Sustainability Index Excellence Europe lists 200 European companies that display the best performance in terms of corporate social responsibility.
Euronext Vigeo	The Euronext Vigeo indices comprise the highest-ranking listed companies as evaluated in terms of their performance in corporate social responsibility.
FTSE4Good	The FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong environmental, social and governance practices.
The Supplier Ethical Data Exchange – Sedex	As the largest collaborative platform for sharing ethical supply chain data, Sedex is an innovative and effective supply chain management solution, helping companies to reduce risk, protect company reputation and improve supply chain practices.
Water Footprint Network – WFN	The Water Footprint Network is a non-profit international network whose mission is to promote the sustainable, fair and efficient use of fresh water resources worldwide.
World Business Council for Sustainable Development – WBCSD	The World Business Council for Sustainable Development is a CEO-led organisation of forward-thinking companies that galvanises the global business community to create a sustainable future for business, society and the environment.

Certifications forest and other

Certified wood product	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 might 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.
CoC	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.
FSC	The Forestry Stewardship Council is an independent, non-governmental, organisation established to promote the responsible management of the world's forests through independent third-party certification.
FSSC 22000	These standards specify requirements for a food safety management system where an organisation in the food chain needs to demonstrate its ability to control food safety hazards in order to ensure that food is safe at the time of human consumption.
ISO 9001	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of quality management.
ISO 14001	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of environmental management.
ISO 50001	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of energy usage: improvement of efficiency, reduction of consumption and energy security.
Non-controversial origin	Virgin wood or wood fibre which has been verified as having a low probability of including wood from any of the following categories, in line with FSC and PEFC schemes: <ul style="list-style-type: none"> 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.
OHSAS 18001	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of occupational health and safety management.
PEFC	Programme for the Endorsement of Forest Certification. PEFC is an independent, non-governmental organisation that promotes sustainably managed forests through independent third-party certification.
SFI	SFI Inc (Sustainable Forest Initiative) is an independent, non-profit organisation dedicated to promoting sustainable forest management. Companies are certified Chain of Custody according to the SFI standard through independent third-party certification.

Water

AOX	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.
BOD	Biochemical Oxygen Demand (one element of the COD, unit: mg O ₂ /litre) refers to the level of oxygen uptake by micro-organisms in a sample of water measured over a period of five days.
COD	Chemical Oxygen Demand is the most commonly used test to measure the amount of organic compounds in water (unit: mg O ₂ /litre). The result indicates the level of all organic compounds that can be oxidised by a strong oxidising agent.
Process water	Quantity of water containing organic compounds released into the environment (river, sea) after internal water treatment or released to an external treatment plant (municipal water treatment). In all cases, levels of pollutants released are reported as outputs of the company even in the case of operations that send process water to external treatment.
Total N (nitrogen)	Sum of organic nitrogen, ammonia (NH ₃) and ammonium (NH ₄ ⁺) discharged with the process water.
Total P (phosphorous)	Sum of phosphorous compounds discharged with the process water.
Total suspended solids (TSS)	Refers to the level of small solid particles discharged with the process water.
Water impact assessment	Assessing potential risk from water availability and quantity, covering multiple aspects specific to each geographical location.

Products and raw materials

Containerboard	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.
Corrugated board	Structured board made by a corrugator usually formed by gluing one wave formed liner (called fluting) in the middle to two flat-facing sheets of containerboard (kraftliner or testliner) outside.
Fluting	The wavy formed middle layer in corrugated board.
Kraftliner	Paper made mainly from virgin wood fibres.
Testliner	Paper manufactured from recycled fibres.
Inorganic raw materials	Raw material used for manufacturing our products that are not organic such as: fillers, sodium hydroxide, sodium sulphate and calcium oxide.
Other organic raw materials	Raw materials used for manufacturing our products that are organic excluding fibres, starch or plastic raw materials which are reported individually. This category includes oil, lubricant and organic additives such as colourant or dyes.
Raggers	In the beginning of repulping process in which recovered paper is returned into pulp, non-fibrous materials are being removed from the recovered paper. Plastics, strapping and other floating materials are collected from the mass with a rope called a 'ragger'.
Recovered paper	Recovered paper refers to used paper and board separately collected and classified for the purpose of recycling for use as raw material in the manufacture of new paper and paperboard.
Virgin fibre	Pulp obtained through a chemical process used to remove lignin from wood. As a result, the fibre can be used to produce paper. The lignin residue and other organic compounds are subsequently collected and used in the formation of black liquor.

Health and safety

Lost time accident	Refers to a work-related injury incident sustained by a Smurfit Kappa employee while performing their work duties that results in their absence from their scheduled work after the day of the incident.
Lost time accident frequency rate	Refers to the number of lost time accidents per 100,000 hours worked. [LTA frequency rate = number of LTA x 100,000/total number of hours worked].
Lost time accident severity rate	Refers to the total number of days lost per 100,000 hours worked. [LTA severity rate = number of days lost x 100,000/total number of hours worked]. We refer to LTA severity rate when speaking about our target to reduce the injury rate by 5% annually during 2013-2017.
Number of days lost	Refers to the number of days lost arising from any lost time accident. When counting the number of days lost due to an accident, the day of the accident is not counted as a lost day.

Wastes

Wastes	Wastes are classified as non-hazardous wastes or hazardous wastes and are reported separately. Wood wastes and corrugated board shavings are excluded. All amounts of wastes are reported in mass as disposed.
Total non-hazardous wastes	Sum of all non-hazardous waste whatever is destination. Each category of non-hazardous wastes is defined and reported.
Non-hazardous wastes landfill	Part of the non-hazardous wastes that are disposed of in either internal or external landfill in accordance with national legislation.
Non-hazardous wastes recovery	Part of non-hazardous wastes that are reused or recycled or composted or used in agriculture or incinerated with energy recovery. The incineration facility is classified as a recovery operation if the efficiency of the plant complies with the definition laid down in Annex II of the Directive 2008/98/EC on waste.
Non-hazardous wastes other	Part of non-hazardous wastes that does not belong to the two previous categories. This includes wastes incinerated without energy recovery or wastes for which the final disposal is uncertain.
Hazardous wastes	Residues of oils and other hazardous wastes (building wastes containing asbestos, ink residues, etc.).



Supplementary information

Independent auditor's assurance report

To the readers of the Sustainable Development Report 2015 of Smurfit Kappa Group plc

Our conclusion

We have reviewed (limited assurance) the Sustainable Development Report 2015 (hereafter: the Report) of Smurfit Kappa Group plc (further Smurfit Kappa).

Based on our review, nothing has come to our attention to indicate that the Report is not presented, in all material respects, in accordance with the GRI G4 Guidelines.

Basis for our conclusion

We conducted our engagement in accordance with the Dutch Standard 3810N: "Assurance engagements relating to sustainability reports", which is a specified Dutch standard that is based on the International Standard on Assurance Engagements (ISAE) 3000: "Assurance Engagements other than Audits or Reviews of Historical Financial Information". We do not provide any assurance on the achievability of the objectives, targets and expectations of Smurfit Kappa.

Our responsibilities under Standard 3810N and procedures performed have been further specified in the paragraph titled "Our responsibility for the review of the Report".

We are independent of Smurfit Kappa Group plc in accordance with the Regulation regarding the independence of auditors in case of assurance engagements ('Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO)) and other relevant independence requirements in the Netherlands. Furthermore we have complied with the Regulation code of conduct and professional practice for auditors ('Verordening gedrags- en beroepsregels accountants' (VGBA)).

We believe that the review evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Responsibilities of the Board of Directors for the Report

The Board of Directors is responsible for the preparation of the Report in accordance with the GRI G4 Guidelines. It is important to view the information in the Report in the context of these criteria.

As part of this, the Board of Directors is responsible for such internal control as it determines is necessary to enable the preparation of the Report that is free from material misstatement, whether due to fraud or error.

Our responsibility for the review of the Report

Our objective is to plan and perform the review assignment in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.

We apply the Further Regulations for Audit Firms Regarding Assurance Engagements ('Nadere voorschriften accountantskantoren ter zake van assurance opdrachten') 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.

Our engagement has been performed with a limited level of assurance. Procedures performed in a limited assurance engagement are aimed at determining the plausibility of information and therefore vary in nature and timing from - and are less extensive than - a reasonable assurance engagement.

The procedures selected depend on our understanding of the Report and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise. The following procedures were performed:

- A risk analysis, including a media search, to identify relevant sustainability issues for Smurfit Kappa in the reporting period;
- Evaluating the design and implementation of the reporting processes and the controls regarding the qualitative and quantitative information in the Report;
- Interviews with relevant staff at corporate level responsible for providing the information in the Report;
- Visits to production sites in Barbosa (Colombia), Barranquilla (Colombia), Brännögård (Sweden), Morava (Czech Republic), Nettingsdorf (Austria) and Zülpich (Germany) to review the source data and the design and implementation of controls at local level;
- Evaluating internal and external documentation, based on sampling, to determine whether the information in the Report is supported by sufficient evidence;
- An analytical review of the data and trend explanations submitted by all production sites for consolidation at corporate level.

Amsterdam, 30 May, 2016
KPMG Sustainability,
Part of KPMG Advisory N.V.

W.J. Bartels, Partner

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