



SUSTAINABLE DEVELOPMENT REPORT 2011

Schoolchildren learning about the benefits and uses of paper while visiting a Smurfit Kappa paper mill.

CREATING LONG TERM BENEFITS FOR EVERYONE

SMURFIT KAPPA SUSTAINABLE DEVELOPMENT 2011

SMURFIT KAPPA AT A GLANCE

Totally focused on packaging

With sales in 2011 of almost €7.4 billion, Smurfit Kappa (or the Group) is one of the largest integrated manufacturers of paper-based packaging products. Smurfit Kappa has 331 facilities in 31 countries in Europe, Latin America, where the Group also owns and manages forests, and Canada. It manufactures, distributes and sells containerboard, corrugated containers and other paper-based packaging products and materials such as solid board, sack paper and bag-in-box.

Smurfit Kappa is fully dedicated to the sustainable supply of paper-based packaging solutions and has no ownership of significant businesses outside this field of expertise.



2011 HIGHLIGHTS

- **Chain of Custody Certification**
 - **Europe.** Since the first quarter of 2011, 100% of our paper mill system in Europe is FSC and/or PEFC certified.
 - **Latin America.** In the last quarter of 2011, our three Mexican paper mills successfully passed their audit for certification according to the FSC scheme and received their certificates in early 2012.
 - **Certified Packaging.** In 2011 considerable progress was made in the certification process of our packaging manufacturing operations both in Europe and Latin America. In total, 44% of these operations are certified.
- **CO₂ Reduction.** Smurfit Kappa reduced its year-on-year direct and indirect fossil CO₂ emissions by 2.9%. Globally, our mill system reduced its fossil CO₂ emissions by 0.4% per tonne of product produced.
- **Investments in the Environment**
 - **CO₂ Reduction.** In our paper mills in Hoya in Germany, Nervi3n and Navarra in Spain, and Barranquilla in Colombia, investment projects that will lead to significant CO₂ emission reductions were completed either in 2011 or early 2012.
 - **COD Water Discharges.** Construction of a new water treatment plant in our paper mill in Bernal in Argentina was completed in 2011 and commissioned in early 2012.
- **Labour Relations.** The agreement with our European Works Council was renewed and is valid for another four years.
- **Sustainability Awards.** In Europe we introduced a Sustainability Awards competition for sustainable product designs, process and supply chain improvements, and local community involvement initiatives. The first Awards event took place in March 2012.
- **Sustainable Packaging.** The scope of Paper To Box™, a unique Smurfit Kappa tool to predict packaging performance, was extended in 2011 to include environmental parameters. As a result, the environmental impact of each packaging solution can now be assessed instantly.

Recovered paper is one of Smurfit Kappa's base raw materials.

INNOVATIVE AND SUSTAINABLE PACKAGING

Smurfit Kappa prides itself on its ability to work closely with its customers, both large and small, to develop innovative packaging solutions that enable our customers to be successful in their respective markets.

Smurfit Kappa is involved in all aspects of the development, production and after-use recycling of paper-based packaging. The product life cycle starts with virgin and recovered fibres being processed through the mills to become paper and board, which are delivered to packaging converting plants where corrugated and solid board packaging is produced. Flat packaging is delivered to customers' packing and filling operations, where it is erected, filled and used to transport, protect, display and promote goods through the supply chain. The recycling process begins when the flattened used packaging is collected, sorted and then returned to the mills for reprocessing.

For a complete overview of our Input/Output process flow pages see pages 72 and 73.

EXPERTISE BASED ON PEOPLE

Smurfit Kappa employees have the experience and expertise necessary to deliver customer satisfaction in a sustainable manner. On a full time equivalent basis, some 38,000 people work throughout the Smurfit Kappa operations and they understand the need to harness their expertise in pursuit of ensuring a sustainable as well as a profitable business. They also clearly appreciate that this means supplying paper and packaging products which contribute to the success and sustainability of our customers' businesses, as well as meeting customers' commercial and technical expectations. Our employees are passionate about the very real contribution their efforts can make to customer success and to a sustainable product life cycle.



In the Smurfit Kappa forest holdings in Latin America, we conduct ongoing research into improving the biodiversity of the protected natural forest. Alejandro Agudelo working with saplings in our forest nursery at Restrepo in Colombia.

SUSTAINABILITY: A MEASURE OF OUR SUCCESS



LETTER FROM OUR CEO

Introduction by Gary McGann



I am pleased to introduce Smurfit Kappa's fifth annual Sustainable Development Report, showing our vision and activities in the important area of sustainability. As is shown in this report, we consider sustainability to be perfectly compatible with developing our business in a profitable way and we see sustainability as a key differentiating factor in the market. Even though economic conditions continue to be challenging, we are committed to continue our drive in sustainability to create a win-win situation for all stakeholders involved and to further embed sustainability in our Company. I would like to highlight the following points.

Sustainability – A business driver

In 2011, sustainability has grown in importance in many ways. We are well aware that sustainability is of varying importance to different stakeholder groups. For every group, however, its relevance is growing. As consumers are well aware of the environmental impact that human behaviour can have on our world, they are demanding products and services that take these impacts into consideration in an affordable way. For our customers, therefore, sustainability has become a key responsibility and a driver for serving consumers. It is our business to support our customers in their drive to provide consumers with adequately packaged products delivered in a most efficient way. We do so by taking sustainability as a starting point for product and process development and technological innovation.

Sustainability is also a driver in developing and retaining our entire workforce and the communities they live in. To attract and retain a talented and motivated workforce, it is of paramount importance to focus constantly on their safety and well-being, to provide them with challenging and satisfying jobs, and to offer training and proper career opportunities.

As we strive to be responsible corporate citizens, particularly in the local communities where our operations have the privilege to operate, we give special attention to social responsibility initiatives in these communities. At corporate level, we have established the Smurfit Kappa Group Foundation which will focus on social projects in countries or regions in which we operate.

In the financial community, the long term sustainability and economics of business models are likely to become connected. We find ourselves well-positioned with the vast majority of our raw material either coming from a recycled source or responsibly-sourced renewable timber.

At governmental level, even though international agreements so far have not been concluded, the publication by the EU of the 'Roadmap for moving to a low carbon economy in 2050' and the initiative on becoming a 'bio-economy' clearly show the driving force of sustainability at policy setting levels. We support these initiatives as they provide a necessary long term perspective for an industry like ours.

Sustainability – A source for inspiration

As we see sustainability requirements progressively becoming a 'licence to operate', embedding sustainability in our operations on a day-to-day basis is becoming key. As continuous development and innovation of our products and processes is a critical factor in our business model, sustainability should become a further source of inspiration for development and innovation in our daily activities. To that extent, in addition to the existing Smurfit Kappa Innovation Awards competition, we introduced separate Sustainability Awards for our operations in Europe in 2011.

In Latin America, these competitions also exist. Apart from the fact that entries in these competitions are shown during customer events, they give our employees recognition for outstanding development and innovative work and should stimulate further breakthrough thinking in the various areas including sustainability. Details of the most recent Awards events are given on pages 58 and 59.

In order to focus our organisation's efforts, in last year's report we gave a number of long term Group sustainability commitments. In the last 12 months, we have further underpinned how we can realise our long term objectives which include reaching Chain of Custody status for our complete range of products, decreasing CO₂ emissions per tonne of product produced, improving the quality of our water discharges and emphasising the importance of our Code of Business Conduct. On pages 19 to 23 we give an update on progress made so far and activities to date.

Dialogue with our stakeholder base

We engage in an open and transparent communication process and we increasingly seek to engage in dialogue with our different stakeholder groups. In this year's report, we feature short interviews with representatives from our stakeholder base highlighting issues and trends in sustainability that are important to them.

Starting with our 2009 report, we have committed to have our progress in sustainability independently appraised and evaluated by others. This year's entire Sustainable Development Report is now externally assured.

We also continued our participation in the Carbon Disclosure Project (CDP), our membership of the Supplier Ethical Data Exchange (Sedex) initiative, our support for the UN Global Compact initiative and the Water Footprint Network. Like last year, reporting is in accordance with the Global Reporting Initiative at level A+.

Sustainable growth is needed longer term

We believe sustainable growth is a fundamental requirement in our world. Both the developed and the developing world face challenges that can only be tackled by continued sustainable growth that is driven by innovation and entrepreneurship. Smurfit Kappa is ready for that challenge but can only contribute its part when fair and predictable trading conditions are created and maintained. National governments and the EU are key to this. The EU is taking many initiatives that should guide its Member States towards becoming low carbon, resource efficient, bio-based and globally competitive economies. In those initiatives, the EU needs to maintain the principle of a global level playing field thus ensuring that our industry has access, at affordable and competitive prices, to wood, recovered paper, and the capacity to secure adequate energy and water supply without distortive taxes and/or subsidies. Under such a scenario, we will deliver our share to sustainable growth bringing prosperity to our stakeholder communities.

I hope you will find the content of our 2011 Sustainable Development Report both interesting and informative, and look forward to any feedback that you may have.



Gary McGann
GROUP CHIEF EXECUTIVE OFFICER

26 June 2012

CORPORATE GOVERNANCE

The Directors are committed to maintaining the highest standards of corporate governance and this statement describes in summary the Group's governance at Board level as it relates to sustainability and corporate social responsibility. The full Corporate Governance Report is set out in the 2011 Annual Report.

Sustainability Governance

Sustainable development is a core principle in all facets of Smurfit Kappa's operations and activities. The Board has overall responsibility for ensuring that the Group plays an appropriate role in promoting a realistic sustainable development agenda in the paper-based packaging sector. The development and implementation of Smurfit Kappa's policies in this area are sponsored by the Group CEO.

At executive management level, a Group Steering Committee sets out the strategy and objectives for sustainable development in Smurfit Kappa and reviews the progress made in meeting our commitments. This committee comprises the most senior executives in the Company including the three executive directors (Group CEO, Group COO and Group CFO) and management from each division and from the Group headquarters.

The Group Steering Committee is supported by a Sustainability Working Group comprising key representatives from each of the main operating divisions in Europe and Latin America as well as Group headquarters. This Group's task is to monitor the achievement of targets across a wide range of sustainability indicators and to promote the theme of sustainable development in Smurfit Kappa's interface with customers, suppliers and the general environment. The Working Group is also responsible for the preparation and production of the Annual Sustainable Development Report.

Code of Conduct

Smurfit Kappa has a comprehensive Code of Business Conduct, which is supported by a series of associated policies covering a number of areas related to its management and operations. These are based upon 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 Group provides the foundation for key components of internal control by ensuring appropriate discipline and structure through a number of policies and programmes which serve to define acceptable business practices, the resolution of conflicts of interest and the expected standards of ethical behaviour. We have also created specific policy statements in key areas of sustainability and they are integral in the drive to improve Smurfit Kappa's performance. These policy statements cover Environment, Sustainable Forestry, Sustainable Sourcing, Social Citizenship and Health and Safety issues.

All of these Codes and policies are available on our website www.smurfitkappa.com.

Ethical Standards

The Smurfit Kappa Group's Code of Business Conduct, which provides the underlying *modus operandi* for each and every employee in every jurisdiction, sets out the Group's position in relation to compliance with the law, adherence to the highest ethical standards and its commitments to those with whom it comes in contact.

Each Group company and its employees, regardless of geographic location, are 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 Group's Code of Business Conduct makes it clear that personal and professional integrity is the responsibility of each employee.

Complementing the Code of Business Conduct is the Good Faith Reporting Policy Statement ('Whistleblower Code') which enables employees to report concerns about potential wrongdoing.

Each significant business unit is the subject of an external and independent audit conducted by the Group's External Auditors on an annual basis.

Most other business units are the subject of local statutory audits.

Our Internal Audit Department has its own extensive work programme in the context of the Group's financial Risk Management System. During the course of 2011, 79 detailed internal audits were completed.

In addition to these internal audits, all operating countries must adhere to the Group's Financial Monitoring Policy. This includes completing risk assessment analyses covering a significant number of the Group's larger facilities (over 50% by number but with far more extensive coverage by virtue of their relative size) carried out by relevant personnel from within each country. These analyses include risks related to corruption.

The development of an appropriate training programme to review and refresh the understanding of the Code by established employees and cater for the needs of recent employees was started in 2011.

During 2011, there were no significant incidents which the Group considered to be non-compliant with the Code.

Public Policy

As a multinational organisation, Smurfit Kappa Group's 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 relevant to its business, making its views known 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). It also works closely with the Irish Business and Employers Confederation (IBEC) and equivalent bodies in other countries.

At all times those representing the views of the Smurfit Kappa Group 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 2011. In line with the Group's Code of Business Conduct no financial contributions were made to political parties in 2011. No national government is a direct shareholder in Smurfit Kappa.

Compliance

It is Group policy to comply with the applicable laws and regulations in each of the countries in which it operates and to ensure that its employees are aware of this and conduct themselves appropriately. No significant fines were imposed on the Group in 2011 in respect of any breaches of such laws and regulations.

RESPONSIBLE SOLUTIONS



ENGAGEMENT WITH STAKEHOLDERS

Smurfit Kappa considers a continuous, open and constructive dialogue with its various stakeholder groups in all countries and areas where we operate of key importance. We believe that frequent interaction with our stakeholder communities offers us a great opportunity to improve and develop ourselves in all sustainability aspects and by doing that meet and exceed our stakeholders' expectations. Our stakeholders are crucial to the realisation of our sustainability objectives whether these are environmental, social or financial.

We consider any person or entity we engage with to be part of our stakeholder community. This could range from any small local customer to large European or Latin American institutions. Many stakeholder interactions, therefore, take place at local level where our local teams interact on a daily basis with customers, suppliers, employees and local authorities.

The different stakeholder groups we recognise are listed below and a summary of how we engage with them is provided. Short interviews with representatives of different stakeholder groups are included throughout the report.

Customers	As well as the normal business interaction that one would expect, we are continuously intensifying our engagement with our customers and in turn their customers (e.g. retailers) on key sustainability issues. Important areas of interaction are sustainable fibre sourcing, carbon footprint and social compliance. These interactions with customers could be in the form of working together on specific projects in sustainability, attending customer conferences or supporting customers with their specific sustainability initiatives.
Employees	Our employees are the key to our success. We place significant emphasis on their safety, health and welfare. There are numerous training activities for our employees ranging from training on the job to advanced management courses, both internal as well as external. There is extensive interaction between our management and representatives of our employees through the various employee representative bodies. We are reviewing our Code of Business Conduct reflecting how we will conduct our business and the important role our employees can play in that.
Investors	There is an extensive programme involving road shows and investor days where analysts and investors have the opportunity to dialogue with senior operating management. One-on-one meetings, telephone conferences, and participation in industry-related investor conferences also form part of our investor relations initiative.
Suppliers	As well as the usual levels of communication, there are specific initiatives such as audits and questionnaires. There is specific focus on Chain of Custody certification of our paper suppliers. Supplier programmes are in place that require our suppliers to deliver in conformity with our Sustainability Sourcing Policy. Smurfit Kappa's operations are required to source products and services from local suppliers where possible, consistent with the need to ensure appropriate quality at the right price and support for sustainability.
NGOs	Memberships or participations in organisations like the Supplier Ethical Data Exchange (Sedex), Carbon Disclosure Project and Water Footprint Network. Dialogue, both direct and indirect, (through membership organisations) and cooperation on specific topics like water and CO ₂ sequestration. In Colombia, we participate in a project of the World Wildlife Fund (WWF). The level of engagement with organisations active in the area of sustainability has increased appreciably in recent years.
Local communities	We engage in social projects and health, employment and environmental initiatives in the countries in which we operate. In Latin America, in particular, there are some extensive programmes involving significant expenditure and the commitment of our employees' time and expertise. The aim is to assist communities in self-help. The Smurfit Kappa Group Foundation targeting social responsibility initiatives was established in February 2011.
Government and society	Memberships of industry associations at national and international level, participation in forums related to broader business issues and society in general.

Jo Cox from Smurfit Kappa (on the right) and Hans Brassé, direct neighbour of the paper mill in Roermond in the Netherlands, discussing the benefits of the new sound barrier that was built by Smurfit Kappa between the paper mill and its direct neighbours.

EXCEEDING EXPECTATIONS



SUSTAINABLE DEVELOPMENT A SUMMARY

Our Commitment and Approach

For us, sustainability implies a clear commitment to the three important sustainability principles: *Planet*, *People* and *Profit*, when building a sound future for our Group and meeting our objectives of creating economic value. For the benefit of our stakeholders, our approach in applying these three principles is as follows:

- Environment – we operate in an environmentally sound manner.
- Society – we are socially conscious and pro-active.
- Business – we remain economically viable, doing business on an ethical basis.

In doing so we will ensure that the social and natural environments within which Smurfit Kappa operates are respected and protected both today and into the future. The Group provides direct income to approximately 38,000 people and probably indirectly (via its suppliers) to at least the same number, and it continues to carefully use and recycle a wide range of natural resources.

1. Environment

For the first important principle – *Planet* – we take special interest in safeguarding the environment as our products are composed of materials that are natural resource based. We commit to do so not only in operating our facilities but, at least as important, in designing and developing packaging solutions for our customers that improve their environmental performance. According to an Industry Council for Packaging and the Environment (INCPEN) survey, packaging products typically are responsible for only a small part of the carbon footprint of the supply chain of our customers. However, research suggests that our products, if properly designed and applied, can decrease the carbon impact of other aspects of our customers' supply chains by considerably more than the carbon impact our products have.

In our drive to safeguard the environment we are committed to:

- Complying with national and international environmental legislation.
- Applying appropriate environmental management systems throughout the Group.
- Using natural resources as efficiently as possible.
- Achieving best practice in environmental management through the focus on continuous improvement programmes.
- Meeting the reasonable expectations of stakeholders concerning environmental performance.
- Driving the entire paper supply chain to reduce environmental impact.
- Support our customers to reduce the environmental impact of their supply chains.

2. Society

For the second sustainability principle – *People* – our primary focus is on the safety, well-being and development of all our employees. We do so by permanently investing in their safety at work through training and safety equipment, by providing them with challenging and satisfying jobs and by offering training and career opportunities. Our other key focus is on the local communities where we have the privilege to operate. Our operating facilities are frequently located in communities where we are seen as an important partner in the local economy, providing jobs to our employees and business for local suppliers. Our managers are encouraged therefore, to actively participate in initiatives at the local community level.

As a Group we are committed to:

- Ensuring that for health and safety standards, all our operations comply with local legislation and with best international practice as the goal.
- Applying the principle of equal employment opportunities.

- Managing our business in an ethical and equitable manner and meeting all of our social responsibilities.
- Ensuring that employees and suppliers are aware of the Group's policy on social responsibility.
- Protecting and advancing human rights, particularly those of the indigenous communities where we have operations.
- Promoting and enhancing strong relationships with the communities within which our businesses have the privilege to operate.

3. Business

For the third sustainability principle – *Profit* – we have a very simple philosophy. We need profitable growth to reward our stakeholders and to continue our drive for sustainability. Due to the nature of our business proposition, providing paper-based packaging solutions to our customers, we see many opportunities to combine both the need for profitable growth with the opportunity to advance the various sustainability principles. We consider sustainability to be perfectly compatible with profitable growth. We even see it as a differentiating factor in the market and have made sustainability an integral part of our business commitment and product offering.

As a Group we are committed to:

- Meeting shareholders' and other stakeholders' expectations with regard to profitable, sustainable long term business development in the changing local and global economies.
- Demonstrating leadership to customers and other stakeholders when it comes to developing sustainable packaging solutions.
- Working closely with customers and other stakeholders to provide packaging with strong sustainability credentials, taking account of factors such as packaging optimisation, recyclability and Chain of Custody.



The Green Honeyeater is found in the protected natural forest of Smurfit Kappa in Colombia.

- Supporting customers, suppliers and others in the supply chain on their own sustainability development projects.
- Providing packaging solutions that improve our customers' environmental footprint, e.g. by minimising product wastage and reducing distribution and transportation requirements.
- Involving our employees into developing more sustainable and innovative packaging solutions by rewarding and honouring them in a Group-wide competition of Innovation and Sustainability Awards.

When dealing with the environmental, social and business aspects of the Group's sustainability programmes, Smurfit Kappa is committed to:

- At a minimum, complying with all statutory, regulatory and legal requirements.
- Maintaining codes of conduct that support our core values of integrity, responsibility and respect, when managing our business activities in all locations.

Smurfit Kappa recognises that factors such as ethical behaviour, transparency in governance standards, identification of risks and stakeholder engagement are fundamental for the sustainable success of the Group. Our objective is to continuously progress Smurfit Kappa's recognition as a truly responsible company by all stakeholders and other parties.

Key Risks and Challenges

Natural resources play a fundamental role in the global economy and with the continuing depletion of such resources, it is mandatory that we shift towards a resource efficient and low carbon economy. For Smurfit Kappa, it is a key objective using natural resources efficiently thereby mitigating climate change and minimising the environmental impact whilst delivering on economic performance.

In this dynamic environment there are a number of key challenges and risks we and the paper packaging industry face.

1. Fibre availability

Fibre is the most basic raw material necessary for our business.

Wood and recovered paper are the fundamental raw materials which provide fibre for paper making. Sustainable forestry and paper recovery systems are of paramount importance for a company such as Smurfit Kappa.

Therefore, Smurfit Kappa is very concerned with the effect on the availability of its primary raw materials of the EU Renewable Energy policy targets. The EU has stipulated that by 2020, 20% of all energy consumed should be from renewable sources such as wind, solar energy and bio-energy. The last category can include the incineration of wood and/or recovered paper for energy production. Financial support for wood as a renewable fuel feedstock is of particular concern, as this drives up prices for our raw materials and puts the paper and the paper packaging industry at a clear competitive disadvantage both globally and in comparison with alternative packaging materials.

Given the Group's limited ownership of forests, particularly in Europe, we see this challenge as significant for our industry and a totally inappropriate primary use of wood. The National Renewable Energy Plans from the individual EU member states predict a large increase in the use of wood for renewable energy purposes. According to the EU Wood study, in 2030, 57% of all available wood will be used for energy purposes, compared to 45% in 2010, implying that the vast majority of additional wood coming available will be used for energy purposes.

Other developments like the decision by Germany to close down its nuclear power plants in the next 10 years and the phasing out of subsidies for renewable energy sources like solar and wind will place additional pressure on wood availability as a raw material source for our industry as more will be used for energy generation.

Smurfit Kappa therefore strongly advocates the concept of a resource hierarchy, giving priority to higher value added applications such as producing paper over lower value added applications such as thermal use. This is particularly the case when a reordering of the sequence of use of this scarce resource will still fully achieve the renewability objectives.

Another reason for adhering to this hierarchy is the fact that the European paper industry is already the single largest user and producer of bio-energy, with further untapped potential as is shown in the Forest Fibre Industry 2050 Roadmap to a low carbon economy 'Unfold the Future'.

Smurfit Kappa's risk concerning wood fibre availability is mitigated by our ownership of forestry in Latin America and the relationships we have developed and will continue to develop with key suppliers of wood in both Europe and Latin America.

The life cycle of wood fibres is extended by using recovered (paper) fibres to produce new paper and board. We expect that global collection rates will continue to increase. In Europe, collection rates have reached on average over 70%, with the highest additional potential for recovered paper collection in eastern European countries. According to studies by Resource Information Systems Inc. (RISI), the leading information provider for the global forest products industry, and the UN Food and Agricultural Organisation, there is still large untapped potential in other parts of the world, notably in Asia and Latin America.

These increasing collection rates are positive but also necessary as in the last few years global demand for recovered paper and board has grown dramatically as a result of increased demand from Asian countries, notably China. Some of these countries depend largely upon recovered paper imports due to continuing low domestic collection rates of recovered fibres. Also production capacities of paper mills in Europe based partly or entirely on recovered paper have been significantly increased. As the quality of recovered fibres deteriorates over time, there is a clear need for a fresh fibre inflow

into the recycling system. This is another reason why the abovementioned hierarchy of biomass use is important.

Recovered paper costs are at a (historically) high level and rising energy costs are also creating pressure for further recovered paper price increases. To ensure the future availability of suitable recovered paper, governments and industry collectively need to continue their drive to increase collection rates. As for wood fibres, it is also of the utmost importance that recovered paper is first used for producing paper and board and only at the end of their life cycle should fibres be used as fuel for energy generation. In Europe, separate collection for different types of paper at source is fundamental. In some countries, co-mingled collection systems still exist which drives down quality and detracts from further improvements in recycling rates.

Smurfit Kappa's risk concerning recovered paper availability is mitigated by our position in the supply chain, through our own recovered paper operations and long term supply agreements with key suppliers.

2. Energy and CO₂

Our industry is amongst the most energy intensive in the world. Although energy intensive, the carbon intensity is mitigated by the extensive use of bio-energy in the sector. The long term upward trend in energy prices presents a key challenge for Smurfit Kappa and the entire industry. Despite the considerable cost increase associated with this long term trend, Smurfit Kappa supports the need for (fossil) CO₂ emission reductions to be realised through the EU Emissions Trading Scheme (ETS) and similar systems around the world, if and when a global level playing field is established.

So far, the EU has the most stringent system globally and, in the absence of a solid international agreement, it is essential that the Phase III of the EU ETS (ETS III) will function properly when it starts in 2013. Since its adoption in 2009, many of the assumptions underlying the reviewed ETS Directive have changed due to fundamentally different economic conditions as well as considerable

investments that have been made in non-fossil energy fuelled equipment.

Although CO₂ emission rights currently trade at significantly lower price levels than anticipated at the time of the adoption of the ETS directive, it is nevertheless extremely important that the EU does not deviate retrospectively from targets that were agreed by law. Investors need legal certainty to be able to plan major multi-annual projects and programmes. However, the EU gives the impression that it is ready to change rules and agreements after the event. Likewise, there should be no holding back of some of the agreed CO₂ emissions permits from the EU ETS as of 2013 (so-called "set aside").

We recommend that the EU provides guidance as quickly as possible for the period beyond 2020 on how it intends to realise the low carbon economy as envisaged in its 'Roadmap for moving to a low carbon economy in 2050'. In that policy discussion, it is also of paramount importance that in relation to the issue of the carbon neutrality of biomass, the biomass used by the forest products industry remains untouched as billions of euro have been invested over time in biomass boilers that operate mostly on residuals such as sawmill dust, bark, black liquor and stumps.

In relation to the allocation of emission credits under the EU ETS III, we have been arguing that account should be taken of the production of electricity through the most efficient way of producing both electricity and heat (steam), the so-called Combined Heat and Power (CHP) system. In our view, this shortcoming in the system will cause energy costs for Smurfit Kappa's European mill system to increase considerably under EU ETS III, despite a continued decrease in the use of direct fossil fuel and CO₂ emissions per tonne of paper and board. This unfavourable approach seems counter-intuitive, where Smurfit Kappa is committed to invest in economically viable energy efficiency projects and fuel mix changes, shifting from the use of fossil fuels to biogenic fuels.

In 2011, the percentage use of non-fossil fuels in our European mill system was over 52%, an increase of almost 1.5% compared to 2010. The use of non-fossil fuel in our mill system in Latin America accounted for slightly under 23% of primary energy consumption. In Venezuela, our paper mills had to generate more electricity on-site using fossil fuels due to electricity supply restrictions from the national grid. This caused the overall bio-fuel usage rate for our Latin American operations to decrease slightly compared to 2010.

As our industry is energy intensive, optimising the use of energy is important to us. We are focusing our efforts on reducing specific types of energy usage and we are also aiming to reduce greenhouse gas emissions by investing in more energy efficient systems such as CHP plants, alternative energy options such as the use of biomass, and by driving production efficiencies.

3. Water

Our business is significantly dependent on this vital natural resource. Water availability and the impact of our water usage on the environment are key issues for us. Sufficient availability of good quality water at an affordable cost is key for an industry like ours. Fresh water availability is clearly a growing concern in certain areas in the world. Although the vast majority of our facilities are located in areas where sufficient availability of fresh water is currently not a major concern, as a Group we are committed to reduce our water usage where feasible and to support initiatives that develop 'water footprints' and water stewardship standards.

In early 2011, Smurfit Kappa joined the Water Footprint Network, which is a frontrunner in developing such standards. We are also closely monitoring the upcoming ISO standard on water footprinting and the work of the Alliance of Water Stewardship and European Water Partners via our industry association Confederation of European Paper Industries (CEPI).

Although as an industry we process large volumes of water, the industry does not consume significant volumes of water. After treatment in modern water treatment plants, over 90% of the water intake is, in principle, returned to the water systems from which it was extracted, in many cases in better than its original condition. Smurfit Kappa is strongly committed to find ways to further improve water usage efficiency and to reduce discharges. Through various programmes and investments to upgrade existing water treatment plants and building new ones, since 2005, we have achieved a reduction of 21% in the organic load (COD) discharged with effluents from our mills. Smurfit Kappa is committed to an additional ambitious programme for reducing water impact of our activities.

4. Food contact and food safety

In our opinion paper-based packaging is the preferred form of transport and display packaging for food products. It is a clean and hygienic product used for only one delivery. The challenge our industry faces to meet the standard of securing safe and hygienic products is made more difficult by the fact that we repeatedly recycle our paper materials in the interest of environmental sustainability and cost efficiencies. As our raw material is mostly post-consumer recovered paper, there are traces of additives such as ink, starch and other chemicals in the recycled product. Our industry, therefore, goes to great lengths to extract these substances, or to ensure that they will not be detrimental to packaged goods. More specifically, we ensure that they comply with the European Regulation on materials that come into contact with food.

Smurfit Kappa is actively continuing its efforts to ensure the safety of recycled packaging. Specifically for food packaging Smurfit Kappa follows both Good Manufacturing Practice and hygiene standards such as:

- European Federation of Corrugated Board Manufacturers (FEFCO) International Good Manufacturing Practice Standard.
- International Featured Standards IFS Food version 5 as it relates to packaging together with the IFS Packaging Guidance document from June 2010.
- British Retail Consortium/Institute of Packaging Global Standard for Packaging and Packaging Materials.
- EN 15593, European Standard in respect of the management of hygiene in the production of packaging for foodstuffs.
- ISO 22000, International standard for food safety management systems.

Smurfit Kappa also contributes actively within the European paper and packaging associations, CEPI and FEFCO, to develop industry initiatives and to define best practices to be applied both in Europe and Latin America. Smurfit Kappa has a highly qualified and experienced internal team that is dedicated to food contact and food safety issues.

CREDIBILITY IN OUR COMMITMENT

Our forest holdings in Colombia are FSC certified since 2003.

OUR LONG TERM SUSTAINABLE DEVELOPMENT COMMITMENTS

In this section of the Report, we set out our key commitments under four headings: Sustainable use of fibres, CO₂ emissions; Water; and Code of Business Conduct.

1. Sustainable Use of Fibres

Sustainable virgin and recycled fibres are used responsibly by Smurfit Kappa to provide our customers with sustainable packaging solutions. Smurfit Kappa is the largest producer of virgin containerboard in Europe; we committed to ensure that 100% of the wood, wood fibres and pulp used to manufacture this paper originates from non-controversial sources.

COMMITMENT

By 2015:

1. All our fibres produced or purchased will be from sustainable origin.
2. Over 90% of the paper and board produced will be certified Chain of Custody.
3. Over 90% of our converting operations will operate under a Chain of Custody certification.

Over 85% of the wood we use is delivered by third parties. Our approach has been to implement Chain of Custody certification within all our operations to ensure a sustainable supply of paper, in respect of both what we produce and source externally, to support well-managed forest practice and to provide our customers with third party verified sustainable packaging.

Smurfit Kappa recognises and utilises the Forestry Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC), the two major international forest certification bodies, to qualify the wood and the virgin fibre based products we purchase as well as the paper, board and packaging we produce in our operations.

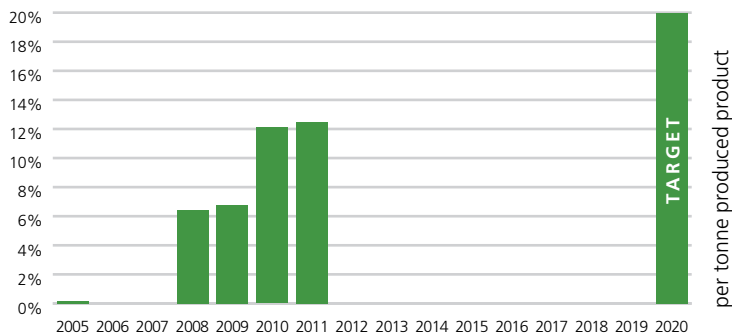
Achievements to date

- Our Colombian forests have been certified FSC since 2003.
- The complete Smurfit Kappa paper and board mill system in Europe is Chain of Custody certified under either one or both schemes we support (FSC and PEFC). This includes mills producing virgin and recycled containerboard, carton and solid board, sack paper and machine glazed papers. This is summarised on page 80 and full details can be found on our website.
- In Latin America, our mills located in Colombia and Mexico are Chain of Custody certified under FSC.
- All corrugated converting operations in UK, Benelux and Germany are Chain of Custody certified under FSC and PEFC since 2010.

Activities and results in 2011

- In 2011, we completed the Chain of Custody certification of our European mill system with the certification of two paper mills that were not yet certified. For 12 operations, dual PEFC and FSC certification was achieved.
- In Latin America, our three Mexican paper mills implemented the FSC Chain of Custody system and were successfully audited at the end of 2011 and are now certified.
- Significant progress was made in the certification of our packaging operations. An additional 25 plants achieved the Chain of Custody certification.
- At the end of 2011, 78% of paper and board produced in our Group was certified for further labelling Chain of Custody according to either PEFC or FSC, up from 72% at the end of 2010.
- 44% of our global packaging operations were certified Chain of Custody according to either PEFC or FSC at the end of 2011, up from 32% at the end of 2010.
- We continued reviewing our suppliers to ensure that no wood fibre originated from controversial sources.

FOSSIL CO₂ EMISSION IMPROVEMENT (basis 2005)



Current and future activities

- At the end of 2012, we expect to have 85% of the paper and board produced in our Group certified Chain of Custody.
- At the end of 2013, we aim to have at least 85% of our converting operations, both in Europe and in Latin America, Chain of Custody certified according to PEFC and/or FSC.
- As soon as the EU Commission adopts further measures over the course of 2012 for the implementation of the new EU Timber Regulation, we will take the necessary steps to ascertain that our systems are aligned with this new regulation. This new EU Regulation, which will take effect in March 2013, is designed to prevent illegally logged wood and products made from such wood from entering the EU.

2. CO₂ Emissions

Climate change represents one of the most important sustainability issues for Smurfit Kappa today. We have taken initiatives both in Europe and Latin America to address this subject.

COMMITMENT

20% reduction in relative CO₂ emissions from fossil fuels in our global paper and board mill system in 2020 compared to 2005 (CO₂ emissions defined as direct and indirect CO₂ emissions from fossil fuel relative to production).

Achievements to date

- Smurfit Kappa has been switching from fossil fuel to renewable energy where possible and economically feasible (Piteå biomass boiler in Sweden installed in 2007, new black liquor boiler installed at Cali in Colombia in August 2008, biomass boiler commissioned at Cellulose du Pin in France in August 2010 and use of biogas from the new and/or extended water treatment plants in various paper mills).

- For over two decades Smurfit Kappa has been focused on reducing CO₂ emissions from fossil fuels relative to production. For example, our Nettingsdorfer mill in Austria and our Roermond mill in the Netherlands have realised over 30% reductions in CO₂ emissions per tonne of paper.
- Since 2005, fossil CO₂ emissions per tonne of paper and board produced have decreased by more than 12%.

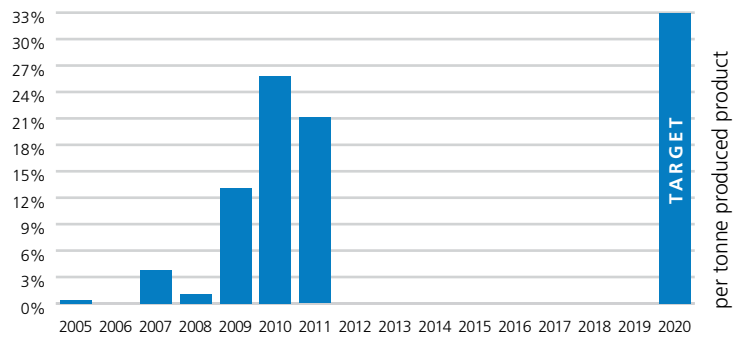
Activities and results in 2011

- In 2011, total CO₂ fossil emissions of all Smurfit Kappa paper and board operations were largely flat compared to 2010. As 2010 showed a significant improvement compared to 2009, in 2011 we have consolidated the strong performance from 2009. This emission comparison is volume adjusted. The graph above illustrates progress made on the reduction of the CO₂ fossil emission of our global Smurfit Kappa mill system, expressed per tonne of paper or board produced since 2005.
- In our paper mill in Hoya in Germany, the paper machine was upgraded also to reduce energy usage. With a newly installed press, starch with a lower moisture content can be added to the paper leading to less energy being needed to evaporate the moisture.
- In our paper mill in Bernal in Argentina, a new boiler was installed (see page 31).
- In a number of paper mills certain investments were operational for a full year for the first time in 2011.

Current and future activities

- In our paper mill in Hoya in Germany we are significantly extending the capacity of the paper machine which will reduce steam usage per tonne of paper. In addition, with the installation of an additional CHP unit, the co-generation ratio of this mill will increase, resulting in a reduction of fossil CO₂ emissions.

COD DISCHARGE IMPROVEMENT (basis 2005)



- In our sack kraft paper mill in Nervión in Spain, we have constructed a larger steam turbine to increase the production of biomass-based energy. This new turbine, which became operational in the first quarter of 2012, will further reduce fossil based CO₂ emissions from the mill.
- In our kraft paper mill in Navarra in Spain, we are transforming the current boiler into a bubbling fluidised bed boiler, which will generate double the amount of biomass-based steam.
- In our recycled paper mill in Barranquilla in Colombia, we are currently replacing two gas turbines for electricity generation by one larger unit producing both steam and electricity. This unit started operating in May 2012.
- In our kraft paper mill in Cali in Colombia a new lime kiln will be installed running on natural gas, replacing a lime kiln currently running on heavy fuel oil. The use of much 'cleaner' natural gas will reduce fossil CO₂ emissions.

3. Water

After fibre, water is the second natural resource that is vital to our business. We have made significant investments since 2005 to reduce the environmental impact of the water we discharge after usage. In our previous Sustainable Development Report 2010 we committed to reduce the relative COD discharges in our mill system in 2020 by 10% compared to 2010.

To reflect the significant investments and also the progress we have made since 2005, we have restated our target for COD discharge. The new reference year is 2005 and our target is to reduce our relative COD discharge by one third (33%) in 2020 compared to 2005. This new target will take into account the progress to date since 2005 and the future progress we committed to last year.

COMMITMENT

Reduce the organic content discharged in our process water (COD) by one third by 2020 compared to 2005. The reduction is relative to the organic discharge measured by COD, expressed per tonne of paper produced.

Achievements to date

- Between 2005 and 2011 we invested over €29 million to upgrade existing water treatment plants and to build new water treatment plants in both Europe and Latin America.
- Investments in water treatment plants took place in a number of paper mills: Alfa d'Avignon, Cellulose du Pin and Rethel in France, Mengibar and Navarra in Spain, Hoya in Germany, Roermond in the Netherlands, SSK in the UK and Bernal in Argentina.
- Although our COD discharges increased in 2011 compared to 2010, overall we have achieved a decrease of 21% by the end of 2011 compared to 2005. This is illustrated in the graph above which shows the improvement per year compared to the base year 2005.

Activities and results in 2011

- Construction of the water treatment plant in our paper mill Bernal in Argentina was completed during Q4 of 2011. The water treatment plant has been operating at full capacity since April 2012 (see page 41).
- We became a member of the Water Footprint Network (WFN) in March 2011.
- Discharges in 2011 increased by 6% compared to 2010. This was mainly due to temporary operational issues at a few water treatment facilities during the year.

Current and future activities

- There are several investments in water treatment facilities in both Europe and Latin America that are ready for decision and implementation in the next few years.
- We are implementing a programme of best practice in the treatment of our process water both in Europe and Latin America. Best practice for water treatment includes biological treatment before discharging.

4. Code of Business Conduct

As a multinational Group, the employee base has grown considerably not only in size but also in cultural and social diversity. This diversity demands the development and adherence to shared core values and business principles in the area of business practice, health and safety, employee relations, human rights, environment and community involvement. The Group's commitment to these principles is confirmed by our Code of Business Conduct, to which all of our companies and employees alike must adhere.

The Code of Business Conduct is supported, and further expanded upon, by a number of policies and statements detailing the Group's commitment to excellence in our relationships with our employees, shareholders, customers and suppliers, and governmental authorities in the countries in which we operate.

COMMITMENT

To continuously emphasise the importance of the Code of Business Conduct to our employees and to integrate these principles into our day-to-day business dealings.

Achievements to date

- Established and implemented a number of Group-wide policies in areas like ethical business behaviour, finance, health and safety, environment and sourcing.

- Established a Code of Business Conduct, which is applicable to all employees across the Group.
- Appointed a Group Compliance Officer with an active reporting role to the Group Board (Audit Committee).
- Introduced a Good Faith Reporting Policy Statement ('Whistleblower Code'), which provides channels for all employees to raise confidentially concerns in relation to perceived improper actions.
- Signed up to the UN Global Compact initiative.
- Commenced the auditing of our strategic suppliers on their code of conduct programmes through our Sustainability Sourcing Policy.

Activities and results in 2011

- A Safety Opinion Survey was carried out in all our European plants to measure safety conditions and to identify areas for improvement.
- The Code of Business Conduct was benchmarked against an international peer group for best practices and appropriately revised, including guidelines and examples on how best to comply with the policy. The Code of Business Conduct provides the umbrella policy over a wide range of related policy statements.
- Where concerns with regard to our Code of Business Conduct were raised, investigations took place and, where appropriate, disciplinary actions were taken.
- Every level of management throughout the Group has a responsibility to monitor and enforce the Group's guidelines on Competition Policy. Approximately 900 managing and sales directors, sales managers and other senior management across the Group confirmed their understanding of the Group's zero tolerance policy with regard to anti-competitive behaviour. The process required written certification from each manager that he had not been engaged in, nor was aware of, any such actions.

We want to ensure that our employees integrate our Code of Business Conduct principles into their day-to-day business dealings.

Left to right: David Dawson, Gillian Carson-Callan and Glenn Sherry (Smurfit Kappa HQ).

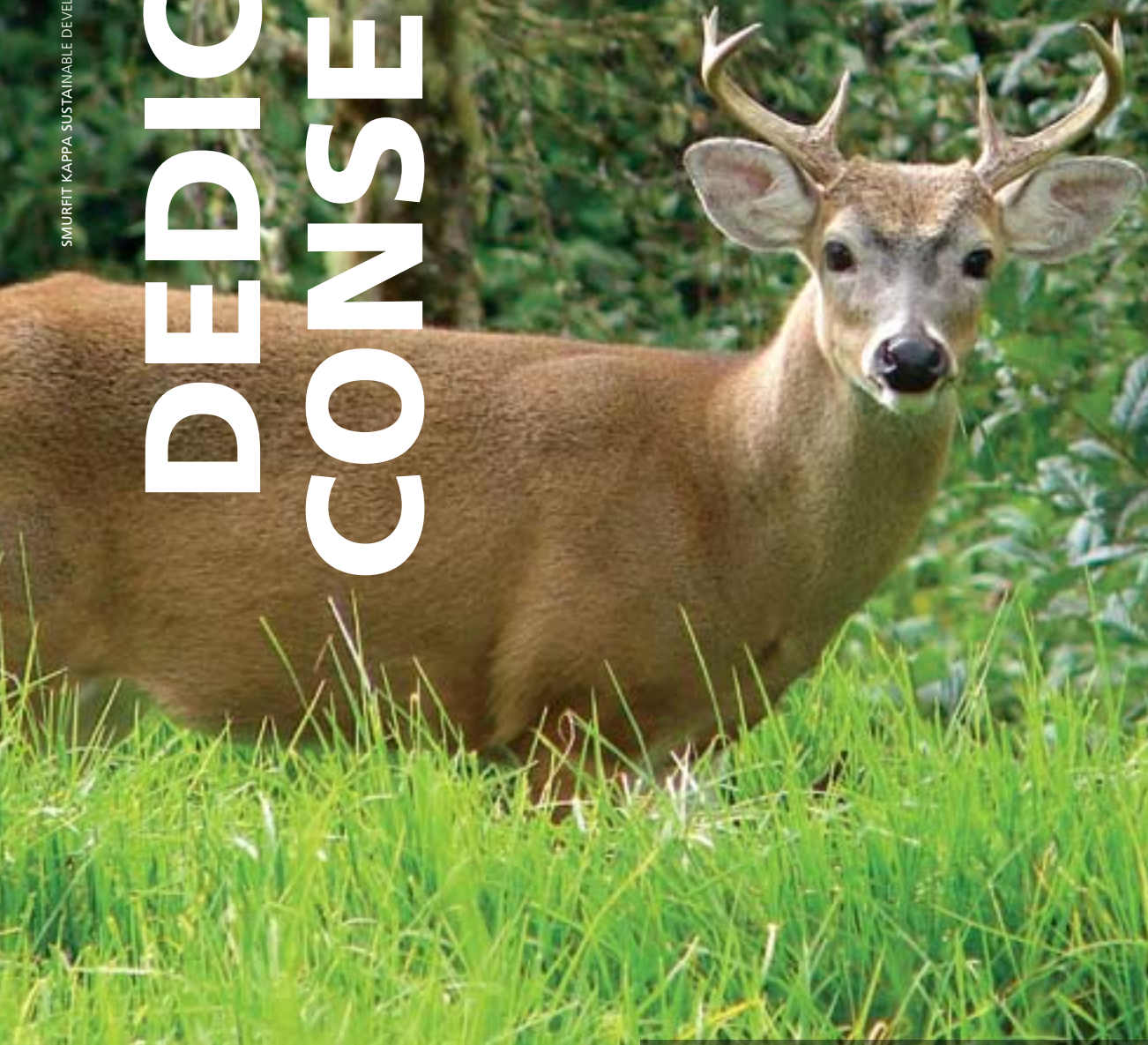
- An internal control questionnaire was completed across our operations. The Group's Code of Business Conduct and Good Faith Reporting Statement have been distributed to the plant management and support staff in every Group facility, which accounts for about 30% of the entire workforce. All plant general managers and financial controllers confirmed their understanding and adherence to the Code of Business Conduct. This process required written certification that all employees had been made aware of the Code of Business Conduct and Whistleblower Code and that any known or suspected violations had been reported appropriately.

Current and future activities

- An awareness campaign will be undertaken in 2012, including translation of the Code of Business Conduct into 16 languages.
- A Corporate Social Responsibility (CSR) programme is in place at operating company level which aims to support certain community involvement programmes and to increase the transparency of all community involvement of the Group's operating companies.
- New Board-approved Group Foundation for CSR co-investment activity which was set up in 2011 will start its activities in 2012.



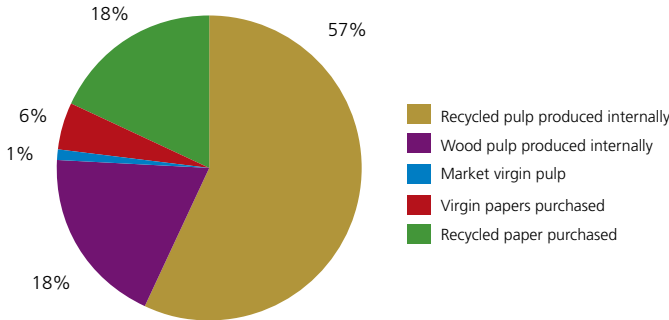
DEDICATED TO CONSERVATION



The critically-endangered Colombian subspecies of the White-tailed Deer is found in the protected natural forest of Smurfit Kappa in Colombia.

ENVIRONMENT

Fibre origin 2011
All operations



Operating in an environmentally sound manner is one of our main principles in sustainability. While we aim to minimise the impact our activities have on the environment as much as we can, our principle focus is on those areas where our activities potentially have the largest impact. These areas are the use of fibres and the use of wood, the use of energy and CO₂ emissions and the usage and discharge of water.

1. Sustainable Use of Fibres

Smurfit Kappa has committed itself to use fibres in a responsible and sustainable way. In this section it is explained how our products contribute towards sustainability, how we use both virgin and recycled fibres and what our sustainable fibre approach is.

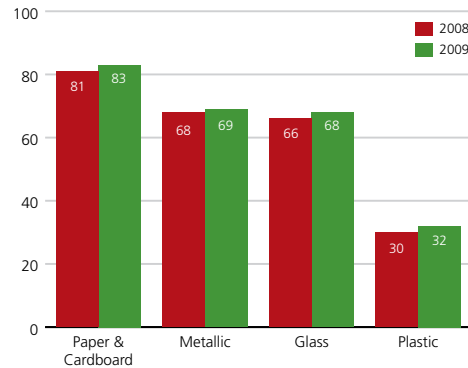
Efficient packaging solutions contribute significantly to the sustainability of the total supply chain of goods. Packaging not only protects products during transit, it often helps to preserve the product, carries important product information for consumers and provides marketing opportunities for both manufacturers and retailers.

Paper packaging is a very environmentally friendly form of packaging as the industry's raw material comes from renewable sources and the end product is fully recyclable.

Almost all of packaging produced by Smurfit Kappa is made from paper. The major priority of Smurfit Kappa is to provide customers with sustainable and efficient paper packaging. Virgin or recycled papers are the most sustainable choice depending on user requirements and the supply chain specifics.

As wood fibres degrade every time they are recycled, a fresh virgin fibre inflow into the recycling system is required. The length of a wood fibre is shortened

Packaging Recycling Rate in EU (%)



during every recycling turn and after a number of recycling cycles, the original fibre is worn out. Therefore, virgin fibre is constantly added to the system to compensate for the loss of degraded fibre, archival storage of paper, and the loss through normal use and disposal of certain paper products (e.g. tissues).

Paper-based packaging is almost totally renewable and recyclable. The recycling rate for paper and board packaging within the EU's 27 member states for 2009, which is the latest year for which official Eurostat statistics are available, was 83% (see graph above). This represents an additional increase of 2% compared to the previous period, thus showing that paper-based packaging has a higher recycling rate than any other material.

Use of virgin fibres

Less than 15% of the wood we use for the production of virgin fibres originates from Smurfit Kappa owned forests. We are very active in ensuring, together with our suppliers, that the supply of wood is from sustainable origins and that our suppliers implement strict policies for monitoring the origin of wood fibres thus ensuring the protection of natural resources in the countries from which we source them.

Both our own forest operations and our wood purchasing practices are based on the principles of environmentally compliant forest management schemes. In 2007, we committed to a programme of Chain of Custody certification, giving initial priority to our operations which handle wood. We have extended this management system to our entire mill system (both virgin and recycled paper and board) and are currently extending this system to our packaging operations.

Engagement with Stakeholders

One Daily Drop Living Calendar

The famous panda logo that represents the World Wildlife Fund (WWF) is one of the most recognised global symbols of conservation and environmental protection. This year WWF celebrates its 50th birthday and Smurfit Kappa in Colombia had a special contribution for its Colombian branch.

An advertising agency created a product named One Daily Drop Living Calendar which seeks to promote reforestation in Colombia. The concept consists of a ceramic white plant container, a special measuring glass that dispenses water, a trendy sliding glass calendar, and bags of soil and tree seeds. The fragile product is packed in a stylish and protecting box designed by Smurfit Kappa. Sales representative, Alvaro Ramirez, and his design team created the truly FSC-certified sustainable packaging solution.

The special calendar, and the associated advertising campaign (which has circulated mainly on social media), attracted global attention and put WWF and its allies in the design spotlight. The product has been nominated for worldwide prizes in the New York Design Festival and the International Festival of Creativity in Cannes.

Our Sustainable Forestry statement and our Sustainable Sourcing policy are available at our website and describe our codes of conduct with regard to all supplies of wood products, whether coming from our own forests or purchased from third party suppliers.

Typical products involved are wood, virgin pulp and paper and board containing virgin fibres.

Use of recycled fibres

For Smurfit Kappa's manufacturing operations in Europe, 76% of our fibrous raw materials came from recycled fibres in 2011. In Latin America, the proportion of recycled fibres in all our fibrous raw materials was 68% for 2011 and, while official industry figures are not currently available, we believe our recycling rate to be significantly better than the industry average for that region.

In Smurfit Kappa, we consume over 5 million tonnes of used paper each year. Of this figure, 4.3 million tonnes are in Europe and most of this is supplied through our own recovery and recovered paper supply system which makes us the clear industry leader in this regard. Over 50% of our Latin American needs are also collected within our own system or secured through contracts with third party suppliers. The pie-chart on page 25 indicates the source of fibres used in our operations.

Sustainable fibres - Our approach

Smurfit Kappa recognises and utilises the two major international forest certification schemes, FSC and PEFC, as well as the schemes that have gained international recognition by the PEFC Council.

The certification process ensures that assessments are performed regularly by independent accredited organisations, providing assurance that the wood and fibres we source externally originate from sustainable forests and are legitimately sourced. This certification process is important for our own operations, our customers and our suppliers.

Our ultimate aim is to reach Chain of Custody certification for all of our relevant operations and for all the products we deliver to our customers. This shows our commitment to a sustainable managed supply chain ranging from sustainable forest management practices to delivering Chain of Custody certified products to our customers.

Forestry

Smurfit Kappa owns and manages forests in Colombia and Venezuela, where we have over 105,000 hectares. These plantations provide our mills in both countries with almost all of their virgin fibre requirements.

Smurfit Kappa's largest forest plantations are in Colombia. Here, we have approximately 70,000 hectares, including 6,700 hectares under management. This area comprises 45,000 hectares of commercial plantations, 22,000 hectares of protected natural forest and 3,000 hectares for infrastructure. Of the commercial plantations, 62% is pines with the remaining 38% Eucalyptus. The company manages its forest estate based on sustainable development principles, promoting economic growth, a responsible use of natural resources and fostering social equity in the regions where the forest plantations are located. Smurfit Kappa is operating its Colombian forest under a management system that has been certified in accordance with the FSC since 2003.

In Venezuela, the Forestry Division owns approximately 35,000 hectares in three western states of the country. Of this total, 21,000 hectares are commercial plantations, 13,000 hectares are natural reserves and the balance is given over to infrastructure. Commercial plantations include 12,600 hectares of short fibre (Eucalyptus and Gmelina) while 6,400 hectares are long fibre (*Pinus caribaea*). The balance is used for research and development such as silviculture, plantation management, forest protection and forestry research.

The forest plantations in Venezuela have not yet been certified but are well advanced in terms of best practice and will seek certifications when local circumstances permit.

The main species harvested in both countries are varieties of Eucalyptus and pine.

During the plantation life cycle, Smurfit Kappa conforms to the numerous governmental legal, technical and environmental regulations, for which, in most cases, annual renewals are required.

Paper and Board production

With the exception of our San Felipe mill in Venezuela, all our wood handling operations are Chain of Custody certified by FSC or PEFC. These include all our mills producing virgin fibres and the wood supply companies of Smurfit Kappa in France and Spain.

In early 2011, we completed the Chain of Custody certification of our complete paper and board mill system in Europe consisting of mills producing virgin and recycled containerboard, carton board, solid board, sack paper and machine glazed papers. Our European mills are certified both for FSC and PEFC.

Certification of our mills in the Latin America region is progressing with Chain of Custody certification in place in all Colombian operations since 2009 and a commitment to achieve certification for our other paper and board mills in Argentina and Mexico by the end of 2013. Venezuela is currently not included in this commitment.

The three Mexican paper mills, Cerro Gordo, Monterrey and Los Reyes successfully passed their audit to get the Chain of Custody certification according to the FSC scheme in November 2011 and received their certificates in early 2012.

Packaging operations

Chain of Custody certified packaging guarantees our customers that only sustainable fibres are used in their packaging. For virgin papers, this means that fibres originate solely from sustainably managed forests and for recycled paper, it means that a significant amount of post-consumer waste is used. The entire supply chain is traceable to prove this to our customers.

In 2009, we initiated a programme in our packaging operations to supply customers with Chain of Custody certified products. Our target is to be able to offer certified packaging to all our customers from all Smurfit Kappa packaging production locations.

Considerable progress has been made since 2009 with 44% of our packaging operations in Europe and Latin America being certified Chain of Custody FSC and/or PEFC at the end of 2011. This includes packaging operations in six European countries and one country in Latin America.

We are moving towards our final goal of having all packaging production locations Chain of Custody certified. During the first half of 2012 we have added a further four countries in Europe and another one in Latin America.

Overview of certification in place at end of 2011

The table on page 29 gives a detailed overview of our paper capacity operating under Chain of Custody certification per grade of paper together with the number of converting operations also under Chain of Custody certification.

The first two sections of the table give the percentage of our paper or board production capacity operating with Chain of Custody certification while the last column reports the exact percentage of the paper or board that can be sold certified for a further labelling of the packaging. This information is disclosed by type of paper and board

produced by Smurfit Kappa in both Europe and Latin America.

These percentages reflect the situation at the end of 2011. To simplify the calculation, where a mill obtained the certificate during the year, the annual production of the mill is taken into account for calculating the percentage.

The third section of the table relates to the packaging operations. Here the number of sites operating with Chain of Custody certification is reported and the second column gives the percentage of sites with Chain of Custody certification.

Suppliers

To make further progress in the certification of our products, in 2011 we continued our verification programme with external paper suppliers to ensure that, as a minimum, all virgin fibres contained in the supplied papers or board are of non-controversial origin and are preferably certified by PEFC or FSC schemes. This verification process includes all our external paper suppliers and is based both on questionnaires and physical audits. In 2011, 77% of all our external virgin supplies in Europe were FSC or PEFC certified. We expect this percentage to increase significantly in 2012/2013. This is based on commitments received from some of our current third party virgin paper suppliers to achieve FSC Chain of Custody certification in that period.

During 2011, nine of our third party virgin paper suppliers achieved Chain of Custody certification under PEFC and/or FSC schemes. This significant progress shows the importance of continuing our efforts to encourage suppliers to align their objectives and policies on sustainability with those of Smurfit Kappa.

Biodiversity

Since all our forest ownership is located in Latin America, the following section focuses on that region.

In Colombia, 31% of the total forest area of approximately 70,000 hectares is protected natural forest; while in Venezuela 37% of the approximately 35,000 hectares owned by the Group is protected natural forest. These protected parts of our forests are kept as natural forest and not replaced by plantations, thus maintaining biodiversity, preserving watersheds and helping to conserve natural habitats.

The guiding principles of the Group's forestry policy in Latin America are to:

- Develop continuously and systematically research programmes to preserve and enhance soil productivity.
- Identify appropriate species and forestry practices that will enable an increase in plantation yields while protecting the environment.
- Conserve natural forests located on company lands to ensure the sustainability of forest diversity and thereby contribute to the protection of water sources and habitat of flora and fauna.

In Colombia, Smurfit Kappa is continuously investing in research projects, frequently in cooperation with other research institutes as the following examples show.

A research programme on water consumption of *Eucalyptus grandis* and *Pinus tecunumanii* plantations, conducted with the National Centre for Coffee Research (CENICAFÉ) and the Forestry Engineering School of Universidad Nacional de Colombia in Medellin, yielded a validated model - CREFT - for estimating potential tree growth and water usage, under a given environment (soil, rain, temperature, radiation). Forest hydrology can be calculated and compared to the available rainfall, to determine if the plantation is appropriate or not to the watershed and its potential growth.

The second phase of this water consumption research was designed and funded with the same university. This phase of the research aims to compare watershed efficiencies with three different land uses: natural forest, cattle raising pastures and *Eucalyptus grandis* plantations. The research has been accepted by the Programa de Monitoramento e Modelagem de Bacias Hidrográficas do Brasil (PROMAB) as part of a comprehensive effort to understand how commercial forestry plantations compare and interact with other similar soil uses and nearby communities in tropical and sub-tropical regions.

Part of this research programme is to inform local authorities on the importance of using scientific knowledge in the design of environmental regulations concerning water usage.

Smurfit Kappa Mills and Converting plants certified Chain of Custody under PEFC or FSC

Overview of certification in place at end of 2011

VIRGIN PAPER				
		Production kTonnes	Production capacity with CoC certification	% certified paper
EUROPE				
	Kraftliner products	1,475	100%	73%
	Other virgin papers (sack paper, MG paper)	245	100%	40%
LATIN AMERICA				
	Kraftliner, printing & writing paper, SC fluting	291	86%	86%
RECYCLED PAPERS & BOARD				
		Production kTonnes	Production capacity with CoC certification	% certified paper
EUROPE				
	Containerboard recycled papers	2,851	100%	100%
	Solid board & carton board	896	100%	82%
LATIN AMERICA				
	Containerboard recycled papers	635	21%	21%
	Carton board	161	0%	0%
PACKAGING				
		Number of sites certified	Percentage of sites with CoC Certification	
EUROPE				
	Corrugated packaging	82	43%	
	Solid & carton packaging	8	100%	
LATIN AMERICA				
	Corrugated packaging	7	26%	
	Folding packaging	0	0%	
	Sacks	4	80%	

In addition to the water usage research project, Smurfit Kappa and CENICAFÉ worked on the potential carbon sequestration capabilities of the pine and eucalyptus species planted by Smurfit Kappa. The "3CFix" (Cartón de Colombia Carbon Fix) model was validated and carbon sequestration figures are now available.

In 2011, the combined growth of pines and eucalyptus in our Colombian plantations absorbed some 1.1 million tonnes of CO₂ from the atmosphere thereby fixing 300 kTonnes of carbon within it. The

wood harvested in the same period contained approximately 280 kTonnes of carbon, giving a positive carbon balance of over 21 kTonnes of carbon or its equivalent of 78 kTonnes of CO₂.

Since 1969, when we began our forestry activity in Colombia, we have committed to protect all natural forests located in our expanding land holdings. We respect the existing biodiversity in both types of forests and the way they contribute to the reduction of global warming and the protection of a wide spectrum of species.

In order to effectively protect and promote conservation, in 2009 we initiated a study of the flora and fauna populations (focusing on mammals and birds) in the protected natural forests of the company, that are within or surround the planted forests. To conduct this study, we worked with two local universities (Cauca and Quindío), that have specialist biology and forestry faculties. The studies were done by students as theses working towards their graduation under the supervision of their department professors.

Apart from the objective of identifying the existence of the species, we focused on determining which species were categorised as endangered by international organisations such as the International Union for Conservation of Nature (IUCN).

At the end of 2011, we have studied 25% of our forest holdings and have plans to continue doing so until 2020. In these past three years we have identified 829 species: 390 are flora, 388 birds and 51 mammals. Of these, 22 are endangered to some degree according to IUCN categorisation: 8 species of flora, 9 birds and 5 mammals.

From this research it is clear that the forest plantations and the neighbouring protected natural forest form important wildlife corridors which contribute to species conservation in the Andean ecosystem.

The next phase after establishing the populations of species and their relative endangerment, is the promotion of their protection as an environmental responsibility.

The results of this study were presented in our 2012 Calendar, which had a 40,000 unit print run and was sent to all our stakeholders. We have edited one of four booklets that explicitly show each species and how to contribute to their protection and conservation; these have been given to surrounding communities and managers of our forestry farms. Additionally, in 2012 we began a series of meetings with employees and customers, to share information about the wide range and significant impact of our sustainability actions.

Besides these research projects, Smurfit Kappa fully recognises the responsibility that comes with its participation in the rural communities surrounding its forestry land base. Throughout different programmes in education, income generation, health and citizen participation, in conjunction with the Smurfit Kappa Cartón de Colombia Foundation, Smurfit Kappa helps to improve the living condition of the communities within the area of influence of the forestry operation. In addition, continuing education and training programmes are held for forestry workers, with forestry skills and health & safety at work being the most important.

Smurfit Kappa in Colombia also fosters the development of a forestry culture through open information exchange with interested individuals and organisations. There is also a continuous dialogue with customers, communities, government, employees and investors aimed at improving goods and services obtained from sustainable forest management. Forestry studies are actively promoted with the publication of almost 200 forestry research reports in topics related to silviculture, tree breeding and forest health for eucalyptus as well as tropical and subtropical pines.

Protected areas (Europe)

We have identified the Smurfit Kappa operations which are either within or in close proximity to legally protected areas or areas of high biodiversity value.

Natura 2000 is an ecology network of protected areas in the territory of the European Union which has been created in 1992 after governments adopted legislation protecting the most seriously threatened habitats and species across Europe. Ten of our European sites are located within or adjacent to such protected areas.

Ten other sites are adjacent to or within areas protected by national or local legislation. Additionally, four of our operations draw from or discharge water to watersheds that are protected or classified as sensitive.

Smurfit Kappa is keenly aware of these situations and continues to take all necessary steps to ensure both the environmental protection and the sustainability of these sensitive areas.

The Netherlands/Spain – The power of High Performance Fluting

Fluting, the middle layer in corrugated board, is traditionally produced with virgin or recycled fibres or a mix of both. Smurfit Kappa continuously develops new packaging papers to serve the different needs of customers. The challenge is to add strength and to reduce fibre usage and costs at the same time.

Smurfit Kappa developed a new high performance fluting portfolio, ranging from HP1 to HP3, that covers an optimum spectrum in terms of strength levels. HP3 is 20% stronger than traditional recycled fluting, while HP1 possesses the highest recycled strength in the market. High performance fluting replaces traditional recycled fluting, but with lower grammage.

The new product range is manufactured with a special recipe that can be tailored to match local production variables like the availability of different types of recovered fibres or specific characteristics of paper machines. Producing the grades in several mills, close to the local market, minimises the distribution costs and benefits the environment. High Performance Fluting decreases the usage of recovered fibres by approximately 10%.

Smurfit Kappa's High Performance Fluting decreases the usage of recovered fibres by approximately 10%.

2. Efficient Use of Energy and Carbon Management

Towards a low carbon economy

In 2011, the EU published roadmaps towards a competitive low-carbon economy by 2050 and its energy roadmap. Together with other policy documents, over time this will lead to a new European climate change and energy package. The outcome will be crucial for Smurfit Kappa and our industry as our operations are affected by all these (future) policies. It is clear that the EU can meet its objectives in this area only if there is sufficient biomass availability. Our industry is not only the largest user of biomass through its raw material needs, but also the largest and most efficient generator of energy based on biomass, through extensive use of biomass boilers mainly fuelled by residuals like bark, sawdust, thinnings and stumps. Although most of these boilers are connected to the production of pulp and virgin fibre based paper, in several countries like Spain and France, governments are supporting energy and fossil carbon saving projects connected to recycled paper mills. Smurfit Kappa supports and actively participates in such projects – biomass boilers in Navarra in Spain and Cellulose du Pin in France, and the steam turbine in Nervión in Spain.

90% of Smurfit Kappa's fuel consumption consists of either renewable fuel (biomass) or the relatively low CO₂-emitting fossil fuel natural gas. The overall ratio between the use of biomass and total fuels has increased in 2011 compared to 2010. In 2011, 42% of all energy used was biomass based, up from 41% in 2010. This increase results mainly from the new biomass boiler in Cellulose du Pin in France.

Combatting climate change

Investing in boiler houses

Combined Heat and Power generation (CHP) is the most efficient method of producing electricity and heat (steam). Our industry is the perfect place to install these co-generation units given our need for both electricity and steam. In 2011, Smurfit Kappa increased the energy coming from co-generation units by 9.7%. This increase mainly came from investment projects finished in 2010, and therefore fully operational in 2011, and was realised despite the fact that the steam turbine in our largest mill at Piteå in Sweden was out of operation for a relatively long period for maintenance purposes in 2011. Some of these projects are highlighted further below.

Our mill in Nieuweschans in the Netherlands was equipped with a CHP installation in 2010 with the co-generation process providing 100% of its electricity in 2011.

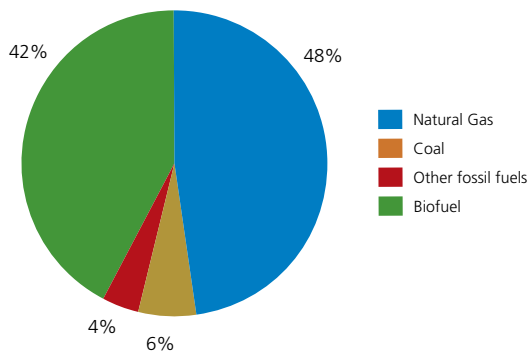
In Cellulose du Pin, our largest mill in France, the (outsourced) CHP installation was operational for the full year 2011. As all of the electricity and steam in this CHP installation is generated with biomass, fossil CO₂ emissions for this mill decreased significantly compared to 2010.

Almost 100% electricity used by Zülpich, our largest mill in Germany, comes from its on-site CHP installation fuelled by its multi fuel boiler installed in 2010.

In our Bernal mill in Argentina, a new natural gas boiler was installed, replacing three low efficiency steam-producing boilers. As a result of this investment, which has been operational since early 2011, the use of fossil fuel and CO₂ emissions decreased.

Direct fuel consumption 2011

All operations



In our mill in Saillat in France, we improved the efficiency of the largest boiler on site by installing an economiser.

In our Alfa d'Avignon mill in France, we will replace an old boiler with one equipped with an economiser which will also help to lower NO_x emissions.

Investing in energy reduction initiatives

The internal study we started in 2010 to produce an overview of all (theoretical) possible savings on energy needs and fossil CO₂ emissions per mill has now covered all our European and Latin American paper mills and will be concluded this year with an analysis of our board mills. The total list of energy and CO₂ saving opportunities resulting from this study will form the basis for energy and CO₂ reduction related investments in the coming years. Most identified projects to reduce energy use and fossil CO₂ emissions are part of larger investments which will be executed depending on their economic feasibility.

In 2011, several initiatives to reduce the use of energy were approved and/or executed. The following examples highlight some of these initiatives.

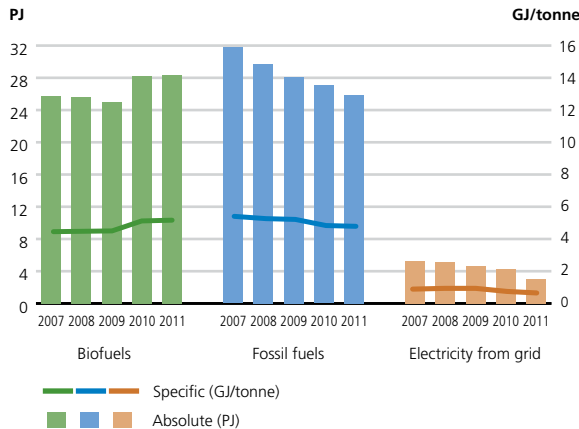
Based on our successful experiences in rebuilding pulping equipment in our paper mills in Roermond in the Netherlands, and SSK in the United Kingdom, similar projects were undertaken in our paper and board mills in Wrexen and Herzberg, both in Germany, and Oude Pekela in the Netherlands. In all three mills the electricity consumption per tonne of product in the recycled stock preparation has been decreased, resulting in a reduction of fossil CO₂ emissions per tonne.

In our mill in Hoya in Germany, the paper machine was upgraded to a higher capacity level and with a view to reducing energy usage. One of the modifications was the installation of a film press to replace the existing size press. With the newly installed press, starch containing less moisture than in the previous system can be added to the paper. This leads to less energy being needed to evaporate the moisture contained in the starch.

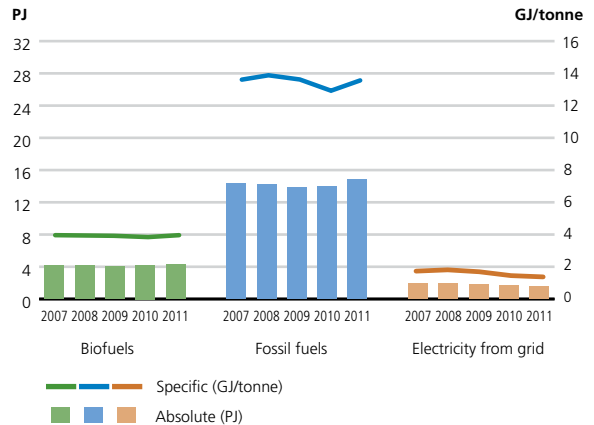
Our packaging facilities use much less energy than our paper and board mills; nevertheless, saving energy is also important for these operations. In our Guanajuato plant in Mexico, two eco-efficiency projects were developed in cooperation with external partners. One project improved the fuel consumption in the boiler by installing an electronic ignition system while the second project reduced energy consumption by installing an automatic purge installation in the boiler.

Energy, CO₂ emissions and other air emissions related data are reported for all our operations (including details for individual mills in Europe and Latin America) in the tables on pages 74 to 79. Those tables report energy consumption for the production of the paper or board manufactured while the two input/output tables on page 72 (European operations) and on page 73 (Latin American operations) report the total energy consumption of the site, taking into account the fuels used to produce electricity and/or thermal energy sold externally. The methods applied for calculations as well as details on specific definitions are given in the glossary on pages 89 to 92.

Biofuels, fossil fuels, electricity from grid European mills



Biofuels, fossil fuels, electricity from grid Latin American mills



Investing in fossil CO₂ emission reductions

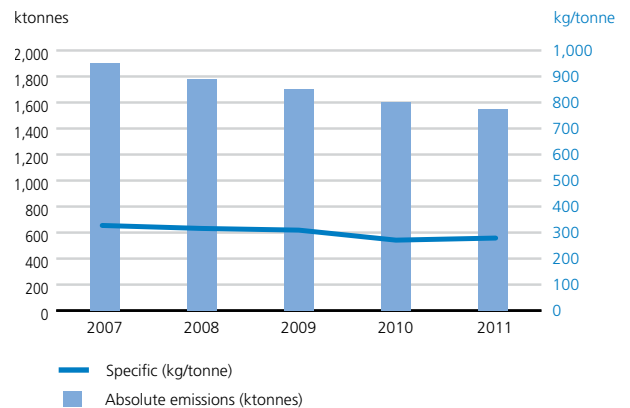
Our total fossil CO₂ emissions (direct and indirect) in 2011 decreased by 101,000 tonnes compared to 2010. Emission levels in Latin America remained almost at the same level in 2011 as in 2010 with the overall decrease being mainly achieved in our European operations. The most important contributors to this reduction in CO₂ emissions are the new biomass boiler in Cellulose du Pin in France, and the new CHP installation in Nieuweschans in the Netherlands, with both installations operating for the full year in 2011.

CO₂ emissions in Latin America were flat despite an improvement in carbon management in several mills. However, our mill in San Felipe in Venezuela, returned to 100% virgin paper production in 2011 having produced a mix of recycled paper and virgin paper in 2010. This change of product mix, coupled with a restored co-generation capacity on site, caused direct CO₂ emissions of this mill to go up thereby neutralising the improvement in emissions of the other Latin American mills.

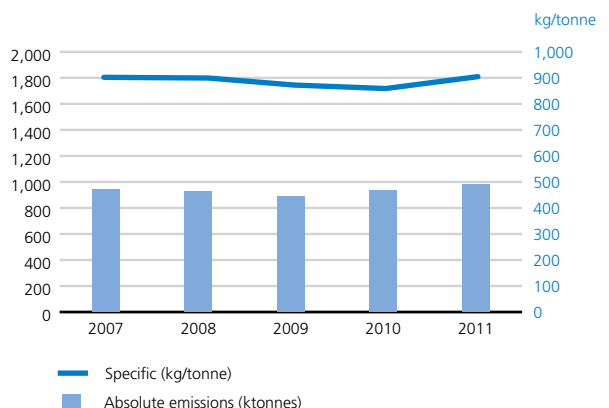
Historic trends in the fossil CO₂ emissions for both Europe and Latin America are shown in the graphs on this page.

To reach the target of 20% reduction of fossil CO₂ emissions relative to production by 2020 there are potential projects identified in two main areas. Firstly, projects that will reduce the need and usage of steam in the paper machines, and secondly those that will bring more efficient use of fossil fuels, mainly by additional investments in CHP capacity. These potential additional investments in CHP installations will decrease CO₂ emissions in Smurfit Kappa and will also contribute to a further shift to biomass usage as fuel.

Direct (Scope 1) CO₂ emissions European mills



Direct (Scope 1) CO₂ emissions Latin American mills



A new biofuel and steam boiler has been in operation in our largest kraftliner mill in Piteå in Sweden since 2007.

CO₂ emission reduction initiatives since 2005

- **Biomass boiler: Piteå in Sweden.** In 2007, a new large biofuel and steam boiler was commissioned in this kraftliner mill. This resulted in a significantly decreased consumption of oil as a fuel, and also in the generation of more biofuel-based electricity on site. Fossil CO₂ emissions decreased by 55% as a result.
- **Biomass boiler: Cellulose du Pin in France.** Towards the end of 2010, a new outsourced biomass boiler came into operation, substantially increasing the co-generation ratio in the mill and also decreasing the use of natural gas. This resulted in a decrease of fossil CO₂ emission in 2011 by 60%.
- **Recovery boiler: Cali in Colombia.** A new black liquor recovery boiler with increased capacity was installed in 2008 replacing two older boilers. This installation resulted in a 13% increased usage of biofuels and a decrease of fossil CO₂ emissions of 7% in the first year of operation.
- **Economisers: Cerro Gordo in Mexico.** In 2006, economisers were installed in two boilers in this paper mill. Part of the heat in the flue gas of these boilers is used to heat up the boiler feed water temperature resulting in an efficiency increase of 5% and a similar saving on natural gas. Also the CO₂ emissions of these boilers show a decrease of 5%.
- **New pulper cleaning concept: Roermond in the Netherlands.** In 2007, three pulpers were replaced by one large pulper while at the same time the pulper cleaning concept was changed. This resulted in less electricity needed to produce one tonne of pulp, which in turn resulted in lower indirect fossil CO₂ emissions of 13%. In the following years similar cleaning concepts were implemented in SSK in the United Kingdom, Wrexen and Herzberg, both in Germany, and Oude Pekela in the Netherlands.
- **Gas turbine: Nieuweschans in the Netherlands.** In 2010 a new gas turbine was installed in this solid board mill. With this installation all electricity which is used at the mill is generated on-site. This resulted in a fossil CO₂ emissions reduction of 13%.
- **Water usage reduction: San Felipe in Venezuela and Barranquilla in Colombia.** These paper mills focussed on the reduction of their water usage. By recovering more process water, less steam is needed to heat up fresh water. This in turn also results in a decrease of fossil CO₂ emissions.
- **100% recovered paper: Barbosa in Colombia.** Since 2007, this paper mill has been producing paper that is 100% based on the use of recovered paper. This resulted in the closure of its virgin pulp installation which decreased the mill's fossil CO₂ emissions by 20%.
- **Cool corrugating: Argentina.** In 2009, both the Coronel Suarez and Sunchales corrugated plants introduced the "cool corrugated" method in their production process. With this method the heat transfer for drying the board is reduced, which makes it possible to reduce the pressure needed in the drying table. This leads to reduced flute waste in the corrugating process and a significant CO₂ emission reduction.
- **Steam boiler: Swisswell in Switzerland.** This corrugated plant refurbished its steam boiler in 2010, which resulted in a reduction of fossil CO₂ emissions of 30%.

Transport

In Europe, we calculated the CO₂ emissions related to the transport of the main raw materials to our mills and converting plants. Transportation of our raw materials and products is mostly outsourced to external parties.

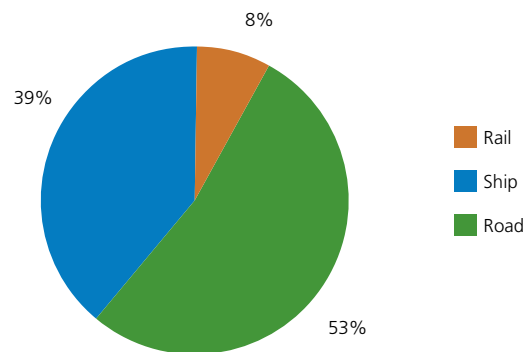
This includes transport of wood, recovered papers and market pulp used in our mills to produce paper and board. The transport of raw materials to the second stage of the supply chain (reels of paper, corrugated board sheets, solid board sheets, plastic films and other items to the converting plants) is also taken into account.

While the calculation of CO₂ emissions for the transport of paper reels between our own mills and the converting plants (representing 70% of total volume) is accurate, 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 external parties.

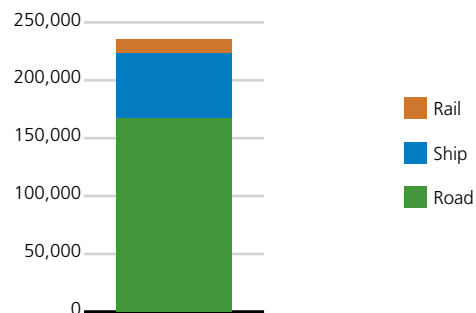
For 2011, CO₂ equivalents for transport of raw materials amounted to 236 kTonnes. The breakdown by mode of transport is shown in the graphs on the right. The CO₂ emission factors by transport mode are extracted from the European Reference Life Cycle Database version II (ELCD). Transportation for the above activities represents 6.4 billion tonne-kilometres and the pie-chart displays the split by type of transport. 53% of our transport needs are carried out by road, 39% by sea with the balance carried out by train.

We have not been able to do a similar exercise for Latin America due to the structure of our supplier base. We have yet to establish the parameters of the journeys to and from our paper mills.

Distribution of transport of raw materials by mode of transport 2011
European operations



CO₂ emissions for transport of raw materials 2011
European operations



Spain – Increasing biomass capacity boiler house

Early in 2011, the investment to rebuild the current biomass boiler of our paper mill in Navarra in Spain, from a grate fired boiler to a bubbled fluidised bed boiler was approved. With this modification, it is possible to produce 100% of steam capacity through the use of biomass. This is an increase from today's situation where only half of the steam capacity can be produced using biomass. The rebuild will take place towards the end of 2012 and should result in an increase in the use of biomass and consequently a decrease of approximately 35% in fossil CO₂ emissions by the mill.

36

SMURFIT KAPPA SUSTAINABLE DEVELOPMENT 2011



Aerial view of the Smurfit Kappa Navarra plant in Spain.

Colombia – Investing in a gas fired CHP

To guarantee 100% availability of power at our paper mill in Barranquilla in Colombia, sufficient electricity needs to be produced on site. To meet this requirement, two relatively small gas turbines for electricity production were installed several years ago. Necessary steam was produced through a separate gas fired steam boiler. To optimise the energy situation on site, we have replaced the existing gas turbines and separate steam boiler by a new CHP installation consisting of one large turbine which is connected to a waste heat recovery boiler to produce the needed steam. This investment became operational in May 2012 and will result, through the more efficient production of both electricity and steam, in a lower consumption of natural gas and consequently an annual reduction of some 20% of the mill's direct fossil CO₂ emissions.



To optimise the energy situation at the Smurfit Kappa Barranquilla mill in Colombia, a new CHP installation has been installed.



The pulper at the SSK mill in the United Kingdom.

The Netherlands – Green results with Blue Print Process

Our European Research and Development Centre in the Netherlands developed the concept of Blue Print Process for recycled paper stock preparation. The technology is based on optimisation and simplification to reach the lowest consumption of energy and the highest fibre yield to improve environmental performance.

Testliner, fluting and board are produced with recovered paper. Recovered paper enters the paper mill and is processed in the stock preparation plant to produce a clean stock that is fed to the paper machine to produce paper. In the stock preparation plant, equipment is installed to handle, slush, screen and clean the stock.

Blue Print has successfully been implemented in four of the Smurfit Kappa recycled paper mills in 2011. SSK, in the UK, realised energy savings of 1,400 MWh/year. Townsend Hook, in the UK, cut pulping electricity consumption by 40% and improved pulp cleanliness. Herzberger, in Germany, simplified their system to reduce energy use by 4,000 MWh/year and Oude Pekela, in the Netherlands, shortened the production line to save 2,700 MWh/year.

37


SMURFIT KAPPA SUSTAINABLE DEVELOPMENT 2011

France – The bio-masterminds of SKCDP

Smurfit Kappa Comptoir du Pin (SKCDP) in France proves that sustainability and creativity go hand in hand. The company procures wood pulp and wood biomass, but the market for this renewable energy source is becoming increasingly competitive.

In response, SKCDP has developed a new procurement strategy focussing on tree stumps as a new untapped resource. The benefits are numerous. It generates additional income for forest owners, creates new jobs, decreases reforestation and forest care costs by 15%, improves productivity on the cleaned soil and procures wood at competitive costs. Furthermore it benefits forest growing conditions.

To harvest the stumps, SKCDP developed special harvesting and crushing techniques that comply with forest management schemes and the requirements of the biomass boiler at our Cellulose du Pin kraftliner mill. The biomass boiler at the mill is fed with wood chips from the stumps. It is an efficient use of a new energy source and this innovation meets the objective of Smurfit Kappa to switch from fossil fuel to renewable energy where possible.



Extraction of stumps with a vibratory device.



Floresmiro Lugo and Rosa Amalia Medina
(Claridad Water Board in Colombia)

Engagement with Stakeholders

Preserve natural forests and improve water quality

Floresmiro Lugo and Rosa Amalia Medina, President and Secretary Claridad Water Board in the Cauca region of Colombia

For the past ten years, Smurfit Kappa in Colombia has made a difference for many people living in the southern mountainous region of Colombia. Smurfit Kappa introduced eucalyptus plantations that are of crucial importance for the regulation and good quality of community water.

Smurfit Kappa is the largest paper and packaging producer in Colombia. Rosa Amalia Medina, Secretary of the Board that manages the water project in Claridad, is pleased with the support from Smurfit Kappa. "Since 2003, 58 families use water from the La Mina creek. Smurfit Kappa has invested in eucalyptus plantations that have helped us preserve natural forests, protect the soil from erosion and put an end to water contamination from cow droppings by changing the soil use from cattle growing to forests."

Floresmiro Lugo, President of the same Board, states: "The forestry plantations are very helpful to our community. The environmental pressure on the natural forests has diminished, since we no longer take wood for our families from the forest. We now obtain what we need from what is left after the plantations have been harvested. With regard to water preservation, we have observed that the creek's flow has stabilised, even during harsh summers, providing our families with plenty of good quality water".

3. Water Management

Water is a vital element in our manufacturing process. As fresh water availability is a growing global concern, we strive to limit water intake where we can, even though the vast majority of our production locations are located in areas with no foreseen water scarcity. We are also committed to return the water used in our processes as clean as possible to the public water body. Over 90% of the water used is actually returned to the water body in good condition and of the water not returned, most of it evaporates and returns at a later stage as precipitation into the global (fresh) water systems.

Underpinning our commitment, we invest in the best available techniques to treat the water before returning it to the water source. Since 2005, Smurfit Kappa has made considerable efforts and sizeable investments in upgrading its water treatment facilities. One of our largest paper mills, Zülpich in Germany, is operating a 100% closed loop process water system.

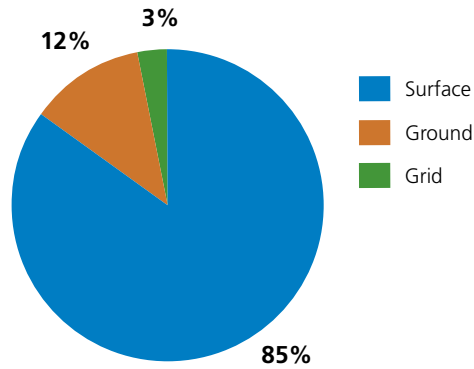
Water performance in 2011

In 2011, our global paper and board mill system decreased its water intake relative to production by 2% compared to 2010. This improvement follows on from a substantial drop in water intake by more than 10% in 2010 compared to 2009. Both our operations in Europe and Latin America contributed equally to these performance improvements.

Following investments of over €29 million in water treatment facilities since 2005, the quality of water discharge of our global paper & board mill system has improved on a relative basis by 21%. In 2011 however, our performance deteriorated by 6% compared to in 2010. This deterioration arose primarily because of increased virgin pulp production at the San Felipe mill in Venezuela, and temporary operational issues with the water treatment plants at two of our French mills.

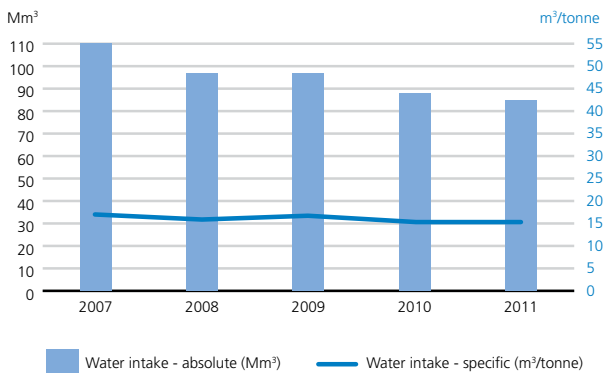
Water sources 2011

European and Latin American operations



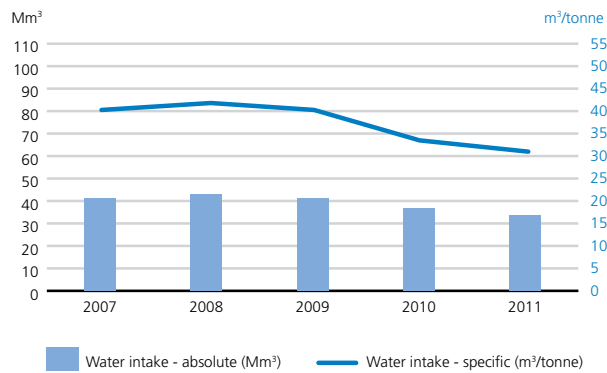
Water intake

European paper mills



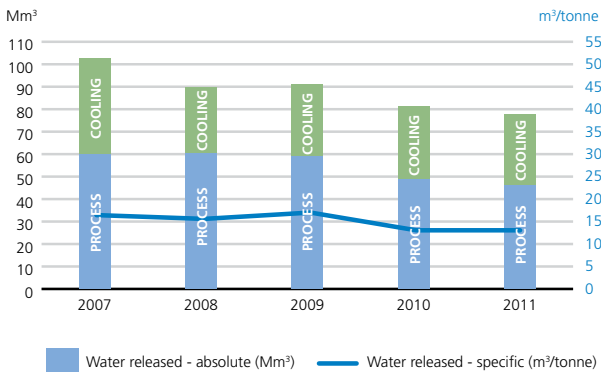
Water intake

Latin American paper mills



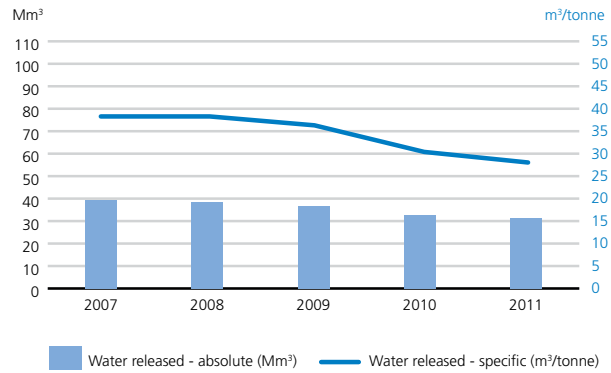
Water released

European paper mills



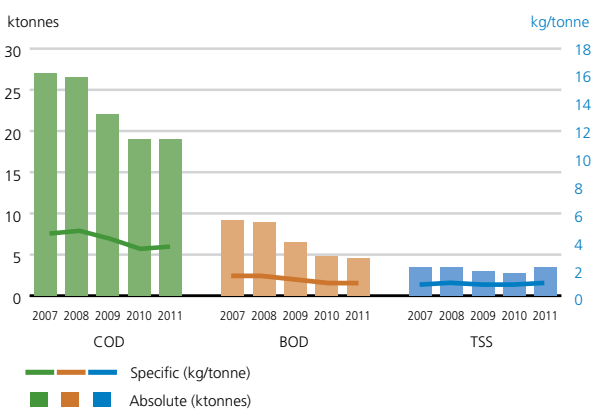
Water released

Latin American paper mills



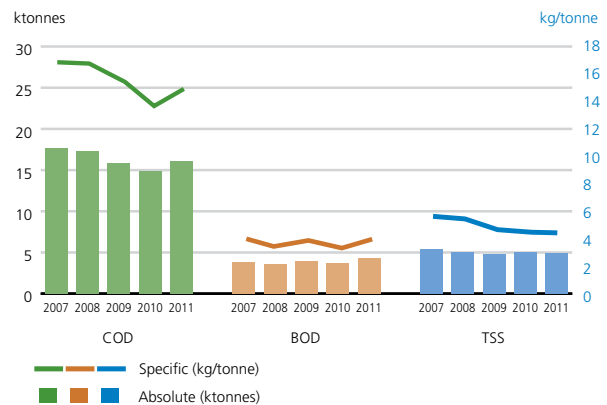
Process water discharges

European paper mills: COD, BOD, TSS



Process water discharges

Latin American paper mills: COD, BOD, TSS



Although the so-called eutrophication indicators (nitrogen and phosphorus) remained stable in 2011 compared to 2010, the organic load discharged, together with the process water, increased by 6% relative to production from 2010 to 2011. The paper mill in San Felipe in Venezuela was able to almost double its production of virgin pulp in 2011 compared to 2010. As the process of producing virgin pulp relative to the production of recovered fibre pulp requires more water and also impacts the water more, the organic load discharged, measured by COD and BOD, was significantly higher in 2011 than in 2010. The higher discharge caused by this change explains almost 3% of the total year-on-year increase of 6%.

The remainder of the year-on-year increase is largely explained by the less than satisfactory functioning of the water treatment plants in our Cellulose du Pin and Saillat paper mills in France. In Saillat increased production and a policy of reduced water intake led to an unforeseen mineralisation of the anaerobic bacteria's mass. As a consequence, this mass had to be fully replaced which then caused a lower efficiency of the water treatment facility for a period of 3 – 6 months. In Cellulose du Pin, a variety of reasons caused the water treatment plant to operate with lower efficiency than needed. All issues causing this lower efficiency have since been rectified.

The water discharge performance in Navarra in Spain, where the newly built water treatment plant was operational for the full year, showed an improvement of over 70% compared to 2010.

There were no significant spills during 2011. However, there were two minor incidents which resulted in minimal leakage to water courses. One incident occurred in Hoogkerk (a solid board mill in the Netherlands) where the process water tank overflowed and part of the process water was accidentally discharged to a small ditch. The other incident was in our paper mill in Ania in Italy, where there was a small leakage of sludge (mainly fibres) from the water treatment plant to a local river for approximately three hours.

In both cases, the mills reported the incidents promptly to the relevant local authorities.

Investing in higher quality water discharge

Last year an investment of over \$3 million was made in a new water treatment facility in our Bernal paper mill in Argentina. The project was completed as planned and became fully operational in early 2012 (see page 41).

In the course of 2012, we intend to invest in an extension of the water treatment facilities in our paper mill in Ania in Italy. The current installation will be extended with an anaerobic reactor.

In 2012, we will also invest in a new anaerobic reactor in our paper mill in Zülpich in Germany. Although this investment will have no impact on our overall water discharge performance (as the mill is operating a closed loop system for process water), it will allow the mill to decrease the usage of chemicals.

Water data

The treatment of the process water used in the mills is either carried out on-site, as is the case of the majority of our mills, or is sub-contracted to an external third party. For the latter, in all disclosures relating to the process water content (COD, BOD, TSS), we report levels in the water discharged by the mills prior to this external treatment.

To provide a correct overview of the Group performance for all water indicators, BOD discharged had to be estimated for two mills (Nerviön and Nettingsdorfer) by using their COD discharges in combination with the ratio COD/BOD we measure in equivalent mills. In these mills the process water treatment is performed by third party companies that do not measure BOD separately.

Water related data is reported for all our operations (including details for individual mills in Europe and Latin America) in the tables on pages 72 and 73 and pages 74 to 79.



A view of the Smurfit Kappa Bernal mill in Argentina.

A view of the Smurfit Kappa Cerro Gordo mill water treatment plant in Mexico.



Argentina – New water treatment plant at the Bernal paper mill

During 2011 the installation of a new water treatment plant has taken place in our paper mill in Bernal, Argentina. Commissioning of the new equipment took place in April 2012 and the site can now perform water treatment in various stages

Primary treatment is done through a dissolved air flotation unit (DAF) removing fibres from water coming from the paper machine. Biological treatment takes place in an anaerobic reactor, followed then by an aerobic biological reactor. The microbiological processes within the anaerobic reactor break down much of the organic loading and produce biogas, which we intend to use as an energy source at the mill. To finalise the biological treatment of the water it is led into activated sludge basins. The final physical treatment of the effluent, aiming to decrease suspended solids prior to water reuse or discharge, takes place in a clarification tank where suspended solids are removed from the aerobically treated water.

With the new equipment, the Bernal plant will be able to significantly reduce its discharge loadings to the water system.

Mexico – Teamwork improves Cerro Gordo mill water treatment plant

The Cerro Gordo mill water treatment plant (WTP) has significantly improved its performance and treated water quality in 2011.

Since its start-up in 1994, the WTP attained good treatment levels to comply with federal regulations. However, the plant experienced periodic instabilities due to filamentous bacteria and recurring attacks of *Nocardia*, a very aggressive organism, which caused high levels of total suspended solids and forced complete evacuation of the microbiological sludge.

Initially, a programme using nutrients and enzymes was implemented to mitigate the instabilities. Then, the causes of the predominance of filamentous bacteria were identified. These causes were addressed through modifications of the primary treatment, adjustment of operational parameters and a new nutrient for better metabolism. Since January 2011, the nutrient is used on a regular basis. It rapidly promoted the growth of higher-order micro-organisms and increased treatment efficiency. COD reduction efficiency increased to 90% and the annual cost of nutrients has been reduced by 69% since 2008.

Employees at the Smurfit Kappa Roermond paper mill in the Netherlands

Left to right: Henk Oitmann, Harry Noldus, Frans Jetten, Antoine Krutzen, Peter Verhagen, Jan van Halbeek.

42

SMURFIT KAPPA SUSTAINABLE DEVELOPMENT 2011

PERFORMANCE DRIVEN BY PEOPLE

SOCIAL DEVELOPMENT

When it comes to people we aim to be socially conscious and pro-active on social issues with a primary focus on the safety, well-being and development of our employees. Safeguarding human and other elementary rights that govern labour relations with our employees also form a key element of our social responsibility.

Involvement in local communities where our operations have the privilege to operate is another key priority for us, as we are often seen as an important partner in the local society and economy.

1. Health and Safety

Smurfit Kappa's Health and Safety Policy, designed in accordance with the OHSAS (ISO) 18001 Health and Safety Management System, contains a Declaration of Intent which commits the organisation to conduct its business in a responsible manner, taking care of the health, safety and welfare of everyone affected by its activities. The well-being of our people is one of our key concerns.

Key elements in ensuring that this commitment has become and remains a day-to-day focus include:

- Having Health and Safety as an important agenda item on all relevant, management and employee meetings.
- Having Health and Safety as a key element by which all managers are measured.
- Benchmarking of internal Health and Safety performance through monthly measurements.
- Seeking improvements in our current working practices in order to reduce risk and help to protect employees, visitors, contractors and the public from injury and ill-health by continuously assessing our processes.
- Taking all practical steps to develop and maintain an appropriate safety culture throughout Smurfit Kappa. This includes:

- Circulating reports of all significant accidents to every manufacturing plant General Manager and onward to our employees. In this way, experiences are shared in order to help the prevention of similar accidents elsewhere in Smurfit Kappa.
- Conducting cross audits in Health and Safety using our own in-house Health and Safety coordinators.
- Providing Health and Safety briefings and training sessions to all new employees.
- Constantly reinforcing to all employees the Company's expectation, that in the course of their work, each and every employee will follow all safety policies, use all relevant safety systems and continually seek out ways to improve processes to ensure the Health and Safety of all.

For more information, see the Health and Safety Policy Statement.

Recent Group-wide initiatives include:

- Increased emphasis on risk analysis and hazard identification across our plant structure resulting in:
 - The installation of safety devices such as mobile hand rails, walkways and the protection of windows to reduce risk and increase security for those undertaking maintenance activities on roofs. Begun in 2010, this work continued during 2011 and it is our intention to have these fitted on all of our plant roofs in due course.
 - The requirement that in all our European recycling facilities, all employees now carry (attached to a belt or worn on the wrist) a Radio Frequency Identification Device (RFID). The device is linked to the conveyor control units so that, in the event of unexpected access or someone falling unconscious onto a conveyor, the conveyor itself – and all other equipment being used in conjunction with it at the time – is automatically stopped.

- Restricting the access to stores/warehouses when forklift trucks are in use, together with ensuring that all new forklift trucks carry speed governors/speed limiters and other devices to reduce the risk to both the drivers themselves and to pedestrians.
- Increased emphasis on the separation of pedestrian pathways and fork-lift truck aisles.
- The introduction of Group-wide standards in respect of safety-related painting and signage design & display.
- The introduction of a simulator to facilitate the training of maintenance personnel in the application of their skills when dealing with high-pressure pumps.
- The introduction of the first Biennial Safety Opinion Survey in 2010, both in Europe and Latin America, aimed at collecting our own employees' opinions on their perception of safety inside their department and/or plant. This enabled us to identify opportunities to further improve the efficiency of our safety management. We are conducting another safety Opinion Survey in the first half of 2012 to both assess progress made in the intervening period and to identify areas for further improvement.
- Increased focus by the European Corrugated Division on a standardised or common approach to risk analysis in its plants.
- The introduction of a "STOP / THINK / GO" approach to last minute risk analysis by the European Paper Division.
- An increasing emphasis on the reporting of "near misses" in order to ensure that each and every plant and its employees remain vigilant and conscious of any indications of what could become serious accidents.

In addition to these Group-wide and Regional initiatives, individual plants have introduced their own Health and Safety initiatives during 2011. Examples of these initiatives are the following:

- Smurfit Kappa Corrugated France has introduced a "Safety Pass" for employees and sub-contractors.
- The development by Smurfit Kappa Corrugated Italy of a set of posters (linked to sporting activities) highlighting some basic safety rules and attitudes.

In addition, employees are being encouraged to become more conscious of the importance of their personal Health and Safety in a wider context and to develop awareness of risks not only during working hours and in commuting to and from the workplace but also in their homes and non-work related social/sporting activities.

In this regard, Smurfit Kappa has supported a number of initiatives across Europe and Latin America focussing on increasing awareness and stimulating appropriate behaviour with regard to safety.

Several campaigns have been launched both in Europe and in our Latin American facilities to promote a healthy life style and the benefit of health checks.

Although the safety of people on our premises is our top priority, it is with great regret and sorrow that we have to report a total of three fatalities in Smurfit Kappa during 2011, two involving employees in Latin America and one in Europe. Any loss of life in the operations is very regrettable, especially given the time and effort that we devote to promoting Health and Safety.

During 2011, 44% of our European facilities remained free of any lost-time accidents and some 20% of these facilities succeeded in keeping a zero lost-time accident record over the last three years.

As the operations of the former European Specialities Division have been integrated into the Paper and Corrugated Divisions, Health and Safety data will be consolidated and reported under the headings of those two divisions.

Overall, safety performance improved slightly in 2011 compared with 2010.



From left to right: Rafael Arrieche (Smurfit Kappa Venezuela) Fermín Marín (Mayor of Simon Planas County - Lara State) Alberto Ramirez (Smurfit Kappa Venezuela), Yendi Molero and Edgardo Hernandez (Mayor's Office of Simon Planas County - Lara State).

Engagement with Stakeholders

Hand in hand with the Venezuelan community

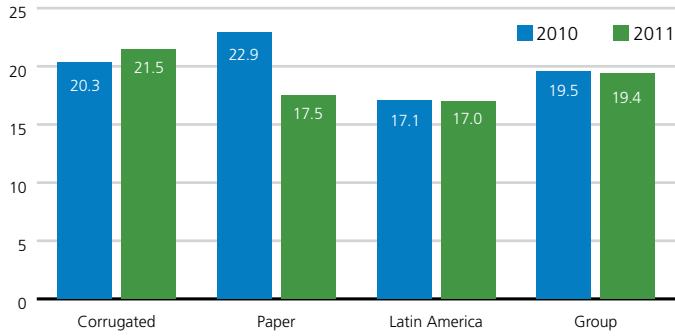
Fermín Marín, Mayor of Simon Planas County in Lara State, Venezuela

Three years ago, Smurfit Kappa in Venezuela initiated an extensive social responsibility programme called "Hand in hand with the Community". So far, this flagship programme has provided healthcare to almost 170,000 residents of the most depressed rural areas in the vicinity of the production plants by the end of 2011.

Women, children and the elderly are looked after in a very special way by dozens of doctors and nurses and hundreds of Smurfit Kappa volunteers. Together they make up 63 Health Brigades that have handed out at the end of 2011 almost 770,000 units of medication, of which almost 440,000 were dispensed in 2011. The programme has a great social impact and strengthens the ties Smurfit Kappa has with its workers and neighbouring communities.

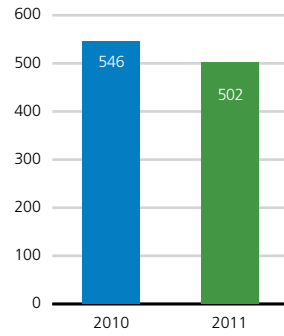
Fermín Marín, Mayor of Simon Planas County in Lara State, Venezuela can testify to that. "It is gratifying to observe how Smurfit Kappa, its management, employees and resources, integrate in order to provide free medical care to humble and remote rural communities in our state, thereby improving the health and quality of life in our municipality. We consider Smurfit Kappa our great ally in favour of social and community development. We work together so that their programmes achieve continuity and benefit more people."

Severity Rate: Full Year 2010 vs 2011

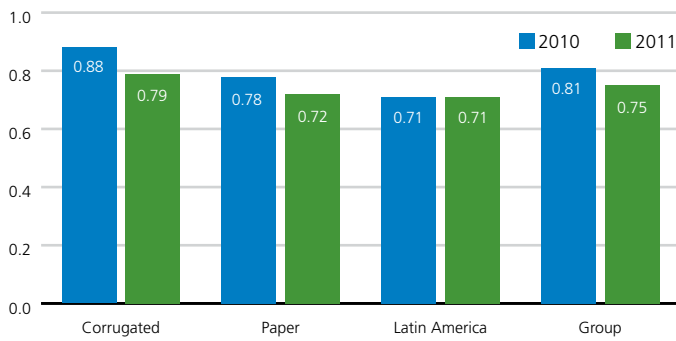


Severity rate: Number of days lost x 100,000/Number of hours worked

Number of Accidents: Full Year 2010 vs 2011

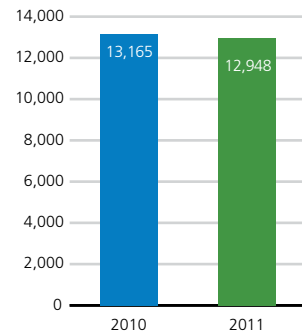


Frequency Rate: Full Year 2010 vs 2011

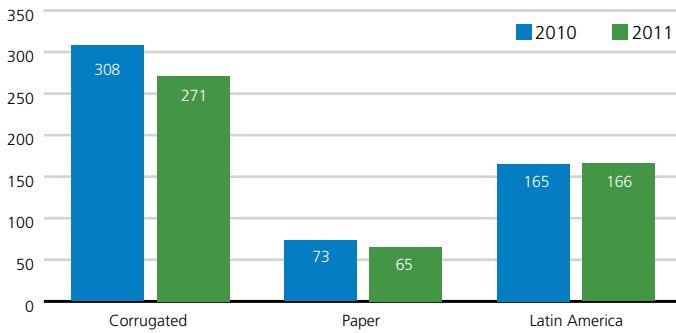


Frequency rate: Number of accidents x 100,000/Number of hours worked

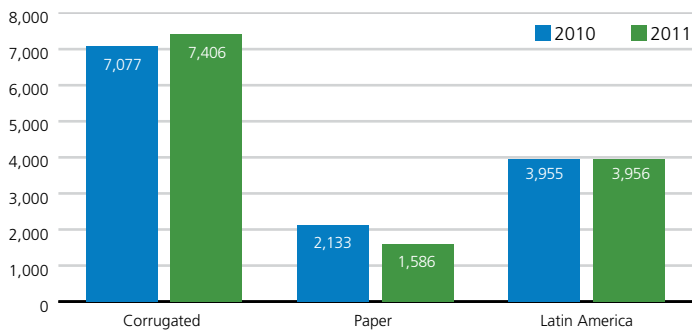
Number of Days Lost: Full Year 2010 vs 2011



Number of Accidents: Full Year 2010 vs 2011



Days Lost Due to Accidents: Full Year 2010 vs 2011





Venezuela – One second before

In Venezuela, a training concept named “one second before” has been implemented and a new version is being developed in order to make people aware of all the risks at work as well as in day to day life at home and in the street (including robberies and kidnapping, earthquake and fire).

Europe – Safety Day

Smurfit Kappa organised a safety day in April 2012 to encourage the promotion of health & safety throughout all its European facilities.

A video address from our Group President & COO, Tony Smurfit, was prepared in the 16 languages spoken throughout the Company. This was then shown to employees as a means of launching this major initiative, the theme of which was personal involvement and responsibility with an emphasis on the concept of “stop/think/go” before acting.

Countries and plants organised a series of local activities and workshops to promote health and safety at work. In many locations, these activities focused not only on the workplace, but also on the home by involving employees’ families and children. The activities ranged from technical workshops and training for employees to drawing competitions for children as well as health tests for family members.



Gary McGann, Group CEO, visited Smurfit Kappa Dublin during the week of Safety and Health at Work.



Smurfit Kappa Roermond Papier produced a DVD for all employees including Tony Smurfit’s message and some other videos about good safety practices.



France – Safety Pass

Corrugated France has developed an internet-based induction training programme about the safety rules that employees of sub-contracted companies must know before entering the plants. When the training has been successfully completed the person prints a “safety pass” that has to be shown on arrival at the site. This safety pass is valid for one year.

Sylvain Delafait (left) handing over the Safety Pass to Nicolas Marmignon (both Smurfit Kappa France).

2. Social Citizenship

Guiding principles

We are committed to managing relationships with fellow employees, business partners and host communities in a socially responsible manner.

We comply with the principles expressed in the United Nations Declaration of Human Rights and the fundamental Principles and Rights at Work developed by the International Labour Organisation in all of the countries in which we have a presence.

In keeping with this Declaration and these Principles:

- We prohibit discrimination on the grounds of race, colour, sex, sexual orientation, age, religion, national origin, disability or other legally protected status in the countries in which Smurfit Kappa conducts business. No issues of discrimination in any of these categories were identified in 2011.
- We support freedom of association. Our employees have the right to become (and remain) a member of a Trade Union, have their representatives negotiate and bargain on their behalf and assist them in grievance and disciplinary matters.

The Collective Agreements currently applying in some 90% of the Group's sites are the result of either local and/or national negotiations in the countries concerned in both Europe and Latin America.

We are not aware of either the association or bargaining rights of any individual or group(s) of employees being denied to them during the course of 2011.

- 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 2011.

- We treat employees humanely. We do not approve of or tolerate forced labour or physical abuse. We do not tolerate any other form of abusive behaviour, 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 2011.
- We compensate fairly and review wage and salary levels at regular intervals. We ensure that pay rates in each country in which we operate match or exceed the minimum standard set by its government or legislature.

In the context of the above, we select, and promote people, solely on the basis of suitability for the position in question.

Employee demographics and turnover

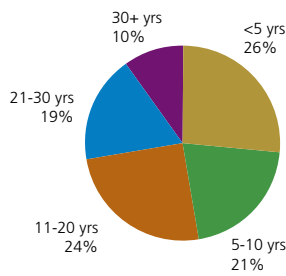
At the end of 2011, Smurfit Kappa had some 38,000 employees. This figure includes both our own employees as well as contracted labour. As can be seen in the graph on page 49, some 44% are under 40 years of age, with almost a third of the total between the age of 41 and 50 years.

Some 70% of our workforce is directly involved in production and manufacturing activities with the balance involved in indirect (26%) or management activities (4%). Only 5% of our employees are engaged under a temporary contract.

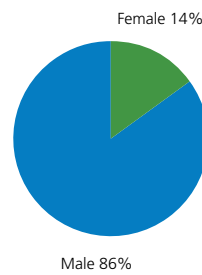
As shown in the graph, more than 50% of this total number has been with the Group for over 10 years.

Of the total number employed, almost 85% were in Germany, France, Mexico, Venezuela, United Kingdom, Netherlands, Colombia, Spain, Italy and Sweden – with the remaining 15% distributed between the other 20 countries in which Smurfit Kappa has a production and /or a sales & marketing presence. This distribution generally is in line with Smurfit Kappa's distribution of activities.

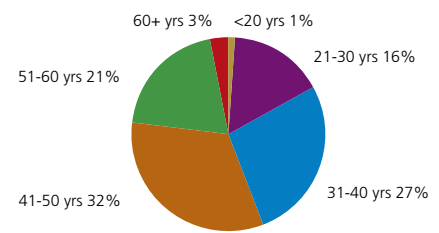
Length of Service Total Employees 2011



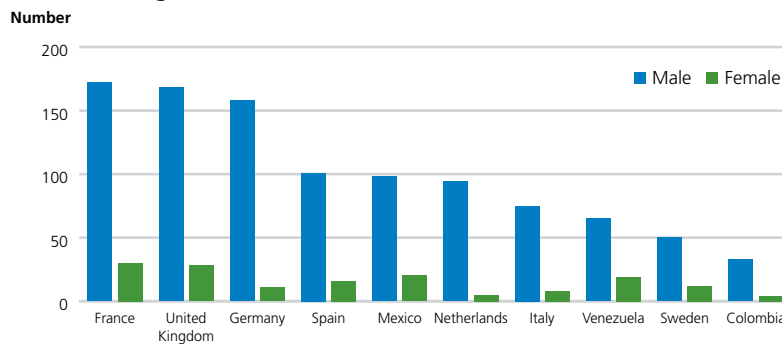
Management Gender 2011



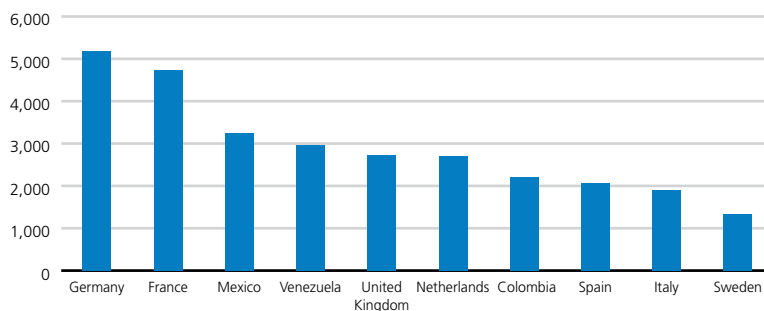
Total Employees by Age 2011



Management Gender 2011



Top 10 Countries Headcount 2011



During 2011, some 17 nationalities were represented at the most senior levels in the organisation. Although we have a policy of selecting the best person available for any 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). 14% of our management is female and 86% is male, reflecting the overall female/male employee distribution throughout Smurfit Kappa.

Smurfit Kappa's policy is to increase the level of participation of women in management roles in the company. In that context we are reviewing the areas and roles where the retention level and further advancement of women has the greatest potential for success.

In general, the composition of the Smurfit Kappa's workforce typically reflects local ethnic diversity, thereby enhancing the bond with local communities.

Overall employee turnover in Smurfit Kappa is considered relatively low at 4.4%. More than half of those who left during 2011 did so as a result of retirement and the pursuit of other careers/interests. Otherwise, employees left the organisation mainly as a result of operational changes in response to market and competitive circumstances. In a number of cases we were able to transfer employees to other nearby Smurfit Kappa locations.

Employee training and development

Our talented team of professionals is the driving force of our business and Smurfit Kappa is committed to the training and development of each and every employee where necessary in order to further raise the standards of business performance. This is reflected in terms of good practice, skill transfer, Health and Safety compliance, and ensuring that the Group's business ethics and standards are fully understood by one and all and reflected in their day-to-day conduct.

The aim is to have:

- better performance
- higher commitment
- improved levels of teamwork
- a learning organisation and
- a meritocratic organisation.

In 2011, the average number of training hours (including the entire range of learning and development initiatives) was 20 hours per employee.

The total direct expenditure on training and development during the year amounted to approximately €2 million, with further significant indirect costs.

During 2011, there were numerous training and development activities, both centrally and locally.

The Advanced Management Development (AMD) Programme is an example of a development activity which has evolved over more than a decade. Aimed primarily at individuals with clearly identified potential to grow within the business, the Programme provides participants with an opportunity to acquire a better understanding of “who we are” across business units, geographical boundaries and cultures while simultaneously engaging with senior executives. During 2011, the Programme catered for 24 participants, bringing to over 240 the total number of participants involved since its inception.

In addition to this programme, the working relationship with two leading European Business Schools (London Business School and INSEAD) has been further strengthened, providing increased opportunities for our senior executives to continue their learning and development.

Another centrally organised programme - and one which has gained considerable momentum since it was restructured in 2007 - is the English Immersion Programme. Now an established event in our training and development calendar, it is fully

integrated with local language activities, be it e-learning or classroom-based learning. This customised programme brings together individuals from various functions to boost their confidence in using business English in their day to day work. During 2011, a further 74 participants benefitted from this programme.

A company-wide e-learning tool, in several languages and linked to our operating standards, was introduced during 2011. Designed to further educate and develop our employees. It supports activities on the shop floor by ensuring that they better understand our processes.

During 2011, use was made in our European countries of a “360 Degree Feedback” framework and professional external coaching support to provide the senior executives concerned with a greater knowledge of their strengths and highlight areas of possible improvement.

In Germany, the well-established Sales Training Modules continue to build upon the success achieved in delivering enhanced skills in respect of price negotiations and account management. A total of over 500 employees have benefited from these modules that have now been running for over 10 years, including the entire sales force in Germany.

The Junior Management Team Programme at the Nettingsdorfer paper mill in Austria provides an environment for junior managers to explore new approaches. During the course of 2011, participants focused on change management.

Graduates

The Graduate Management Development Programme continues to provide opportunities to trainees joining Smurfit Kappa on completing their university programmes to kick-start their careers. Many who have joined the company as graduate trainees have successfully progressed their career within the company.

We have seen the great contribution that graduates/ students can make to our business, adding value and maximising their potential, while helping us to build for the future.

Retired employees

Our retirees have a special relationship with Smurfit Kappa which is grateful for their contribution to its growth and success over many years. Today there are over 12,000 pensioners from Smurfit Kappa and there are a variety of different associations in different countries that manage a host of social activities which greatly help to maintain the bonds the pensioners enjoyed as working colleagues.

Whilst most of the activities are managed by the pensioner associations themselves, there is also ongoing Group support.

Internal communication

We value regular, timely and efficient communication with our employees and their representatives, conducted in an open and constructive manner, to exchange views on all matters affecting our business. Topics include Health and Safety, working conditions, terms and conditions of employment, the performance of the business, the business outlook, investment decisions and acquisitions and disposals.

We are committed to providing our employees with regular updates on the overall performance of Smurfit Kappa and the individual business units, and on any issues that may potentially have an impact on them. In doing so, we make use of appropriate media which include departmental and function meetings, site general briefings and management/ employee representative meetings at local, national and regional levels. The internet and Smurfit Kappa's internal intranet are also used extensively.

In addition, there is an extensive network of local employee newsletters and we also publish a high-profile customer magazine "People and Packaging" which is translated into several languages.

European Works Council

Smurfit Kappa recognises the right of employees to freely associate and all Smurfit Kappa employees are free to join trades unions. In many countries, Smurfit Kappa conducts formal employee consultation processes with the local Works Councils.

By far the largest representative group in Smurfit Kappa Europe is the European Works Council (EWC), which represents about 80% of our employees from the 21 countries in Europe where we have operations.

During 2011, the Agreement governing the operation of the EWC was renegotiated and will remain in place for four more years until 2015.

The EWC consists of 30 members, representing all employees. The procedure for the nomination and selection/election of its members is in accordance with national regulations and practice in each of the countries involved. Although it is not a negotiating forum, it does complement existing local and national structures where information dissemination and consultation occurs.

Typically, the topics covered at such meetings include:

- The Group's financial status.
- Prospective developments.
- Relocation, production curtailments or business closures in any country where there are transnational implications.
- Environmental protection.
- Employment opportunities.
- Health and Safety.

The Council meets twice a year. Experts, who may be full-time trade union officials, are allowed to attend a pre-EWC meeting at the request of the EWC members.

When queries arise from our employees and/or their representatives or meetings are requested, our policy is to respond in a timely manner.



Members of Smurfit Kappa's European Works Council gather with union representatives and members of Smurfit Kappa's management at the signing of the renewed EWC agreement. The agreement was signed by EWC member Eddy de Jongh (seated left) and German Esguerra, Group VP Human Resources (seated right).

Engagement with Stakeholders

New agreement takes EWC to the next level

Smurfit Kappa has a long tradition when it comes to employee participation. A key part of this is the European Works Council (EWC), which was created to assist in the development of an open, two-way communication process with all employees. Recently Smurfit Kappa renewed the EWC agreement, confirming the important role it attaches to a true dialogue between management and the European Works Council.

Long-time EWC member Eddy de Jongh from Belgium is pleased with the new agreement. "Besides elements required by the European directive, Smurfit Kappa has chosen to expand our consultation rights. Smurfit Kappa commits itself to provide us with more information regarding restructuring. Furthermore, the EWC will strive to have a fair gender representation in the council and it will try to include representatives from all the countries where Smurfit Kappa is active."

"In addition we can consult external experts and are closely involved in Health & Safety issues. As a result, the role of our EWC members will become more proactive. Our members are very aware that they represent Smurfit Kappa as a whole and not just their own location or country. It is a great challenge to combine the insights of people from so many different cultures for the benefit of the company and all the people that make Smurfit Kappa such a great multinational."

When a decision is taken to introduce change, employee consultation takes place promptly. During the course of such discussions, the impact of the proposed changes, together with the implementation plans, are discussed with employees and their representatives.

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 (including pension) and early retirement where appropriate.

Investment and procurement practices

Mindful of our commitment to the UN's Declaration on Human Rights, 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 issues arising as a result, the acquisition process will be reviewed, as to the appropriateness of continuing with it.

There were two acquisitions during the course of 2011 and no such issues arose.

Smurfit Kappa is committed to the principles reflected in both its Code of Business Conduct and its Sustainable Sourcing Policy Statement in all of its dealings with its suppliers and contractors.

In keeping with the Sustainable Sourcing Policy Statement, Smurfit Kappa aims to work with suppliers who share its declared values of good social citizenship in particular in such areas as compliance with the relevant regulations, the provision of healthy and safe work environments and demonstrable adherence to human rights in all its aspects.

Of equal significance to Smurfit Kappa is the commitment of these same suppliers and contractors to similar socially responsible behaviour in the conduct of their own businesses.

Strategic suppliers are being encouraged to join the UN Global Compact initiative. They are also being encouraged to disclose relevant data in this regard, either directly to Smurfit Kappa or through a recognised organisation.

During 2010, we developed a robust questionnaire to facilitate the auditing of key suppliers in respect of a number of indicators such as human rights.

In Europe, approximately 30% of our significant suppliers have so far been audited, including screening for human rights.

Smurfit Kappa's Sustainable Sourcing Policy and Social Citizenship Policy Statements, together with the Code of Business Conduct, can be downloaded from the Smurfit Kappa website.

Group awards

In 2011, as in previous years, there were recognition awards at divisional level for the Best Plant of the Year and the Innovation of the Year. At both regional and divisional levels, there were also awards in the area of Safety, recognising not only the Best Overall Performance but also the Most Improved Performance.

In early 2011, a decision was taken to add a sustainability award to the existing award schemes. This reflects the importance to Smurfit Kappa of excellence in the different areas of sustainability. With this competition, Smurfit Kappa wants to show its commitment to environmental improvement, social and Health and Safety activities and community involvement both internally and externally. The competition also provides an excellent way to communicate and share activities and successes in sustainability within Smurfit Kappa.

Group, regional and divisional awards serve several purposes. The core objective is to recognise, reward and encourage 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 and this helps in sharing the objectives of the organisation, creating an aspirational climate and enforcing its priorities.

3. Our Involvement in the Community

We seek to serve and contribute to the communities of our host countries by providing products and services efficiently and profitably and by offering good employment opportunities and conditions.

In the course of our business transactions, we also take into account the concerns of the wider community, including international, national and local interests. Each plant manager is expected to represent the company as part of the local community and play a positive part in its development.

It falls to each plant manager to maintain an active dialogue with the communities living in close proximity to his/her facility, respond in the first instance to any complaints or issues of concern and initiate appropriate remedial action where necessary and possible.



Smurfit Kappa Latin America participants in the BET programme.

Latin America – Business Economics Training

In 2011, Smurfit Kappa rolled out a programme named BET in Latin America. BET is an acronym for Business Economics Training. This is one of the initiatives driven across continents and business units, fostering best practices within the organisation.

It mirrors a suite of various training modules Smurfit Kappa successfully employs throughout Europe. In 2011 the training programme was rolled out in Mexico, followed by Colombia and Venezuela in early 2012.



Left to right: Hein Cüppers, Ron Sniekers and Danny Geraedts (all Smurfit Kappa Roermond) working with the multimedia modules.

The Netherlands – Multimedia modules for learning best practices

The project Life Long Learning secures existing knowledge and experience of employees and makes sure it is passed on to new generations. Our paper mill in Roermond in the Netherlands started this project in 2005 and has recently added tailor made multimedia modules to the programme.

The multimedia modules were developed in close cooperation with VAPA, the training institute for the Dutch paper industry, and adapted to the specific requirements of Smurfit Kappa Roermond Papier. Their training programme is interactive, standardised, has a strong visual look and feel, and can be adjusted to the pace and knowledge of the employee. An in-house training officer gives professional personal support. The results are a transfer of knowledge and experience, a strong learning curve, better understanding of colleagues from other departments and the challenge even to experienced operators to 'rethink' their part of the production process along the way.

With the creation of the Smurfit Kappa Group Foundation we can help children from disadvantaged neighbourhoods to get a better education.



55

Engagement with Stakeholders

Smurfit Kappa creates international foundation

As a large multinational group, Smurfit Kappa touches the lives of many people: not only shareholders, employees, customers and suppliers, but also local communities in which Smurfit Kappa has the privilege to operate. That brings with it responsibility to society. Smurfit Kappa acknowledges that responsibility and has set up an independent foundation with charitable status to invest in Corporate Social Responsibility activities. This initiative is in addition to other activities at country and local level where we have many long-standing programmes in place.

The Smurfit Kappa Group Foundation was brought to life in February 2011 when the Board decided to donate a total of €3 million over the following three years. It was stipulated that €500,000 could be invested in Corporate Social Responsibility activities each year. The other half would be invested to finance future CSR activities. At the end of the third year Smurfit Kappa will review the activities of the Foundation and decide whether to invest further.

Smurfit Kappa is committed to act as a good corporate social citizen. These values underline that good social citizenship, reflected in the manner in which it interacts with its employees, business partners and local communities, is an essential ingredient in creating and maintaining a sustainable future. Many Smurfit Kappa companies are already involved in community-based activities. The Foundation fills a gap in terms of what might reasonably be expected of a company of Smurfit Kappa's size and its ability to contribute to sustainable community development on an international basis.

The Foundation was set up to invest in and support appropriate sustainable projects with implementation by the local operating units. The funding should address, in particular, the millennium goals of the United Nations. Activities will focus initially on projects involving young disadvantaged children, in the area of health/nutrition, basic care and early education. The Foundation aims to support projects which are capable of becoming self-sufficient in the long term, thus educating people in practical ways to assume responsibility for their own issues over time.

Brendan Tuohy, external Board member of the Smurfit Kappa Group Foundation, and a former Secretary-General of the Irish Government's Department of Communications, Energy and Natural Resources, states: "The creation of the Foundation is strong evidence of Smurfit Kappa's clear commitment to the local communities in the countries where it operates and, as a leading Irish multinational group, a recognition of the important role that it must play in the field of corporate social responsibility."

Argentina – Santa visits disadvantaged kids in Quilmes

Smurfit Kappa Argentina – Bernal invited a special person to the province of Buenos Aires in December 2011. There was much joy when Santa and his reindeer landed in the city of Quilmes to visit disadvantaged children from a poor community.

Santa wasted no time in cheering everyone up. He gave away presents and played games with the children. Smurfit Kappa Argentina was invited by the Quilmes Municipal Authorities to sponsor their annual closing of activities in 'The Eucalyptus'. This is a community canteen for young children built by local people.

Santa was not the only VIP for the children in Quilmes. Musician Changui also made an appearance to teach the youngsters to play music. The Municipal Authorities combined the festivities with a series of practical activities focussed on health care. Doctors were present and information was given about vaccination plants. Veterinarians provided services for pets. Green spaces were cleaned and together people planted trees to improve the neighbourhood.



Children enjoying the Christmas party at the community canteen called 'Eucalyptus' in Quilmes, Argentina.



Left to right: Pat Fitzpatrick and Angela Kerins (Rehab), Joe Rooney (Smurfit Kappa Dublin), John O'Loughlin (Smurfit Kappa Ireland), Anthony Benney (Rehab); Conor Timmons (Smurfit Kappa Dublin).

Ireland – Community involvement

Smurfit Kappa Ireland has contributed to the daily lives of Rehab personnel and also to the ongoing viability of the Kilkenny branch in rural Ireland. As Rehab Kilkenny is operating in the packaging and recycling sector there was a natural fit between both organisations.

The Rehab Group is an independent, not-for-profit organisation which provides training, employment, health & social care for some 43,000 people each year in Ireland, England, Wales, Scotland, the Netherlands and Poland. The people who currently use Rehab's services include young people and adults with physical, sensory and intellectual disabilities, mental health difficulties or acquired brain injuries.

Throughout 2011, Smurfit Kappa Dublin provided Rehab Enterprises with financial assistance to improve its plant, personal protective equipment and work uniforms, and with advice and assistance in maintenance, design and Health and Safety. Smurfit Kappa Dublin employees value the opportunity to be directly involved in helping to ensure that the services provided by Rehab Kilkenny continue into the future. For that reason Smurfit Kappa Ireland will continue to develop this long term relationship with the Rehab Group.



View of El Caracolí, the early childhood developmental centre supported by the Smurfit Kappa Cartón de Colombia Foundation where children are taken care of situated in Yumbo, Colombia.

Colombia – Early childhood care in Yumbo

In Colombia, public and private sector entities work together to provide early childhood care to families in neighbourhoods which lack these services. One of Smurfit Kappa Cartón de Colombia's focuses is on children under 6 years of age who are in need of basic care and early education. The programme involves families and helps to improve the professional skills of carers.

El Caracolí is an early childhood developmental centre and is supported, amongst others, by the Smurfit Cartón de Colombia Foundation. It is a fundamental initiative in the area because local authorities lack the know-how, need funding, and require support involving professionals and parents in matters that concern children at this critical stage of their development.

The project was implemented in February 2011 in Yumbo, an industrial city near Cali, where our main production plant is located. The main components of El Caracolí include health care coverage for children from birth to 5 years of age; help to prepare them in the transition to formal education in order to prevent failure and dropout; support from qualified carers to provide a warm and receptive environment; and a better educational atmosphere in safe school facilities with adequate teaching material.

This initiative is aligned with a Presidential programme that has focused on the importance of early childhood development as a crucial aspect in the country's future. This is one of the ways in which Smurfit Kappa seeks to improve the social and economic structure of local communities.



Left to right: Cormac Maguire, Seamus Murphy, Ian Curley, Kevin Keane, Christian Eder, Ken Bowles, Henk Hoever.

Ireland – Paris to Dublin cycling challenge

In 2011, Smurfit Kappa's head office in Dublin organised a charity cycling event in aid of Spina Bifida Hydrocephalus Ireland. The challenge was to start at the Paris office and to finish in Dublin. The cycling team covered over 260km on the first day, 210km on the second and a 'relaxing' 50km on the last day.

The 'Magnificent 7' who undertook this task were: Ian Curley, Ken Bowles, Cormac Maguire, Seamus Murphy, Kevin Keane, Christian Eder and Henk Hoever. They were assisted during the journey by Glenn and Andrew Sherry who looked after the logistics, punctures, keeping the team energised and giving them the much needed moral support to stay cycling for the journey.

Once back on Irish soil, the team was greeted by a large contingent from the Dublin office who completed the final leg of the journey with them in stages of 50km and 10km. The sun shone for everyone as they crossed the finish line at HQ where all the cyclists were welcomed by family, friends and colleagues to celebrate an amazing journey and the impressive total of €30,000 raised by the event.

INNOVATION AWARDS

Dynamic interaction with customers at the 2012 Innovation Event

The Smurfit Kappa Innovation Event 2012 again proved to be an exciting journey into the dynamic world of paper-based packaging. It is the showcase event for innovative packaging solutions and an inspiring environment to exchange ideas with customers and colleagues. The highlight of the event, which took place in the Netherlands, was the announcement of the winners of the internal Innovation and Sustainability Awards Competition. The designers of the most innovative packaging solutions from all our European packaging operations were judged by an external jury comprised solely of customers and received their awards during a celebration dinner hosted by Smurfit Kappa Chairman, Liam O'Mahony, and attended by over 150 customers from all over Europe.

Innovation is what makes Smurfit Kappa tick. It is in its DNA and it is much needed to meet the demands of a rapidly changing global market. Smurfit Kappa continually strives to improve and to develop innovative products in partnership with its customers. In seven different stands new inventive designs were featured. A critical success factor for the exhibition was the informal and interactive set-up which allowed for many intensive, challenging and creative debates.



From left to right: Jérôme Villanueva and Thierry Drapeau (Smurfit Kappa France) winners of the Sustainability Award All Categories, Grégory Dubar (Quick) and Tony Smurfit (Smurfit Kappa).



View of the Sustainability Stand.



Jacqueline Cramer (Utrecht Sustainability Institute) addressing the 2012 Innovation Event in the Netherlands.



Arnoud Dekker (Smurfit Kappa Development Centre), demonstrating Innobook, which is a unique Smurfit Kappa web-based design library, to a visitor at the Innovation Event.

Innovation also applies to sustainability and the sustainability stand showcased more than 60 innovations. The Innovation Event also featured the first ever Sustainability Awards Competition. In this competition, the best ideas to improve our sustainability performance, both environmentally and socially, were judged by a jury of customers and external sustainability experts. The Sustainability Award winners were also announced during the celebration dinner.

The conference at the event was attended by approximately 300 people: customers, representatives from the financial community and Smurfit Kappa employees. Keynote addresses were made by Jacqueline Cramer, Director of the Utrecht Sustainability Institute, Goos Eilander, CEO of Trendbox and Stuart Lendrum, Head of Packaging and Design for Sainsbury's Supermarkets Limited. They inspired the audience to learn from the past and explore new challenges in innovation and sustainability.



From left to right: Liam O'Mahony (Smurfit Kappa), Gabriele Vignapiano (Smurfit Kappa Italy) winner of the Innovation Award All Categories, Antonio Moscardiello (Unilever), Todd Williams (Unilever).

And the Latin American awards go to... Innovation and Sustainability

The Smurfit Kappa Latin America Innovation Awards took place in the Colombian capital Bogotá in September 2011. The jury consisted of a prominent group of customers.

The award contest, consisting of nine categories was held with 90 of our main customers and numerous Smurfit Kappa professionals attending. The event, which was held for the third consecutive time, is a great day to exchange thoughts with customers, to enjoy the creativity within our company and to be inspired by clients like Ivan López of Alpina (dairy products) and Fabrice Soler of Éxito (retail sales) who made keynote addresses.



Martin Hernandez (Smurfit Kappa Argentina) with his award-winning box in the consumer product category in the Smurfit Kappa Latin America Innovation Awards competition.



From left to right in the picture: Fabio Saglietti and Javier Scaglia (Smurfit Kappa Argentina and Chile), Jorge Luis Blanco and Daniel Montiel (Smurfit Kappa Colombia), Andrés Baudino (Smurfit Kappa Argentina and Chile), Germán Pulido (Smurfit Kappa Colombia) and Martín Hernandez and Ernesto González (Smurfit Kappa Argentina and Chile).

INNOVATION CREATES OPPORTUNITIES

60

SMURFIT KAPPA SUSTAINABLE DEVELOPMENT 2011



Designing innovative packaging solutions for our customers is what drives Smurfit Kappa – Eco tray for packaging and display purposes.

SUSTAINABILITY IN OUR BUSINESS

Our principle objective is to create economic value for our customers and all our stakeholders while acting responsibly in all aspects of our business. We consider profitable growth as a pre-requisite to advance our drive for sustainability. We believe that all our stakeholders will benefit when we develop our business progressively in a sustainable way. Our customers benefit through ever better packaging solutions and cost efficient products, investors through progressive dividends and share price growth, employees through salaries and personal development, and suppliers through their deliveries of goods and services needed for our products. The communities where we operate benefit economically as we are typically a significant employer in those regions. Our tax payments locally and to country governments further contribute to economic, social and environmental development in the countries in which we operate.

1. Our Business

Smurfit Kappa is one of the world's largest integrated manufacturers of paper-based packaging products, with operations primarily in Europe and Latin America. We manufacture, distribute and sell containerboard, a wide variety of corrugated packaging and other paper-based packaging products and materials such as solid board, bag-in box, sack paper and machine glazed paper.

In 2011, the Group's total revenue was €7,357 million, generating an operating profit of €590 million and earnings per share of €1.00 (pre-exceptional). Total employee wages and other benefits amounted to €1,823 million and a final dividend of 15 cents per share was declared for the year 2011.

Smurfit Kappa's end customers primarily use our packaging products to transport their goods and as a marketing, display and merchandising aid. Approximately 60% of our corrugated products customers are in the fast moving consumer goods sector comprising food, beverage and household consumables, the remainder being split across a wide range of different industries.

2. Working together with Customers

Increasingly, customers require packaging to be sustainable, innovative, fit for purpose, as well as cost effective. Smurfit Kappa works closely with customers to achieve more sustainable solutions. For example, we deliver "right-weighted" packaging to completely protect the packaged product during

2011 Financial Performance Overview

	2011 €m	2010 €m
Revenue	7,357	6,677
EBITDA before exceptional items and share-based payment expense ('EBITDA')	1,015	904
EBITDA margin	13.8%	13.5%
Operating profit	590	409
Profit before income tax	299	103
Free cash flow	394	82
Net debt	2,752	3,110
Net debt to EBITDA	2.7x	3.4x
Basic earnings per share (cent)	93.0	22.9
Pre-exceptional earnings per share (cent)	100.1	59.4

its trip through the supply chain. By taking both primary and secondary packaging requirements into account our transit packaging often allows the primary packaging to be optimised. Our creative design teams explore what is possible in the most open minded way.

Working innovatively together with customers on sustainability has two main aspects to it. Firstly, Smurfit Kappa credibly guarantees its customers that the packaging it supplies is produced in the most sustainable way, using materials from sustainable sources and utilising every possible design skill.

However, looking at the packaging alone is not enough, as – according to a study done by INCPEN – the energy component and hence the CO₂ impact of packaging products is less than 5% in a typical customer's supply chain. However the packaging related indirect impact (damage/destruction of the packed product, logistics, waste, disposal, etc.) is much more significant for the sustainability of a customer's supply chain. Therefore the second aspect on which we focus is the design and development of packaging which minimises a customer's total sustainability impact per unit of product delivered to the consumer.

In Smurfit Kappa, that means that for many customers we carry out evaluations with the help of the Smurfit Kappa web-based suite of design software, Innertools (Pack Expert, Paper-to-Box, Innobook), seeking to optimise the direct and



Quick salad packed in Smurfit Kappa sustainable packaging.

Engagement with Stakeholders

Quick wins in environmental responsibility

Quick, founded in 1970, adapted the American fast food restaurant model to European habits and tastes. Today Quick is the No. 1 in fast food in Belgium and Luxembourg and No. 2 in France.

According to Audrey Limozin, responsible for environmental management at Quick, the desire to innovate does not stop with burgers like the Suprême Cheese Burger or the Bio Burger. "We serve more than 160 million burgers to over 200 million consumers annually in almost 500 restaurants in four countries and three territories. Quick is the third largest fast food hamburger restaurant in Europe and the first European fast food chain. As a sizeable player we find it very important to focus on sustainability."

"We have a very open relationship with Smurfit Kappa. They support us with know-how and development of sustainable packaging. The salad pack project is just one example. This made it possible to replace our plastic salad bowl with a smart, fully biodegradable and food-safe packaging solution. Smurfit Kappa helped us with the development of this beautiful product which is completely EN13432 (compostable) certified. The close cooperation and supply chain approach between Quick and Smurfit Kappa leads to sustainable products that make a difference, now and in the future."

indirect impact of our packaging on sustainability through the entire supply chain. For example, by changing the pallet pattern or case count it is possible to increase the quantity of products loaded on a pallet, reduce the number of road trips and thereby reduce the CO₂ emissions from transportation.

Customer satisfaction

As Smurfit Kappa strives to be a customer-oriented and market-led company, the satisfaction of our customers is of utmost importance to us. Besides aiming to provide our customers with optimal packaging solutions, we also want to ensure that they are satisfied with our proactive approach and services. In a number of our mills, we have a 'first time right' monitoring system in place measuring the percentage of production delivered to the customer's satisfaction. In our converting operations, we welcome the regular audits that are done by major customers on our performance. To ensure customer satisfaction, each customer is served by dedicated teams of designers, sales and service people and this important consideration is frequently discussed with every customer.

Our marketing communications are essentially business-to-business by nature. In this regard we ensure on a continuous basis that these are in line with all generally accepted ethical and cultural standards such as avoiding privacy intrusion or dual standards, not influencing vulnerable audiences such

as children or portraying gender roles in a disrespectful way. As part of our Code of Business Conduct, we voluntarily adhere to the OECD Guidelines for Multinational Enterprises which explicitly mentions consumer interests. Smurfit Kappa has no recorded incidents of non-compliance with regulations or voluntary codes concerning marketing communications.

Innovation in sustainable packaging solutions

As a market-focused company, Smurfit Kappa knows innovation is of strategic importance in securing and retaining our customers' business, especially in current challenging times. Innovative design is a unique selling point for Smurfit Kappa and serves to differentiate us in the marketplace. To foster innovation, we share best practice among the plants and divisions in Smurfit Kappa using our web-based tools such as Innobook. We hold Innovation Award competitions to assess the effectiveness and originality of our joint developments with customers. The competitions are held in both Europe and Latin America, with judging panels drawn from our key customer base. These measures promote the pursuit of excellence in design and, most crucially, a close alignment with the needs of our customers. We introduced a Sustainability Award competition in 2011 to show our ability to combine innovation and sustainability in the design and development of high quality customer products.

Engagement with Stakeholders

Perspective on sustainability



Lars Kjellberg
(Credit Suisse)

What is the importance of sustainability to investors? Lars Kjellberg, Director of Credit Suisse Equity Research, and a prominent Paper & Packaging industry sell-side analyst, concludes that the investment community has thus far mostly focused on financial sustainability and less on ecological aspects.

“However, the investment community is starting to turn its attention to the business model of sustainability”, explains Kjellberg. “A much broader concept built on the merits of a product life-cycle analysis. The long term sustainability and economics of the business model are likely to become increasingly connected and Smurfit Kappa is well positioned with the vast majority of its raw material coming from a recycled source or renewable timber.”

“Near to medium term earnings and cash flow are still the most important criteria for investors according to Kjellberg. He continues: “The investment community looks at these variables in combination with the long term ability of a company to develop and grow its business and cash flow. Sustainability is of less importance to investors, than it is to customers who need to decide on packaging materials and solutions.”

Kjellberg believes this will change over time. “The environmental footprint for any product will become increasingly important. Partly because of the direct economic consequences like CO₂ tax but also indirect consequences to businesses as, if there is a choice, consumers will progressively switch to using sustainable products. Corrugated products are well positioned to perform well in this respect due to their origin from renewable and recycled raw materials and because of the efficient and light weight impact on logistics.”

As part of the process of using design innovation as a means of developing sustainable packaging, we continue to work with customers to:

- Design packaging solutions that are both efficient and user friendly.
- Optimise the supply chain, including palletisation, warehousing and distribution.
- Develop fit for purpose “right-weighted” packaging based on experience and empirical modelling instead of historical data.
- Reduce complexity in the packaging portfolio as this leads to higher productivity, less material usage and less waste.

3. Contribution to Local Economies

Smurfit Kappa favours sourcing its products and services from local suppliers where possible. Sourcing represents the largest single category of expenditure for Smurfit Kappa. In 2011, the Group purchased almost €3 billion worth of raw materials, consumables and transportation services. The sourcing of a number of major items of expenditure like recovered paper, paper, energy, chemicals, starch and inks is coordinated centrally to achieve economies of scale. Still, a significant part of the actual supplier deliveries for these categories could be considered as local deliveries as many of the goods and services are provided to us from suppliers’

production locations located in the same geographical area as Smurfit Kappa operations. Due to their nature, the remaining goods and services are sourced locally by local Smurfit Kappa operations. In total approximately 70% of our suppliers’ deliveries can be classified as local. These interactions between Smurfit Kappa operations and local operations of suppliers provide support for local economies.

4. Product Responsibility and Product Safety

As a business-to-business company, Smurfit Kappa produces both the raw material for packaging and packaging itself. Most packaging produced by Smurfit Kappa is used for distribution, transportation and retail display purposes.

Smurfit Kappa has always demonstrated a strong commitment to product safety. Not only will we comply with any legislation on health and safety aspects of our products, we also have agreed to voluntary codes of conduct which, among others, are based on the OECD Guidelines for Multinational Enterprises.

In 2011, Smurfit Kappa had no recorded incidents of non-compliance with regulations or voluntary codes in the area of product safety and product responsibility.

Engagement with Stakeholders

Share & improve with a Sedex move



Carmel Giblin (Sedex)



Sedex is the largest collaborative platform in the world for the exchange of ethical supply chain information offering innovative supply chain management tools and reports that help companies to reduce risk, protect their reputation and improve supply chain practices. Sedex aims to ease auditing and information requests on suppliers and drive improvements in the ethical performance of global supply chains.

Carmel Giblin, General Manager of Sedex: "Sedex is pleased to support the supplier engagement activities of Smurfit Kappa by being part of its Responsible Sourcing Programme". Sedex currently has over 25,000 members worldwide, providing a valuable basis for benchmarking. As part of its goal to drive collaboration and reduce duplication Sedex has created a common audit methodology, Sedex Members' Ethical Trade Audit (SMETA), to increase transparency. As supply chains become more complex and fragmented, supply chain transparency will become increasingly important.

The fact that Smurfit Kappa is using Sedex demonstrates its commitment to managing its supply chain responsibly. According to Sedex, Smurfit Kappa has provided useful contributions to how Sedex can develop in the future. Carmel Giblin: "Smurfit Kappa has started to engage its suppliers and request they register on Sedex. This is an important first step in providing transparency and building understanding with suppliers. We look forward to continuing to work with Smurfit Kappa as they continue to build their programme."

At all stages in our production process, from the design of our product to its delivery to the customer, we assess product safety. As many of our products are used as transport packaging, product safety mainly ensures that our products are safe and easy to use for those handling and using them. A significant part of our packaging is intended for the agri-food industry. For this sector, the product safety aspects mainly involve ensuring that food can be safely packed in our products whether there is direct or indirect contact with food. All our products are therefore assessed for health and safety considerations.

Our Product Safety Department was set up to manage such issues, in particular with regard to food contact end use. The department is equipped with a laboratory that tests the purity of Smurfit Kappa products (papers, boards, corrugated and solid board packaging). It conducts research and implements development projects in the area of food contact. Smurfit Kappa regularly submits its products to the set of analyses recommended by various European and national legislation applying to our products. This department is third party accredited according to the ISO 17025 standard.

The knowledge developed here has been transferred throughout all production operations of Smurfit Kappa in both Europe and Latin America. We follow the evolution of regulations in all countries and are very active at European and national association level within the paper industry with regard to product safety issues.

European regulations that apply to packaging intended for food contact have been revised and reinforced over recent years. As required by the European regulation that applies to packaging

intended for food contact, the implementation of Good Manufacturing Practises (GMP) in paper mills and converting operations producing packaging for food applications is mandatory. GMP that fulfils the requirements of EU regulation has been implemented since 2007 at all our European paper mills. Between 2005 and 2008, some of our European mills went to third party certification with the FEFCO/ESBO reference. With the publication in 2008 of the CEN 15593 standard concerning the management of hygiene in the production of packaging for foodstuffs, our current objective is to have all remaining European mills certified by independent third parties. At the end of 2011, 67% of our European mills have achieved this third party certification of their hygiene management system.

In response to customer needs, some 49% of our converting plants now have processes in place and are certified by one of the following recognised hygiene codes or standards: ISO 22000, CEN 15 593, British Retail Consortium (BRC), American Institute of Baking (AIB) or International Good Manufacturing Practice for Corrugated and Solid Board Packaging.

It is our aim to certify all our converting plants for which this is relevant.

As a result of our central set-up, we are able to monitor our progress in performance with regard to both safety and hygiene for food and this in turn allows us to respond to any market concerns. Our Product Safety department is keeping a close watch for any food safety alert issued by the European Commission or national authorities. Our analyses and knowledge permit us to modify our papers in response to these alerts in the shortest possible time.

Paper ships set sail towards green future

Royal Wagenborg specialises in international transport by water and road. The Dutch company operates a modern maritime fleet with more than 175 vessels. Two of its ice-strengthened roll-on/roll-off carriers (Ro-Ro), the Balticborg and the Bothniaborg, transport paper for Smurfit Kappa from Sweden to the UK, Germany and The Netherlands.

“Sustainability is important in the philosophy of both companies”, states Koos Zumkehr, Director Chartering Wagenborg. “That is why we approach it pro-actively. Six years ago our new ships already complied with the highest regulations of the new Energy Efficiency Design Index that goes into effect in 2013. In the harbour our Ro-Ro paper carriers are fed with electricity from shore, no diesel generator is needed. Each ship features a tank to comply with our zero dumping policy. And together with Smurfit Kappa we place much emphasis on fuel efficiency.”

“More than 12 years ago, ships carrying Smurfit Kappa paper were already sailing on fuel with less than 1% sulphur. This became legally mandatory only in 2010.”

“Nowadays we are evaluating how to adapt to new fuel regulations imposed by the International Maritime Organisation as of 2015. The directive meets much opposition due to technical issues and the limited area it applies to, promoting unfair competition. We favour global implementation of regulations from which our environment truly benefits in the long term.”



Koos Zumkehr
(Wagenborg)

In the course of 2010 some research indicated that traces of undesirable mineral oil could enter packaged food possibly resulting from mineral oil present in the recycled raw material for paper making and/or the inks used for printing the packaging. Several public authorities have reviewed the published research. According to the Bundesinstitut für Risikobewertung (BfR, or German Federal Institute for Risk Assessment), the research is still incomplete. Also the UK Food Standards Agency's position is that there is no concern for consumer's health. The European Food Safety Authority recently identified food packaging as one of the many sources of mineral oil in food and suggested setting up a monitoring programme to identify sources of mineral oil at various stages of food production. EFSA also suggested that in cases where exposure to these mineral oils can be attributed to packaging to develop methods that would effectively prevent mineral oils to migrate from the packaging into the packaged food.

Although none of the research and opinions so far published indicates that there should be any concern for consumer's health, Smurfit Kappa together with the European industry association CEPI is cooperating with the various parties involved to develop adequate solutions for this issue.

Registration, Evaluation, Authorisation and Restriction of Chemicals: (REACH)

We are mainly affected by REACH as downstream users of chemicals and we therefore liaise closely with the suppliers of chemicals to ensure that they fulfil their obligations with regard to assurances that the chemicals we introduce in our products do not contain any substances of very high concern in concentrations above the level of 0.1%. Our centralised sourcing

organisation provides us with an efficient way to accomplish this task.

Our kraftliner mills are themselves producers of chemicals. In 2010, all chemical substances produced by Smurfit Kappa (crude tall oil, tall oil soap, turpentine, liquors, burned lime), were registered in consortia with the other European pulp manufacturers. The European Chemicals Agency (ECHA) is now scrutinising the registration dossiers but we expect no major changes or further need for testing, in which case our tasks relative to registration will be finished in principle.

Some tasks will remain for the lead registrants as long as the REACH project is ongoing. Smurfit Kappa is the lead registrant for tall oil soap. These consortia are expected to remain until 2022, when the legal demands should be fully implemented.

The overarching objective of REACH is to minimise or ban the use of Substances of Very High Concern (SVHC), most of which are already identified for the tonnage band of 1000.

These substances will be thoroughly re-examined and will then be added to the SVHC candidate list for further measures. The SVHC candidate list is updated approximately twice a year.

When the updated SVHC-list is published on ECHA's web site, our customers immediately request information whether our products contain SVHCs or not.

We have introduced procedures within our organisation, in order to be able to give a statement on this matter continuously.



Florian Wollner (Smurfit Kappa Central Europe) holding up the innovative corrugated filter.

Austria – Innovative environmentally friendly design provides Smurfit Kappa Interwell’s customer with competitive advantage

Smurfit Kappa Interwell is the proud winner of the product category in the first Corrugated Central Europe Sustainability Awards. The plant won the 2011 award with its innovative corrugated filter developed in close cooperation with one of its customers.

The corrugated filter, which is used in the varnishing process, is a substitute for a PVC filter that requires solvent. The innovation reduces production stoppages both in number and in duration, and the new corrugated product improves the working conditions of production employees since it makes the use of cleaning solvents obsolete.

The team from Smurfit Kappa Interwell faced quite a challenge to make the design strong enough for its task and stable enough without applying glue. The filter can be used twice by switching sides and is easily replaced. In addition, it offers the customer a competitive advantage and saves the company labour costs as cleaning is no longer required.

Erik Hoonhorst (Smurfit Kappa Development Centre) presenting at the conference of Sustainable Packaging organised by Smurfit Kappa Polska.



Poland – Sustainable Packaging Year

2011 marked the Year of Sustainable Packaging in Poland. Smurfit Kappa Poland made extensive efforts to promote awareness, education and appropriate actions with regard to economic, environmental and social aspects of our business.

Committed employees made sure that the sustainable packaging theme not only acted as a guide for colleagues, but also for clients and the surrounding communities.

Together, all employees of Smurfit Kappa Poland took pride in preparing the production facility for and also successfully completing the FSC and PEFC audits. As a result, everyone is now very aware of the origin of the raw materials used at the plant.

Customers were happy to find that detailed analysis of the supply chain resulted in more efficient production processes and less costs in logistics. Many customers and other stakeholders showed great interest in the Sustainable Packaging Conference, which was organised to highlight the theme of the Year. Furthermore, the surrounding local communities benefitted from the focus on sustainability incorporating various educational programmes. Smurfit Kappa Poland organised special sustainability meetings for children and students to conclude the year.

UK – Right on track with Marks & Spencer Food Waste Pack

The consultants of Helistrat bring clarity to environmental legislation and value to businesses in all areas of developing and implementing waste management and cleaning strategies. In conjunction with Helistrat, Smurfit Kappa undertook a “Walk the Flow” review of the operations at Marks & Spencer and, together, they identified opportunities to re-engineer an existing design of the Food Waste Pack.

Bernard Amos, CEO Helistrat Management Services, explains: “Smurfit Kappa provided a sustainable alternative to a waste food box solution for the recovery of out-of-date food products. Our objectives were to offer a solution to ‘combat climate change, reduce waste, use sustainable raw materials and to support the business’s ethical trading’. Smurfit Kappa delivered a solution that exceeded Marks & Spencer Plan A requirements and resulted in an overall material reduction of 129 tonnes.”

“The materials used were 100% recyclable and a 15% reduction to the size of the food box increased lorry fill by 100%, reducing the transport carbon footprint by 50%. Helistrat is delighted to have an ethically ‘green’ packaging partner who is truly innovative, and who can help us deliver Marks & Spencer Plan A objectives with precision, and originality.” In 2011, Helistrat was awarded a prestigious CSR Award by Marks & Spencer.



Presentation of PPI Mill Manager Award
 Left to right: Bill Dannelly (ABB),
 Karl Heinz Gerlach (Smurfit Kappa Germany),
 Anne De Baetzelier (presenter).



Presentation of PPI Company Award –
 Managing Risk and Safety

Left to right: Frank Paulus (FM Global), Remon Callejo
 (Smurfit Kappa Spain), Anne De Baetzelier (presenter).

5. Recognitions and Awards

Smurfit Kappa wins PPI Awards

Smurfit Kappa won two awards at the Pulp & Paper International (PPI) Awards organised by RISI. The PPI Awards are the only global awards dedicated to recognising the achievements of companies, mills and individuals in the paper industry. The initiative honours leadership, vision, innovation and strategic accomplishments within the pulp and paper industry.

In 2011, Smurfit Kappa was short listed in six categories:

- Environmental Strategy – Company:
Smurfit Kappa Cartón de Colombia, Colombia
- Environmental Strategy – Mill:
Nettingsdorfer Mill, Austria
- Innovative Product of the Year:
Euroboard Spezial Kraft, Germany
- Water Efficiency: Los Reyes Mill, Mexico
- Mill Manager: Karl Heinz Gerlach,
Herzberger Papierfabrik, Germany
- Managing Risk and Safety:
Mengibar paper mill, Spain

Smurfit Kappa Herzberger Papierfabrik and Smurfit Kappa Mengibar won in their respective categories, making Smurfit Kappa one of only two companies to win two awards.

Mexican butterflies for a clean environment

In 2011, the Smurfit Kappa mills and converters in Mexico were inspected, audited and were certified in February 2012, in accordance with regulation NMX-N-107-SCFI-2010, issued by the Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT) (Ministry of the Environment and Natural Resources in Mexico) which establishes a minimum recycled content in newspaper, bag paper, sack paper, folding board, and corrugated boxes.

The Smurfit Kappa operations in Mexico acquired the right to use the Ecolabel associated with this regulation, which shows a Monarch butterfly. This Ecolabel promotes environmental awareness with customers and final consumers.

This certification and the associated Ecolabel complement the “Clean Industry” certification which certifies that the operations comply with applicable legal requirements concerning environmental matters. Eight packaging plants as well as the Cerro Gordo and Los Reyes paper mills completed the inspections and audit required for the certification. These two mills together with the Monterrey paper mill complied with Chain of Custody requirements under FSC standards. The combined achievements and recognition will continue to stimulate the people of Smurfit Kappa Mexico to fully commit themselves to environmental performance.

Left to right: Arturo Pérez Courtade (Cellulose & Paper Industry), Eric Gamarra (Smurfit Kappa Mexico), Sandra Denisse Herrera and Dr. Lorenza Martínez (SEMARNAT), at the presentation of the Ecolabel certificates.





The Danone Spain Trophy for the 'Best Supplier Award 2011'.

Norwegian environmentally friendly transportation solution receives prestigious Star Awards

Lyngen Reker is a large producer of prawns based in northern Norway where it started up in 1950. Smurfit Kappa Norpapp, together with Lyngen Reker, has developed a new packaging solution to reduce transportation costs and decrease the environmental impact of its operations. The new corrugated packaging locks the product into a stable position during transport and display. It has more than halved the need for transportation of packaging by replacing much larger expanded polystyrene (EPS) bottoms with corrugated board. As distances within Norway are large, transport and hence environmental savings are significant. The solution is simple but effective, user-friendly and reduces the environmental impact across the entire value chain and has been awarded a ScanStar and WorldStar 2011.

The ScanStar jury's statement: "The packaging stands out as an example of how well-functioning solutions can be improved. The EPS bottom is replaced with fibre which helps the box to be smaller in the collapsed state. The number of pallets from the packaging manufacturer to the customer are more than halved".

According to the organising World Packaging Organisation (WPO), the WorldStar Award is the most important packaging competition in the world.

"The opportunity to display a WorldStar trophy is a public statement of excellence and achievement" according to WPO President, Keith Pearson.

Smurfit Kappa Spain and Portugal receives highest recognition from Danone

Danone, one of the largest food producing companies in the world with many top quality brands, held the second edition of their National Annual Supplier Awards in Spain. In 2012, Smurfit Kappa Spain & Portugal received 'the Best Supplier Award 2011' in the category Raw Materials and Packaging.

For more than 11 years, Danone has placed its trust in Smurfit Kappa to develop the packing solutions for its products. In Spain and Portugal, Smurfit Kappa operates 19 production plants and was selected from more than 45 suppliers.

The recognition from Danone was the result of Smurfit Kappa's overall achievement of a very strong result in all the areas that were appraised:

- Quality of product and/or service,
- Best value,
- Most innovative idea and
- The best sustainable development idea.

Joanna Devon, Director of Sales and Marketing for Smurfit Kappa Spain and Portugal, welcomed the award saying that "this award is an incentive for us to continue working to drive ongoing improvements in all areas of our packaging expertise and demonstrate our strong commitment to being considered a strategic supplier to Danone for the long term".

Mario Garza (Smurfit Kappa Mexico) receives the Cemefi award for Smurfit Kappa Guanajuato Corrugated.



Presentation of customer awards by Bavaria to Smurfit Kappa Cartón de Colombia. Left to right: Patricia Gutierrez and Adrian De Wilde (Bavaria), Sebastian Gomez (Smurfit Kappa Cartón de Colombia), Richard Rushton (Bavaria), Oscar Guerrero (Smurfit Kappa Cartón de Colombia), Luz Mary Rodriguez Jimenez and Gustavo Arbelaez (Bavaria).

Corporate social responsibility award in Mexico

Centro Mexicano para la Filantropía (Cemefi) is a civil association in Mexico that was founded in 1988. To promote corporate philanthropic behaviour and responsible actions, Cemefi created an award and this prestigious prize was awarded to Smurfit Kappa Guanajuato Corrugated in 2011.

Matching the corporate sustainability strategy of Smurfit Kappa, the corrugated plant in Guanajuato strives to be a reliable partner to all its stakeholders. Its social responsibility programme is concerned with the quality of life of employees, care for the environment, business ethics, communication and community involvement. Employees receive support to balance their lives, to develop their knowledge and skills, and to promote Health & Safety.

Smurfit Kappa Guanajuato is known locally for its care for the environment. Much effort is dedicated to environmental operations, investments in eco-technologies, sustainable transport and communication about these issues. Among other initiatives, Smurfit Kappa Guanajuato organised and sponsored tree planting in a local park, sponsored a football tournament, participated in the first Congress of Green Business and Sustainability and organised a Christmas party for the children from the "Las Talegas" community, which is a disadvantaged neighbourhood. Smurfit Kappa Guanajuato is very honoured by the recognition from Cemefi and continues its activities that benefit the local communities in the surrounding area.

Customer awards for sustainability emphasis in Colombia

Our Colombian organisation has been praised for many years for its structured and solid sustainability programme. In 2011, various customers made awards to a number of our operations in Colombia recognising our efforts in the area of sustainability.

There were awards from the confectionery producer Colombina, leading pharmaceutical company Baxter, and beer company Bavaria.

Our Cali Corrugated plant received a sustainability award from Colombina for their continued commitment to three sustainability principles: social, environmental and economic.

The same plant also received an award from Baxter for its commitment to sustainability. Top executives from Cali were invited to Baxter's headquarters in Chicago (USA) to present their sustainability programme to senior management.

The Bogota Corrugated plant received an award from Bavaria for its responsible sourcing throughout the paper lifecycle which is FSC-certified.

Roquette's Beinheim plant in France which supplies starch to Smurfit Kappa.



Jean-Marc Baulier (fourth from the left) and Jon Watts (sixth from the left) (both Smurfit Kappa) with representatives of BASF.

6. Supplier Initiatives

Roquette combats climate change

In 2011, Smurfit Kappa conducted a sustainability audit at the Roquette Group. Roquette supplies starch products for Smurfit Kappa's corrugated production operations. Smurfit Kappa's programme of auditing its key suppliers has a strong focus on current and future sustainability aspects.

Roquette is actively combating climate change. At its Beinheim (France) site, it has installed a biomass furnace that burns wood waste to deliver energy and replace fossil fuels. The furnace cuts CO₂ emissions by 75,000 tonnes annually. Starting in 2015, the factory will run its machines with underground heat energy. Water at 170°C will be transformed into steam thereby cutting CO₂ emissions by another 39,000 tonnes each year. The steam will be used for the production of bio ethanol and starch driers.

The Beinheim site is moving towards becoming a "zero emissions" plant. CO₂ from the production of bio ethanol is not emitted into the atmosphere, but purified and used in the agri-food industry as an additive for carbonised beverages. It concerns 100,000 tonnes of bio-CO₂. The solutions are better for the environment and financially beneficial because they reduce energy costs. Smurfit Kappa is striving to encourage all of its key suppliers to investigate and implement similar environmental initiatives to those undertaken by Roquette.

Innovations for a sustainable future at BASF

BASF, the world's leading chemical company, is the first strategic supplier to have its sustainability audited by Smurfit Kappa. Sustainability is a central element of the evolved strategy for the entire company. On-site audits of suppliers help to further minimise supply chain risks and identify the opportunities provided by sustainable business.

With its innovations and expertise, BASF also helps its customers to develop sustainable products and processes. Sustainability, weight reduction, improvements in recycling capabilities, functionality and greater efficiencies are the required features of today's packaging industry. "We are convinced that we can only be commercially successful in the long term if we balance economic growth with environmental and social responsibility", says Dr. Uwe Liebelt, President of the Paper Chemicals operating division.

BASF has set itself challenging goals for the future with regard to the use of energy and water and the reduction of emissions in the manufacturing of its own products and has developed advanced sustainability tools to accomplish them. Examples are its eco-efficiency analysis tool and the socio-eco-efficiency analysis SEEBALANCE® to additionally measure social impacts. "The sustainability audit was a positive experience for us and a vote of confidence in our work", stated Andreas Türk, Senior Vice President Paper Chemicals Europe. "We see a huge potential in our continued collaboration to improve sustainability for the benefit of both sides."

Smurfit Kappa promotes understanding and awareness about globalisation among high school students in Europe

As a member of the European Round Table of Industrialists, Smurfit Kappa is co-sponsor of an initiative that promotes greater understanding and awareness among young people in Europe about globalisation, entrepreneurship and the skills they need to succeed in the global economy.

During the 3-year initiative, 40,000 young people between the ages of 15 and 18 will have the opportunity to try their hand at enterprise, learn valuable entrepreneurial skills and apply their knowledge in new ways. With support from their teachers, they will be exposed to a variety of learning-by-doing approaches and work with people from a diverse range of industries and backgrounds.

The various activities of this initiative include classroom visits where volunteering managers interact with students directly, the opportunity for students to create and manage their own real enterprise and a competition called 'The Global Enterprise Challenge' which is a one-day innovation workshop focused on fostering young people's problem-solving, idea creation and presentation skills. Students are given a challenge to solve together in a team.

Besides a financial contribution, Smurfit Kappa managers in various countries participate in this initiative as volunteers.



Catherine Paul from Smurfit Kappa in discussion with students at the finale of the Global Enterprise Project competition - a project co-sponsored by Smurfit Kappa on educating European students on effects on global competition.

7. Memberships in Organisations

Smurfit Kappa is an active member of a number of industry and business organisations. These include CEPI, both at Group level and through various national paper organisations, FEFCO through a number of national corrugated organisations, the International Corrugated Cases Association (ICCA), the European Solid board Organisation (ESBO) and the European sack kraft manufacturers' association (Eurokraft). Several senior Smurfit Kappa executives are board members of CEPI, CEPI Containerboard, FEFCO and ESBO. In addition, a number of executives play an active role on the committees of CEPI, FEFCO and other relevant industry organisations.

Smurfit Kappa is also actively involved as a member of, or participant in, a number of organisations active in the area of environmental reporting and sustainability. These include the Carbon Disclosure Project (CDP), the Supplier Ethical Data Exchange (Sedex), the Water Footprint Network (WFN) and the

World Business Council for Sustainable Development (via its local chapter in Colombia). Membership of such organisations is not passive and customarily involves providing them with a significant amount of information on our operations, usually in the form of a detailed questionnaire.

Smurfit Kappa's participation in the UN Global Compact is explained more fully on page 87.

The Group CEO is a member of the European Round Table, a forum of almost 50 chief executives and/or chairmen of major multinational companies of European parentage covering a wide range of industrial and technological sectors.

Smurfit Kappa's subsidiary companies are also members of a large number of national industry and business associations in both Europe and Latin America.

INPUT/OUTPUT FOR 2011

ALL EUROPEAN OPERATIONS

INPUT

Wood and fibre		
Wood ⁽¹⁾	4,598	kTonnes ar
Market virgin pulp	84	kTonnes ar
Other pulp	20	kTonnes ar
Recovered Paper	4,255	kTonnes ar
Paper or Board purchased	1,763	kTonnes ar
Plastic films, other plastic item (BIB)	17	kTonnes
Starch (all types)	255	kTonnes ar
Inorganic raw materials	220	kTonnes ar
Other organic raw materials	193	kTonnes ar
Energy		
Energy from purchased fossil fuels	30,934	TJ
Energy from purchased biofuels	2,146	TJ
Electricity from grid	1,690	GWh
Water		
Fresh water	87	Mm ³

OUTPUT

Production		
Papers (All grades)	4,571	kTonnes
Corrugated Packaging *	4,563	kTonnes
Board and laminated Boards *	896	kTonnes
Converted Board *	322	kTonnes
Other packaging	16	kTonnes
Emissions to air		
CO ₂ fossil	1,844	kTonnes
CO ₂ biogenic	3,168	kTonnes
Dust from fuels	0.53	kTonnes
SO _x from processes	0.6	kTonnes
NO _x from processes	4.1	kTonnes
Energy output		
Electricity to third party	264	GWh
Thermal energy to third party	232	TJ
Biomass sold	1,828	TJ
Wastes		
Hazardous wastes	7.6	kTonnes
Non-hazardous wastes sent to landfill	220	kTonnes
Non-hazardous wastes recovered	298	kTonnes
Non-hazardous wastes sent to other destinations	43	kTonnes
Discharges to water		
Water released	79	Mm ³
COD	20	kTonnes
BOD	4.8	kTonnes
Total Suspended Solids	3.6	kTonnes
N	0.41	kTonnes
P	0.07	kTonnes

kTonnes ar: kiloTonnes as received

(1) wood & sawmill chips as delivered to the mill

* partly produced with Smurfit Kappa paper or board

The table reports total energy consumption of the sites, 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 74 to 76. The latter pages show the energy consumption for the production of the paper or board manufactured.

INPUT/OUTPUT FOR 2011

ALL LATIN AMERICAN OPERATIONS

INPUT

Wood and fibre		
Wood ⁽¹⁾	995	kTonnes ar
Market virgin pulp	2.8	kTonnes ar
Recovered Paper	868	kTonnes ar
Paper or Board purchased	245	kTonnes ar
Starch (all types)	27	kTonnes ar
Inorganic raw materials	86	kTonnes ar
Other organic raw materials	39	kTonnes ar
Energy		
Energy from purchased fossil fuels	15,769	TJ
Energy from purchased biofuels	0	TJ
Electricity from grid	538	GWh
Water		
Fresh water	34	Mm ³

OUTPUT

Production		
Papers (All grades)	902	kTonnes
Corrugated Packaging *	764	kTonnes
Board	185	kTonnes
Converted Board *	57	kTonnes
Sacks *	52	kTonnes
Emissions to air		
CO ₂ fossil	1,044	kTonnes
CO ₂ biogenic	463	kTonnes
Dust from fuels	0.17	kTonnes
SO _x from processes	3.3	kTonnes
NO _x from processes	0.7	kTonnes
Energy output		
Electricity to third party	0	GWh
Thermal energy to third party	0	TJ
Wastes		
Hazardous wastes	3.1	kTonnes
Non-hazardous wastes sent to landfill	309	kTonnes
Non-hazardous wastes recovered	31	kTonnes
Non-hazardous wastes sent to other destinations	5	kTonnes
Discharges to water		
Water released	32	Mm ³
COD	16	kTonnes
BOD	4.3	kTonnes
Total Suspended Solids	4.9	kTonnes
N	0.23	kTonnes
P	0.03	kTonnes

kTonnes ar: kiloTonnes as received

(1) wood as delivered to the mill

* partly produced with Smurfit Kappa paper or board

The table reports total energy consumption of the sites, 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 77 and 78. The latter pages show the energy consumption for the production of the paper or board manufactured.

EUROPEAN MILLS 2011 ENVIRONMENTAL DATA

		Nettingsdorfer, Austria	Navarra, Spain	Cellulose du Pin, France	Piteå, Sweden	Morava, Czech Republic	CD Haupt, Germany	Hoya, Germany	Viersen, Germany	Zülpich, Germany	Mengibar, Spain	
		bkl, tl	tl, mg paper	bkl, wtkl, wttl	wtkl, bkl	tl, fl	fl, tl, sb, wttl	fl, tl, cart	fl, tl	fl, tl	fl, tl, wttl	
PRODUCTION												
PRODUCTION	kTonnes	412	103	473	589	60	318	322	72	462	202	
ENERGY												
Electricity		-	-	-	-	-	-	-	-	-	-	
Co Generation	GWh	155	59	367 ⁽¹⁾	261	-	68	83	-	186	108	
Hydro power	GWh	0.0	-	-	-	2.6	0.2	-	-	-	-	
Net Grid supply	GWh	133	74	2,5 ⁽²⁾	279	21	29	64	23	6.8	- ⁽²⁾	
Total electricity	GWh	288	133	370	540	24	97	148	23	193	108	
Fuel usage												
Biofuels	TJ fuel	3,548	1,952	9,435	9,751	13	47	58	-	249	-	
Fossil fuels	TJ fuel	1,141	454	507	263	324	1,547	2,069	323	3,400	1,541	
Total fuels	TJ fuel	4,690 ⁽³⁾	2,407	9,943	10,013 ⁽³⁾	337 ⁽³⁾	1,594	2,127	323	3,648	1,541	
WATER WITHDRAWAL												
Surface	Mm ³	12	5.0	9.5	30.6	0.3	0.3	-	-	2.1	1.6	
Ground	Mm ³	-	-	1.0	-	0.0	0.8	2.1	0.3	0.4	0.0	
Grid	Mm ³	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.1	
Total	Mm ³	12	5.0	11	31	0.4	1.1	2.3	0.3	2.5	1.7	
DISCHARGES												
To air												
CO ₂ fossil direct	kTonnes	69	30	30	22	18	87	116	18	265	87	
CO ₂ fossil indirect	kTonnes	24	24	0.2	11	12	13	28	10	3.0	-	
CO ₂ biogenic	kTonnes	383	208	1,001	1,126	1.0	3.6	4.8	-	22	4.8	
Dust	Tonnes	45	22	75	340	0.2	-	0.3	-	2.3	-	
NO _x as NO ₂	Tonnes	272	150	669	700	10	52	77	7	242	459	
SO _x as NO ₂	Tonnes	27	44	22	138	5.7	-	0.9	0.3	73	23	
To water												
Process water	Mm ³	5.1	2.8	9.4	12	0.3	0.4	1.8	0.3	-	1.4	
Cooling water	Mm ³	7.2	2.1	-	19	-	0.3	0.0	-	1.4	-	
COD	Tonnes	6,763	293	4,468	1,403	30	107	264	<i>N/A</i>	-	301	
BOD	Tonnes	1,503	41	1,210	94	1.8	5.0	13	<i>N/A</i>	-	23	
Total Suspended Solids	Tonnes	355	75	729	157	3.7	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	-	119	
Total N	Tonnes	37	10	95	48	4.6	0.5	8.1	<i>N/A</i>	-	16	
Total P	Tonnes	2.7	1.3	15	13	0.2	0.3	0.7	<i>N/A</i>	-	2.7	
Solid wastes												
Total non-hazardous wastes	Tonnes	23,023	12,455	29,827	40,059	8,885	24,327	21,285	7,459	22,057	30,016	
<i>Landfill</i>	Tonnes	4,007	2,549	10,921	8,652	5,695	-	-	-	10,622	29,852	
<i>Recovery</i>	Tonnes	18,922	9,906	18,906	23,990	3,188	24,141	20,846	7,459	1,321	164	
<i>Other</i>	Tonnes	94	-	-	7,417	2.1	185	439	-	10,114	0.0	
Hazardous wastes	Tonnes	171	76	68	110	3.0	58	72	3.3	62	21	

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

mg : machine glazed
sb : solid board
tl : testliner

wtkl : white top kraftliner
wttl : white top testliner

water emissions in grey italics: external waste water treatment

	Alfa D'Avignon, France	Rethel, France	Saillat, France	Ania, Italy	Roermond, Netherlands	SSK, UK	Townsend Hook, UK	Badenkarton, Germany	Herzberger, Germany	Oude Pekela, Netherlands	Hoogkerk, Netherlands	Coevorden, Netherlands	Nieuweschans, Netherlands	Nervión, Spain	Total mills
	tl	tl	fl, tl	fl, tl	tl, fl	tl, fl	fl, tl	cart	sb	sb	sb	sb	sb	sack paper	
	72	64	237	204	565	197	232	146	252	55	82	91	113	142	5,468
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13 ⁽¹⁾	-	59 ⁽¹⁾	35	119	62	96 ⁽¹⁾	63	79	17	-	14	32	87	1,964
	-	-	0.7	-	-	-	-	0.9	1.0	-	-	-	-	-	5.4
	17 ⁽²⁾	22	59 ⁽²⁾	41	35	4.1	- ⁽²⁾	- ⁽²⁾	9.5	- ⁽²⁾	16	9.3	- ⁽²⁾	97	943
	30	22	118	75	154	66	96	64	90	17	16	24	32	183	2,912
	-	24	29	-	157	55	-	-	-	-	-	-	-	2,981	28,298
	429	308	1,541	1,189	2,790	1,289	2,252	1,144	1,570	369	360	362	674	70	25,916
	429	332	1,570	1,189	2,947	1,344	2,252	1,144 ⁽³⁾	1,570 ⁽³⁾	369	360	362	674	3,051	54,215
	0.7	-	1.8	1.6	2.2	-	1.1	1.8	3.3	0.0	0.3	0.3	0.4	2.4	78
	-	0.5	-	-	-	0.9	0.3	-	0.0	0.2	-	0.2	-	-	6.7
	-	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	1.1
	0.7	0.5	1.8	1.6	2.3	1.0	1.5	1.8	3.3	0.2	0.4	0.5	0.4	2.5	86
	24	18	88	67	158	73	126	64	89	21	21	21	38	4.6	1,553
	1.4	1.8	4.9	16	14	2.0	-	0.6	4.2	-	6.2	3.6	0.2	31	212
	1.1	1.8	3.8	-	11	4.7	3.9	-	-	-	-	-	0.5	342	3,124
	0.3	1.5	-	-	-	-	-	-	0.8	-	-	-	-	39	525
	17	28	96	43	125	124	434	59	75	22	7.1	17	38	219	3,943
	0.2	9.1	0.6	-	19	0.8	-	0.5	13	-	-	-	-	112	490
	0.6	0.4	1.4	1.3	1.7	0.7	1.2	1.5	1.3	0.2	0.2	0.1	0.3	1.8	46
	-	-	-	-	-	-	-	0.1	1.8	-	-	0.3	-	-	32
	45	64	1,520	150	335	973	114	158	185	18	38	982	54	766	19,030
	4.1	8.0	581	15	14	338	5.5	8.7	14	0.4	1.5	484	2.6	170	4,536
	8.9	11	479	103	27	1,170	37	13	20	3.3	2.9	28	6.2	88	3,435
	3.5	2.9	80	11	29	41	3.7	0.9	1.6	0.9	1.4	2.8	2.2	N/A	400
	4.2	0.3	12	0.9	2.9	9.9	0.3	0.1	0.2	0.1	0.2	0.1	0.3	N/A	67
	4,967	5,578	18,692	21,193	38,400	23,810	33,034	16,890	22,268	13,267	2,676	5,788	9,012	82,669	517,637
	-	2,086	14,740	12,283	3,029	20,892	28,694	-	108	377	3	106	11	48,518	203,145
	1,961	3,492	3,952	7,884	35,257	2,918	4,332	319	22,087	12,890	2,673	5,682	9,000	33,537	274,827
	3,006	-	-	1,026	115	0.0	8.4	16,571	73	-	-	-	-	614	39,665
	9.3	7.0	7.4	11	21	30	110	18	24	15	8.2	17	17	14	952

(1): CHP is outsourced

N/A: not available

(2): net electricity exported by CHP

(3): part of heat exported

Individual cell entries have been rounded. The figures in the total column may not tally due to rounding differences.

EUROPEAN OPERATIONS 2011

		PAPER & BOARD MILLS	INTEGRATED CORRUGATED OPERATIONS	OTHER PACKAGING OPERATIONS	OTHER OPERATIONS	TOTAL OPERATIONS
PRODUCTION						
	kTonnes	5,468	4,298	603	1,890	
ENERGY						
Electricity						
Co Generation	GWh	1,964	14	-	-	1,978
Hydro power	GWh	5.4	-	0.1	-	5.5
Grid supply	GWh	943	481	82	3.0	1,509
Total electricity	GWh	2,912	495	82	3.0	3,492
Fuel usage						
Biofuels	TJ fuel	28,298	139	0.0	-	28,437
Fossil fuels	TJ fuel	25,916	4,101	188	79	30,284
Total fuels	TJ fuel	54,215	4,240	188	79	58,721
WATER WITHDRAWAL						
Surface	Mm ³	78	0.1	-	-	78
Ground	Mm ³	6.7	0.4	0.0	-	7.1
Grid	Mm ³	1.1	1.3	0.1	0.0	2.5
Total	Mm ³	86	1.7	0.1	0.0	87
DISCHARGES						
To air						
CO ₂ fossil direct	kTonnes	1,553	238	11	5.8	1,808
CO ₂ fossil indirect	kTonnes	212	155	25	1.3	393
CO ₂ biogenic	kTonnes	3,124	15	0.0	-	3,139
Dust	Tonnes	525	6.7	0.3	0.0	532
NO _x as NO ₂	Tonnes	3,943	99	3.7	3.9	4,050
SO _x as SO ₂	Tonnes	490	78	4.0	3.6	575
To water						
Process water	Mm ³	46	0.6	0.1	-	47
Cooling water	Mm ³	32	0.1	0.0	-	32
COD ⁽¹⁾	Tonnes	19,030	1,041	N/A	N/A	20,072
BOD ⁽¹⁾	Tonnes	4,536	229	N/A	N/A	4,765
Total Suspended Solids ⁽¹⁾	Tonnes	3,435	146	N/A	N/A	3,581
Total N ⁽¹⁾	Tonnes	400	11	N/A	N/A	411
Total P ⁽¹⁾	Tonnes	67	0.5	N/A	N/A	67
Solid wastes						
Total non-hazardous wastes	Tonnes	517,637	28,481	7,890	7,011	561,018
Landfill	Tonnes	203,145	12,731	2,053	2,130	220,058
Recovery	Tonnes	274,827	13,086	5,494	4,881	298,288
Other	Tonnes	39,665	2,664	342	-	42,671
Hazardous wastes	Tonnes	952	5,997	682	3.5	7,634

N/A: not available

(1): sum of available data (for mills details are reported in the individual tables)

Individual cell entries have been rounded. The figures in the total column may not tally due to rounding differences.

LATIN AMERICA MILLS 2011 ENVIRONMENTAL DATA

		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	Total mills
		fl, tl	fl, tl	P&W, sack paper, cart, virgin pulp, tl, bkl, sc fl, wttl, wtkl	tl, fl	fl, wttl	fl, cart, tl, wttl	tl, cart, fl	fl, tl	tl, cart, wttl	cart	tl, sc fl, fl	
PRODUCTION													
	kTonnes	75	46	250	64	71	77	286	36	17	50	114	1,087
ENERGY													
Electricity													
Co Generation	GWh	-	-	227	37	-	-	-	-	3.9	37	118	423
Hydro power	GWh	-	-	-	-	-	-	-	-	-	-	-	-
Grid supply	GWh	37	19	83	0.1	37	52	160	20	6.1	13	1.1	428
Total electricity	GWh	37	19	310	37	37	52	160	20	10	50	119	851
Fuel usage													
Biofuels	TJ fuel	-	-	3,653	-	-	-	-	-	-	-	689	4,342
Fossil fuels	TJ fuel	530	238	5,603	1,105	422	591	1,367	225	248	1,066	3,380	14,776
Total fuels	TJ fuel	530	238	9,256	1,105	422	591	1,367	225	248	1,066	4,069	19,118
WATER WITHDRAWAL													
Surface	Mm3	0.8	-	22	1.0	0.7	-	-	-	0.6	-	-	25
Ground	Mm3	-	0.3	0.2	-	-	0.2	1.4	0.1	-	1.1	4.6	7.8
Grid	Mm3	-	-	0.0	0.0	-	-	-	0.0	0.2	0.0	-	0.3
Total	Mm3	0.8	0.3	22.6	1.0	0.7	0.3	1.4	0.2	0.8	1.1	4.6	34
DISCHARGES													
To air													
CO ₂ fossil direct	kTonnes	31	14	450	62	35	33	77	13	15	61	192	982
CO ₂ fossil indirect	kTonnes	13	6.8	8.9	0.0	4.0	23	70	8.8	1.2	2.6	0.2	139
CO ₂ biogenic	kTonnes	-	-	389	-	-	-	-	-	-	-	73	463
Dust	Tonnes	-	-	141	12	1.4	1.1	2.9	-	-	-	5.9	164
NO _x as NO ₂	Tonnes	8.5	10	298	65	43	33	26	1.1	20	18	161	684
SO _x as SO ₂	Tonnes	-	3.2	3,142	1.6	103	-	0.4	-	-	-	24	3,275
To water													
Process water	Mm3	0.8	0.3	23	1.0	0.4	0.1	0.5	0.1	0.8	0.8	3.8	31
Cooling water	Mm3	-	-	-	-	-	-	-	-	-	-	-	-
COD	Tonnes	836	81	6,849	1,961	1,907	19	158	150	1,967	239	1,963	16,131
BOD	Tonnes	250	13	1,329	1,084	677	0.7	13	56	640	50	165	4,278
Total Suspended Solids	Tonnes	93	5.8	2,288	607	89	1.6	24	35	1,388	79	305	4,917
Total N	Tonnes	7.1	0.8	146	11	5.1	0.5	6.3	14	13	3.6	23	230
Total P	Tonnes	0.6	0.1	20	0.1	0.3	0.2	2.5	1.0	1.0	0.4	3.5	29
Solid wastes													
Total non-hazardous wastes	Tonnes	7,336	4,692	217,131	2,745	6,338	2,040	41,741	6,821	816	11,207	37,175	338,041
Landfill	Tonnes	6,960	3,373	213,115	2,699	4,557	1,872	19,169	6,731	792	10,804	34,724	304,797
Recovery	Tonnes	376	1,319	4,016	46	510	168	22,571	90	24	403	317	29,839
Other	Tonnes	0	-	-	0	1,270	-	-	-	-	-	2,134	3,404
Hazardous wastes	Tonnes	10	3.6	206	10	8.3	7.6	34	8.0	1.8	14	2,523	2,826

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

P&W : printing and writing grade
 sc fl : semi-chemical flute
 tl : testliner

virgin pulp : virgin pulp sold externally
 wtkl : white top kraftliner
 wttl : white top testliner

Individual cell entries have been rounded. The figures in the total column may not tally due to rounding differences.

LATIN AMERICA OPERATIONS 2011

		PAPER & BOARD MILLS	OTHER OPERATIONS	TOTAL OPERATIONS
PRODUCTION				
	kTonnes	1,087	2,417	
ENERGY				
Electricity				
Co Generation	GWh	423	-	423
Hydro power	GWh	-	-	-
Grid supply	GWh	428	110	538
Total electricity	GWh	851	110	961
Fuel usage				
Biofuels	TJ fuel	4,342	-	4,342
Fossil fuels	TJ fuel	14,776	993	15,769
Total fuels	TJ fuel	19,118	993	20,111
WATER WITHDRAWAL				
Surface	Mm ³	25	0.1	26
Ground	Mm ³	7.8	0.3	8.1
Grid	Mm ³	0.3	0.3	0.6
Total	Mm ³	34	0.6	34
DISCHARGES				
To air				
CO ₂ fossil direct	kTonnes	982	62	1,044
CO ₂ fossil indirect	kTonnes	139	35	174
CO ₂ biogenic	kTonnes	463	-	463
Dust	Tonnes	164	3.0	167
NO _x as NO ₂	Tonnes	684	27	711
SO _x as SO ₂	Tonnes	3,275	39	3,313
To water				
Process water	Mm ³	31	0.1	32
Cooling water	Mm ³	-	0.0	0.0
COD	Tonnes	16,131	76	16,207
BOD	Tonnes	4,278	14	4,291
Total Suspended Solids	Tonnes	4,917	5.5	4,923
Total N	Tonnes	230	1.7	232
Total P	Tonnes	29	0.1	30
Solid wastes				
Total non-hazardous wastes	Tonnes	338,041	7,335	345,376
Landfill	Tonnes	304,797	4,327	309,124
Recovery	Tonnes	29,839	1,022	30,861
Other	Tonnes	3,404	1,987	5,391
Hazardous wastes	Tonnes	2,826	258	3,084

Individual cell entries have been rounded. The figures in the total column may not tally due to rounding differences.

TOTAL GROUP OPERATIONS

		All	All	All
		2011	2010	2009
ENERGY				
Electricity				
Co Generation	GWh	2,401	2,250	2,169
Hydro power	GWh	5.5	8.3	11
Grid supply	GWh	2,047	2,321	2,446
Total electricity	GWh	4,453	4,579	4,626
Fuel usage				
Biofuels	TJ fuel	32,779	32,526	29,351
Fossil fuels	TJ fuel	46,053	46,632	47,012
Total fuels	TJ fuel	78,832	79,158	76,363
WATER WITHDRAWAL				
Surface	Mm ³	103	109	121
Ground	Mm ³	15	15	16
Grid	Mm ³	3.0	3.2	3.8
Total	Mm ³	122	127	141
DISCHARGES				
To air				
CO ₂ fossil direct	kTonnes	2,852	2,862	2,909
CO ₂ fossil indirect	kTonnes	568	659	658
CO ₂ biogenic	kTonnes	3,602	3,520	3,096
Dust*	Tonnes	699	772	1,004
NO _x as NO ₂ *	Tonnes	4,761	5,592	6,566
SO ₂ as SO ₂ *	Tonnes	3,889	3,688	3,831
To water				
Process water	Mm ³	78	82	96
Cooling water	Mm ³	32	33	32
COD ⁽¹⁾	Tonnes	36,278	35,024	38,961
BOD ^{(1)*}	Tonnes	9,056	8,568	10,446
Total Suspended Solids ⁽¹⁾	Tonnes	8,504	8,033	8,384
Total N ^{(1)*}	Tonnes	643	653	420
Total P ^{(1)*}	Tonnes	97	109	86
Solid wastes				
Total non-hazardous wastes*	Tonnes	906,394	888,805	918,692
Landfill*	Tonnes	529,183	453,207	441,504
Recovery*	Tonnes	329,149	375,594	335,710
Other*	Tonnes	48,062	60,005	141,478
Hazardous wastes*	Tonnes	10,718	12,448	10,289

(1): sum of available data (for mills details are reported in the individual tables)

*Only the data for 2011 have been subject to assurance by KPMG.

MANAGEMENT SYSTEMS CERTIFICATION

Forestry

Latin America

		Forest Management
CO	Colombia Forest	FSC
VE	Venezuela Forest	

Wood Sourcing

Europe

		Chain of Custody
ES	Central Forestal	PEFC & FSC
FR	Comptoir Du Pin Aquitaine	PEFC & FSC

European Mills

Virgin mills

		Quality Management System ISO 9001	Environmental Management System ISO 14001	Health and Safety System OHSAS 18001	Chain of Custody
AT	Nettingsdorfer	•	•		PEFC & FSC
ES	Navarra	•	•		PEFC & FSC
	Nervi6n	•	•		PEFC & FSC
FR	Cellulose du Pin	•	•	•	PEFC & FSC
SE	Piteå	•	•		PEFC & FSC

Recycled mills

CZ	Morava	•	•	•	PEFC & FSC
DE	Baden Karton	•	•	•	PEFC & FSC
	CD Haupt	•	•	•	PEFC & FSC
	Herzberger	•	•	•	FSC
	Hoya	•	•	•	PEFC & FSC
	Viersen	•	•	•	PEFC & FSC
	Z6lpich	•	•	•	PEFC & FSC
ES	Mengibar	•	•		PEFC & FSC
FR	Alfa d'Avignon	•	•		PEFC & FSC
	Rethel	•	•		PEFC & FSC
	Saillat	•	•	•	PEFC & FSC
IT	Ania	•	•		PEFC & FSC
NL	SBM Coevorden	•	•	•	PEFC & FSC
	SBM Hoogkerk	•	•	•	PEFC & FSC
	SBM Nieuweschans	•	•	•	PEFC & FSC
	SBM Oude Pekela	•	•	•	PEFC & FSC
	Roermond	•	•	•	PEFC & FSC
UK	SSK	•	•	•	PEFC & FSC
	Townsend Hook	•	•	•	PEFC & FSC

Latin American Mills

Virgin mills

CO	Cali		•		FSC
VE	San Felipe				

Recycled mills

AR	Bernal				
	Coronel Suarez				
CO	Barbosa		•		FSC
	Barranquilla		•		FSC
MX	Cerro Gordo	•	•		<i>FSC</i>
	Los Reyes	•	•		<i>FSC</i>
	Monterrey	•	•		<i>FSC</i>
VE	Caracas				
	Valencia				

certification acquired in 2012 are shown in italics

SCOPE OF THE REPORT

The information in this report covers all the international activities of the Smurfit Kappa Group for the calendar year 2011 and also includes some information for early 2012.

Information is included from all of our operations: 331 facilities in 31 countries in Europe, Latin America and Canada. This includes a small number of joint ventures and minority holdings, none of which is material.

During 2011, the operations of the former Specialties Division were merged into the Paper Division and the Corrugated Division (both in Europe) and the data and performance of its activities are reported accordingly.

Smurfit Kappa fully recognises that sustainable development embraces social and business subjects as well as environmental topics. These subjects and topics have been selected on the basis of input from the various stakeholder groups. Smurfit Kappa collected data from all its manufacturing operations that were operational at the end of 2011.

When quantified performance or targets are mentioned in this report, they are related to production levels. Other information is reported in absolute figures, unless otherwise stated.

Among the various references used for the development and identification of baseline data included in this report are the G3 Sustainability Reporting Guidelines issued by the Global Reporting Initiative (GRI), an independent institution whose mission is to provide a trusted and credible framework for sustainability reporting.

As was the case in 2010, for 2011 Smurfit Kappa applied the GRI at an A+ level.

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

This tool is integrated into the Group's intranet, enabling sites to report their environmental data online according to the GRI guidelines. As the information is stored centrally, this allows for easier and faster processing.

We make continuous effort to introduce new functionality to allow the individual operations to compare their performance with the previous reporting periods, to extract data for further and individual processing of their own data, and to alert them where significant deviation occurs. The reporting protocol was revised once again in the course of 2011 to introduce additional information to clarify rules applying with the objective to improve the quality of the reporting. Our goal is to ensure the continuous consistency of data for both our European and Latin American operations.

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 89 to 92.

We are making ongoing efforts to further standardise the data gathering system in Smurfit Kappa to improve data quality and consistency in the use of Group definitions and scope requirements of our key indicators.

We requested an external assurance provider, KPMG, to provide limited assurance on the data and the text of the report. The assurance report of KPMG can be found on page 88.

RELATIONSHIP TO GRI GUIDELINES

The Global Reporting Initiative (GRI) is a large worldwide network of experts whose mission is to provide the global standards for sustainability reporting.

The GRI network has developed a Sustainability Reporting Framework, the core of which is the Sustainability Reporting Guidelines. The Guidelines consist of principles for defining report content and ensuring the quality of reported information as well as standard disclosures comprising performance indicators and other disclosure items. These guidelines provide an internationally recognised framework for voluntary reporting on an organisation's economic, environmental and social performance.

The index below has been prepared using the current GRI Sustainability Reporting Guidelines (version G3) and it provides a list of the GRI indicators reported by Smurfit Kappa for 2011. All core Indicators have been addressed and are included in the table. The index refers to information in our 2011 Sustainable Development Report (SDR), our 2011 Annual Report (AR), our website: www.smurfitkappa.com and the Carbon Disclosure Project website.

We declare that our 2011 reporting applies to a GRI "A+" application level. An "A" application level requires reporting on a specified range of criteria, on the management approach to disclosures for each indicator category and a response on each core G3 indicator. We have sought assurance from an external party which expands the application level to "A+".

GRI-G3	Description	Source/comment	Page(s)
Profile			
1.1	CEO Statement on relevance of sustainability to the organisation and its strategy	SDR	5-6
1.2	Description of key impacts, risks and opportunities	SDR	14-17
Organisational Profile			
2.1	Name of the organisation	SDR	Cover
2.2	Primary brands, products, and/or services	AR	3-5
2.3	Operational structure of the organisation	Website	
2.4	Location of organisation's headquarters	SDR	Inside back cover
2.5	Countries where the organisation operates	AR	3-5
2.6	Nature of ownership and legal form	AR	157,160
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	AR	155-156
2.10	Awards received in the reporting period	Website	
Report Parameters			
3.1	Reporting period (e.g. fiscal/calendar year) for information provided	SDR	81
3.2	Date of most recent previous report (if any)	SDR	5
3.3	Reporting cycle (annual, biennial, etc.)	SDR	5
3.4	Contact point for questions regarding the report or its contents	SDR	Inside back cover
3.5	Process for defining report content	SDR	81
3.6	Boundary of the report	SDR AR	81 3-5
3.7	Any specific limitations on the scope or boundary of the report	SDR	81
3.8	Basis for reporting on joint ventures, subsidiaries, etc.	SDR	81
3.9	Data measurement techniques and the bases of calculations	SDR	32, 81
3.10	Explanation of effect of re-statements of information provided previously	SDR	32, 81
3.11	Significant changes in scope, boundary, or measurement methods	SDR	32, 81

GRI-G3	Description	Source/comment	Page(s)
3.12	Table identifying the location of the Standard Disclosures in the report	SDR	82-85
3.13	Policy and current practice on seeking external assurance for the report	SDR	82, 88
Governance, Commitments, and Engagement			
4.1	Governance structure of the organisation	AR	38-48
4.2	Indicate if Chair of the Board is also an executive officer	AR	41
4.3	The Board members that are independent and/or non-executive members	AR	39
4.4	Ways for shareholders and employees to provide recommendations or direction to the Board	SDR AR	51-52 45-46
4.5	Link between compensation of Board and management with SDR performance	AR	52
4.6	Processes in place for the Board to ensure conflicts of interest are avoided	Website	
4.7	Process for determining the qualifications and expertise of the Board	AR	38-40
4.8	Internally developed statements of mission or values, codes of conduct, and principles	SDR AR Website	7-8 13, 38-44
4.9	Procedures of the Board for overseeing identification and management of performance	AR	42
4.10	Processes for evaluating the Board's own SDR performance	SDR AR	7 42
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organisation	AR	46-47
4.12	Externally developed economic, environmental and social charters & principles	SDR	7
4.13	Memberships in associations	SDR	71
4.14	List of stakeholder groups engaged by the organisation	SDR	10
4.15	Basis for identification and selection of stakeholders with whom to engage	SDR	10, 51-53, 61-62
4.16	Approaches to stakeholder engagement	SDR	10, 51-53, 61-62
4.17	Key topics and concerns raised through stakeholder engagement	SDR	26, 38, 45, 52, 55, 62-65
Economic			
	Disclosure on management approach	SDR AR	5, 12 13, 33-35, 75-88
EC1	Direct economic value generated and distributed	AR	89-95
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	CDP 2012 Investor	Section 5
EC3	Coverage of the organisation's defined benefit plan obligations	AR	84-85, 122-128
EC4	Significant financial assistance received from government	AR	67, 84, 94
EC6	Policy, practices and proportion of spending on locally-based suppliers at significant locations of operation	SDR	63
EC7	Local hiring and proportion of senior management hired from the local community at significant locations of operation	SDR	49
EC8	Development and infrastructure provided primarily for public benefit	SDR Other than local community involvement, no engagement by Smurfit Kappa	53, 57
Environmental			
	Disclosure on management approach	SDR	5, 19-23, 81
EN1	Materials used by weight or volume	SDR	72, 73
EN2	Percentage of materials used that are recycled input materials	SDR	25
EN3	Direct energy consumption by primary energy source	SDR	32-33, 74-79
EN4	Indirect energy consumption by primary source	SDR	33, 74-79
EN5	Energy saved due to conservation and efficiency improvements	SDR	31-37

GRI-G3	Description	Source/comment	Page(s)
EN6	Energy-efficient or renewable energy products and services	SDR	31-37
EN8	Total water withdrawal by source	SDR	39, 74-79
EN10	Percentage and total volume of water recycled and reused	SDR	38-40, 74-79
EN11	Location and size of land by protected areas and areas of high biodiversity value	SDR Website	27, 30
EN12	Description of significant impacts of activities, products and services on biodiversity	SDR	26-30
EN16	Total direct and indirect greenhouse gas emissions by weight	SDR	32-35, 74-79
EN17	Other relevant indirect greenhouse gas emissions by weight	SDR	32-33
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	SDR	34
EN19	Emissions of ozone-depleting substances by weight	website	
EN20	NO _x , SO _x and other significant air emissions by type and weight	SDR	74-79
EN21	Total water discharge by quality and destination	SDR	74-79
EN22	Total weight of waste by type and disposal method	SDR	74-79
EN23	Total number and volume of significant spills	SDR	40
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	SDR	19-23, 25-41
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	SDR	25
EN28	Significant fines and non-monetary sanctions for non-compliance with environmental law	SDR	8
EN29	Significant environmental impact from transport	SDR	35
Labour Practices			
	Disclosure on management approach	SDR	12, 43-53
LA1	Total workforce by employment type and region	SDR	48-49
LA2	Total number and rate of employee turnover by age group, gender, and region	SDR	48-49
LA3	Benefits provided to full-time employees	SDR	48-49
LA4	Percentage of employees covered by collective bargaining agreements	SDR	48
LA5	Minimum notice period(s) regarding significant operational changes	SDR	51
LA6	Employees covered by collective bargaining agreements	SDR	48
LA7	Rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities by region	SDR	44, 46
LA8	Education, training, counselling, prevention and risk-control programmes in place to assist workforce members, their families or community members regarding serious diseases	SDR	44
LA10	Average hours of training per year per employee by employee category	SDR	50
LA11	Programmes for skills management and lifelong learning	SDR	49-51, 54
LA12	Employees receiving performance and career development reviews	SDR	50
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	AR SDR	36-37 48-49
LA14	Ratio of basic salary of men to women by employee category	SDR Same job, same pay	48
Human Rights			
	Disclosure on management approach	SDR	12, 48
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	SDR	52, 53
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	SDR	53
HR4	Total number of incidents of discrimination and actions taken	SDR Website	53

GRI-G3	Description	Source/comment	Page(s)
HR5	Operations 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	48
HR6	Operations with significant risk for incidents of child labour, and measures taken to eliminate	SDR	48
HR7	Operations with significant risk of forced or compulsory labour, and measures taken to eliminate	SDR	48
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	No significant issues	48
Social			
	Disclosure on management approach	SDR	12, 53
SO1	Nature, scope, and effectiveness of any programmes and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	SDR	55-57
SO2	Business units analysed for risks related to corruption	SDR	8
SO3	Percentage of employees trained in organisation's anti-corruption policies and procedures	SDR	8
SO4	Actions taken in response to incidents of corruption	SDR	8
SO5	Public policy positions and participation in public policy development and lobbying	SDR	8
SO6	Total value of financial and in-kind contributions to political parties, politicians and related institutions by country	SDR	8
SO7	Total number of legal actions for anti-competitive behaviour, anti-trust and monopoly practices and their outcomes	SDR	8
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	SDR	8
Product Responsibility			
	Disclosure on management approach	SDR	13-14, 61
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	63-65
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	62
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	SDR	63-65
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	62
PR5	Practices related to customer satisfaction, including results of surveys that measure customer satisfaction	SDR	62
PR6	Programmes for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	SDR	62
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	62
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 fines and/or substantiated claims for non-compliance with laws or regulations concerning the provision and use of products and services were identified	

BUSINESS IN THE COMMUNITY IRELAND

External Commentary – Smurfit Kappa Sustainable Development Report 2011

We welcome the publication of what is now the fifth full-spectrum report issued by Smurfit Kappa Group on its sustainable development activities in 2011. The report, once again rated as a GRI G3 A+ report, continues to address various dimensions of activity, disclosing an impressive amount of data from across the Group, particularly on environmental factors, that are supplemented by case studies and testimonials.

There is a clear sense that Smurfit Kappa is drilling deeper into the measurement of the sustainability of all aspects of its activities and forging practices accordingly. Despite the current economic climate and the challenging business conditions the company faces, Smurfit Kappa continues to extend its Chain of Custody certification across the Group and to invest in more efficient technologies such as CHP and biomass to reduce carbon emissions and its focus on the more efficient use of water also continues.

On Social Development, the report disclosed a range of laudable achievements. As well as the fact that the European Works Council agreement with employees has been renewed for another four years, the fact that environmental protection appeared on the agenda of those discussions is a strong example of how sustainability can be integrated into day to day operations. The report also communicates the strides that Smurfit Kappa is making in relation to involving employees in sustainability – through the first awards for Sustainability in product development, through the Safety Opinion Survey among employees across Europe and Latin America and through the roll out and the forthcoming awareness activities on the Group's Code of Business Conduct. Also on Social Sustainability, the establishment of the Smurfit Kappa Group Foundation is a praiseworthy development and we look forward to reading more about the impact it will have on the areas identified.

Looking ahead, we strongly recommend developing a graphical guide to make the comprehensive reporting more accessible to stakeholders. We recognise the success of Smurfit Kappa's long term sustainable development commitments in driving extensive measurement, analysis, and external verification

across the environmental dimensions of operations. We recommend extending these long term sustainable development commitments to include objectives in relation to employees, customers, local communities and suppliers – addressed under social and business sustainability as appropriate.

Setting out the commitments clearly at the outset under the main headings would provide a natural structure for reporting on the extensive programmes that Smurfit Kappa is already pursuing with these stakeholders and provide an opportunity to describe the company's objectives and targets for these constituents.

We note the significant improvements Smurfit Kappa has made across a range of environmental indicators. For future reports, we would recommend an 'at a glance' table describing how the company is faring against its long term commitments in all these areas. This would provide a consistent structure for the communication of targets that are dispersed throughout the report as well as offering an opportunity to consider how stakeholders, such as suppliers, can further contribute to helping Smurfit Kappa achieve its sustainability goals.

Finally we recommend additional illustrations that draw on the Group's extensive data to describe the life cycle of particular products in terms of all aspects of sustainable development.

We highly commend Smurfit Kappa, and in particular, their management and Sustainability Working Group for advancing the responsible business agenda across the organisation.



Tina Roche
Chief Executive
Business in the Community Ireland



UN GLOBAL COMPACT

Smurfit Kappa became a participant in the United Nations Global Compact, a worldwide corporate citizenship initiative, in 2010. This is now a network of more than 8,700 businesses and other participants from over 130 countries who promote ten 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 ten 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 82 to 85 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 | HR1-9, LA7-9, LA13-14, PR8 |
| 2 | Businesses should make sure that they are not complicit in human rights abuses. | HR1-9 |

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. | LA2, LA13-14, HR4 |

Environment

- | | | |
|---|--|---------------------------|
| 7 | Businesses are asked to support a precautionary approach to environmental challenges; | EN18, 26 |
| 8 | Businesses should undertake initiatives to promote greater environmental responsibility; and | EN1-29, PR3-4 |
| 9 | Businesses should encourage the development and diffusion of environmentally friendly technologies | EN2, 5-7, 10, EN18, 26-27 |

Anti-corruption

- | | | |
|----|--|-------|
| 10 | Businesses should work against corruption in all its forms, including extortion and bribery. | SO3-4 |
|----|--|-------|



INDEPENDENT ASSURANCE REPORT

To the readers of the Sustainable Development Report 2011 of Smurfit Kappa Group plc.

Introduction

We have been engaged by the management of Smurfit Kappa Group plc (Smurfit Kappa) to provide assurance on the information in the Smurfit Kappa Sustainable Development Report 2011 (further referred to as 'The Report'). The management of Smurfit Kappa is responsible for the preparation and fair presentation of the information in The Report. Our responsibility is to provide assurance on the information in The Report.

Scope

Our engagement was designed to provide limited assurance on whether the information in the Report is, in all material respects, fairly stated in accordance with the reporting criteria.

Procedures performed to obtain a limited level of assurance are aimed at determining the plausibility of information and are less extensive than those for a reasonable level of assurance.

Reporting criteria and assurance standard

Smurfit Kappa applies the Sustainability Reporting Guidelines of the Global Reporting Initiative (G3), as detailed in the section Relationship to GRI Guidelines on page 82. It is important to view the report in the context of this explanatory information. We believe that these criteria are suitable in view of the purpose of our assurance engagement.

We conducted our engagement in accordance with the International Standard for Assurance Engagements (ISAE) 3000: Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board. This Standard requires, amongst others, that the assurance team possesses the specific knowledge, skills and professional competencies needed to understand sustainability information, identify and collect the thereto related assurance information and that they comply with the requirements of the Code of Ethics for Professional Accountants from the International Federation of Accountants to ensure their independence.

Work undertaken

Our procedures included the following:

- A media analysis and internet search for references to Smurfit Kappa in the reporting period;

- Interviews with relevant staff concerning the sustainability strategy, communication and management of these in the business, and for other staff responsible for providing the information in The Report;
- Conducting site visits to Nettingsdorfer (Austria), San Felipe (Venezuela), Baden-Baden (Germany), Birmingham and Northampton (United Kingdom) to review the quality of information management systems and the reliability of the data as reported to corporate level;
- Reviews of the systems and processes for information management, internal control and processing of the qualitative and quantitative information in The Report at corporate level;
- Reviewing internal and external documentation to determine whether the information in The Report is supported by sufficient evidence;
- An evaluation of whether the information presented in the report is in line with our overall knowledge of, and experience with, sustainability at Smurfit Kappa.

Conclusion

Based on our work as described, we conclude that nothing came to our attention to indicate that the information in The Report is not, in all material respects, fairly stated in accordance with the reporting criteria.

Other observation

Without affecting the conclusion presented above, we would like to draw the readers' attention to the following:

During 2011 Smurfit Kappa has made further progress in engaging in the dialogue with its stakeholders. We recommend Smurfit Kappa to further define and implement the group-wide process of systematic stakeholder engagement and describe in the Sustainable Development Report how stakeholders' expectations are managed and integrated into Smurfit Kappa's approach to sustainability and reporting.

Amstelveen, 26 June, 2012

KPMG Sustainability,
part of KPMG Advisory N.V.

Wim Bartels, partner

GLOSSARY

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.
Biodiversity	General term to describe the variety of life forms (flora and fauna) in an ecosystem.
Biofuels	Fuels coming from biomass (wood rejects, bark, black liquor produced during the production of virgin pulps, pitch oil, biomass part of mixed wastes and biogas produced during the anaerobic treatment of water).
Black liquor	Residue from pulping that contains organic compounds (like lignin). This residue is burnt in paper mills to produce energy.
CDP	The Carbon Disclosure Project is an independent not-for-profit organisation holding the largest database of primary corporate climate change information in the world. Thousands of organisations from across the world's major economies measure and disclose their greenhouse gas emissions and climate change strategies through CDP.
CEN	Comité Européen de Normalisation. The European Committee for Standardisation is major provider of European standards and technical specifications.
CEPI	CEPI, the Confederation of European Paper Industries, is located in Brussels. It is a non-profit organisation representing the European pulp and paper industry. CEPI's mission is to promote the members' business sector by taking specific actions and analysing activities in the areas of environment, energy, forestry, recycling and research.
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 fuels 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.
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.
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.
Co-generation	Electricity generated by a CHP system belonging to our organisation or from a CHP outsourced.
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 fluting to two flat-facing sheets of containerboard (kraftliner or testliner).

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.
CO₂ indirect	Fossil carbon dioxide generated, externally to the site, to produce the electricity purchased from the grid by the company. Source: International Energy Agency Data Services. 2009: "CO ₂ emissions from fuel combustion (2009 Edition)".
Carbon dioxide equivalent CO₂-eq	A metric 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.
CSR	Corporate Social Responsibility: a concept whereby organisations consider the interests of society by taking responsibility for the impact of their activities on customers, suppliers, employees, shareholders, communities and the environment in all aspects of their operations.
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.
EBITDA	Earnings before interest, taxes, depreciation and amortisation.
ELCD	European Reference Life Cycle Database. The ELCD has been developed within the "European Platform on Life Cycle Assessment" that is a project of the European Commission, carried out by the Commission's Joint Research Centre, Institute for Environment and Sustainability (JRC-IES).
Environmental Management System	A set of processes and practices that enable an organisation to reduce its environmental impact and increase its operating efficiency.
Emissions Trading Scheme	A scheme calculated to allocate greenhouse gas allowances for a list of specific activities.
Fluting	The 'wavy' middle layer in corrugated board.
Fossil fuels	Fuels originating from natural resources (gas, oil, coal, peat and lignite).
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.
Gigajoule	Unit of energy that generally applies to fuel. 1 gigajoule (GJ) = one billion joules = 10 ⁹ joules.
GRI	The GRI (Global Reporting Initiative) reporting framework is the generally accepted framework for reporting on an organisation's economic, environmental and social performance. The sustainability reporting guidelines give the reporting principles, and the list of performance indicators, for each of the three key areas that should be disclosed in a sustainability report.
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).
Hectare	A unit of area. One hectare (Ha) = 10,000 m ² . One hectare = 2.471 acres.
ILO	International Labour Organisation.
Inorganic raw materials	Raw material used for manufacturing our products that are not organic such as: fillers, sodium hydroxide, sodium sulphate and calcium oxide.

Innotools	Innotools is a unique software suite for developing fit-for-purpose packaging. It comprises: Innobook, an internal library with over 4,000 proven design solutions used extensively by designers in Smurfit Kappa; Pack Expert, an advanced statistical model used to determine the packaging performance in the customer's supply chain; and Paper-to-Box, a sophisticated software tool used to predict box performance based on board design and composition.
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 17025	This international standard lists the requirements to allow the accreditation by authorised third party of a testing laboratory and to verify its proficiency.
ISO 22000	This standard specifies 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.
kTonne	One kTonne = 1,000 tonnes, where one tonne (metric tonne) = 1,000 kilograms.
Kraftliner	Paper made mainly from virgin wood fibres.
Mm3	1 million cubic metres.
MJ	Megajoule, a unit of energy. 1 megajoule (MJ) = 1 million joules = 10 ⁶ joules.
MWh	Unit of energy, generally applies to electricity – 1 MWh (MegaWatt hour) = 1,000 KWh (KiloWatt hour).
Natura 2000	Natura 2000 is an ecological network of protected areas in the territory of the European Union. In May 1992, governments of the European Union adopted legislation designed to protect the most seriously threatened habitats and species across Europe (the Habitats Directive).
NGO	A Non-Governmental Organisation (NGO) is a legally constituted organisation created by private persons or organisations with no participation or representation of any government.
N (Nitrogen)	Total Nitrogen is the sum of organic nitrogen, ammonia, NH ₃ and ammonium, NH ₄ ⁺ discharged with the process water.
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.
OECD	Organisation for Economic Co-operation and Development.
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 colorant or dyes.
PEFC	Programme for the Endorsement of Forest Certification. The PEFC is an independent, non-governmental organisation which promotes sustainably managed forests through independent third party certification.
P (Phosphorous)	Total phosphorous is the sum of phosphorous compounds discharged with the process water.
PJ	Petajoule, a unit of energy. 1 petajoule = 1,000 terajoules = 10 ¹⁵ joules
Process water	Quantity of water containing organic compounds released to 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.
Purchased pulp	Pulp produced by third party companies and purchased by our mills to produce paper or board (the pulps are mainly bleached).

REACH	REACH is the Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals. REACH applies to all chemicals: not only chemicals used in industrial processes but also chemicals in articles such as paper and packaging.
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.
Renewable energy	Energy coming from sources that are naturally renewable (e.g. biomass, hydro electricity).
Sludge	A solid waste that is produced during water treatment from biological activity (mainly aerobic stage).
Sedex	Sedex, the Supplier Ethical Data Exchange, is a membership organisation for businesses committed to continuous improvement of the ethical performance of their supply chains. Sedex is a not-for-profit organisation based in London, UK. Sedex focuses on four pillars: Labour Standards, Health and Safety, Environment and Business Integrity.
Solid 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.
<i>Total non-hazardous wastes</i>	Sum of all solid non-hazardous wastes that are going to landfill or are recovered or comprise other wastes. Each category of non-hazardous wastes is defined and reported.
<i>Non-hazardous wastes Landfill</i>	Part of the non-hazardous wastes that are disposed of in either internal or external landfill in accordance with national legislation.
<i>Non-hazardous wastes Recovery</i>	Part of non-hazardous wastes that are reused or recycled or composted or used in agriculture or incinerated with energy recovery.
<i>Non-hazardous wastes Other</i>	Part of non-hazardous wastes that does not belong to the two previous categories. This include wastes incinerated without energy recovery or wastes for which the final disposal is uncertain.
<i>Hazardous wastes</i>	Residues of oils and other hazardous wastes (building wastes containing asbestos, ink residues, etc.).
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.
SVHC	Substances of Very High Concern are defined in Article 57 of REACH Regulation (EC) No 1907/2006 and include substances which are Carcinogenic, Mutagenic or toxic to Reproduction (CMR) or Persistent, Bioaccumulative and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB).
Testliner	Paper manufactured from recycled fibres.
TJ	Terajoule, a unit of energy that generally applies to fuel. 1 terajoule = 1,000 gigajoules = 10 ¹² joules.
Total Suspended Solids	Total Suspended Solids refers to the level of small solid particles released with process water.
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.
WFN	Water Footprint Network (WFN) is a non-profit international network. The mission of the WFN is to promote the sustainable, fair and efficient use of fresh water resources worldwide.
WTP	Water Treatment Plant: facility that treats process water by a combination of physical, chemical and biological processes before discharging the water to the environment.

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