

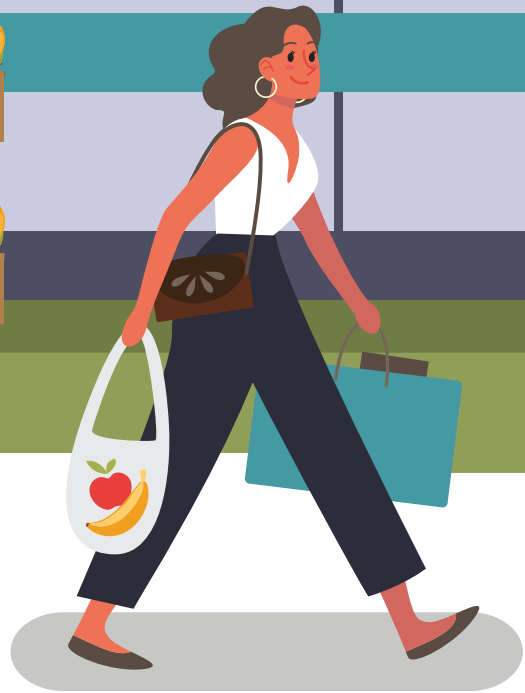
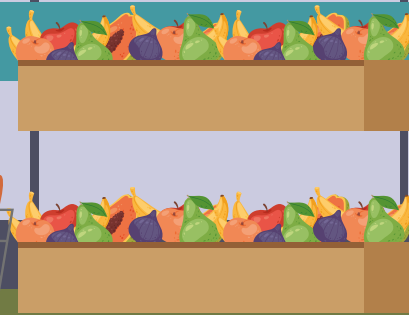
Supplementary information



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supermarket



About this Report

The information in this report covers the international activities of the Smurfit Kappa Group for the calendar year 2020 and also includes some information for early 2021, where mentioned specifically.

Acquisitions in 2020

No acquisitions were completed during 2020.

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

Acquisitions and Divestments in 2021

No acquisitions and/or divestments were completed in 2021 until the date of this report.

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 2020.

No significant changes in the scope, boundary and measurement methods were applied to the report compared with previous years.

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

The reporting of employee and Health and Safety data reflects the situation at the end of 2020.

Reporting Guidelines, Data Collection

Among the various references used for the development and identification of baseline data included in this report, in our reporting the leading standard is the GRI Standards (comprehensive) issued by the Global Reporting Initiative (GRI). GRI is an international independent organisation that helps businesses, governments and other organisations understand and communicate the impact of business on critical sustainability issues such as climate change, human rights, corruption and many others.

In May 2020, Smurfit Kappa announced its support for the recommendations by the Task Force for Climate-related Financial Disclosures (TCFD). Following on from that, this is the Group's first year to report in line with those recommendations and we expect this to develop and evolve over time (see page 94). The TCFD was established by the Financial Stability Board to develop recommendations in relation to climate-related disclosures that would inform investment and other financial decisions. The recommendations set out an important framework for understanding and analysing climate-related risks.

The Sustainability Accounting Standards Board (SASB) is an independent non-profit organisation that sets standards to guide the disclosure of financially material sustainability information by companies to their investors. In this report, the Group initiates its response to the relevant SASB criteria (see page 95).

Every effort has been made to provide data that is as accurate as possible. Data relating to environmental factors is gathered through a Group-wide IT-based reporting system implemented in all Smurfit Kappa operations.

This tool is integrated into the Group's intranet, enabling sites to report their environmental data online according to GRI guidelines into a central database. We make continuous efforts to increase our data quality. This includes improving the user-friendliness of our data collection and developing mill individual reporting protocols. Our protocols and guidelines exceed the scope of the GRI guidelines and are part of the external assurance scope. For the most part, data is based on measured or metered quantities, or on best estimates based on industry knowledge and established calculation factors. 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 99-103.

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

We appointed an external assurance provider, KPMG, to provide limited assurance on the data and the text of the report. KPMG's assurance report can be found on page 104.

GRI Index

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
Category: general disclosures				
GRI 102: general standard disclosures				
Organisational profile				
GRI 102	GRI 102:1	Name of the organisation	SDR	Cover
GRI 102	GRI 102:2	Activities, brands, products, and services	SDR	2-3
GRI 102	GRI 102:3	Location of headquarters	SDR	back cover
GRI 102	GRI 102:4	Location of operations	SDR/AR	2-3/4-5
GRI 102	GRI 102:5	Ownership and legal form	AR	64-104
GRI 102	GRI 102:6	Markets served	SDR/Website	2-3
GRI 102	GRI 102:7	Scale of the organisation	SDR/AR	2-3/2-5
GRI 102	GRI 102:8	Information on employees and other workers	SDR/AR	46-61, 84, 88/52-63
GRI 102	GRI 102:9	Supply chain	SDR	10-11, 64-65, 69-71, 85
GRI 102	GRI 102:10	Significant changes to the organisation and its supply chain	SDR/AR	88/122-126
GRI 102	GRI 102:11	Precautionary Principle or approach	AR	32-35, 68
GRI 102	GRI 102:12	External initiatives	SDR	1, 62-69
GRI 102	GRI 102:13	Membership of associations	SDR	1, 68-69
Strategy				
GRI 102	GRI 102:14	Statement from senior decision-maker	SDR	4-7
GRI 102	GRI 102:15	Key impacts, risks, and opportunities	SDR	1, 4-5, 9, 20-23, 24-71
Ethics and integrity				
GRI 102	GRI 102:16	Values, principles, standards, and norms of behaviour	SDR/AR	68-69/68-72
GRI 102	GRI 102:17	Mechanisms for advice and concerns about ethics	SDR/Website: Whistleblower policy/AR	52, 68-69/63
Governance				
GRI 102	GRI 102:18	Governance structure	AR	64-104
GRI 102	GRI 102:19	Delegating authority	SDR	68-69
GRI 102	GRI 102:20	Executive-level responsibility for economic, environmental, and social topics	SDR	68-69
GRI 102	GRI 102:21	Consulting stakeholders on economic, environmental, and social topics	SDR/AR	18-19/40-43
GRI 102	GRI 102:22	Composition of the highest governance body and its committees	AR	64-104
GRI 102	GRI 102:23	Chair of the highest governance body	AR	64-67
GRI 102	GRI 102:24	Nominating and selecting the highest governance body	AR	64-104
GRI 102	GRI 102:25	Conflicts of interest	AR	68-69
GRI 102	GRI 102:26	Role of highest governance body in setting purpose, values, and strategy	AR	64-104
GRI 102	GRI 102:27	Collective knowledge of highest governance body	AR	68-69
GRI 102	GRI 102:28	Evaluating the highest governance body's performance	AR	69
GRI 102	GRI 102:29	Identifying and managing economic, environmental, and social impacts	SDR	20-21, 68-69
GRI 102	GRI 102:30	Effectiveness of risk management processes	AR	32-35
GRI 102	GRI 102:31	Review of economic, environmental, and social topics	SDR	68 – The Sustainability Committee of the Board met five times in 2020
GRI 102	GRI 102:32	Highest governance body's role in sustainability reporting	SDR/AR/WEBSITE	68-69/68, 100-101
GRI 102	GRI 102:33	Communicating critical concerns	SDR/AR	68/68-72
GRI 102	GRI 102:34	Nature and total number of critical concerns	SDR	68-69
GRI 102	GRI 102:35	Remuneration policies	AR	76-78
GRI 102	GRI 102:36	Process for determining remuneration	AR	76-78
GRI 102	GRI 102:37	Stakeholders' involvement in remuneration	AR	76
GRI 102	GRI 102:38	Annual total compensation ratio	AR	76-78
GRI 102	GRI 102:39	Percentage increase in annual total compensation ratio	AR	91-92

GRI Index continued

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
Stakeholder engagement				
GRI 102	GRI 102:40	List of stakeholder groups	SDR/AR	18-19/40-41
GRI 102	GRI 102:41	Collective bargaining agreements	SDR	52
GRI 102	GRI 102:42	Identifying and selecting stakeholders	SDR/AR	18-19/40-41
GRI 102	GRI 102:43	Approach to stakeholder engagement	SDR/AR	18-19/40-41
GRI 102	GRI 102:44	Key topics and concerns raised	SDR	21, 25-27, 47-49, 63-65
Reporting practices				
GRI 102	GRI 102:45	Entities included in the consolidated financial statements	AR	176-177
GRI 102	GRI 102:46	Defining report content and topic boundaries	SDR	21, 25-27, 47-49, 63-65, 88
GRI 102	GRI 102:47	List of material topics	SDR	20-21
GRI 102	GRI 102:48	Restatements of information	SDR	88
GRI 102	GRI 102:49	Changes in reporting	SDR	88
GRI 102	GRI 102:50	Reporting period	SDR	The report covers the period calendar year 2020
GRI 102	GRI 102:51	Date of most recent report	SDR	Published 29 April 2020
GRI 102	GRI 102:52	Reporting cycle	SDR	Annual, 88
GRI 102	GRI 102:53	Contact point for questions regarding the report	SDR	Back cover
GRI 102	GRI 102:54	Claims of reporting in accordance with the GRI Standards	SDR	88
GRI 102	GRI 102:55	GRI content index	SDR	89-93
GRI 102	GRI 102:56	External assurance	SDR	104
GRI 103: management approach				
Reporting practices				
GRI 103	GRI 103:1	Explanation of the material topic and its boundary	SDR	25-27, 47-49, 63-65
GRI 103	GRI 103:2	The management approach and its components	SDR/AR	68/100
GRI 103	GRI 103:3	Evaluation of the management approach	SDR/AR	68/100
Category: economic				
GRI 201: economic performance				
GRI 201	GRI 201:1	Direct economic value generated and distributed	AR	2-5
GRI 201	GRI 201:2	Financial implications and other risks and opportunities due to climate change	SDR/AR	25-29/32-35, 50-51
GRI 201	GRI 201:3	Defined benefit plan obligations and other retirement plans	SDR/AR	57, 68-69/150-154
GRI 201	GRI 201:4	Financial assistance received from government	SDR	69
GRI 202: market presence				
GRI 202	GRI 202:1	Ratios of standard entry-level wage by gender compared with local minimum wage	SDR	57
GRI 202	GRI 202:2	Proportion of senior management hired from the local community	SDR	52
GRI 203: indirect economics impacts				
GRI 203	GRI 203:1	Infrastructure investments and services supported	AR	118-119, 159
GRI 203	GRI 203:2	Significant indirect economic impacts	AR	32-35
GRI 204: procurement practices				
GRI 204	GRI 204:1	Proportion of spending on local suppliers	SDR	70-71
GRI 205: anti-corruption				
GRI 205	GRI 205:1	Operations assessed for risks related to corruption	SDR/AR	52, 68/35 – Our Code of Conduct covers anti-corruption
GRI 205	GRI 205:2	Communication and training about anti-corruption policies and procedures	SDR/AR	68/48 – Our Code of Conduct covers the items of this criteria
GRI 205	GRI 205:3	Confirmed incidents of corruption and actions taken	SDR	68 – Our Code of Conduct covers the items of this criteria

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
GRI 206: anti-competitive behaviour				
GRI 206	GRI 206:1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	SDR/AR	68/35 – Our Code of Conduct covers the items of this criteria.
GRI 207: tax				
GRI 207	GRI 207:1	Approach to tax	SDR	69
GRI 207	GRI 207:2	Tax governance, control, and risk management	SDR	69
GRI 207	GRI 207:3	Stakeholder engagement and management of concerns related to tax	SDR	69
GRI 207	GRI 207:4	Country-by-country reporting	SDR	69
Category: environmental				
GRI 301: materials				
GRI 301	GRI 301:1	Materials used by weight or volume	SDR	74-75
GRI 301	GRI 301:2	Recycled input materials used	SDR	34-35, 74-75
GRI 301	GRI 301:3	Reclaimed products and their packaging materials	SDR	N/A SK produces packaging materials for other industries
GRI 302: energy				
GRI 302	GRI 302:1	Energy consumption within the organisation	SDR	27, 30-33, 82, 99
GRI 302	GRI 302:2	Energy consumption outside of the organisation	SDR	32-33, 82, 99
GRI 302	GRI 302:3	Energy intensity	SDR	31, 76-82
GRI 302	GRI 302:4	Reduction of energy consumption	SDR	30-32, 76, 82
GRI 302	GRI 302:5	Reductions in energy requirements of products and services	SDR	31, 33
GRI 303: water				
GRI 303	GRI 303:1	Interactions with water as a shared resource	SDR	38-41
GRI 303	GRI 303:2	Management of water discharge-related impacts	SDR	25-27, 38-41
GRI 303	GRI 303:3	Water withdrawal	SDR	39, 74-82
GRI 303	GRI 303:4	Water discharge	SDR	39, 74-82
GRI 303	GRI 303:5	Water consumption	SDR	38-41, 74-82
GRI 304: biodiversity				
GRI 304	GRI 304:1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	SDR/Website	35-37
GRI 304	GRI 304:2	Significant impacts of activities, products, and services on biodiversity	SDR	35-37
GRI 304	GRI 304:3	Habitats protected or restored	SDR/Website	35-37
GRI 304	GRI 304:4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	SDR/Website	35-37
GRI 305: emissions				
GRI 305	GRI 305:1	Direct (Scope 1) GHG emissions	SDR	31-32, 74-79
GRI 305	GRI 305:2	Energy indirect (Scope 2) GHG emissions	SDR	76-82
GRI 305	GRI 305:3	Other indirect (Scope 3) GHG emissions	SDR	32-33
GRI 305	GRI 305:4	GHG emissions intensity	SDR	5, 9, 19, 24-25, 27, 32
GRI 305	GRI 305:5	Reduction of GHG emissions	SDR	5, 9, 19, 24-25, 27, 31-33
GRI 305	GRI 305:6	Emissions of ozone-depleting substances (ODS)	SDR	SO _x , NO _x , 76-79
GRI 305	GRI 305:7	Nitrogen oxides (NO _x), sulphur oxides (SO _x), and other significant air emissions	SDR	76-79

GRI Index continued

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
GRI 306: effluents and waste				
GRI 306	GRI 306:1	Water discharge by quality and destination	SDR	76-82
GRI 306	GRI 306:2	Waste by type and disposal method	SDR	76-82
GRI 306	GRI 306:3	Significant spills	SDR	No significant spills in 2020
GRI 306	GRI 306:4	Transport of hazardous waste	SDR	76-79
GRI 306	GRI 306:5	Water bodies affected by water discharges and/or runoff	Website	www.smurfitkappa.com/sustainability/performance
GRI 307: environmental compliance				
GRI 307	GRI 307:1	Non-compliance with environmental laws and regulations	SDR	68
GRI 308: supplier environmental assessment				
GRI 308	GRI 308:1	New suppliers that were screened using environmental criteria	SDR	70-71, 85
GRI 308	GRI 308:2	Negative environmental impacts in the supply chain and actions taken	SDR	70-71, 85
Category: social				
GRI 401: employment				
GRI 401	GRI 401:1	New employee hires and employee turnover	SDR	84
GRI 401	GRI 401:2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	SDR	57
GRI 401	GRI 401:3	Parental leave	SDR	84
GRI 402: labour/management relations				
GRI 402	GRI 402:1	Minimum notice periods regarding operational changes	SDR	52
GRI 403: occupational Health and Safety				
GRI 403	GRI 403:1	Occupational Health and Safety Management System	SDR	58-59
GRI 403	GRI 403:2	Hazard identification, risk assessment, and incident investigation	SDR	58-59, 84
GRI 403	GRI 403:3	Occupational health services	SDR	58-59
GRI 403	GRI 403:4	Worker participation, consultation, and communication on occupational Health and Safety	SDR	52, 54-58
GRI 403	GRI 403:5	Worker training on occupational Health and Safety	SDR	58-59
GRI 403	GRI 403:6	Promotion of worker health	SDR	13, 51, 58-59
GRI 403	GRI 403:7	Prevention and mitigation of occupational Health and Safety impacts directly linked by business relationships	SDR	58-59
GRI 403	GRI 403:8	Workers covered by an occupational Health and Safety management system	SDR	58-59, 83-84
GRI 403	GRI 403:9	Work-related injuries	SDR	58-59, 84
GRI 403	GRI 403:10	Work-related ill health	SDR	58-59, 84
GRI 404: training and education				
GRI 404	GRI 404:1	Average hours of training per year per employee	SDR	84
GRI 404	GRI 404:2	Programmes for upgrading employee skills and transition assistance programmes	SDR	51, 54, 56-57
GRI 404	GRI 404:3	Percentage of employees receiving regular performance and career development reviews	SDR	51, 54, 56-57
GRI 405: diversity and equal opportunity				
GRI 405	GRI 405:1	Diversity of governance bodies and employees	SDR/AR	52, 55/99
GRI 405	GRI 405:2	Ratio of basic salary and remuneration of women to men	SDR	57
GRI 406: non-discrimination				
GRI 406	GRI 406:1	Incidents of discrimination and corrective actions taken	SDR	52, 55, 68
GRI 407: freedom of association and collective bargaining				
GRI 407	GRI 407:1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	SDR	52, 68-71

GRI Standard Number	Disclosure Number	Disclosure Title and Description	Source/Comment	Page(s)
GRI 408: child labour				
GRI 408	GRI 408:1	Operations and suppliers at significant risk for incidents of child labour	SDR	52, 68, 70-71
GRI 409: forced or compulsory labour				
GRI 409	GRI 409:1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	SDR	52, 70-71
GRI 410: security practices				
GRI 410	GRI 410:1	Security personnel trained in human rights policies or procedures	N/A	
GRI 411: rights of indigenous peoples				
GRI 411	GRI 411:1	Incidents of violations involving rights of indigenous peoples	SDR	No incidents were recorded in 2020
GRI 412: human rights assessment				
GRI 412	GRI 412:1	Operations that have been subject to human rights reviews or impact assessments	SDR	52
GRI 412	GRI 412:2	Employee training on human rights policies or procedures	SDR	SDR 2014 p26
GRI 412	GRI 412:3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	SDR	52
GRI 413: local communities				
GRI 413	GRI 413:1	Operations with local community engagement, impact assessments, and development programmes	SDR	18-19, 46-49, 60-61
GRI 413	GRI 413:2	Operations with significant actual and potential negative impacts on local communities	SDR	18-19, 46-49, 60-61
GRI 414: supplier social assessment				
GRI 414	GRI 414:1	New suppliers that were screened using social criteria	SDR	70-71
GRI 414	GRI 414:2	Negative social impacts in the supply chain and actions taken	SDR	64-65, 70-71, 85
GRI 415: public policy				
GRI 415	GRI 415:1	Political contributions	SDR	68-69
GRI 416: customer Health and Safety				
GRI 416	GRI 416:1	Assessment of the Health and Safety impacts of product and service categories	SDR	69
GRI 416	GRI 416:2	Incidents of non-compliance concerning the Health and Safety impacts of products and services	SDR	69
GRI 417: marketing and labelling				
GRI 417	GRI 417:1	Requirements for product and service information and labelling	SDR	N/A*
GRI 417	GRI 417:2	Incidents of non-compliance concerning product and service information and labelling	SDR	N/A*
GRI 417	GRI 417:3	Incidents of non-compliance concerning marketing communications	SDR	68-71
GRI 418: customer privacy				
GRI 418	GRI 418:1	Substantiated complaints concerning breaches of customer privacy and losses of customer data		No substantiated complaints identified
GRI 419: socioeconomic compliance				
GRI 419	GRI 419:1	Non-compliance with laws and regulations in the social and economic area	SDR	68-69

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

Task Force on Climate Related Financial Disclosures ('TCFD') Index

Area	Recommended Disclosures	Source	Page(s)
Governance			
Disclose the organisation's governance around climate-related risks and opportunities.	a) Describe the Board's oversight of climate-related risks and opportunities.	AR 2020 SDR 2020 CDP Climate Change response 2020	AR: 32-33 SDR 2020: 68-69 CDP: Section C.1 Governance
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	AR 2020 SDR 2020 CDP Climate Change response 2020	AR: 32-33 SDR 2020: 68-69 CDP: Section C.1 Governance
Strategy			
Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	CDP Climate Change response 2020	CDP: Section C.2 Risk and Opportunities
	b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	CDP Climate Change response 2020	CDP: Section C.2 Risk and Opportunities and Section C.3 Business Strategy
	c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	CDP Climate Change response 2020	CDP: Section C.3 Business Strategy
Risk Management			
Disclose how the organisation identifies, assesses, and manages climate-related risks.	a) Describe the organisation's processes for identifying and assessing climate-related risks.	AR 2020 CDP Climate Change response 2020	AR: 32-33 CDP: Section C.2 Risk and Opportunities
	b) Describe the organisation's processes for managing climate-related risks.	AR 2020 SDR 2020 CDP Climate Change response 2020	AR: 32-33 SDR 2020: 28-33 CDP: Section C.2 Risk and Opportunities
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	AR 2020	AR: 32-35
Metrics and Targets			
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	AR 2020 SDR 2020 CDP Climate Change response 2020	AR: 31, 50-51 SDR 2020: 25-27, 30-33, 74-82 CDP: Section C.4 Targets and Performance and Section C.6 Emissions Data
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	AR 2020 SDR 2020 CDP Climate Change response 2020	AR: 31, 50-51 SDR 2020: 30-33, 74-82 CDP: Section C.4 Targets and Performance and Section C.6 Emissions Data
	c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	AR 2020 SDR 2020 CDP Climate Change response 2020	AR: 31, 50-51 SDR 2020: 26-27, 30-33 CDP: Section C.4 Targets and Performance

AR – Annual Report

SDR – Sustainable Development Report

CDP – Carbon Disclosure Project

SASB Index

Code	Accounting Metric	Source	Page(s)
Topic: Greenhouse Gas Emissions			
RR-PP-110a.1	Gross global Scope 1 emissions	SDR	32, 74-79
RR-PP-110a.	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	SDR	30-33
Topic: Air Quality			
RR-PP-120a.1	Air emissions of the following pollutants: 1 (NO _x (excluding N ₂ O); 2 SO _x ; 3 Volatile organic compounds (VOCs); and 4 Particulate matter (PM), and (5) hazardous air 1. pollutants (HAPs)	SDR NO _x , SO _x , and PM (dust) are part of the HAPs. Other relevant HAPs and relevant VOCs are being reported to the local authorities depending on the local requirements stipulated in the permits.	74-79
Topic: Energy Management			
RR-PP-130a.1	1 Total energy consumed; 2 Percentage grid electricity; 3 Percentage from biomass; and 4 Percentage from other renewable energy	SDR	74-79
Topic: Water Management			
RR-PP-140a.1	1 Total water withdrawn; and 2 Total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	SDR	38-41
RR-PP-140a.2	Description of water management risks and discussion of strategies and practices to mitigate those risks	SDR	38, 40
Topic: Supply Chain Management			
RR-PP-430a.1	Percentage of wood fibre sourced from: 1 Third-party certified forestlands and percentage to each standard; and 2 Meeting other fibre sourcing standards and percentage to each standards	SDR	34-35, 85
RR-PP-430a.2	Amount of recycled and recovered fibre procured	SDR	34-35, 85

Business in the Community, Ireland

For the last 14 years, Smurfit Kappa Group has been reporting their sustainability performance. *Delivering a Better Tomorrow*, the Group's 2020 Sustainable Development Report is undoubtedly their best to date.

The qualitative and quantitative information and data is comprehensive; a range of case studies highlight examples of significantly innovative practices; further ambitious targets have been set; the report has been compiled according to best practice standards in sustainability reporting and is externally assured by KPMG in accordance with the comprehensive level of the GRI Standard.

Most notable however is that the confidence in the tone and language used, could only come from a company who has placed the commitment to sustainability at the heart of their business, where end to end sustainability is the business strategy. The Smurfit Kappa strengths of the circular business model, health and safety, stakeholder engagement and the ability to innovate are emphasised even more when challenged by a global pandemic and when the urgent need to mitigate climate change has become the issue of the day.

Smurfit Kappa is one of the largest integrated manufacturers of paper-based packaging solutions in the world. They are the leading provider of sustainable packaging in how they integrate sustainability into the fabric of their operations. They operate in 35 countries, have 65,000 customers, employ 46,000 people, manage 356 production sites, and in 2020, generated a revenue of €8.5 billion.

Governance and Strategy

Smurfit Kappa aligns economic goals with social, community and environmental responsibilities. Financing has been aligned with their sustainability strategy by incorporating the key sustainability performance indicators in the financing arrangements with their banking consortium.

Smurfit Kappa's sustainable growth ambition is based on the three pillars of Planet, People and Impactful Business. Since 2019, Smurfit Kappa has had a permanent sub-committee of the Board on sustainability whose role it is to align the Group's sustainability strategy with global best practice to *generate sustainable value for all stakeholders*: customers, investors, employees, suppliers and communities. The commitments to continuous improvement are clearly conveyed, with specific targets set. Where relevant, targets are also aligned with the UN 2030 Sustainable Development Goals and a detailed description is given of how Smurfit Kappa impacts, contributes to and supports the delivery of the Goals.

Notably, Smurfit Kappa is now reporting in line with the recommendations of the Task Force on Climate-related Financial Disclosure, will have their CO₂ target validated by the Science Based Target Initiative and has started reporting in line with the Sustainable Accounting Standards Board criteria.

Stakeholder Engagement and Materiality

Smurfit Kappa continuously engages with stakeholders and it is evident this is key to their ongoing success. Their commitment to ensuring ongoing dialogue with customers, investors, employees, suppliers and communities supports their ability to identify additional ways to expand their circular business model and innovate. Their approach to engagement and materiality assessment is well described on pages 19-21. We noted that in 2020, their materiality assessment was evaluated against the impact of COVID-19 on account of its relevance to the Health and Safety priority.

The 'Speak-Up' platform, introduced in 2019 and available 24/7/365 allows all stakeholders to report any issue or instance of wrongdoing, guaranteeing user confidentiality and assurance of non-retaliation. We were interested to see that a three-fold increase in reporting was the result in 2020 and of the 53 cases reported, six were substantiated and actions taken.

Climate Change Mitigation

To address 'the most pressing issue of our time', Smurfit Kappa is intent on reducing CO₂ emissions throughout the value chain by increasing energy efficiency, using renewable energy, leveraging expertise and technological capability to lower customer carbon footprints and decrease supply chain emissions via transport optimisation.

We noted that Smurfit Kappa are the first of their peers to target net zero carbon emissions by 2050. Their new 2030 carbon emission reduction target is 55% (up from 40%) in line with the Paris Agreement objectives. Already, Smurfit Kappa has achieved a 37.3% reduction in fossil fuel emission intensity since 2005.

On account of the largest contributor to their Scope 3 GHG emissions being in the transport of raw materials, intermediate products and the packaging delivered to customers, Smurfit Kappa is focusing on decarbonising the transport operations for paper inbound and outbound transportation in Europe by leveraging lower emission transport modes, increasing operational efficiency (e.g. increasing load fill and reducing transport distances between source and destination) and working with third party transport providers to mutually set targets to maximise fuel efficiency.

Circular Economy and Supporting Customer Objectives

Smurfit Kappa is inspirational in how it uses circular economy practices that support their customers' objectives on sustainability. Their Better Planet Packaging initiative is well described on pages 66-67. Using renewable, recyclable, recycled and bio-degradable materials, combined with responsible production processes, Smurfit Kappa can create bespoke packaging solutions that in turn helps customers optimise efficiencies, minimise waste and more easily attain their goals on improved sustainability performance.

We very much appreciate how sustainability is designed into all stages of the life cycle of their packaging, from the sustainable raw materials used to where by-products such as wood bark are used as biofuel and where some water treatment sludges become soil improvers in road construction.

In addition, Smurfit Kappa collaborates with customers to determine the carbon footprint of the packing lifecycle. Customers are provided with the ability to track the carbon footprint of every box so they can measure and reduce their own supply chain emissions.

Innovation

In a detailed report such as this, it is interesting to read examples of practices that bring to life Smurfit Kappa's circular business model and support the improved supply chain management of customers. These include where:

- 1 The Smurfit Kappa Saillat paper mill has partnered with a French energy company to create an innovative combined hydrogen storage cell and turbine. This mill will be the first in the world to generate and store 'green' electricity with zero carbon emissions.
- 2 The TopClip designed for Grolsch will remove 100,000 kg of plastic annually, improve functionality and allow for greater ease of handling.
- 3 A circular water treatment solution in Smurfit Kappa Barbosa, Colombia is removing 75% of water contaminants for conversion from sludge into biogas to produce 'green' electricity.
- 4 Topstar, a major supplier of office furniture in Germany is now better able to meet customer needs while increasing recycling of waste cardboard, by shredding it to use as a packing material, reducing transport miles by 90% and carbon emissions by 99%.

Diversity and Inclusion

Smurfit Kappa's commitment to inclusion, diversity and belonging is defined as 'where everyone has a real sense of belonging and can be their authentic selves at work every day'. The purpose of their new 'EveryOne' programme is to celebrate the value of the diversity in culture, perspective, leadership and innovative thinking and we noted the strategic alliances made with the Valuable 500 (on disability inclusion) and the Employers Network for Equality and Inclusion.

On gender equality, very much welcome is that at Board level, female representation is now at 33% (up from 17% in 2017) and the Group Executive Committee is at 31% (up from 0% in 2017!) demonstrating significant progress. Targets have been set to ensure female gender representation across the Group is above 30% by 2024 and to increase the number of women in management positions by 25%.

Human Rights

Sourcing materials, goods and services represents the single largest cost item for Smurfit Kappa (€4.7 billion in 2020). On account of this, sustainable and responsible sourcing is integral to the company's vision and strategy.

Suppliers are asked to sign a declaration for compliance with the Sustainable and Responsible Sourcing Policy, the Supplier Code of Conduct, the Chain of Custody Certification where applicable, the Modern Slavery Statement and the Statement on Controversial Sourcing of Raw Materials, Goods and Services. To date, 251 suppliers have signed this declaration, 67% of suppliers of Key Materials representing 77% of the relevant sourcing spread. Smurfit Kappa is keen to see these standards extended upstream in their suppliers' supply chain. In 2020, 46 suppliers were audited using the Smurfit Kappa Sustainable Sourcing audit programme on human rights, labour practices and environmental impact. Further details are provided on pages 70-71.

Conclusion

A lot of information is contained in this report and it is inspirational to see Smurfit Kappa deepening their approach to sustainability management and raising the ambition of what they would like to achieve across the full value chain. The journey to net zero and the setting of science-based targets will challenge all companies but based on their experience and achievements to date, we believe Smurfit Kappa will be ready to meet them, leveraging their circular economy proficiency, agility and expertise in stakeholder engagement, collaboration and innovation.

We recommend Smurfit Kappa further explores how to leverage its level of influence to advocate for increasing levels of ambition on carbon management and human rights due diligence and further raise its own ambitions on inclusion and local community action.

We look forward to the next edition.

Tomás Sercovich,
CEO

UN Global Compact

Smurfit Kappa became a supporter of the United Nations Global Compact (UNGC), a worldwide corporate citizenship initiative, in 2010.

As a network of more than 12,000 corporate participants and other stakeholders in some 170 countries, it is the largest voluntary corporate responsibility initiative in the world. Supporters of the UNGC promote 10 core principles in the areas of human rights, labour, environment and anti-corruption. These principles are listed in the table below.

As a part of this commitment, Smurfit Kappa will report on the Company's corporate responsibility activities and performance in an annual Communication On Progress (COP), using the annual Sustainable Development Report as the platform for this communication.

The Sustainable Development Report provides a number of examples of ongoing activities, as well as relevant key performance indicators, which illustrate Smurfit Kappa's support for the 10 Global Compact principles in its everyday business. Measurements of performance related to the Global Compact principles are given using indicators provided by the Global Reporting Initiative (GRI), wherever feasible.

In particular, GRI performance indicators relating to human rights, labour and anti-corruption principles are presented in the Social Development section, while environmental performance indicators reported in the Environment section. A complete GRI index can be found on pages 89-93 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	403:1,4; 405:1-2; 406:1; 407:1; 408:1; 409:1; 410:1; 411:1; 412:1-3; 414: 1-2; 418:1
2 Businesses should make sure that they are not complicit in human rights abuses.	406:1; 407:1; 408:1; 409:1; 410:1; 411:1; 412:1
Labour	
3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	402:1; 403:1,4
4 Businesses should uphold the elimination of all forms of forced and compulsory labour;	410:1
5 Businesses should uphold the effective abolition of child labour; and	409:1
6 Businesses should uphold the elimination of discrimination in respect of employment and occupation.	203:1; 401:2; 405:2; 407:1; 414:1-2
Environment	
7 Businesses are asked to support a precautionary approach to environmental challenges;	201:2; 305:4-5; 306:5
8 Businesses should undertake initiatives to promote greater environmental responsibility; and	301:1-2; 302:1-5; 303:1-5; 304:1-4; 305:1-7; 306:1-5; 307:1; 308:1-2; 417:1-2
9 Businesses should encourage the development and diffusion of environmentally friendly technologies.	301:2; 302:3-5; 303: 3-5; 305:4-5; 306:5
Anti-corruption	
10 Businesses should work against corruption in all its forms, including extortion and bribery.	205:1-2; 413:2



Glossary

Climate change, energy and air emissions

Bioeconomy	Smurfit Kappa uses the European Commission definition for bioeconomy as production of renewable biological resources and the conversion of these resources and waste streams into value-added products, such as food, feed, bio-based products and bioenergy.
Bioenergy	Bioenergy is one of the many diverse resources available to help meet our demand for energy. It is classified as a form of renewable energy derived from biomass – organic material – that can be used to produce heat, electricity, transportation fuels and products.
Biofuels	Fuels coming from biomass: wood rejects, bark, black liquor, pitch oil, certain parts of mixed wastes and biogas produced during the anaerobic treatment of water.
Biomass	Biomass is an energy resource derived from plant- and algae-based material that includes crop wastes, forest residues, purpose-grown grasses, woody energy crops, algae, industrial wastes, sorted municipal solid waste, urban wood waste and food waste. Biomass is the only renewable energy source that can offer a viable supplement to petroleum-based liquid transportation fuels – such as gasoline, jet and diesel fuel – in the near to mid term. It can also be used to produce valuable chemicals for manufacturing, as well as power to supply the grid.
Black liquor	Residue from pulping containing organic compounds (such as lignin). This residue is burnt to produce energy and to recover the chemicals.
By-product	Secondary or incidental products deriving from manufacturing process and are not the primary product. A by-product can be marketable.
Carbon dioxide equivalent CO₂-eq	A measure used to compare the emissions from various greenhouse gases based upon their climate change potential (CCP). The CO ₂ -eq carbon dioxide equivalent for other emissions is derived by multiplying the amount of the emission by the associated CCP factor.
Carbon footprint	Carbon released to the atmosphere during the life cycle of a product from cradle to grave.
CDP	CDP (formerly the 'Carbon Disclosure Project') is an organisation based in the United Kingdom which encourages large corporations from the world's major economies to disclose their greenhouse gas emissions and climate change strategies.
CHP	Combined Heat and Power: a combination of a boiler and a gas and/or steam turbine that simultaneously produces electricity and thermal energy (steam) by burning fuels. This system is considered to be the most efficient technology in industries using both steam and electricity. Electricity from a CHP is called co-generated electricity while all other internal generation is expressed as self-generated.
CHP (outsourced)	A CHP installation, belonging to an external party, located at or near a Smurfit Kappa site for delivering electricity and steam to the Smurfit Kappa production facility. All fuel and electricity used for the production of paper as well as emissions related to that are included in the figures for the Smurfit Kappa production facility.
Climate change	The United Nations Framework Convention on Climate Change (UNFCCC) defines it as a change of climate that is attributed directly or indirectly to human activity, altering the composition of the global atmosphere.
Co-generated electricity	Electricity generated by a CHP system belonging to Smurfit Kappa or from an outsourced CHP system.
CO₂ biogenic	Carbon dioxide emitted when burning biofuels. This CO ₂ is considered to be carbon neutral as it is removed from the atmosphere and stored in biomass within a short period of time.
CO₂ fossil	Carbon dioxide emitted when burning fossil fuels for the production of paper. The calculation is based on international guidelines from the carbon content of each fuel (WRI/WBCSD GHG protocol).
CO₂ indirect	Fossil carbon dioxide generated externally in the production of electricity purchased from the grid. Source: IEA CO ₂ Emissions from Fuel Combustion, OECD/IEA, Paris, 2016.
Energy efficiency	Energy efficiency is the goal to reduce the amount of energy required to provide products and services.
Energy Union	The Energy Union strategy is focused on boosting energy security, creating a fully integrated internal energy market, improving energy efficiency, decarbonising the economy (not least by using more renewable energy) and supporting research, innovation and competitiveness.
European Union Emissions Trading System – EU ETS	EU ETS, also known as the European Union Emissions Trading Schemes, is the most extensive greenhouse gas emissions trading scheme in the world. It was launched in 2005 to combat global warming and is a major pillar of EU climate policy.
Dust	Particles coming from the combustion of fuels.
Fossil fuels	Fuels originating from non-renewable resources (gas, oil, coal, peat and lignite).
GHG emissions	A greenhouse gas (GHG) is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, that is trapping and holding heat in the atmosphere. By increasing the heat in the atmosphere, greenhouse gases are responsible for the greenhouse effect, which leads to global warming.
GJ	Gigajoule, a unit of energy that generally applies to fuel. 1 gigajoule (GJ) = 1 billion joules = 10 ⁹ joules.

Glossary continued

Green electricity certificate	A tradable commodity for electricity units generated using renewable energy sources. Definition of renewable energy source is a variable depending on certificate trading scheme, typically solar, hydro, wind, geothermal or biomass. A certificate of origin covers other energy sources than certificate of renewable origin.
Grid supply	Electricity purchased from a national distribution network.
GWh	Unit of energy, generally applies to electricity. 1 GWh (GigaWatt hour) = 1 million kWh (kiloWatt hour).
Net Zero	To achieve Net Zero emissions, we work towards achieving a state in which the activities at our paper and board mills in our gate-to-gate value chain result in no net impact on the climate from greenhouse gas emissions. The key effort for Smurfit Kappa is to move from fossil-based fuels to carbon neutral fuels and improve its energy efficiency.
NO_x	Mix of nitrogen oxides (NO and NO ₂) calculated as NO ₂ (nitrogen dioxide) coming from combustion of fuels. They can contribute to the acidification of soil and water.
Paris Agreement	Agreement within the framework of the United Nations Framework Convention on Climate Change dealing with greenhouse gases, emissions mitigation, adaptation and finance. An agreement on the language of the treaty was negotiated by representatives of 195 countries during COP21 in December 2015.
Self-generated electricity	Electricity generated by an electricity generator without recovery of steam.
Sequestration	Carbon sequestration describes the long-term storage of carbon dioxide or other forms of carbon to either mitigate or defer global warming and avoid dangerous climate change.
SO_x	Mix of sulphur oxides calculated as SO ₂ coming from combustion of fuels. Sulphur dioxide contributes to the acidification of soil and water.
PJ	Petajoule, a unit of energy. 1 petajoule = 1000 terajoules = 10 ¹⁵ joules.
TJ	Terajoule, a unit of energy that generally applies to fuel. 1 terajoule = 1000 gigajoules = 10 ¹² joules.
21st Conference of the Parties – COP 21	The 2015 United Nations Climate Change Conference was held in Paris, France, from 30 November to 12 December 2015. It was the 21st yearly session of the Conference of the Parties to the 1992 United Nations Framework Convention on Climate Change and the 11th session of the Meeting of the Parties to the 1997 Kyoto Protocol.
Organisations	
Asociación de Corrugadores del Caribe Centro y Sur América (ACCCSA)	Organisation of corrugated cardboard manufacturers in the Latin American region, whose objective is to exchange experiences, ideas and technological knowledge that will benefit and consolidate the entire Latin American corrugator sector.
CEPI	CEPI, the Confederation of European Paper Industries. It is a non-profit organisation representing the European pulp and paper industry.
EcoVadis	EcoVadis brings Buyers and Suppliers together to efficiently drive CSR and sustainability performance across 150 sectors and 120 countries to reduce risk and drive innovation in their supply chains.
ELCD	European Reference Life Cycle Database. The ELCD has been developed within the 'European Platform on Life Cycle Assessment' by the Joint Research Centre, Institute for Environment and Sustainability (JRC-IES).
ERT	The European Round Table of Industrialists (ERT) is a forum bringing together around 50 Chief Executives and Chairpersons of major multinational companies of European parentage covering a wide range of industrial and technological sectors, working to strengthen competitiveness in Europe. The group works at both national and European levels.
ESG	Environmental, social and corporate governance (ESG) criteria refer to three main factors investors consider with regards to a firm's ethical impact and sustainable practices.
Ethibel	The Ethibel Sustainability Index Excellence Europe lists 200 European companies that display the best performance in terms of corporate social responsibility.
Euronext Vigeo	The Euronext Vigeo indices comprise the highest-ranking listed companies as evaluated in terms of their performance in corporate social responsibility.
FAO	The Food and Agriculture Organisation (FAO) is specialised agency of the United Nations that leads international efforts to defeat hunger. The goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives. With over 194 member states, FAO works in over 130 countries worldwide.
FEFCO	FEFCO is a non-profit organisation representing the interests of the industry across Europe and addressing a wide range of issues, from technical topics to economical questions. The role of the Federation is to investigate economic, financial, technical and marketing issues of interest to the corrugated packaging industry, to analyse all factors that may influence the industry and to promote and develop its image.

FTSE4Good	The FTSE4Good Index series is designed to measure the performance of companies demonstrating strong environmental, social and governance practices.
Global Reporting Initiative (GRI)	GRI is an independent international organisation for sustainability reporting, since 1997. GRI helps businesses and governments worldwide understand and communicate their impact on critical sustainability issues such as climate change, human rights, governance and social well-being. This enables real action to create social, environmental and economic benefits for everyone. The GRI Sustainability Reporting Standards are developed with true multi-stakeholder contributions and rooted in the public interest.
ICCA	The International Corrugated Case Association (ICCA), formed in 1961, contributes to the well-being of the corrugated packaging industry worldwide by supporting and enhancing the work of association members.
ILO	International Labour Organisation (ILO) is the only tripartite United Nations agency. Since 1919, the ILO brings together governments, employers and workers of 187 member states, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.
Irish Business and Employers Confederation (IBEC)	IBEC is Ireland's largest lobby group representing Irish business both domestically and internationally. Its membership is home-grown, multinational, big and small, spanning every sector of the economy.
OECD	Organisation for Economic Co-operation and Development (OECD), provides a forum in which governments can work together to share experiences and find solutions to common problems, work with governments to understand what drives economic, social and environmental changes, measure productivity and global flows of trade and investment, analyse and compares data to predict future trends, establishes international standards in a wide range of aspects, from agriculture and taxes to the safety of chemical products.
SDGs	The Sustainable Development Goals (SDGs) define global sustainable development priorities and aspirations for 2030 and seek to mobilise global efforts around a common set of goals and targets. The SDGs call for worldwide actions among governments, business and civil society to end poverty and create a life of dignity and opportunity for all, within the boundaries of the planet.
SEDEX	As the largest collaborative platform for sharing ethical supply chain data, SEDEX is an innovative and effective supply chain management solution, helping companies to reduce risk, protect company reputation and improve supply chain practices.
STOXX Global ESG Leaders	The STOXX Global ESG Leaders index offers a representation of the leading global companies in terms of environmental, social and governance criteria, based on ESG indicators provided by Sustainalytics. The index is made of the following three ESG sub-indices: the STOXX Global ESG Environmental Leaders, the STOXX Global ESG Social Leaders and the STOXX Global ESG Governance Leaders indices.
UN 2030 Agenda	The 2030 Agenda for Sustainable Development was launched by a UN Summit in New York on 25-27 September 2015 and is aimed at ending poverty in all its forms. The UN 2030 Agenda envisages 'a world of universal respect for human rights and human dignity, the rule of law, justice, equality and non-discrimination'. It is grounded in the Universal Declaration on Human Rights and international human rights treaties and emphasises the responsibilities of all states to respect, protect and promote human rights. There is a strong emphasis on the empowerment of women and of vulnerable groups such as children, young people, persons with disabilities, older persons, refugees, internally displaced persons and migrants. The Agenda's 17 Sustainable Development Goals (SDG), and their 169 targets, aim at eradicating poverty in all forms and 'seek to realise the human rights of all and achieve gender equality'.
UN Global Compact's CEO Water Mandate	The CEO Water Mandate is a UN Global Compact initiative that mobilises business leaders on water, sanitation and the Sustainable Development Goals. Endorsers of the CEO Water Mandate commit to continuous progress against six core elements of water stewardship and in so doing understand and manage their own water risks.
WBCSD	The World Business Council for Sustainable Development is a CEO-led organisation of forward-thinking companies that galvanises the global business community to create a sustainable future for business, society and the environment.
Certifications: forest and other	
Deforestation	Deforestation, clearance or clearing is the removal of a forest or stand of trees where the land is thereafter converted to a non-forest use.
FSC	The Forestry Stewardship Council (FSC) is an independent, non-governmental organisation established to promote the responsible management of the world's forests through independent third-party certification.

Glossary continued

FSSC 22000	These standards specify requirements for a food safety management system where an organisation in the food chain needs to demonstrate its ability to control food safety hazards in order to ensure that food is safe at the time of human consumption.
ISO 9001	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of quality management.
ISO 14001	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of environmental management.
ISO 50001 Energy Management Systems	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of energy usage: improvement of efficiency, reduction of consumption and energy security.
Non-controversial origin	Virgin wood or wood fibre which has been verified as having a low probability of including wood from any of the following categories, in line with FSC and PEFC schemes: a) Illegally harvested wood. b) Wood harvested in violation of traditional and civil rights. c) Wood harvested in forests in which high conservation values are threatened by management activities. d) Wood harvested in forests being converted from natural and semi-natural forests to plantations or non-forest use. e) Wood from forests in which genetically modified trees are planted.
OHSAS 18001/ ISO 45001	Scheme certified by independent third party that ensures that the operation certified applies internationally recognised standards and procedures of occupational health and safety management.
PEFC	Programme for the Endorsement of Forest Certification. PEFC is an independent, non-governmental organisation that promotes sustainably managed forests through independent third-party certification.
Reforestation	Reforestation is the natural or intentional restocking of existing forests and woodlands (forestation) that have been depleted.
SFI	SFI Inc. (Sustainable Forest Initiative) is an independent, non-profit organisation dedicated to promoting sustainable forest management. Companies are certified Chain of Custody according to the SFI standard through independent third-party certification.
EU Timber Regulation	The EU Timber Regulation is a regulation aims to reduce illegal logging by ensuring that no illegal timber or timber products can be sold in the EU, applies to wood and wood products being placed for the first time on the EU market.
Water	
BOD	Biochemical Oxygen Demand (unit: mg O ₂ /litre) refers to the level of oxygen uptake by microorganisms in a sample of water measured over a period of five days.
COD	Chemical Oxygen Demand (COD) is the most commonly used test to measure the amount of organic compounds in water (unit: mg O ₂ /litre). The result indicates the level of all organic compounds that can be oxidised by a strong oxidising agent.
Process water	Quantity of water containing organic compounds released into the environment (river, sea) after internal water treatment or released to an external treatment plant (municipal water treatment). In all cases, levels of pollutants released are reported as outputs of the Company even in the case of operations that send process water to external treatment.
Total N (nitrogen)	Sum of organic nitrogen, ammonia (NH ₃) and ammonium (NH ₄ ⁺) discharged with the process water.
Total P (phosphorous)	Sum of phosphorous compounds discharged with the process water.
Total suspended solids (TSS)	Refers to the level of small solid particles discharged with the process water. Total suspended solids are those solids retained on a glass fibre filter dried to a constant weight at 103-105°C.
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 of two flat-facing sheets of containerboard (kraftliner or testliner).
Fluting	The wave-formed middle layer in corrugated board.
Kraftliner	Paper manufactured mainly from virgin wood fibres.
Testliner	Paper manufactured from recycled fibres.
Inorganic raw materials	Raw material used for manufacturing our products that are not organic, such as fillers, sodium hydroxide, sodium sulphate and calcium oxide.
Other organic raw materials	Raw materials used for manufacturing our products that are organic excluding fibres, starch or plastic raw materials which are reported individually. This category includes oil, lubricant and organic additives, such as colourant or dyes.

Raggers	In the beginning of the repulping process in which recovered paper is returned into pulp, non-fibrous materials are being removed from the recovered paper. Plastics, strapping and other floating materials are collected from the mass with a rope called a 'ragger'.
Recovered paper	Recovered paper refers to used paper and board separately collected and classified for the purpose of recycling, which is then used as raw material in the manufacture of new paper and paperboard.
Recovery	Recovery refers to extracting selected materials for a specific use. In the paper industry this means recovery of fibres in recycled paper or the recovery of energy value in the final stage of the material life cycle.
Recycling	Converting material into new materials and products. In the paper industry this refers to converting recovered fibres back to paper and finding new uses for other raw materials produced alongside recovered paper instead of sending them to landfill.
Reduction	This can either mean finding the most materially efficient ways to use raw materials or replacing a more harmful raw material with a less harmful one and thus reducing its harmful impact.
Renewing	Using renewable raw materials in a sustainable manner and maintaining the natural ability of the material to be renewed.
Reuse	Reuse is the action or practice of using something again, whether for its original purpose (conventional reuse) or to fulfil a different function (creative reuse or repurposing) without changing its form in between.
Virgin fibre	Pulp obtained through a chemical process used to remove lignin from wood. As a result, the fibre can be used to produce paper. The lignin residue and other organic compounds are subsequently collected and used in the formation of black liquor.
Health and Safety	
Accident	An undesirable or unfortunate happening that occurs unintentionally and usually results in harm, injury, damage or loss.
Lost time accident (LTA)	Refers to a work-related injury incident sustained by a Smurfit Kappa employee while performing their work duties that results in their absence from their scheduled work after the day of the incident.
Lost time accident frequency rate	Refers to the number of lost time accidents per 100,000 hours worked. $LTA \text{ frequency rate} = \frac{\text{number of LTA} \times 100,000}{\text{total number of hours worked}}$.
Lost time accident severity rate	Refers to the total number of days lost per 100,000 hours worked. $LTA \text{ severity rate} = \frac{\text{number of days lost} \times 100,000}{\text{total number of hours worked}}$.
Number of days lost	Refers to the number of days lost arising from any lost time accident. When counting the number of days lost due to an accident, the day of the accident is not counted as a lost day.
Total recordable incident rate	Refers to the total number of recordable injury cases per 100,000 hours worked by Smurfit Kappa employees. Number of recordable injuries (lost time accident + restricted workday case + medical treatment case) $\times 100,000 / \text{total hours worked by all Smurfit Kappa employees during the period covered}$.
Universal Declaration of Human Rights	The Universal Declaration of Human Rights (UDHR) is a milestone document in the history of human rights. Drafted by representatives with different legal and cultural backgrounds from all regions of the world, the Declaration was proclaimed by the United Nations General Assembly in Paris on 10 December 1948 (General Assembly resolution 217 A) as a common standard of achievements for all peoples and all nations. It sets out, for the first time, fundamental human rights to be universally protected and it has been translated into over 500 languages.
Workforce	The workforce, or labour force, is the labour pool in employment; it is generally used to describe those working for a company or industry.
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 its 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 do not belong to the two previous categories. This includes wastes incinerated without energy recovery or wastes for which the final disposal is uncertain.
Hazardous waste	A hazardous waste is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment. Residues of oils and other hazardous wastes (building wastes containing asbestos, ink residues, etc.).

Assurance Report of the Independent Auditor

To: the readers of the Sustainable Development Report 2020 of Smurfit Kappa

Our Conclusion

We have reviewed the Sustainable Development Report 2020 (hereafter 'the Report') of Smurfit Kappa Group plc (hereafter 'Smurfit Kappa') based in Dublin, Ireland, for the year ended 31 December 2020. A review is aimed at obtaining a limited level of assurance.

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

The Report comprises a representation of the policy of Smurfit Kappa with regard to sustainability and the thereto related business operations, events and achievements during the year. Smurfit Kappa is the parent company of a group of entities. The Report incorporates the consolidated information of this group of entities to the extent as specified in 'About this Report' in the Report.

Basis for Our Conclusion

We performed our review in accordance with Dutch law, including Dutch Standard 3810N 'Assurance-opdrachten inzake maatschappelijke verslagen' (Assurance engagements relating to sustainability reports), which is a specified Dutch Standard that is based on the International Standard on Assurance Engagements (ISAE) 3000 'Assurance engagements other than audits or reviews of historical financial information'. This engagement is aimed to obtain limited assurance. Our responsibilities in this regard are further described in the 'Auditor's responsibilities' section of our report.

We are independent of Smurfit Kappa in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence). Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics). We believe the assurance we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Reporting Criteria

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

The reporting criteria used for the preparation of the Report are based on the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) and the applied supplemental reporting criteria as disclosed on pages 88-93 of the Report.

Materiality

Based on our professional judgement we determined materiality levels for each relevant part of the Report and for the sustainability information as a whole. When evaluating our materiality levels, we have taken into account quantitative and qualitative considerations as well as the relevance of information for both stakeholders and the company.

Limitations to the Scope of Our Review

The Report includes prospective information such as ambitions, strategy, plans, expectations and estimates. Inherently the actual future results are uncertain. We do not provide any assurance on the assumptions and achievability of prospective information in the Report.

References to external sources or websites in the Report are not part of the sustainability information as reviewed by us. Therefore, we do not provide assurance on this information.

Directors' Responsibilities

Directors of Smurfit Kappa are responsible for the preparation of the Report in accordance with the applicable criteria as described in the 'Reporting criteria' section of our report, including the identification of stakeholders and the definition of material matters. The choices made by the Directors regarding the scope of the Report and the reporting policy are summarised on pages 18-21 of the Sustainable Development Report 2020.

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

Auditor's Responsibilities

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

Procedures performed to obtain a limited level of assurance are aimed to determine the plausibility of information and vary in nature and timing, and are less in extent, compared to a reasonable assurance engagement. The level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

We apply the 'Nadere Voorschriften Kwaliteitssystemen' (NVKS, Regulations for Quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

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

Our review included among others:

- Performing an analysis of the external environment and obtaining an understanding of relevant societal themes and issues, and the characteristics of the company;
- Evaluating the appropriateness of the reporting criteria used, their consistent application and related disclosures in the Report. This includes the evaluation of the results of stakeholder dialogue and the reasonableness of estimates made by the Management Board;
- Obtaining an understanding of the reporting processes for the Report, including obtaining a general understanding of internal control relevant to our review;
- Identifying areas of the Report where a material misstatement, whether due to fraud or error, are most likely to occur, designing and performing assurance procedures responsive to these areas, and obtaining assurance information that is sufficient and appropriate to provide a basis for our conclusion. These procedures included, amongst others:
 - Interviewing management and relevant staff at corporate level responsible for the strategy, policy and results;
 - Interviewing relevant staff responsible for providing the information for, carrying out internal control procedures over, and consolidating the data in the Report;
 - Determining the nature and extent of review procedures for the group components and locations. For this, the nature, extent and risk profile of these components are decisive. Based thereon we selected the components and locations to visit. The (virtual) visits to Nervión, Sangüesa, Cordovilla, Hexacomb Aoz, Parencó, Elcorr and Vandra in Spain and The Netherlands are aimed at, on a local level, validating source level data and evaluating the design and implementation of internal controls and validation procedures;
 - Obtaining assurance information that the Report reconciles with underlying records of Smurfit Kappa;
 - Reviewing, on a limited test basis, relevant internal and external documentation;
 - Performing an analytical review of the data and trends.
- Evaluating the presentation, structure and content of the Report; and
- Considering whether the Report as a whole, including the disclosures, reflects the purpose of the reporting criteria used.

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

Amstelveen, 30 April 2021

KPMG Accountants N.V.
Danielle Landeszen Campen RA
Partner