CEPI SUSTAINABILITY REPORT 2013

EUROPEAN PAPER INDUSTRY – ADVANCING THE BIOECONOMY

ABOUT CEPI

The Confederation of European Paper Industries (CEPI) regroups the European pulp and paper industry and champions its products and achievements. A Brussels-based non-profit making organisation, CEPI's mission is to promote the members' business performance through targeted strategies such as organising, monitoring and analysing activities in the areas of environment, energy, forestry, recycling, research and trade.

CEPI also aims to boost the knowledge of its members in specific technical areas, and to facilitate the flow of information between companies and associations. Its 18 member countries [1] (17 European Union members plus Norway) regroup some 520 pulp, paper and board producing companies across Europe, ranging from small- and medium-sized companies to multinationals, operating some 959 pulp & paper mills between them. Together they represent nearly 23% of world production.

ABOUT THIS REPORT

This full sustainability report is guided by the GRI Sustainability Reporting Guidelines and maintains the B+ requirements with A+ being the highest possible ranking (page 98). The Global Reporting Initiative (GRI) provides standardised criteria which public and private bodies can use to benchmark, chart and report progress in their activities from economic, environmental and social perspectives. Plenum provided third party assurance to the report (page 90).

CEPI assimilates information and aggregates data from 2011 and 2012 voluntarily provided by companies and member organisations, and it is complemented by CEPI research. CEPI is confident that the process is fully inclusive, transparent and stands up to scrutiny. The last of these biennial reports was published in 2011 and covered 2009 and 2010 data.

More information on our stakeholder engagement, data collection, materiality, report boundaries and reporting methodology is available as of page 80. The main audiences for this report are European institutions and NGOs. The pulp and paper industry should equally make good use of the facts and figures included here.

CEPI sector performance reporting was updated to the GRI 3.1 guidance and reviewed by Plenum, whose constructive analysis has resulted in comprehensive coverage of salient information and key data. The report is endorsed by the CEPI Board.

OUR IMPROVEMENTS

This is our sixth Sustainability Report. With each version we improve our reporting. Stakeholder involvement includes face-to-face discussions and regular meetings in several networks and fora. In response to feedback from a specially organised stakeholder meeting, we decided to provide more information on forestry and raw materials as well as describe more of the challenges our industry faces. We also included direct feedback from stakeholders on the content of this report.

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Subject areas in this report are discussed and explained in further detail at www.cepi.org and www.cepi-sustainability.eu

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ideas start with paper

1 Austria, Belgium, Czech Republic, Finland, France, Germany, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom

IN THIS PUBLICATION

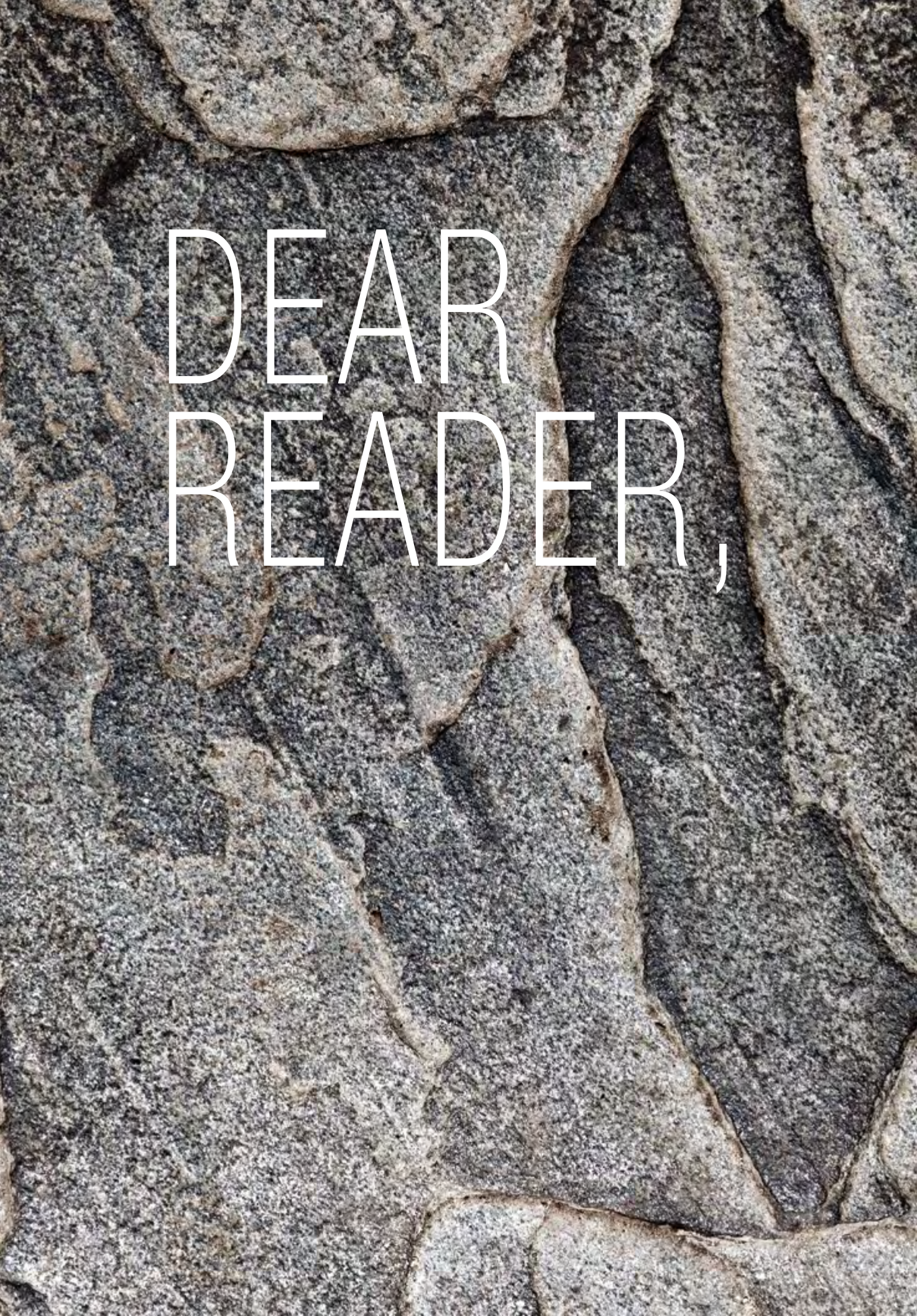
MADE IN EUROPE
This icon marks examples that show the European paper industry is 'made in Europe'.

INNOVATION
The icon identifies examples of innovation in the paper industry.

RESOURCE EFFICIENCY
This icon marks figures and examples showcasing particular activities in resource efficiency.

BEST PRACTICE
This icon highlights case studies and examples within the paper industry that are considered 'best practice'.

VIDEO AND OTHER LINKS


DEAR
READER,

Sustainability and competitiveness have to go hand in hand for industry to excel. The European paper industry is a leading example of this. Reducing raw material consumption makes both sustainable and economic sense. Using residues from papermaking to produce renewable energy is also a good example. Turning residues from recycling operations into useful products is part of the circular economy that the planet needs to achieve.

This leading role should not be taken for granted; it is the result of systematic and diligent work, based on the uniqueness of our industry, the drive towards continuous improvement and the collaboration with stakeholders.

There is room for improvement, and the industry will have to find ways to move forward in its sustainability approach in spite of the downturn economic situation.

Since the last report in 2011, the crisis has accelerated the structural changes in our industry. Our companies have started looking in a systematic way at new business models and new products. Unfortunately, in a number of cases they also had to close capacity.

Legislation also continues, introducing new rules, driving new processes, sometimes adding new burdens, sometimes driving together sustainability and competitiveness.

Our industry is creating value "made in Europe". At least 82% of our raw materials come from Europe and most of our suppliers are European companies 23% of our products "made in Europe" are exported to the global market.

The European pulp, paper and board industry is at the core of the bioeconomy, producing not only the original bio-based product that paper is, but also products that replace fossil fuel-based products. With this, our industry has become a strategic sector in the EU economy, actively contributing to the re-industrialisation of Europe.

This path to bring together sustainability and competitiveness is well established in the CEPI 2050 Roadmap towards a low carbon economy. It was launched at the end of 2011, and outlines our industry vision into the bioeconomy.

In the last two years we have been rolling out the Roadmap. The establishment of the Bio-based Public Private partnership is one action in that direction. The Two Team Project is another. The Two Team Project was set up to deliver, in one year, breakthrough concepts for our sector to reach 80% CO_2 reduction and 50% more value by 2050. The project has delivered very promising results.

Sustainability is precisely that, a vision towards a business development based on sustainable practices that address society's key challenges, on a long lasting basis.

Sustainable solutions face many challenges ahead: resource scarcity and climate change are amongst the most critical ones. But so is an investment friendly environment that supports jobs and social benefits.

Our industry is addressing those challenges and in transformation for the future, creating new sustainable opportunities and advocating for Europe to defend its industry.

We cannot achieve all this alone and the constant contact with our stakeholders will strengthen the efforts of our industry towards continuous improvement.

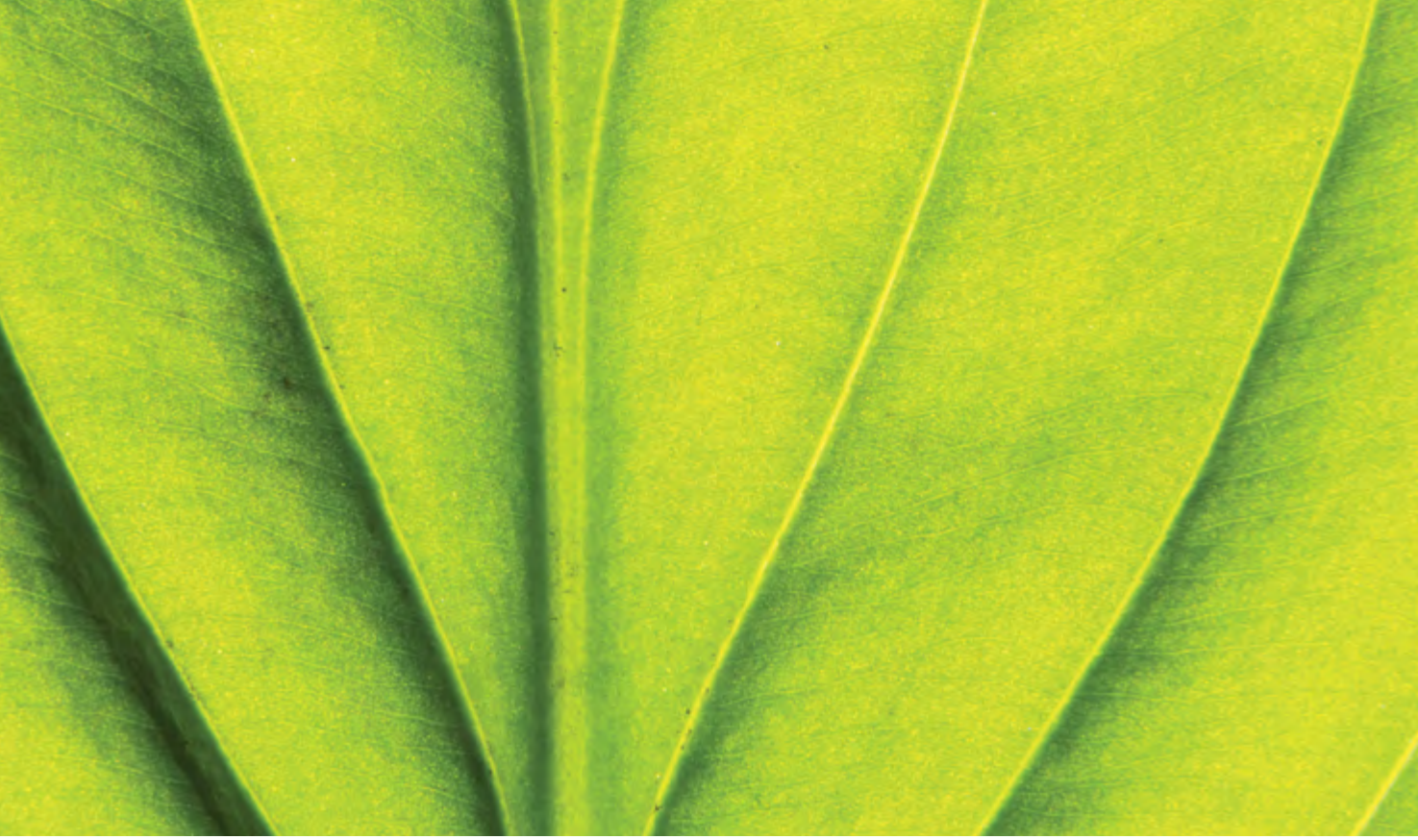
We hope you find this CEPI 6th Sustainability Report inspiring and look forward to your comments.

Thank you very much for your interest!

Teresa Presas,
CEPI Director General

Jussi Pesonen,
CEPI Chairman

OUR COMMIT-MENT TO A BIOBASED FUTURE



Recent years have focused the attention of our industry on innovation. Innovation has also dominated CEPI's agenda in Brussels since the launch of the CEPI 2050 Roadmap. The Roadmap showed how the sector could reduce its fossil-based CO_2 emissions by 80% while at the same time creating 50% more added value. Breakthrough technologies would be needed to achieve the climate target. These technologies must become available by 2030 to be running by 2050.

To help the industry advance, CEPI launched the Two Team Project at the 2012 European Paper Week and with it an internal competition for breakthrough concepts in papermaking.

At the same time the bioeconomy received backing through a European Commission green paper on the subject, which mentions the paper industry as one of the core sectors involved. CEPI initiated a bio-based industry Public Private Partnership with the European Commission, together with other sectors and more than a dozen pulp and paper producers to secure funding for sector specific research in this area. We also got involved in the European Innovation Partnership for raw materials, focusing on recycling related projects.

The past two years have been very productive and innovative with concrete results. The excellent facts and figures presented in this report were strongly influenced by the European pulp and paper industry commitments and motivations.

CEPI COMMITMENTS

- European Declaration on Paper Recycling: 71.7% recycling rate. Read more on page 28
- Target zero accidents. Reduction of 60% in 10 years! Read more on page 67
- Zero landfill for recyclable waste. Read more on page 61
- CEPI Roadmap 2050: be part of the low carbon future and investigate 80% CO_2 reductions and 50% value creation by 2050. Read more on page 52
- Support the bioeconomy ambitions of the EU Read more on page 21
- Full EMAS certification of mills in Europe, page 57

EUROPEAN PAPER INDUSTRY MOTIVATIONS

- Remain a financially sustainable and strategic industry in Europe
- Be a trusted industry partner in Europe
- Deliver sustainable product solutions
- Combat climate change and minimise our impact on the environment
- Care for the forests - promote the use of certification systems in forest management and responsibility in procurement chains in all our raw materials
- Support the legal logging and sourcing of raw materials
- Increase bioenergy production
- Work on continuous improvement in energy-efficiency
- Utilise raw materials effectively. Study new opportunities for production residues
- Continue to explore industrial symbiosis.

EUROPEAN PAPER INDUSTRY

EMPLOYEES

2011: 190,000

185,000

GREEN, WHITE AND BLUE COLLAR JOBS

COMPANIES

+ FEW MULTINATIONALS
+ ABOUT 2/3 OF SME'S

2011: 659

520

INVESTMENTS

3 BILLION

4% OF TURNOVER INVESTED IN EUROPE

2011: 3.2%

TURNOVER

ADDED TO THE EUROPEAN ECONOMY

2011: €78.0

75.3 BILLION

23 % 2011: 23.5%

SHARE OF GLOBAL PAPER PRODUCTION

13.6 MILLION TONNES **MARKET PULP**

2011: 13.0

MILLS

959

2011: 983

MANY IN RURAL AREAS

ROCE[2] **3.2%**

2011: 5.3%

EBITDA[3] **11.4%**

2011: 12.1%

ADDED VALUE

€ 15 BILLION [1]

2011: 16

92.1 MILLION TONNES **PAPER & BOARD**

2011: 93.6

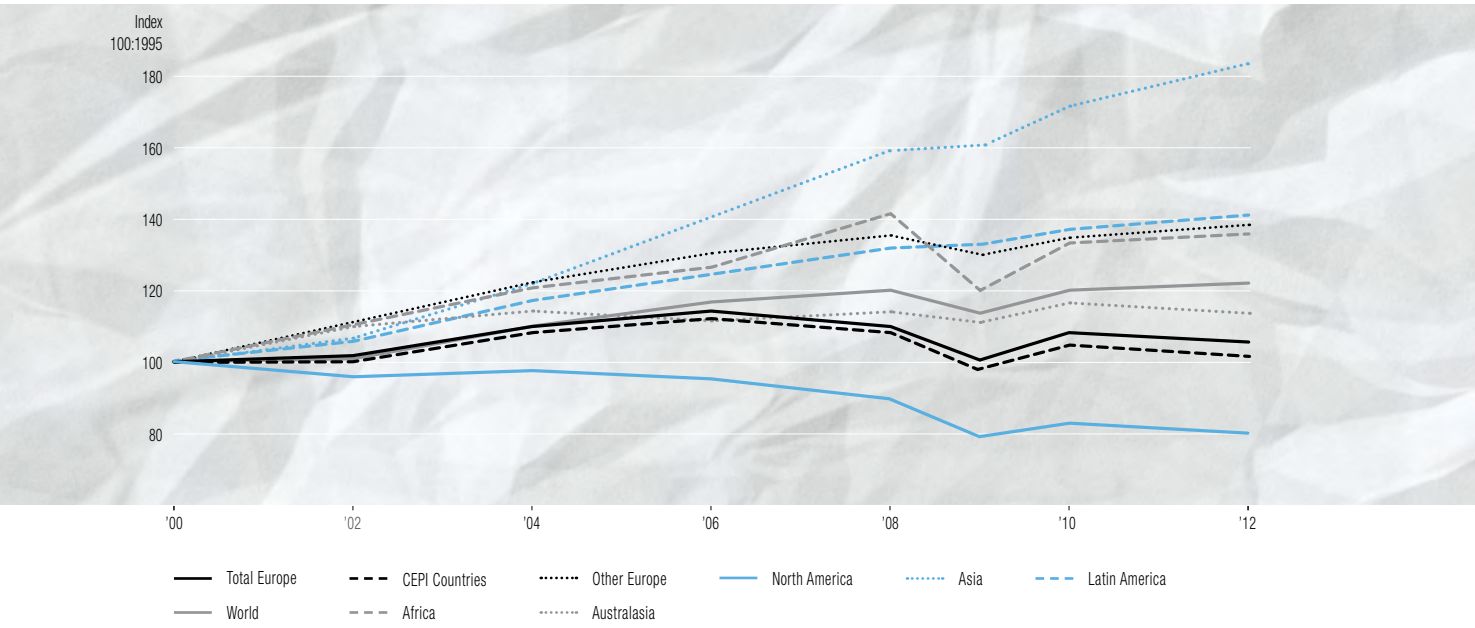
PRODUCTION

1 European paper industry's contribution to the GDP
2 ROCE: Return On Capital Employed
3 EBITDA: Earnings Before Interest, Taxes, Depreciation and Amortisation

A GLOBAL PLAYER MADE IN EUROPE

The European paper industry is a strategic sector, playing an active part in Europe's sustainable reindustrialisation. Our natural, renewable bio-based resources and our knowledge of wood and fibre chemistry give us a key role in adding value and creating jobs within a long value chain. The many European sectors that use paper-based products or supply goods and services to the paper industry benefit considerably as a result.

PAPER & BOARD PRODUCTION EVOLUTION BY REGIONS



Our industry's European credentials are second to none. At least 82% of our raw materials are sourced in Europe from responsibly managed forests which are more abundant and healthier now than they were 40 years ago. The production equipment in our mills comes from large European manufacturers and we engage with a variety of European-based chemical and mineral suppliers.

Our industry is a financially sustainable and strategic industry in Europe.

Paper and board production in Europe increased gradually until 2007 but suffered significantly from the economic crisis in 2008 and 2009, along with most industrial sectors. European pulp and paper production in 2012 continued to be affected by the economic slowdown that began in mid-2011. However, the European pulp and paper industry remains an important contributor to EU economic growth and job creation, with its performance still stronger than other energy-intensive sectors in Europe.

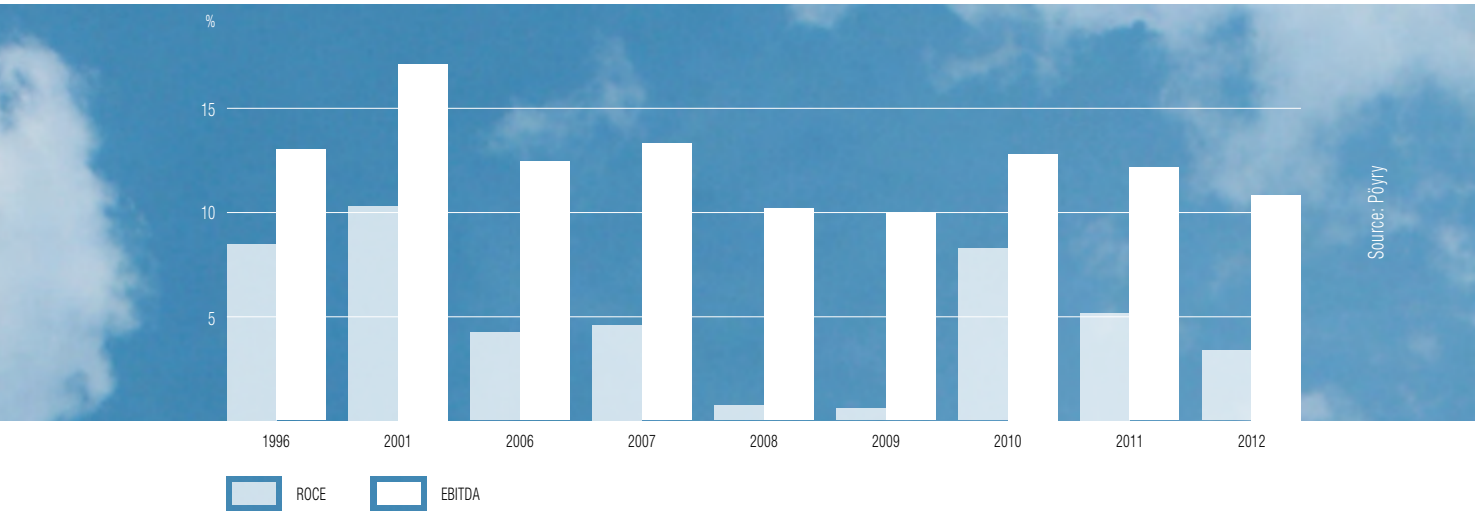
CEPI has had to address a number of 'greenwashing' campaigns by other organisations and European institutions that cast paper as old fashioned and/or environmentally harmful, especially in comparison with digital products. These campaigns misrepresent the truth and they are damaging to the graphic grades in our sector. In fact, paper is the original bio-based product as it is both recyclable and biodegradable and comes from renewable resources.

COMPETITIVENESS AND PROFITABILITY

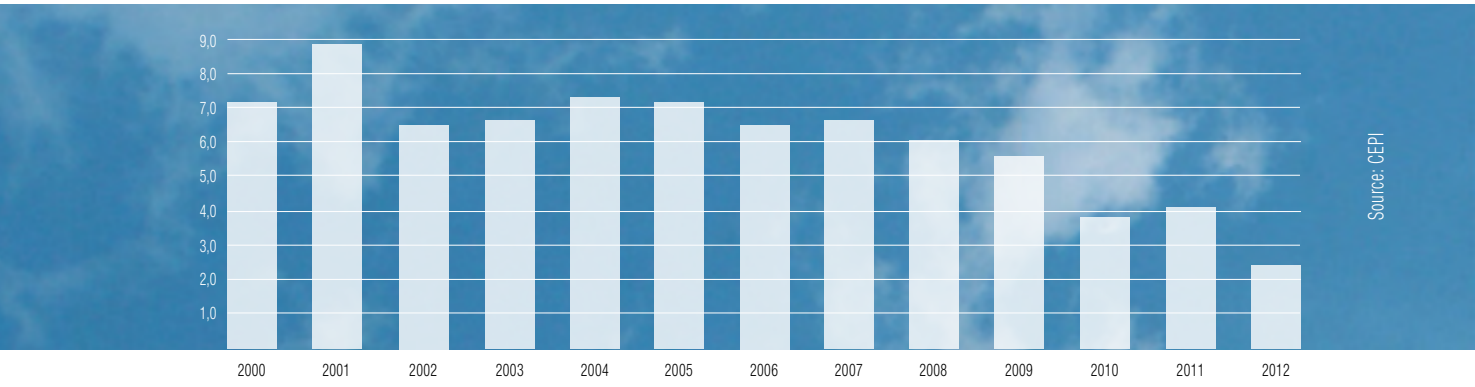
Incorporating sustainability into innovation activities contributes to resource efficiency, which leads to reduced costs and a smaller environmental footprint. Greater competitiveness and profitability is vital for the European pulp and paper industry as it adjusts to tougher market conditions and tighter regulations. The industry must be able to compete with other packaging materials, such as plastic, in Europe and faces changing consumer behaviour with regards to ICT (Information and Communication Technologies) usage. It also has to face increased competition from pulp from Brazil and from paper and board from China and US paper products produced with very low energy costs.

The latter half of the last decade turned out to be significantly less profitable for the European pulp and paper industry. In 2011, the business environment slowed down due to declining pulp prices and weakening demand for both pulp and paper. Industry restructuring continued and closures took place. However, paper-based packaging, tissue as well as speciality papers are seeing a rise in popularity with customers and consumers in a world that increasingly focuses on bio-based products.

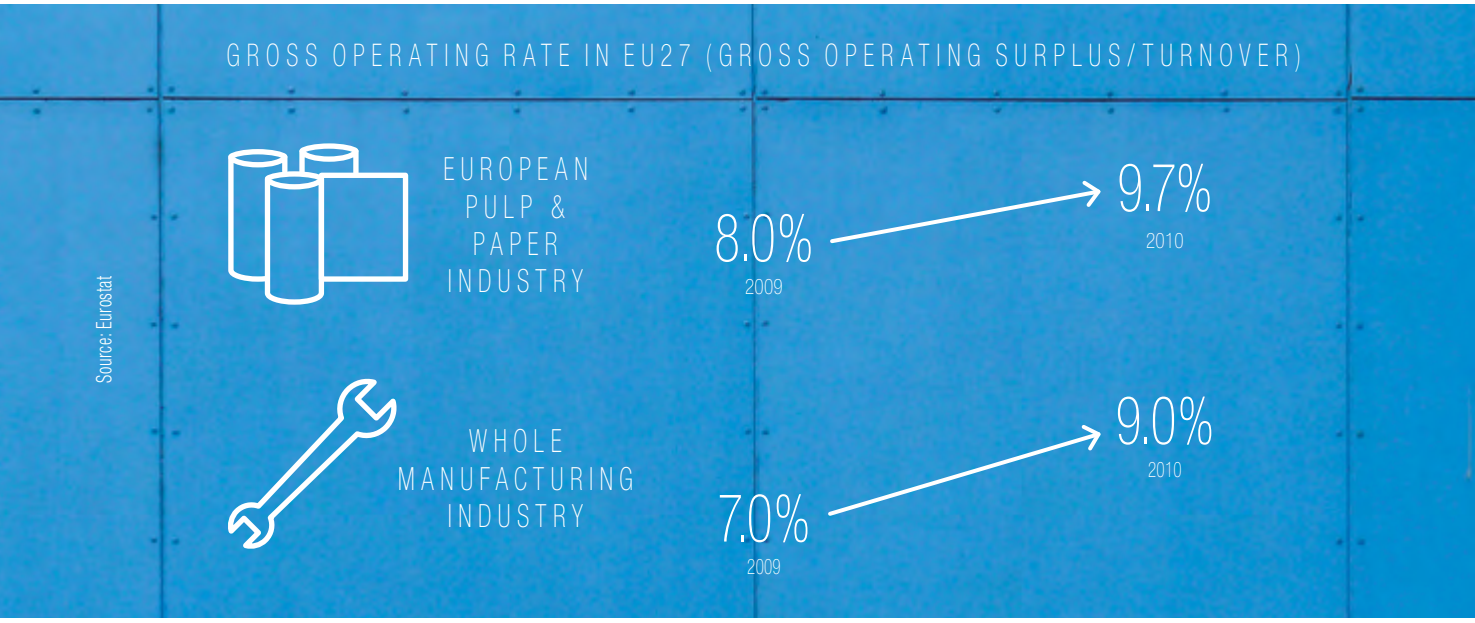
EUROPEAN PULP & PAPER INDUSTRY PROFITABILITY



INVESTMENT * / TURNOVER RATIO IN THE PULP & PAPER INDUSTRY, CEPI COUNTRIES



*Estimated Capital expenditures



The economic and financial crisis has dramatically highlighted the need to reignite industrial growth in Europe. To restore properity, Europe must attract investment. Coherent policies and bold measures are needed to realign Europe's industrial policy and to encourage investment in new areas such as the bioeconomy. The European Commission has already set a goal to increase the share of European industry in GDP to 20% by 2020.

"We want it (the industry) to play an even bigger role, and we have set the explicit objective of raising the share of industry in GDP from the current 16% to up to 20% by 2020.

(…) For the moment, uncertainty and the lack of confidence are the main obstacles in achieving this goal.

(…) We should also waste no time or effort to deal smartly with natural resources: energy needs and costs are another key challenge for European industry, and one we take very seriously"

European Commission President Jose Manuel Barroso at the Commission's Industry Policy Conference in Brussels, 6 June 2013

Energy costs are indeed a large part of the paper industry's cost structure, accounting for almost 16% (electricity + fuels). So are fibres that represent close to 44% of the cash manufacturing cost in our sector. Cash manufacturing percentages have not changed significantly in recent years, while labour productivity has significantly increased.

"The factories of the near-future will **use highly energy and material efficient processes, employ renewable materials, and adopt business models such as industrial symbiosis** that allow the recovery of dissipated heat and energy."

European Commission, industrial policy communication "A contribution to growth and economic recovery"

IN THE FIRST RANK OF THE BIOECONOMY

Companies in our sector are already investing the cash generated from their traditional activities to become active players in the bioeconomy in second generation biofuels, bio-chemicals and new bio-based materials.

Pulp mills in many European countries are re-engineering their facilities to produce raw material for use in the pharmaceutical industry, in cosmetics and in food products. Fibre-based polymer film will soon meet the specifications for industrial applications that currently use fossil-based materials.

Our paper machines today produce substrates for printed electronic applications such as wall paper that filters electromagnetic waves from GSM or Wi-Fi signals. Recycling mills are turning their residues into many added-value products, such as feedstock for soft board or a branded mineral product with cement-like properties.

Labour productivity (gross value added per person employed) is 50% higher in the pulp and paper industry in Europe than in the whole manufacturing sector (80 compared to 46 in 2009) in EU27.

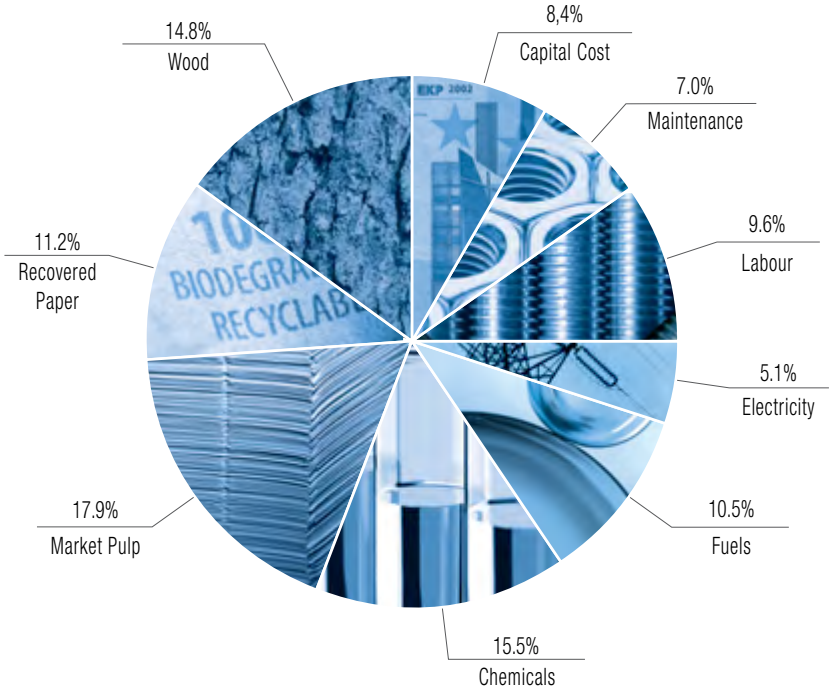
In fact, the European paper industry intends to play a significant role in the EU reindustrialisation scenario, as it matches all the relevant priorities and measures set out in the Industrial Policy Communication of the European Commission.

The European paper industry can play a large role in this EU reindustrialisation scenario as it ticks all the boxes:

EU INDUSTRIAL POLICY:

- ✓ WE ARE an important part of the new industrial revolution
- ✓ WE ARE BUILT on a strong European presence, while competing in global markets.
- ✓ WE ARE MODERNISING a traditional industrial base and entering new sectors.
- ✓ WE ARE INVESTING in research into advanced manufacturing technologies for clean production.
- ✓ WE REPRESENT a large market for key enabling technologies.
- ✓ WE SUPPLY the bio-based product markets.
- ✓ WE HAVE a skilled workforce with a large range of competences.

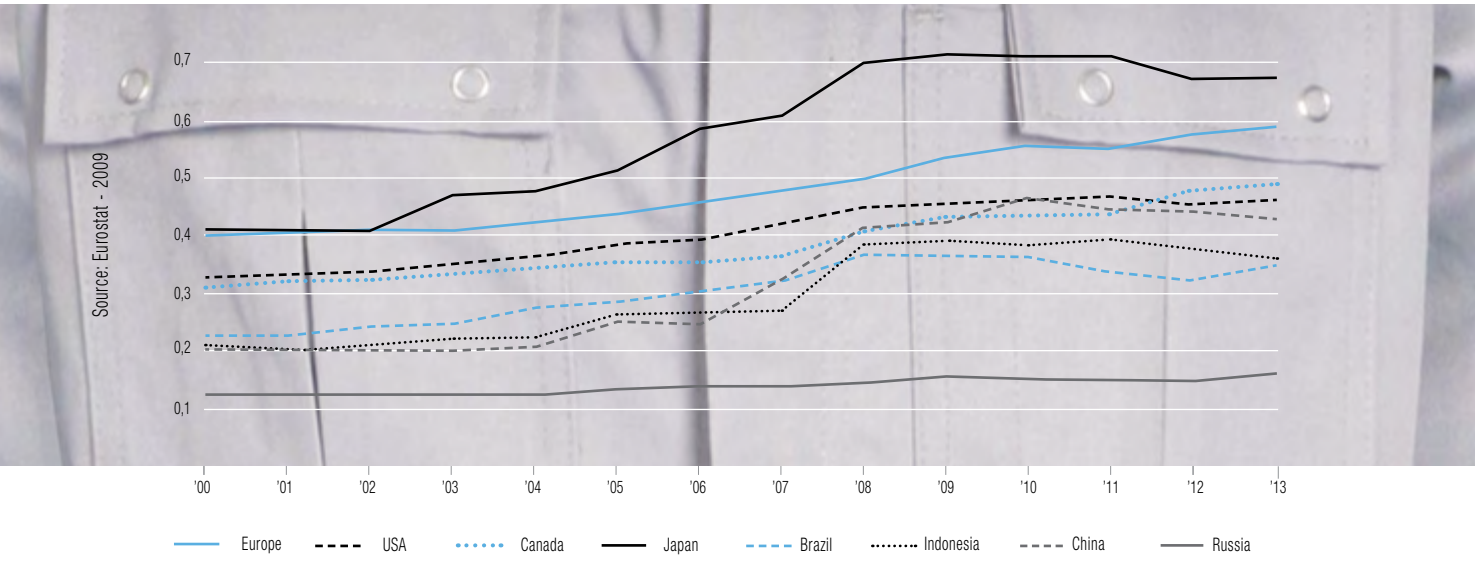
CASH MANUFACTURING COST STRUCTURE OF THE EUROPEAN PULP & PAPER INDUSTRY IN 2012



Source: RISI 2012

Energy represents 16% of our costs

LABOUR EFFICIENCY (metric Tonnes / Man Hour)



Source: Eurostat - 2009

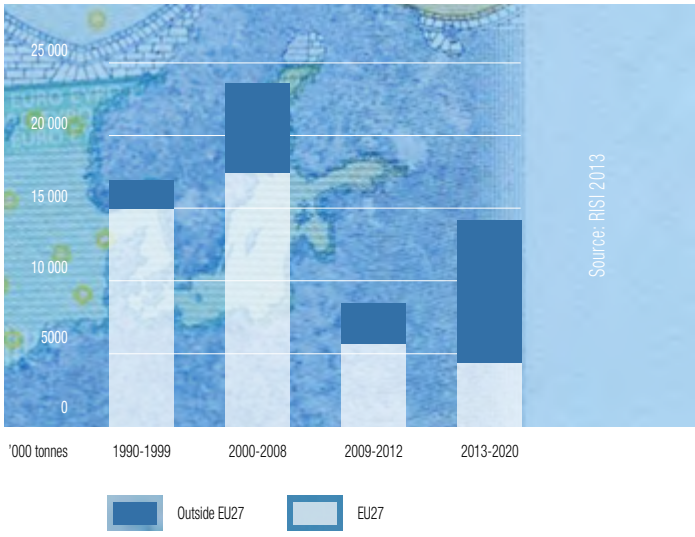
INVESTMENTS

The investment level in the European paper industry has not returned to pre-crisis levels. Meanwhile, the EU economy continues to face tough challenges. Just like other industrial sectors, the pulp and paper industry needs a positive regulatory environment to attract the necessary investments to develop new sustainable technologies that deliver added-value products. Coherent policies and bold measures are needed to realign Europe's industrial policy to encourage investment in new areas such as the bioeconomy.

The unfavourable paper market development in Europe led to restructuring across different grades: over the last two years, 4.7 million tonnes of pulp and paper capacity were closed down, while 1.5 million tonnes were put on the market.

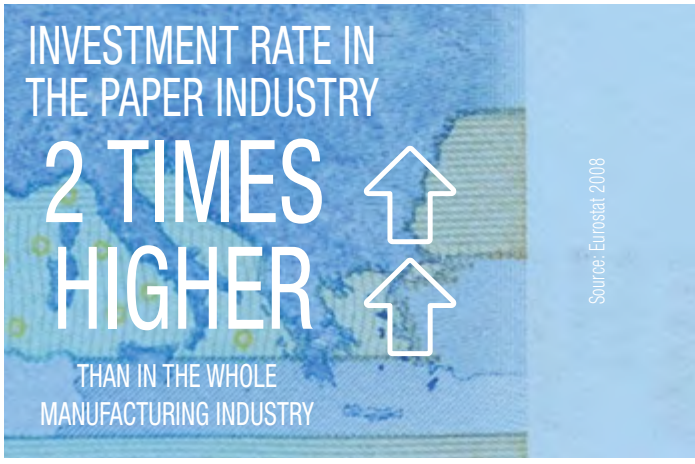
In the years to come, close to 75% of the investments in new and rebuilt capacities that are envisaged by the European companies will take place outside the EU while between 1990-2000 more than 90% of the EU investments took place within the EU.

INVESTMENTS IN NEW OR REBUILT PULP AND PAPER CAPACITIES IN EUROPE AND OUTSIDE EUROPE* SINCE 1990



BIOREFINERY FOR SUNILA PULP MILL

Stora Enso recently decided to invest 32 million euros in building a biorefiniery at its Sunila pulp mill in Finland, which is set to reduce CO_2 emissions of the mill by replacing up to 90% of natural gas by lignin extracted from black liquor. This will be the first step towards selling lignin to external customers.



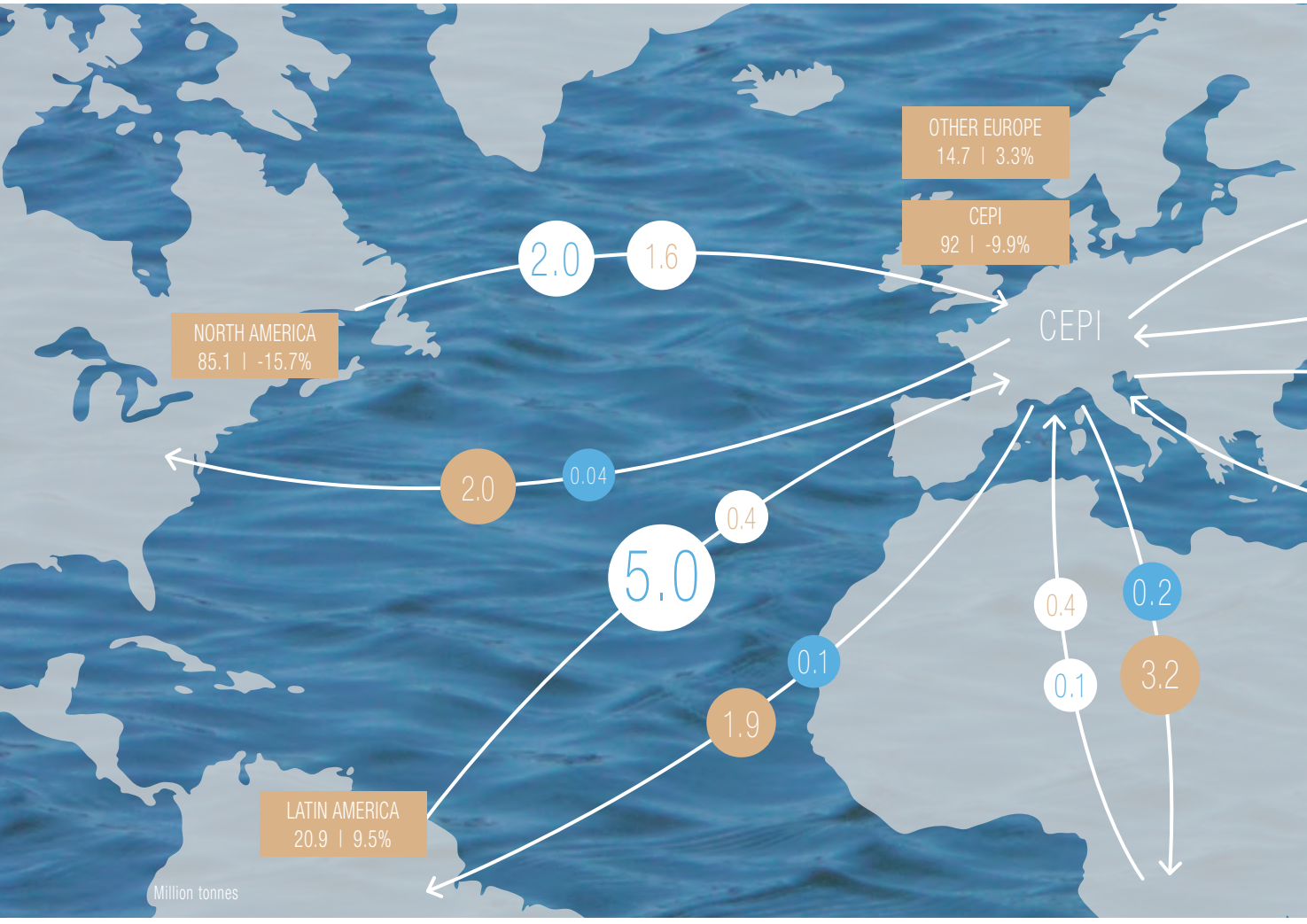
* Data based on the investments carried out and envisaged by the 35 largest European companies for which some data are available. For the period 1990-2012, investments that have been completed, or for which work has started or the project has been confirmed or the funding approved are included. For the period 2013-2020, projects that are under study phase have been also considered.

TRADE – AN INTERNATIONAL PERSPECTIVE

Economic pressures affecting the industry include its declining added value as a global commodity, and the challenge of investing when faced with increasing costs. The overall output performance of CEPI countries in 2012 was similar to that of other major traditional paper-producing regions (USA, Japan, South Korea and Canada). China and Brazil performed better however.

The European pulp and paper industry is a trusted industry partner in Europe.

CEPI TRADE FLOWS OF PULP, PAPER & BOARD AND PRODUCTION IN 2012



Pulp
Total Imports to CEPI: 7.8 Million Tonnes
Total Exports to CEPI: 3.9 Million Tonnes

Paper & board
Total Imports to CEPI: 5.2 Million Tonnes
Total Exports to CEPI: 19.9 Million Tonnes

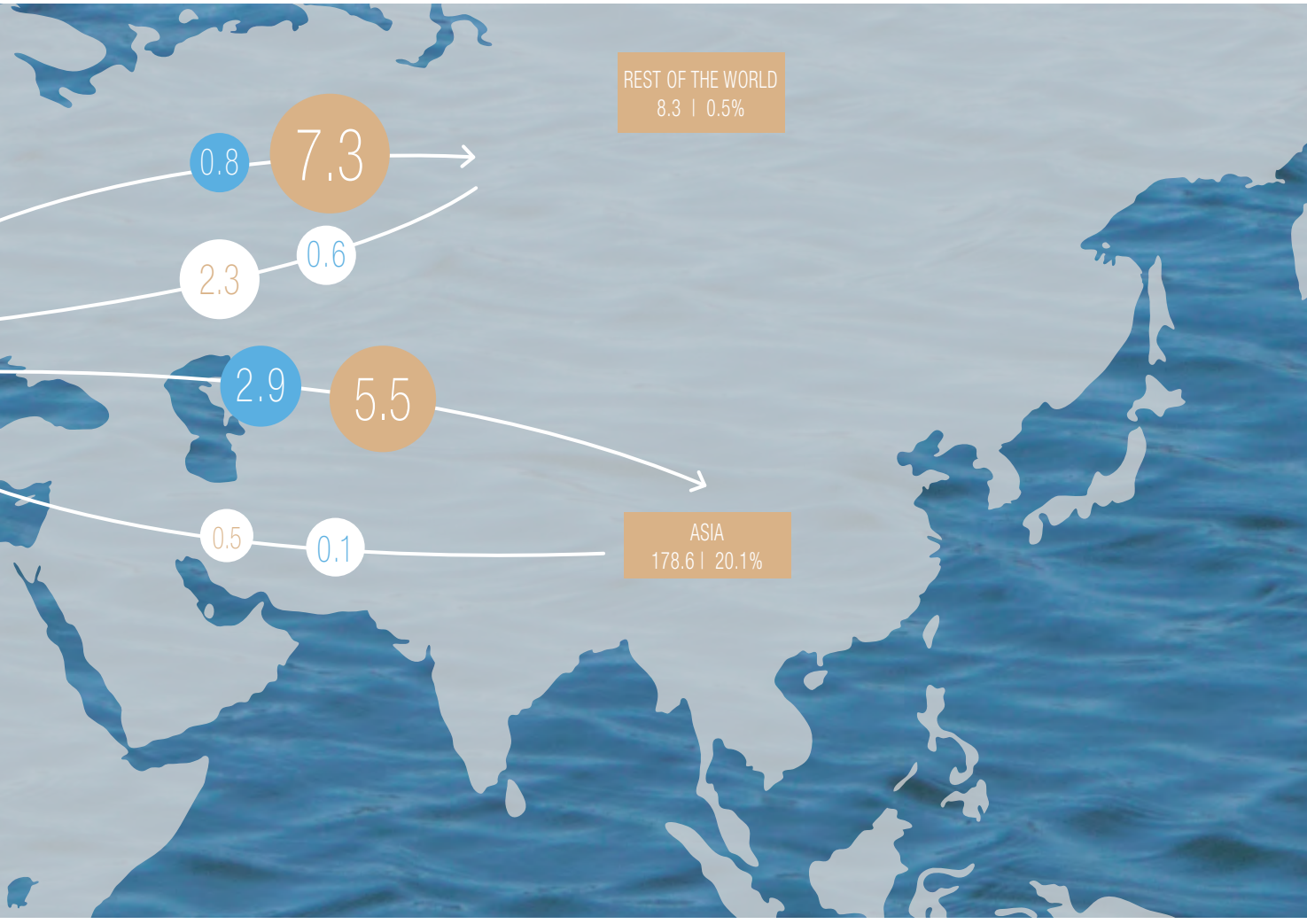
Production paper & board per region and % change of the last 5 years

The total world production of paper in 2012 was 400 million tonnes, and of pulp, 185 million tonnes. The map shows the trade flows of paper and pulp to and from CEPI countries, as well as paper production per region and the changes in production in the last 5 years.

Too often in Europe we are faced with regulations that disadvantage our industry in global markets and in international trade. While Europe is fully open to foreign products, approximately half of European paper exports face tariff barriers abroad. Furthermore, not only is the European market open, but there is also weak enforcement of import rules. The lack of rigour in the surveillance of the European paper market penalises the local industry for complying with European standards and legal requirements.

Europe is a net exporter of paper and board: Brazil, China, Russia, Turkey and the US are the main export destinations. But Europe is a net importer of pulp: Brazil, Canada and the US are the main countries of origin.

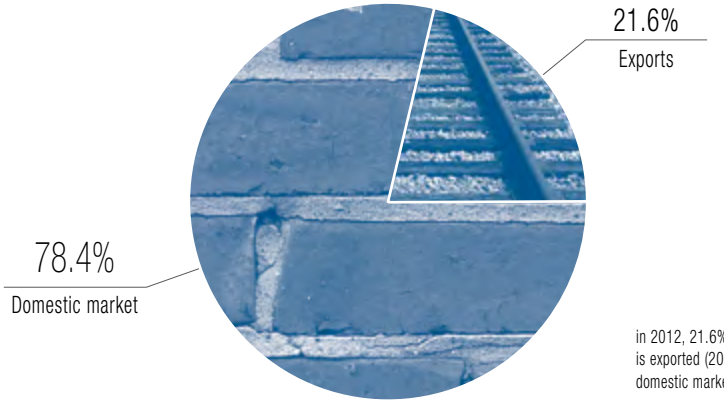
We export 21.6% of our production.



SHARE OF HOME DELIVERIES IN THE EUROPEAN PAPER CONSUMPTION

in 2012, only 6.7% of the paper & board consumption in the CEPI area is imported (7.1% in 2011)

SHARE OF EUROPEAN EXPORTS IN EUROPEAN PAPER PRODUCTION



in 2012, 21.6% of the CEPI countries production is exported (20.2% in 2011); 78.4% is for the domestic market

Changes in the last 5 years indicate clearly a reduction in production and consumption, but an increase in exports of our products.

Operating conditions both inside and outside the EU must be improved to ensure that the European pulp and paper industry maintains its ability to compete on an equal footing. CEPI is calling for free access to raw material and energy markets, especially as in recent years some countries attempt to adopt protectionist measures and restrict access to raw materials.

The European pulp and paper industry is a trusted industry partner in Europe.

TRADE DISPUTES

Over the last years, there has been a multiplication of trade disputes impacting European pulp and paper trade. Above a short overview of some cases.

We also observed fuel tax credits to US companies and subsidies to Canadian graphic paper production which led to a high competition distortion globally.

CLICK FOR MORE ON COMPETITIVENESS AND TRADE

PRODUCING ORIGINAL BIO-BASED PRODUCTS

The European pulp and paper industry produces original bio-based products using wood, a renewable material, and paper for recycling. It is also the biggest single industrial user and producer of renewable energy in the EU: 56% of the industry's total primary annual energy consumption is biomass-based (see page 50). And the industry has the potential to do even more in the future. It has the experience, technology and supply chain to play a big part in the bioeconomy and to do so in a resource-efficient manner.

GREEN PRODUCTS

The development of the bioeconomy has resulted in the first of a number of new bio-products that include water-repellent fabrics, smart packaging, second generation biofuels and futuristic concept cars made fully of cellulose-based material.

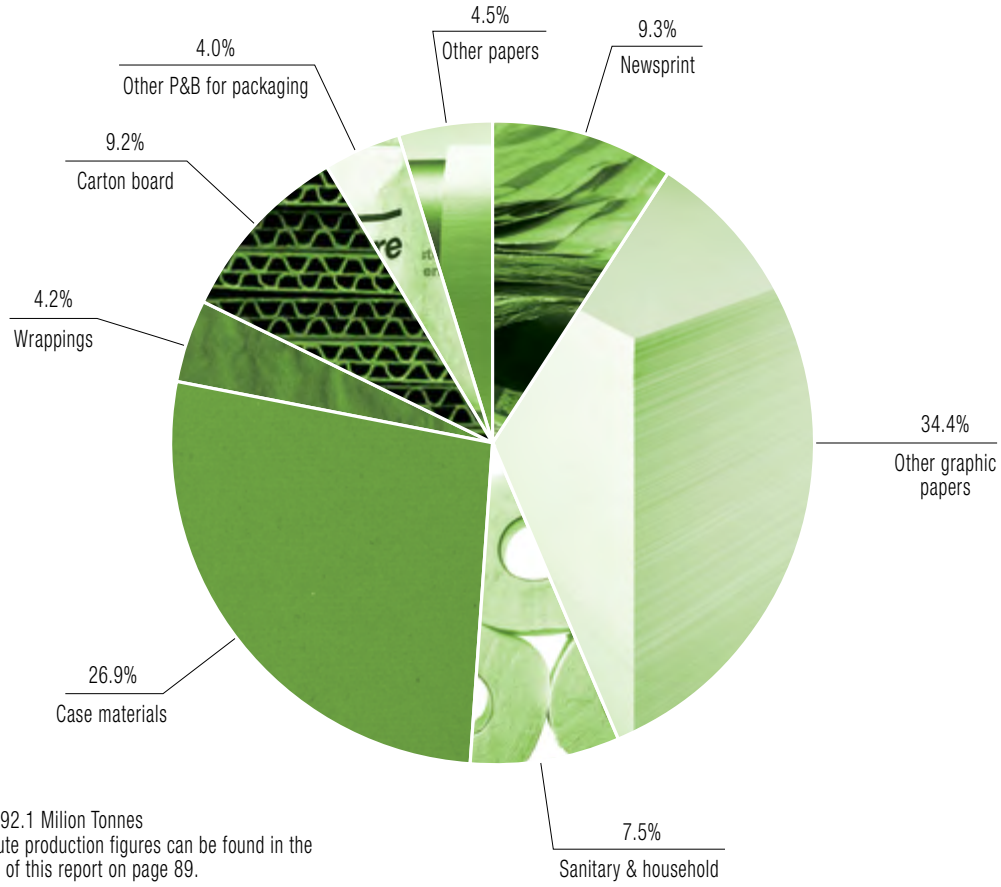
With its traditional and new products, the paper industry plays an important role in society, offering efficiently manufactured, fully recyclable products, made from renewable raw materials.

The main families of paper products include packaging grades, graphic paper grades, tissue paper and speciality papers. In addition to these paper products, the industry is increasingly producing high value-added products and sophisticated materials for the textile, food and pharmaceutical industries, as well as bio-based fuels and chemicals.

The graph shows that newspaper consumption is in sharp decline, on the other hand sanitary and household as well as case materials have done fairly well in a crisis driven environment. The former have increased by more than 3% in the last 5 years.

The European pulp and paper industry delivers sustainable product solutions.

CEPI PAPER & BOARD PRODUCTION BY GRADE IN 2012



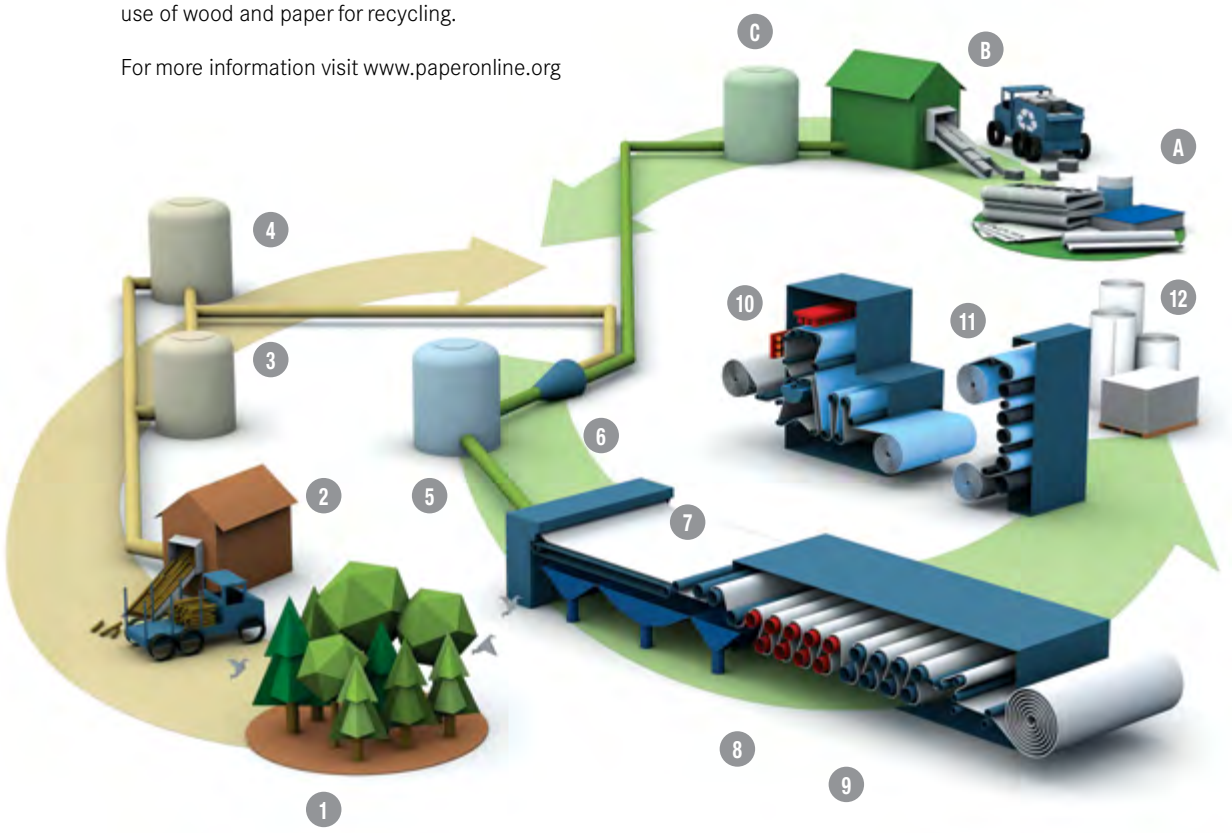
Source: CEPI

Total: 92.1 Milion Tonnes
Absolute production figures can be found in the Annex of this report on page 89.

PAPERMAKING PROCESS

Today's high quality papers require a highly technical and accurate manufacturing process. This diagram details the papermaking process and illustrates the use of wood and paper for recycling.

For more information visit www.paperonline.org



1 WOOD
Wood is a renewable raw material for the pulp and paper industry and comes from sustainably managed forests.

2 DE-BARKING AND CHIPPING
Bark which cannot be used for papermaking is stripped from the logs and used for energy. Stripped logs are chipped into small pieces and recovered.

3 CHEMICAL PULPING
The woodchips are cooked to remove lignin. Burning of the process by-products enables the whole pulping process to be energy self-sufficient.

4 MECHANICAL PULPING
Woodchips are ground to separate the fibres. Pulps are used to make high volume commodity printing products such as newsprint and magazine paper.

PAPER MAKING
The wood pulp is diluted with 100 times its weight. The fibre liquid is then run through the machine.

5 CLEANING
The fibres are then washed; screened and dried. The pulp is ready to be used directly or it can be bleached into white paper.

6 HEADBOX
The headbox squirts a mixture of water and fibre through a thin horizontal slit across the machine's width onto an endless moving wire mesh.

7 WIRE SECTION
The water is then removed on this wire section. Here the fibres starts to spread and consolidate into a thin mat. This process is called "sheet formation".

8 PRESS SECTION
The press section squeezes the web of wet papers and lowers water content to 50%.

9 DRYING
A series of cast-iron cylinders, heated to a temperature in excess of 100°C, where the web of sheets pass through and drying takes place.

10 COATING
In the coating process, coating color is spread onto the paper surface. The coating colour contains pigments, binding agents, and various additives. Coating the paper several times often improves its printing properties. High-grade printing paper is coated up to 3 times.

11 CALENDERING
After coating, the paper can be calendered. A calender is a device with two or more rollers through which the paper is run. The compression of the rollers and the application of heat give the paper its smooth and glossy properties, like ironing shirts.

12 FINISHING REELS AND SHEETS
The papers are then wound into a reel or cut into sheets, ready for printing and converting.

A PAPER FOR RECYCLING
Paper for recycling is an important material for the pulp and paper industry.

B PULPING
Paper for recycling is dissolved into pulp to separate the component fibres.

C DE-INKING
Adhesives and ink are removed using a flotation process.

PRODUCT ENVIRONMENTAL FOOTPRINT

The European Commission is developing scope and methodologies for product environmental footprint (PEF) in policymaking. It aims particularly at resource efficiency and to resolve the disparity of different methods for measuring environmental performance. The Commission has launched a three-year pilot on product rules, based on PEF. CEPI sees the benefits of having product rules applicable to the whole sector and believes there is a business case for using PEF, e.g. comparing different materials. In 2011, CEPI tested in collaboration with the Commission the process aimed at developing rules for intermediate paper products. Based on experience and results from previous tests and pilots, CEPI volunteered to join the new three year pilot (2013-2016). The technical secretariat will be led by the Joint Research Centre of the Commission.

PRODUCT SAFETY

CEPI together with CITPA, the Confederation of Paper and Board Converters in Europe, have revised the Industry Guideline for the compliance of paper and board materials and articles for food contact.

The purpose of the Industry Guideline is, in the absence of a specific measure for paper and board, to enable manufacturers of paper and board materials and articles intended for food contact to demonstrate compliance with the EU Framework Regulation for food contact materials.

The updated guidelines are available in English, Polish, Italian, Dutch, Spanish and German. The uptake of the guideline the Good Manufacturing Practices will be monitored and the documents reviewed periodically.

FACET is a multi-sector EU-funded project to produce a tool for assessing realistic exposure to chemicals from nutrition, taking into account multiple sources of the same chemical. CEPI focused on the impact of packaging in such exposure. For the first time, a project successfully produced an inventory of chemicals in packaging additives.

FACET involves 20 partners from across the EU, including CEPI, and joins the collaboration of academia, industry, SMEs and national governmental agencies.

FACET is short for Flavourings, Additives and Food Contact Materials Exposure Task. (www.ucd.ie/facet)

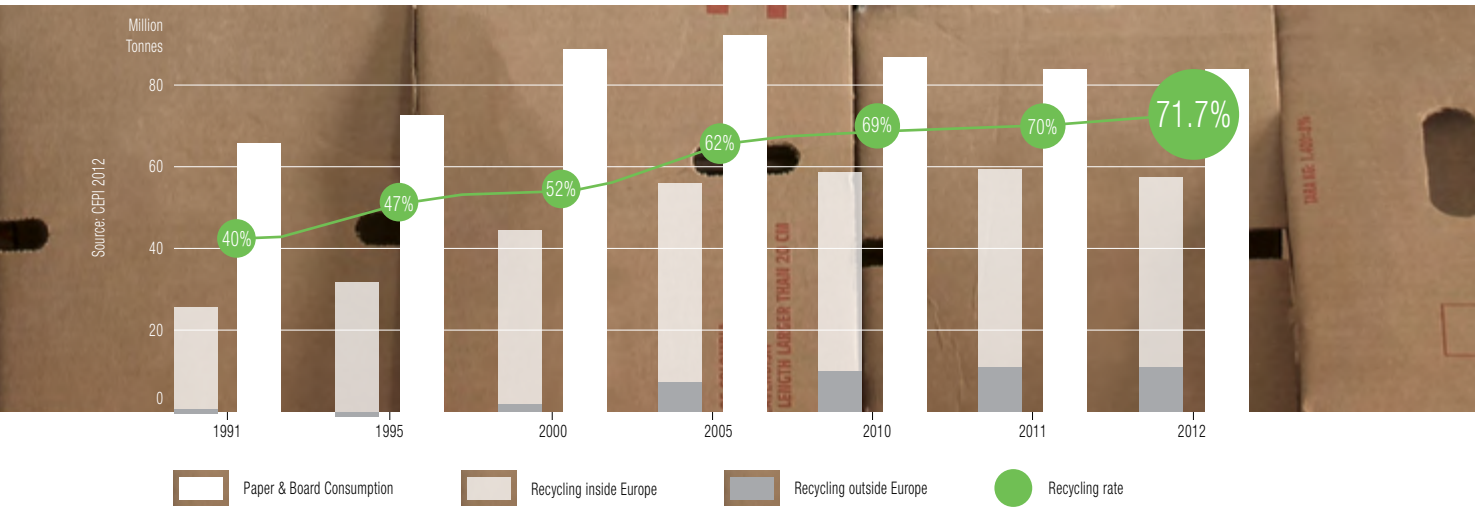
CLICK FOR MORE ABOUT
THE INDUSTRY GUIDELINES

PAPER RECYCLING

Since 2000, the European Recovered Paper Council (ERPC), for which CEPI acts as secretariat, has been committed to increase recycling and join efforts to remove obstacles to paper recycling in Europe.

In 2012, 71.7% of paper was recycled. This achievement is remarkable considering that since the pre-crisis peak year of 2007, paper consumption in Europe has dropped by 13% whereas recycling has fallen by only 3.5%. Current paper consumption is at the same level as 1998 but the amount recycled is 1.5 times higher than in 1998 – before the industry's first commitment to paper recycling.

EUROPEAN PAPER RECYCLING RATE 1991-2012



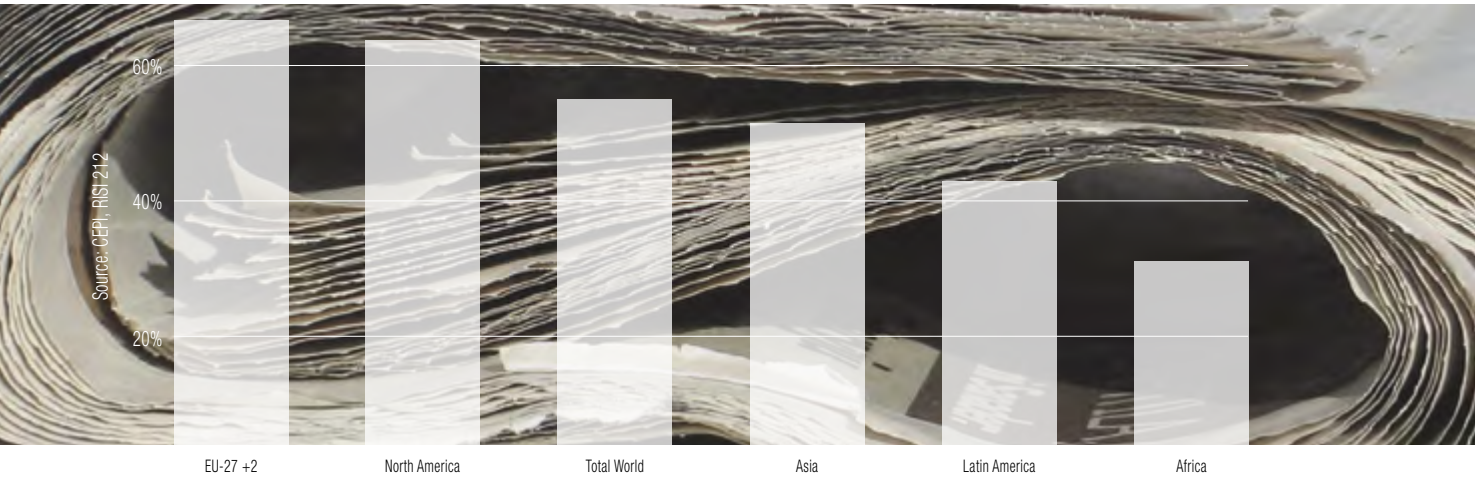
The recycling rate is starting to level out, however, and maintaining the high rate is becoming a challenge – in particular as it is not only consumption quantities that are changing but also consumption patterns.

Reinhard Bluhm, Product Manager Voith GmbH & Co. KG and Suzana Mozo, waste collection officer from Alcorcón Municipality receive their prizes from MEP Gerben-Jan Gerbrandy at the awards ceremony

The ERPC also organises the European Paper Recycling Awards every two years recognising efforts in innovative projects that enhance paper recycling in Europe and hopes to inspire others to copy good practices. In 2013 the event took place in the European Parliament and was hosted by Gerben-Jan Gerbrandy, member of the European Parliament.

Voith Paper won the first prize in the category Technology Improvement and R&D with a new technology called LowEnergyFlotation (LEF). It is an innovative technique that significantly reduces the energy requirements needed to remove printing ink from paper fibres. The winner of the category Information and Education was the Alcorcón municipality in Spain. Their project improves paper and board collection by distributing paper bins in all schools in the district. It aims to increase both the amount of paper collected as well as environmental awareness among children.

PAPER RECYCLING RATE IN WORLD REGIONS IN 2011

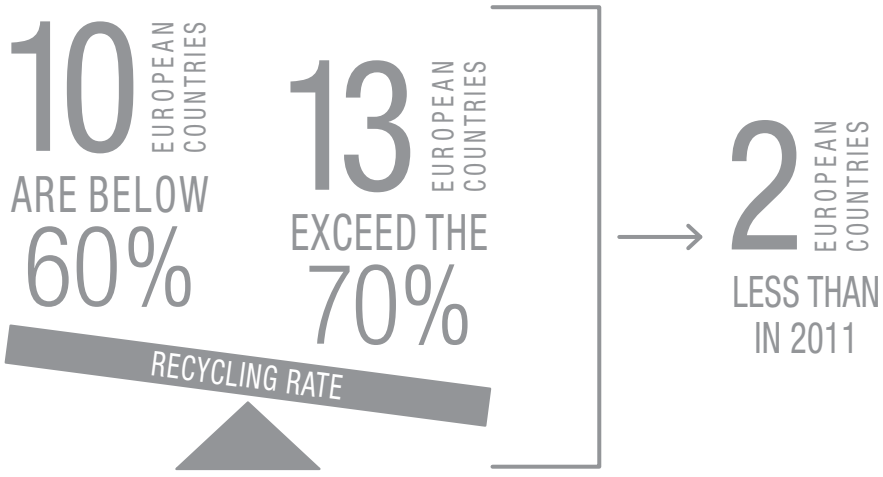


Source: CEPI, RISI 212

Europe is the global paper recycling champion, and recycles almost 58 million tonnes within Europe, an all-time high. And as the graph shows it is also the most recycled packaging material in Europe – a real European champion!

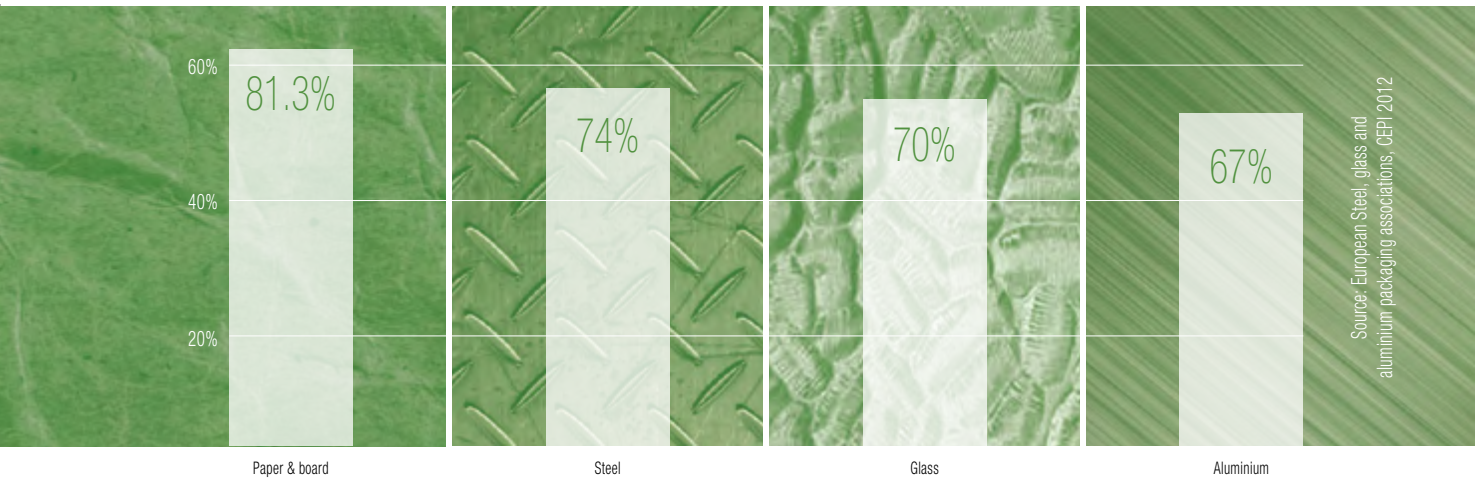
71.7% – Europe is the paper recycling world champion!

COMPARING NATIONAL RECYCLING RATES IN EUROPE



Source: CEPI 2012

EUROPEAN PACKAGING RECYCLING RATES IN 2011



Paper and board is the most recycled packaging in Europe!

PROGRESS IN RECYCLING

CEPI is coordinating the EU co-funded project "Fibre+: Innovative Paper Packaging Products for European SMEs Based on Functional Modification of Recovered Fibres". Fibre+ is run by a consortium of ten partner organisations and two associations.

The project will create innovative processes modifying recovered fibres for new functional packaging, reducing the need of the sector for virgin fibre and supporting the competitiveness of the SMEs in the EU packaging sector. With this project the consortium is set to create a new generation of packaging through the improvement of physical and chemical properties of recycled papers that are more recyclable, less hygroscopic, stiff and durable, in particular those used for corrugated packaging.

CEPI is also supporter of the EcoPaperLoop Project. In Central Europe the paper recycling rates are still highly inhomogeneous. Since paper for recycling is not only recycled in the country where it is produced, some essential features such as eco-design and eco-collection concepts must be developed at transnational level to increase the sustainability of the paper loop. The new project will improve the quality of paper for recycling. The EcoPaperLoop project will run until end of 2014 and is co-funded by the European Union/European Regional Development Fund (ERDF) and local project partners.

ERPC PUBLISHES EASY OFFICE PAPER RECYCLING RULES

Have you ever held a plastic spiral notebook or a used pizza box and wondered if it should go in the recycling bin? Did a windowed envelope end up in your waste bin because you didn't have time to cut the window out, thinking that it should be removed? The ERPC recently published a poster with nine simple rules for paper recycling, which answers the above questions and more.

The rules are simple and can make a big difference if applied.

CLICK HERE FOR MORE INFORMATION ABOUT RECYCLING

CLICK HERE TO DOWNLOAD THE RECYCLING LEAFLET AT

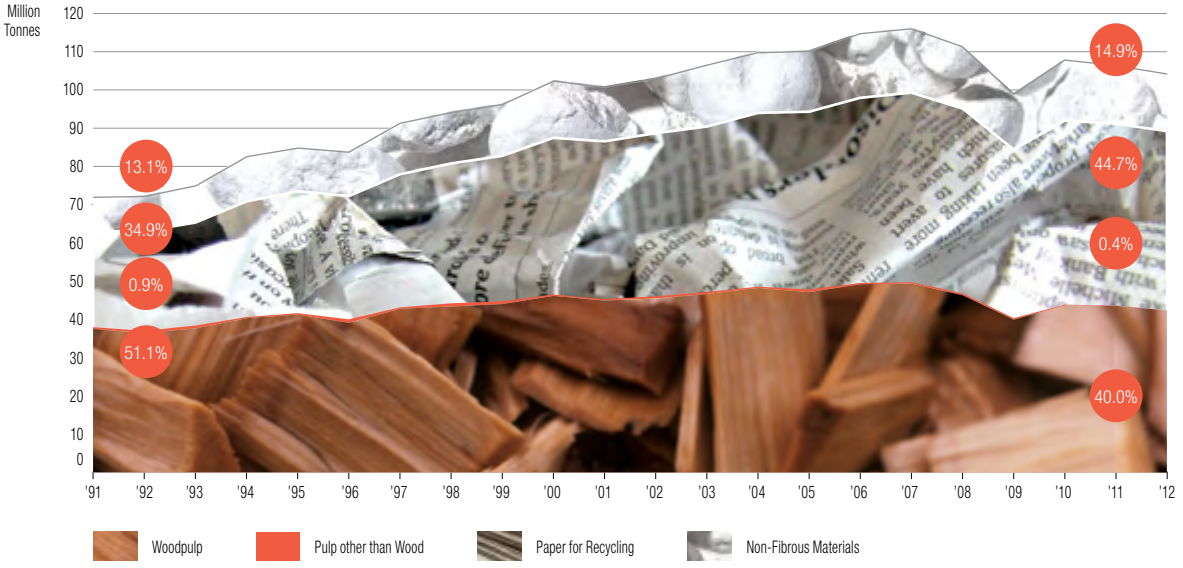
SECURING A RESPON-SIBLE MATERIAL SUPPLY

The pulp and paper industry in Europe is truly European. 82% of our raw materials are sourced in Europe from responsibly managed forests, using paper collected for recycling and engaging with Europe-based mineral and chemical suppliers.

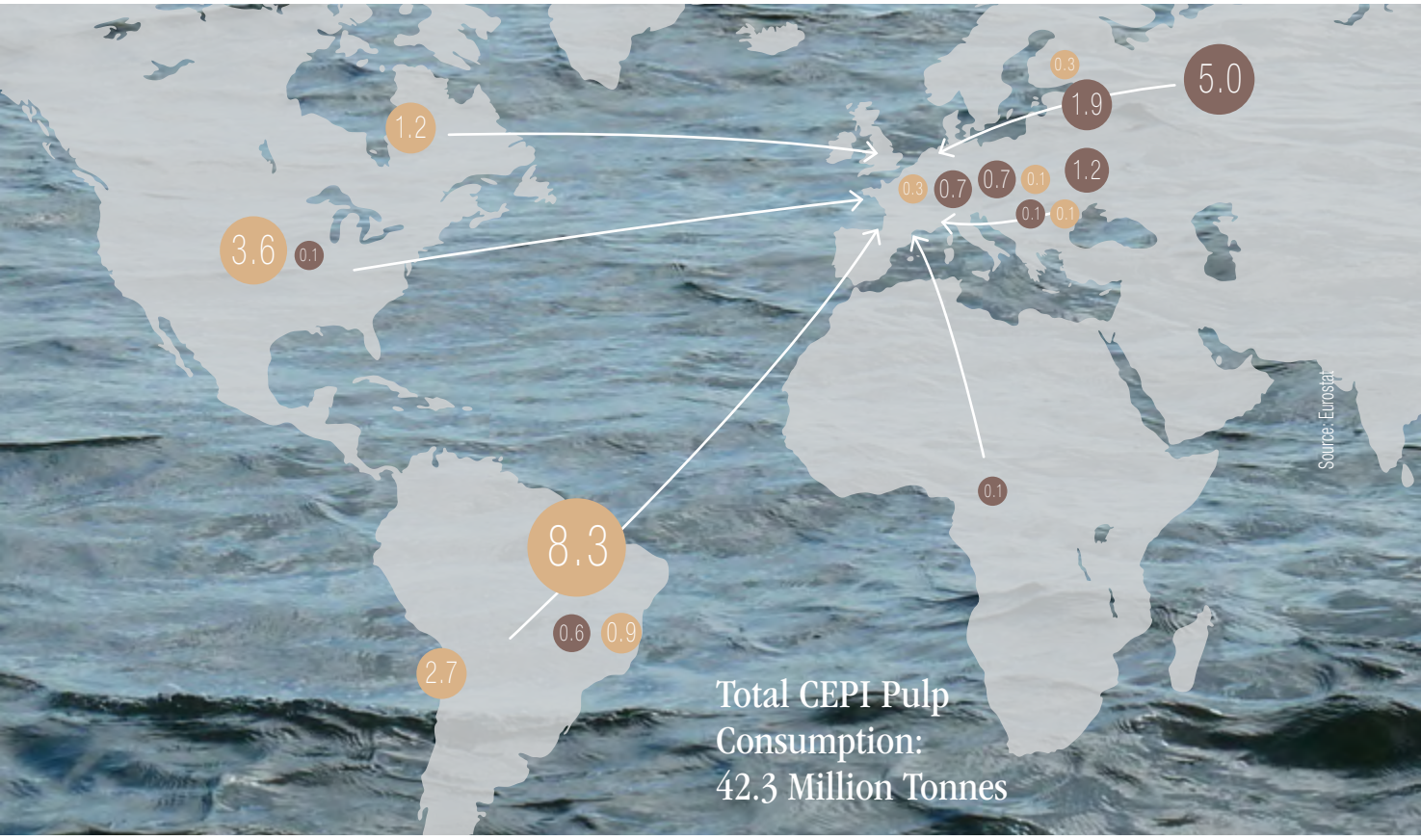
The use of raw materials in papermaking reflects the increasing rates of paper recycling: the use of wood pulp has decreased in recent years, while the use of paper for recycling has increased to pre-crisis levels. Of the total raw materials consumed by the European paper industry, paper for recycling represented 44.7% and wood pulp 40%; non-fibrous materials made up most of the rest.

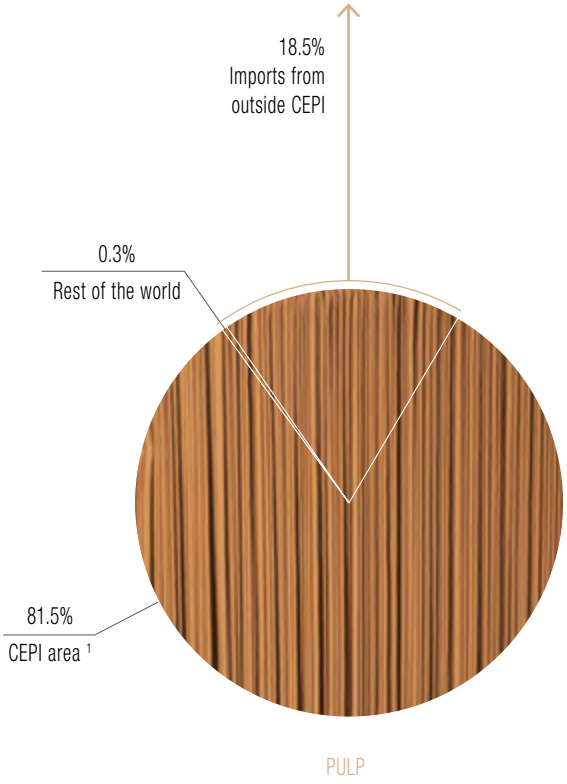
More than 90% of the wood used by CEPI members comes from Europe (EU27 or EU28+Norway+Switzerland). This figure is above 80% for pulp consumption in Europe. This shows the industry's very significant European base, and contrasts with average import figures for the European manufacturing industry of 70%.

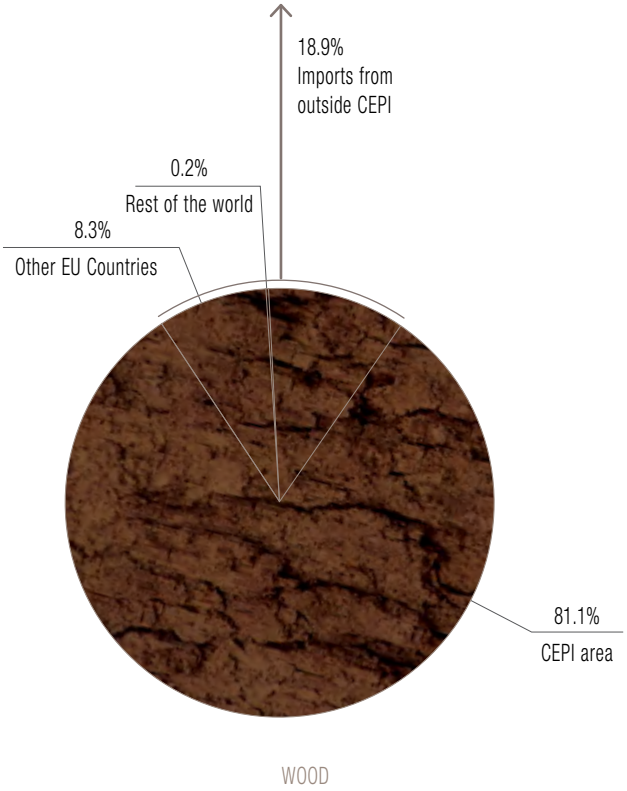
CEPI RAW MATERIALS CONSUMPTION 1991-2012



ORIGIN OF WOOD AND PULP CONSUMED IN CEPI COUNTRIES IN 2012 (%)







1 CEPI area = production - exports to outside CEPI

PAPER FOR RECYCLING

This illustration depicts the European paper recycling loop as a material flow indicating with dotted lines the input of chemicals along the life cycle and mass balance, quantifying input and output to the system in four steps: paper manufacturing, converting of paper into products, paper consumption and waste management/collection of paper for recycling. Papermaking chemicals are used in a very uniform way throughout European industry, both geographically and across various grades of paper and board. The illustration on the right gives an overview of the complex process of paper recycling and shows the sheer volumes involved as well as the need for virgin fibres in the process.

Not all paper products can be manufactured using recycled fibre, and the system always requires an injection of fresh fibre. Where appropriate, Europe's papermakers have invested in technology that can extract valuable fibre from the most challenging sources. Overall, 52.6% of the fibres used in new paper and board products are sourced from the 'urban forest' of used paper-products.

CHALLENGES

Paper recycling is a perfect example for resource efficiency at its best and the paper industry has both environmental and economic reasons to keep raising the bar. However, some developments may hamper paper recycling in Europe.

Firstly, in waste collection, the organic fibres, which paper contains can be contaminated by other materials, if paper is not collected separately. From this perspective, it is essential that the obligation in the 2008 Waste Directive to collect paper and some other materials separately by 2015 in all member states is observed. Likewise, the supply of suitable paper for recycling is threatened by its energy generation potential, particularly if targets for biomass are linked to incineration. In our view, incineration should be the final destination for fibre, once all possibilities for creating value through paper products have been exhausted.

Additionally, it was estimated some years ago that 19% of paper products produced annually are not recyclable or collectable and we believe that this share is much higher now, which is a reason for paper recycling rates to level out soon. CEPI will update this estimate in a new study to verify whether it has changed in the meantime.

CEPI published a leaflet on that topic explaining how promoting the use of wood first as a raw material to make products, encouraging the recycling of used products, and then recovering energy when recycling is no longer feasible, is far more economical than burning it immediately for renewable energy partly based on subsidies. An independent study [1] showed that converting wood to energy would create 20.1 billion euros value, while using the same amount of wood as a raw material first and for energy production last increases the value by an estimated 97.1 billion euros. The wealth creation in the pulp and paper industry value chain is mainly market driven and 5 times that of the energy alternative.

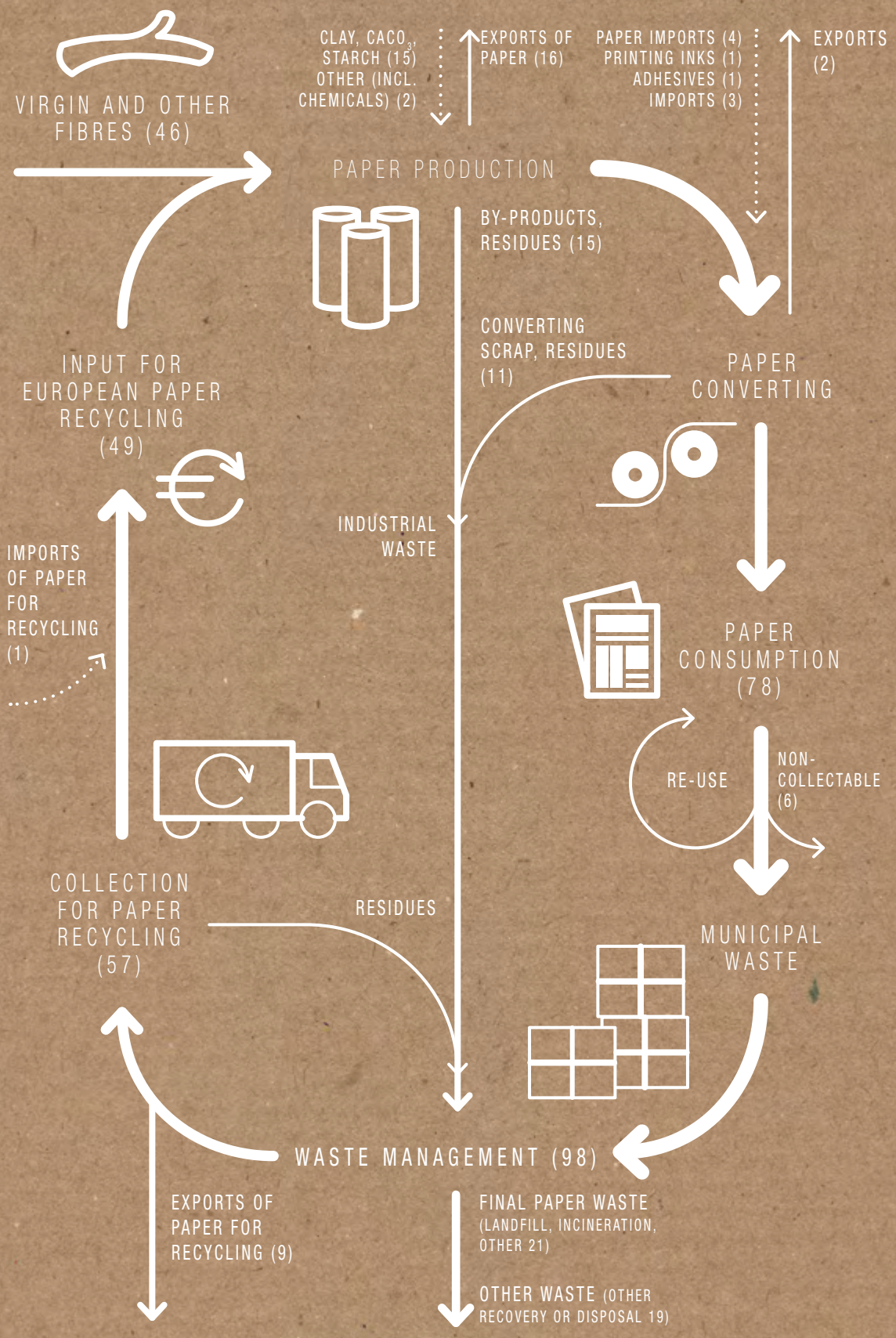
Source: CEPI 2012

THE EUROPEAN PAPER RECYCLING CYCLE

Paper can be recycled up to six or seven times, in theory. The current average rate in Europe is 3.5, while over 50% of the raw material for Europe's pulp and paper industry is paper for recycling. Paper cannot be recycled indefinitely as fibres get too short and worn out to be useful in creating a new sheet of paper or cardboard box. The cycle must therefore constantly be refilled with new fibres. New virgin fibre and recycled fibre are necessary parts of the European paper recycling process.

1 Poyry

MATERIAL FLOW OF THE EUROPEAN PAPER RECYCLING LOOP (MILLION TONNES)



Jori Ringman-Beck, CEPI, 2011b; EuPIA 2011; FEICA, 2009, and Eurostat data
(Dotted arrows indicate the points in the life cycle where chemicals are input to the loop.)

SPANISH MUNICIPALITIES PLEDGE SUPPORT FOR RECYCLING 'MADE IN EUROPE'

In Spain Fuenlabrada town council and the Association of Municipalities of the Costa del Sol recently commited to recycling 'made in Europe' and pledged that all the paper and board collected in the town will be recycled in Spanish or European paper mills. They demonstrate two examples of a perfect implementation of the Spanish Waste Act, which promotes recycling 'made in Europe'. This is translation of the original Spanish text in the Spanish waste law: "Producers or other initial holders of recyclable waste materials may give priority to it being treated completely within the European Union in order to avoid the environmental impact of its transport out of the Union, in accordance with the applicable regulations."

An additional threat to paper recyclers in Europe is the growing export of paper for recycling to Asia. Increased collection rates in Europe are needed to match any rise in exports. The following map shows the extend of the exports.

CLICK FOR MORE ON RECYCLING

CEPI TRADE FLOWS OF PAPER FOR RECYCLING IN 2012

WOOD

Wood is the most important raw material in papermaking, and securing a constant and sustainable supply is vital for paper manufacturers in Europe. A few developments in recent years have required CEPI's attention with regards to the supply of this valuable raw material.

The EU Timber Regulation came into force in March 2013. It requires anyone who supplies or sells timber or processed timber products for the first time on the EU market to carry out a due diligence check, assess the potential risks related to the products (origin, species, etc.) and, if needed, mitigate the risks. Any subsequent user of the wood or wood products, once it has been placed on the market, must provide basic information on his supplier and his buyer.

CEPI created a simple decision tree, that can be followed as a video, to check whether one needs to exercise 'due diligence' and if so, how to do this. The decision tree brings the issue down to a simple matrix, making it easy for any user of paper or wood products to determine their obligations under the EU Timber Regulation. The EU Timber Regulation Guidance issued by the European Commission currently places an unfair burden on European companies, by confusing the interpretation of the regulation. CEPI is investigating this issue.

COMPANY-OWNED, COMPANY-LEASED AND COMPANY MANAGED FOREST

99.9% of company owned and company leased forests in Europe are certified by independent certification schemes. (2010: 99.9%)

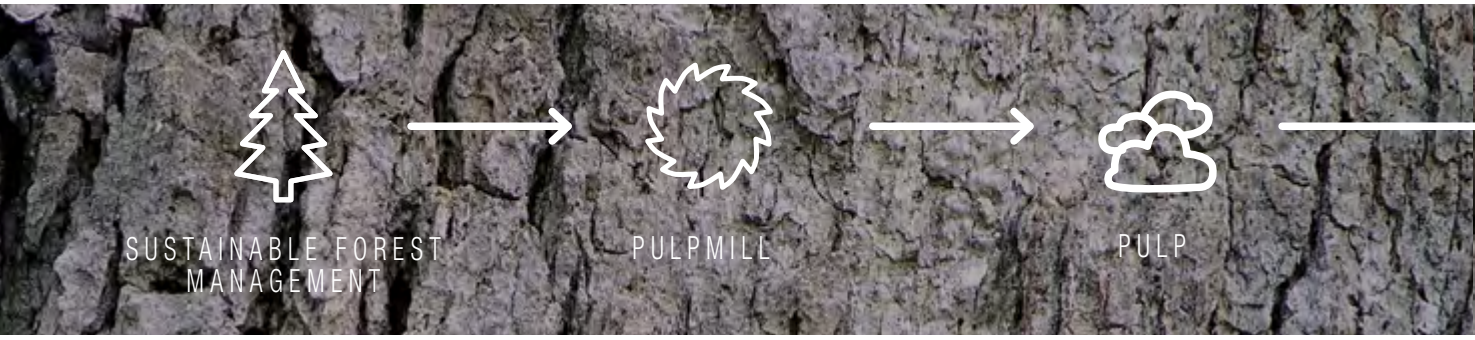
96.7% of forests managed by European pulp and paper companies are forest management certified by independent forest certification schemes. (2012: 92.2)

Even if the amount of forests owned, leased or managed by companies in Europe is not very high compared to State owned and family owned forests, this indicator reflects the commitments of companies in certification.

WOOD, CHIPS AND SAWMILLING BY-PRODUCTS FROM CERTIFIED FORESTS

64.6% of wood, chips and sawmilling by-products delivered to European mills are forest management certified by independent forest certification schemes and can be counted in the companies' chain of custody. (2010: 61.6%%)

Because of the Regulation on timber legality and of the forthcoming sustainability criteria for solid biomass, it is likely that this figure will still increase.



PURCHASED PULP

74.7% of pulp delivered to paper and board mills in Europe is forest management certified by independent forest certification schemes and can be counted in their own chain of custody. (2010: 71.1%)

CERTIFIED PAPER, TISSUE AND BOARD IN MILLS USING WOODPULP AND PAPER FOR RECYCLING

93.2% of total paper tissue and board production capacity is chain of custody certified. (2010: 69.5%)

71.3% of total paper tissue and board produced is chain of custody certified. (2010: 55.3)

32.3% of total paper tissue and board is sold with a chain of custody certificate enabling further labelling. (2010: 25.6/)

The same distinction as previously done for market pulp applies here for paper.

MARKET PULP

98.4% of market pulp production capacity own a chain of custody certification (2010: 96.3%).

76% of market pulp production is forest management certified and could be chain of custody certified. (2010: 70.6%)

68.1% of market pulp is actually sold with chain of custody certificate enabling further labelling (2010: 60.9%).

The distinction here aims at showing that if sufficient certified raw material was available, the industry could produce close to 100% certified pulp, but in reality sold 68.1% of certified pulp.

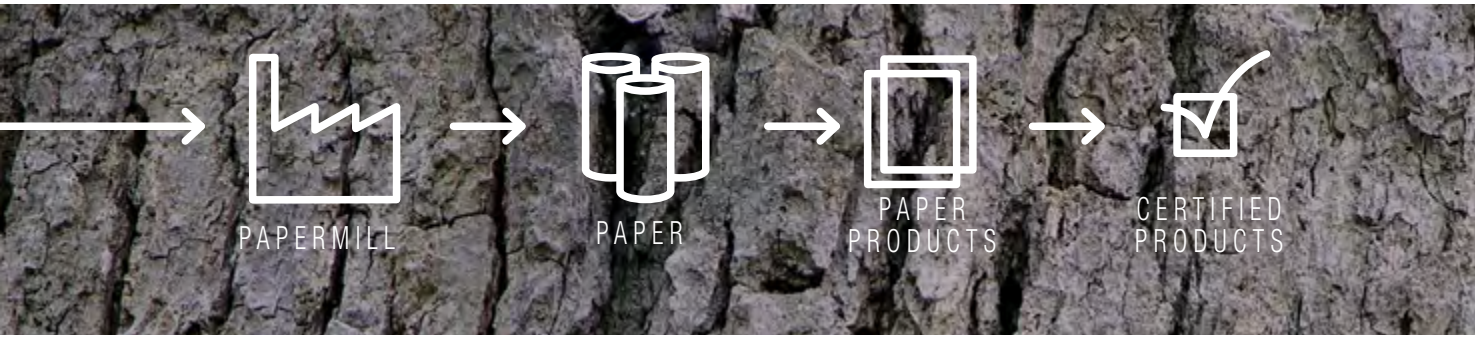
CERTIFIED PAPER, TISSUE AND BOARD IN MILLS USING 100% PAPER FOR RECYCLING

97.6% of 100% paper for recycling based paper, tissue and board production capacity is chain of custody certified. (2010: 41.5%)

90.5% of 100% paper for recycling based paper, tissue and board produced is chain of custody certified. (2008: 40.1%)

45.9% of 100% paper for recycling based paper, tissue and board is sold with chain of custody enabling further labelling. (2008: 0.1%)

This is the first time CEPI reports on these indicators. Since the recognition of recycled fibre by the certification systems is quite recent, the figures are rather low here but are expected to grow very rapidly.



FOREST CERTIFICATION SYSTEMS

Several systems promote sustainable forestry practices through the certification of forests and the chain of custody. These systems, which are independently audited by third parties, ensure standards are constantly improved and updated. Two main certification systems were established in the 1990s and operate in Europe.

CEPI is a member of both certification schemes and contributes to defining the principles and rules. Both certification schemes also certify products based on recycled fibres.

CLICK FOR MORE ON FOREST

FOREST STEWARDSHIP COUNCIL

(since 1993)

FSC

CERTIFIED SURFACES

GLOBALLY

140 979 357 ha

WWW.FSC.ORG

PEFC

(since 1999)

THE PROGRAMME FOR THE ENDORSEMENT OF FOREST CERTIFICATION

CERTIFIED SURFACES

GLOBALLY

231 855 875 ha

NUMBER OF CHAIN OF CUSTODY CERTIFICATES

GLOBALLY

7970

WWW.PEFC.ORG

CERTIFICATION

In 2005 CEPI introduced a Code of Conduct on Legal Logging, which included six principles. The Code was endorsed by all national associations and its implementation began in 2008. It was decided to stop reporting on the update of this Code of Conduct due to the implementation of the EU Timber Regulation, which overlaps with the Code of Conduct, making it redundant.

Chain-of-Custody systems and other third-party verified tracking systems are increasingly used to demonstrate the legality of purchased wood

CEPI is a member of the two main timber certification bodies (FSC and PEFC) and reports on certification biennially. The CEPI parameters for certification statistics have been further developed to provide more details in line with the evolution of the certification systems themselves.

CASCADING USE OF RAW MATERIALS

A recent study using data from FAO and Eurostat shows how much wood is growing in the EU forests and which fraction of this wood is harvested to be used as a raw material for the production of paper and wood products in Europe. The infographic illustrates the three main uses of wood, which are all interconnected: the pulp and paper chain, the woodworking chain and the energy chain.

It also clearly depicts that already today, the energy use of wood consumes directly a large share of harvested wood, while in the paper industry the recycling loop and the use of residues create more value from the same amount of raw material input. The cascading use of wood in paper making can be brought down to one figure, it is 2.38 times more resource efficient with 1 m^3 of wood than the energy alternative. This is resource efficiency at its best!

Cascading use of wood

1 m^3 wood used for papermaking is 2.38 times more resource efficient, than simple energy creation.

Wood flows in EU 27

MINERALS AND CHEMICALS

Paper and board consist predominantly of cellulose fibres, naturally-occurring minerals such as calcium carbonate and natural polymers such as starch. The increase in use of non-fibrous raw materials has allowed for a more efficient use of fibres and improved functionalities of finished paper products. The increasing use of calcium carbonate is especially significant: in 2012 more than half of the non-fibrous material used in the paper industry was calcium carbonate. Other minerals used in papermaking include talc, kaolin and bentonite.

Chemicals are used in the paper industry at different stages of the pulp- and papermaking process. They can be divided into three main groups: process chemicals, functional chemicals and coating chemicals. Each has a different function and a different influence on the sustainability of the paper product.

MINERALS

CALCIUM CARBONATE – This is the most widely used mineral in papermaking. It's used as a filler and coating pigment and helps produce papers with high whiteness and gloss, and good printing properties.

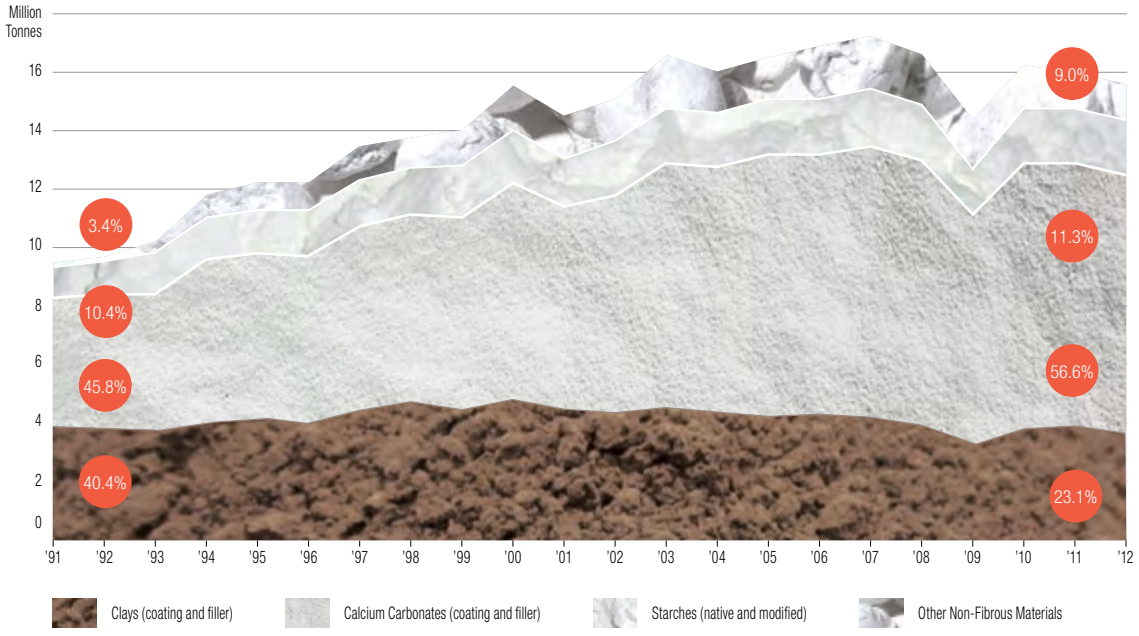
BENTONITE – This mineral is used in pitch control, i.e. absorption of wood resins that tend to obstruct the machines, to make the conversion of pulp into paper more efficient as well as to improve paper quality. Bentonite also offers useful de-inking properties for paper recycling.

TALC – Talc is used with both uncoated and coated rotogravure papers to enhance printability and reduce surface friction, improving productivity at the paper mill and print house. It also improves mattness and reduces ink scuff in offset papers. Used as a pitch control agent as well, talc "cleans" the papermaking process by adsorbing any sticky resinous particles in the pulp.

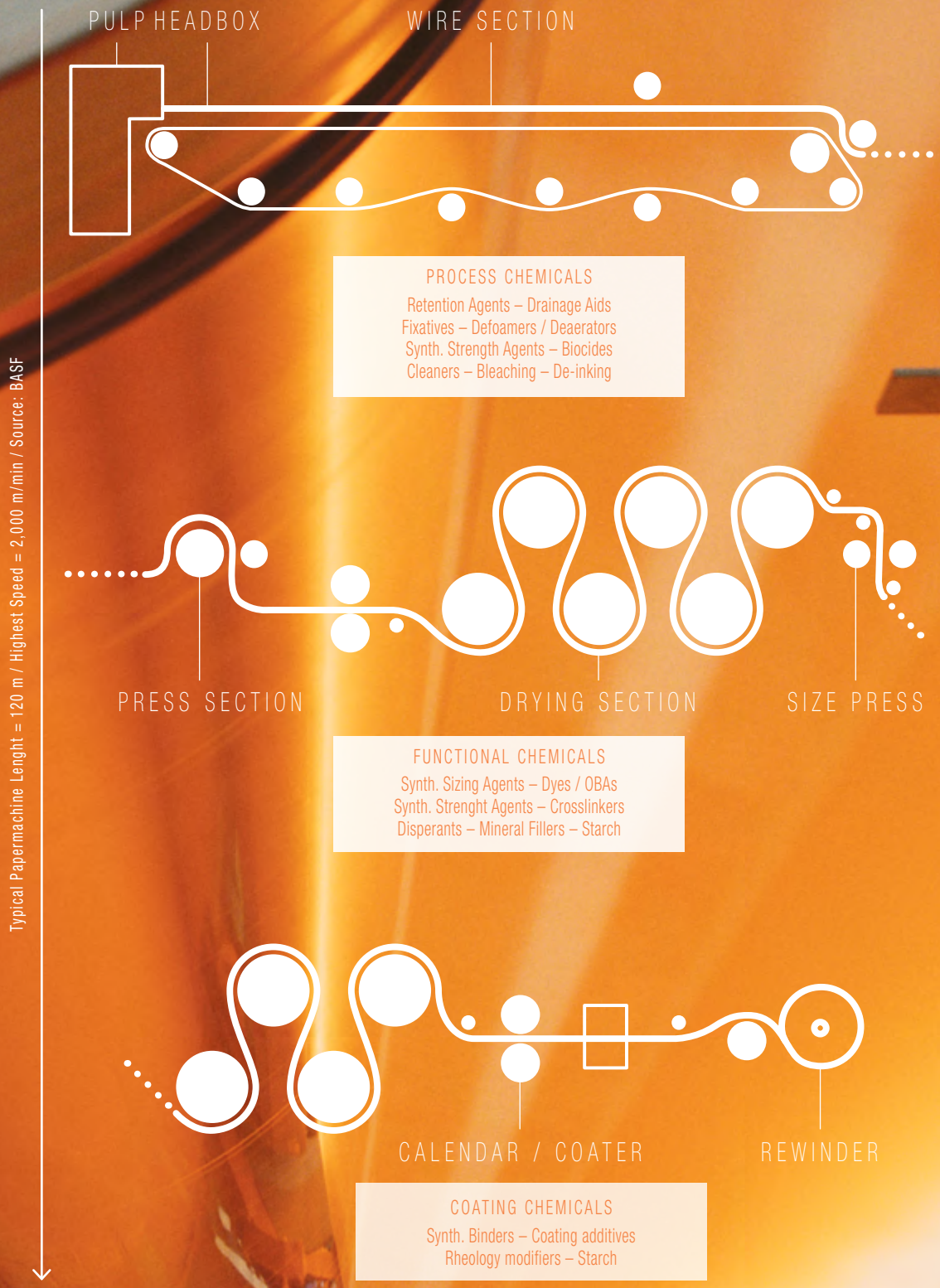
KAOLIN –This is used as a filler to bulk up paper and coat its surface. Use of kaolin reduces the amount of wood pulp needed, enhances the optical properties of paper and improves its printing characteristics.

Source: IMA Europe

CEPI NON-FIBROUS MATERIALS CONSUMPTION 1991–2012



AROUND 25 DIFFERENT CHEMICALS ARE USED IN PAPERMAKING



Chemicals are used in the paper industry in different parts of the pulp and paper making process. They can be divided into three main areas: Process Chemicals, Functional Chemicals and Coating Chemicals. These chemicals have different functions and different influence on the sustainability of the paper product:

SMALL DOSE...	BUT LARGE EFFECTS...
• FILLER INCREASE • OPTIMISATION OF FIBRE COMPOSITION • BASIS WEIGHT REDUCTION • REDUCTION OF FIBRE LOSSES	→ FIBRE OPTIMISATION
• BETTER DEWATERING • ELIMINATION OF SIZE PRESS	→ ENERGY SAVINGS
• PAPER MACHINE SPEED INCREASE • TIME EFFICIENCY OPTIMISATION (BREAKS, CLEANING) • MATERIAL EFFICIENCY OPTIMISATION (CLAIMS) • ELIMINATION OF SIZE PRESS	→ PRODUCTIVITY INCREASE

Source: BASF

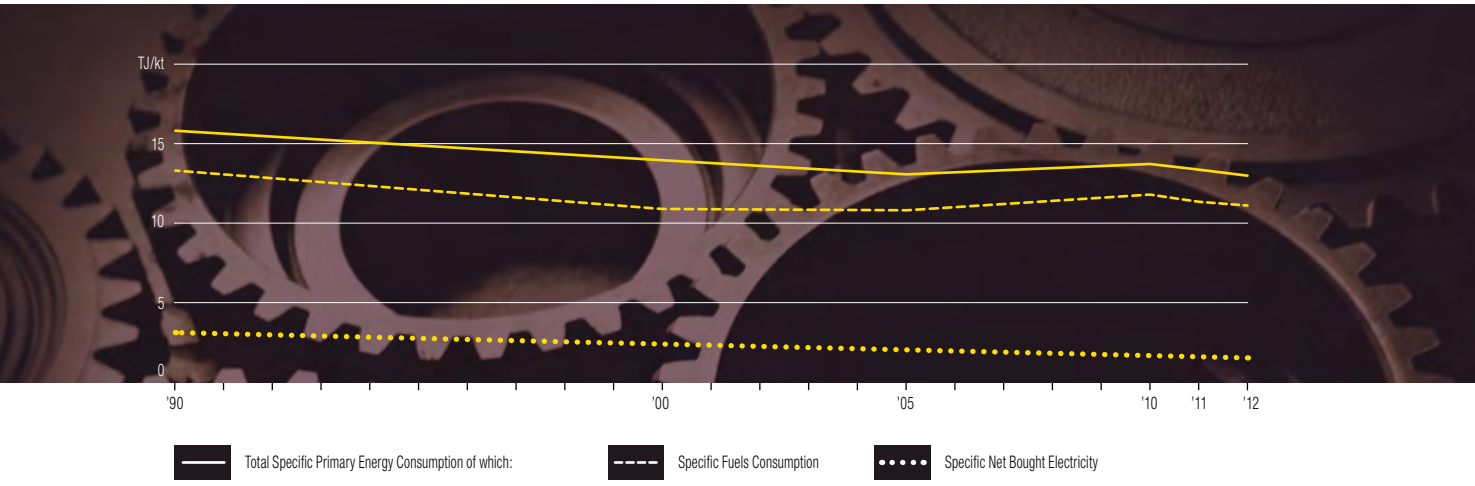
REDUCING EMISSIONS AND ENERGY NEEDS

The paper industry has focused on energy consumption for years. Energy efficiency is seen as the core of good mill performance. It takes centre stage in the performance assessments of machines, mills and countries. The effect of rising energy costs surpasses that of any policy incentive. The key challenge of these economically hard times has been the lower capacity utilisation of machines, with consequent reductions in efficiency per tonne of product produced. Pulp and paper companies have found ways to overcome this aspect of the crisis, by maintaining efficiency, despite lower capacity utilisation.

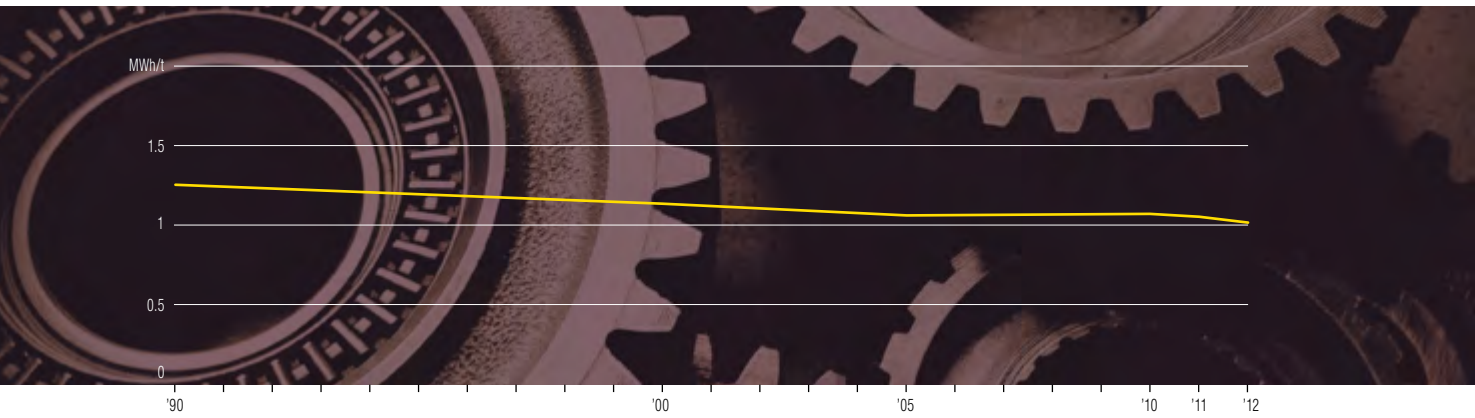
Energy prices in North America have decreased due to the shale gas boom and have a negative impact on the competitiveness of the pulp and paper industry in Europe. While gas prices in Europe have doubled since 2003, and are expected to keep growing, shale gas in North America has brought gas prices to extraordinary low levels. This situation is unsustainable. The competitiveness of all industry in Europe is seriously at risk.

Today 95.2% of electricity is produced on-site of paper mills in Europe using the energy efficient combined heat and power method. Energy consumption of our mills has decreased by 4.7% in the last two years.

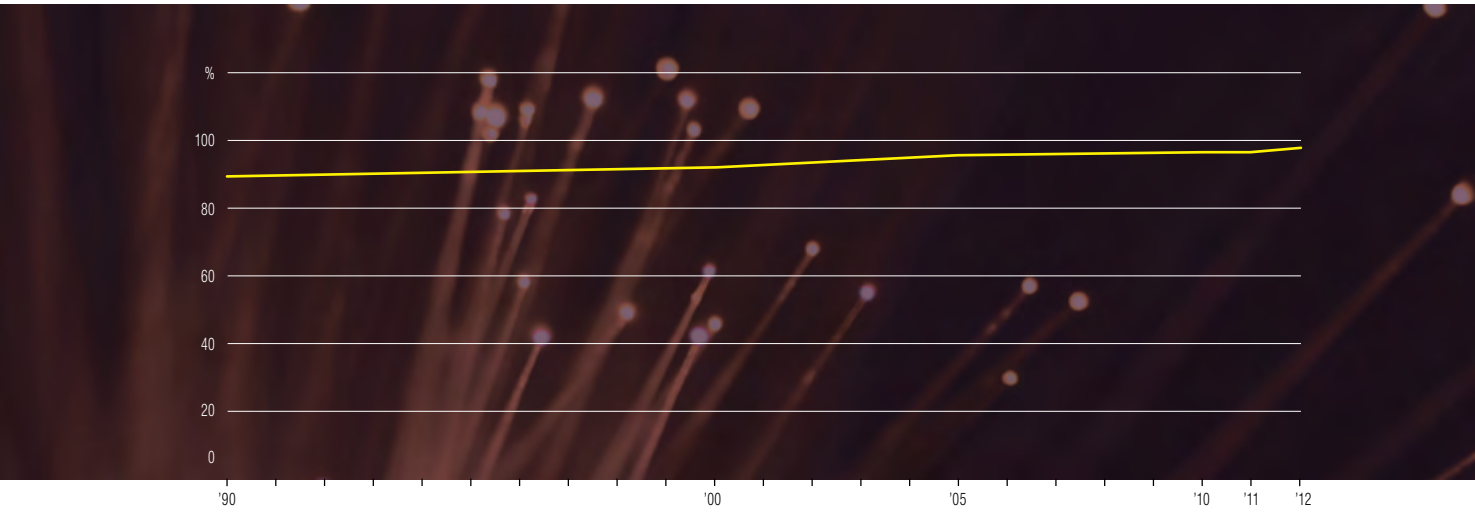
TOTAL SPECIFIC PRIMARY ENERGY CONSUMPTION



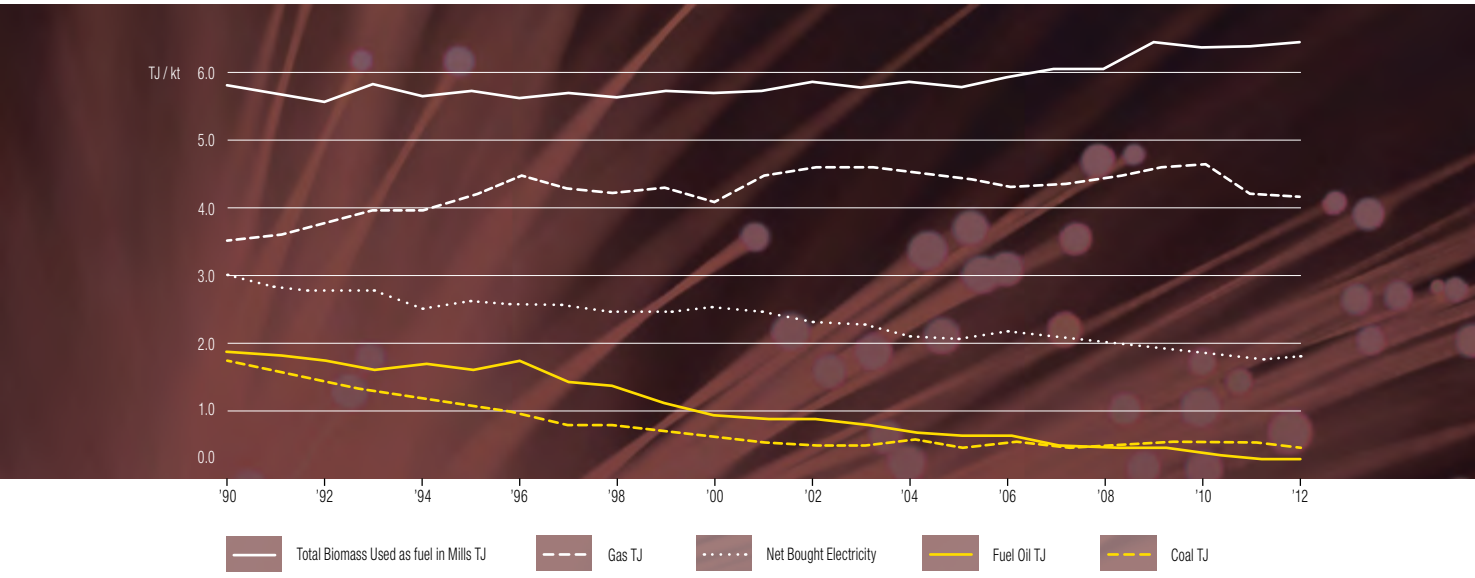
SPECIFIC ELECTRICITY CONSUMPTION



ELECTRICITY PRODUCED THROUGH CHP COMPARED TO TOTAL ON-SITE ELECTRICITY GENERATION



EVOLUTION OF ENERGY CONSUMPTION STRUCTURE

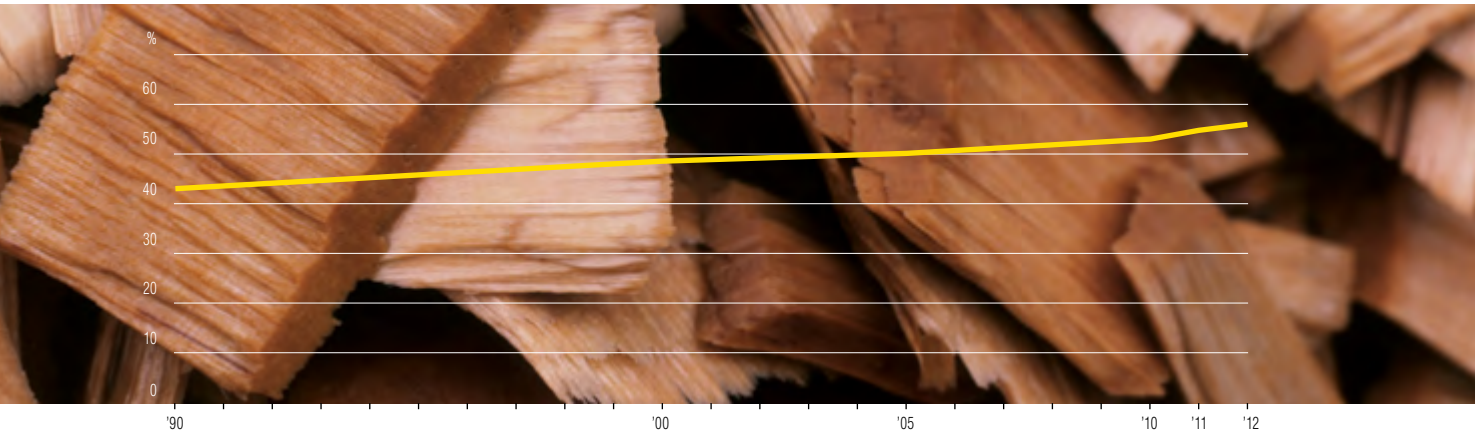


The industry has become more self-sufficient. More and more electricity is supplied to the national grid, too. Specific coal and fuel oil consumption has decreased, as well as the consumption of gas. However, biomass-based energy has grown further in the last years. This was driven by the installation of new biomass boilers in mills across Europe.

We continuously work on energy efficiency improvements.

BIOENERGY

B I O M A S S U S E



Although the sector is energy intensive, it is less carbon intensive than other sectors. The pulp and paper industry operates at the crossroads of CO_2 reduction policies, renewable energy policy and energy efficiency policy. This is why CEPI is advocating the removal of support for co-firing of wood in coal plants which only produce electricity.

Biomass such as wood that has a use as raw material should not be used as a source of energy. Biomass is a renewable, recyclable and climate friendly raw material. It is the basis for the much needed bioeconomy in Europe. Efficient use of biomass does not include the use of biomass for co-firing in coal plants which only produce electricity. The current average efficiency of coal plants is between 30% and 35%. Burning wood, the main biomass source, in coal plants at these efficiencies is a waste of raw material, not a climate reduction measure.

The European paper industry contributes a fifth of Europe's biomass-based energy consumption, most of which is used to cover the sector's own energy needs. As a result it is affected by, but also contributes to the success of, EU climate and energy policies. Restrictions on the availability of wood generate tensions on the feedstock markets and pose a risk to the supply of raw materials. Currently 56% of the paper industry's energy use is biomass-based, making it the largest industrial producer and user of bioenergy in Europe.

NO SUBSIDIES FOR BIOENERGY FROM WHOLE LOGS IN POLAND

Since 31 December 2012 a new regulation on bioenergy is in place in Poland. It requests a higher share of renewables in energy production. Most importantly it eliminates subsidies for the production of energy from full timber.

56% of our energy use is bioenergy

EMISSIONS

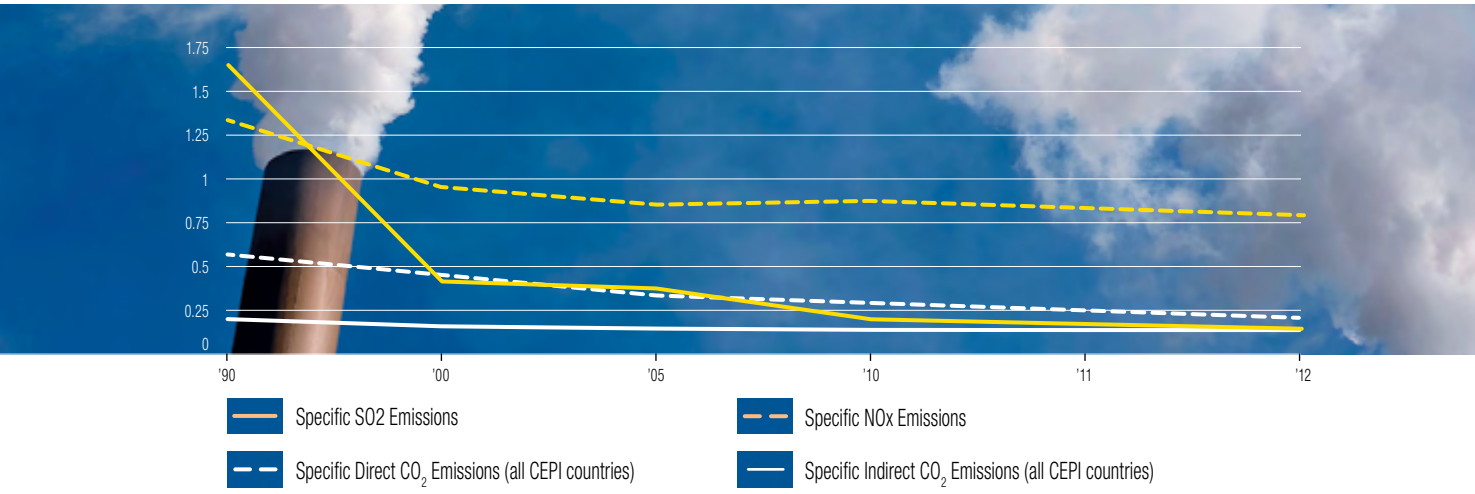
The sector's emission profile consists of direct emissions from combustion of energy sources on site, indirect emissions from electricity purchased from the grid and, to a limited extent, heat purchased from third parties.

The paper industry's use of bioenergy has a dramatic effect on its emission profile as the CO_2 emissions from biomass are considered carbon neutral by the IPCC (Intergovernmental Panel on Climate Change). The potential to use energy from carbon neutral renewable sources which can substitute fossil fuels and products is an indisputably asset to the sector. Pulp and paper emit carbon, store carbon and substitute fossil carbon.

Direct CO_2 emission produced by pulp and paper in CEPI countries have decreased in the last two years from 37.45 mega tonnes in 2010 to 36.24 mega tonnes in 2011 and 34.55 mega tonnes in 2012. This is a continuation of the downward trend, which goes hand-in-hand with the fuel mix change and efficiency improvements. Also the specific CO_2 emissions per kilo tonne of product decreased since 1990 by 43% per tonne of product, which is a key achievement in the current harsh and competitive climate.

-43% CO_2 emissions since 1990

E M I S S I O N S (K T / K T O F P R O D U C T)

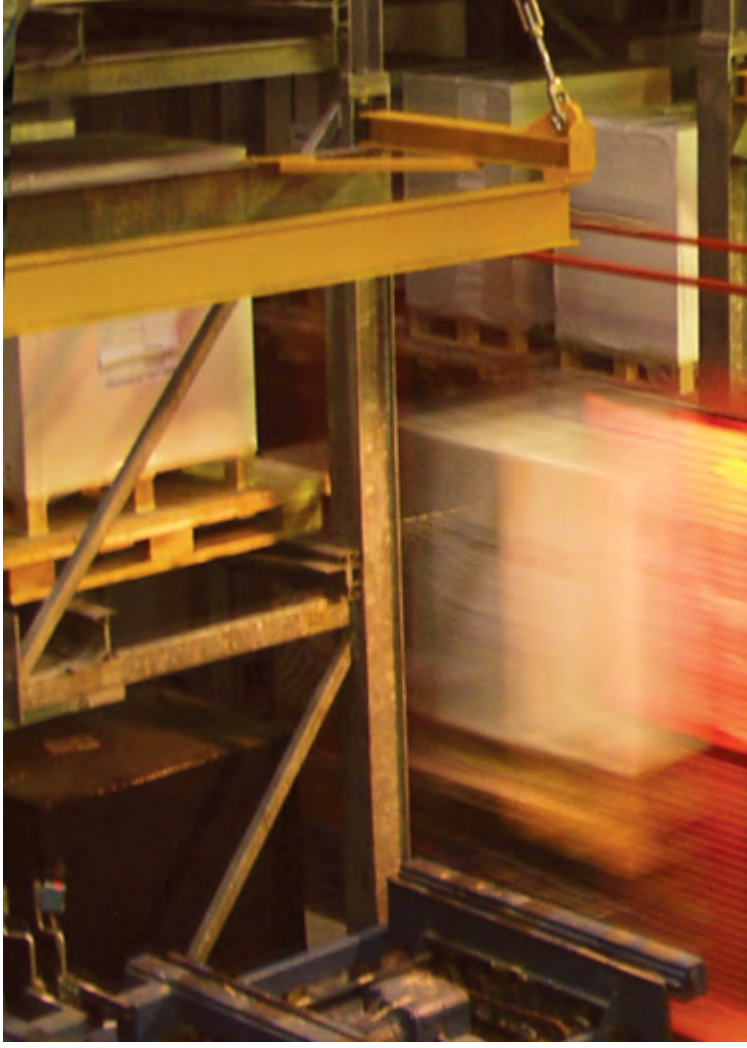


Almost all pulp and paper mills are part of the EU Emission Trading System, the EU ETS. Just over 1,000 installations have been permitted within this scheme, which has been in place since 2005. The pulp and paper mill's emissions have to be covered by emission credits, which are partly received for free and partly have to be bought at government auctions. This is a burden which competing countries around the world do not have to carry. The European Commission overseas the only region in the world where there is a set target for all industrial sectors to reduce CO_2 emissions by 20% by 2020 compared with 2005 levels. CEPI aims to find the balance between international competitiveness and further improving the sector's emission performance.

The emissions of SOx in the paper industry are directly connected to the use of specific fossil fuels, e.g. coal, fuel oil. The continuous reduction of SOx emissions in the last years correlates with the fuel mix change in the sector, e.g. the higher shares of natural gas and biomass use.

NOx emissions into the air occur from energy production (fuel conversion) in all mills and recovery boilers in pulp mills. NOx emissions can also come from natural gas and biomass use. The emissions of NOx (and CO) have a strong correlation with the efficiency of the processes. The more efficient the process, the smaller the emissions per tonne of product.

Our ambition is to help combat climate change and minimise our impact on the environment.



TRANSPORT

Because of the environmental impacts associated with transporting forest products, CEPI issued carbon footprint guidelines in 2010 promoting them ever since, with the goal of helping companies assess the carbon footprint related to the transport of their finished products and raw materials. Innovation, smart solutions and rationalisation in the transport and logistics field can have a great impact on competitiveness and sustainability and must be an important part of the sector's strategy.

> We are motivated to help combat climate change and minimise our impact on the environment.

SHIPPING EMISSIONS: PROMOTING GLOBAL SOLUTIONS

CEPI is extremely concerned by the impact of measures taken at International Maritime Organization (IMO) and EU levels to reduce sulphur emissions. The competitiveness of jobs in Northern Europe will be affected, which adds to the adversity of the current economic context. In the absence of alternative fuels such as Liquified Natural Gas (LNG) and reliable abatement technologies, it will substantially distort the playing field within the EU and with the rest of the world. The resulting "modal back shift" from maritime transport to road transport and the likely higher greenhouse gas emissions are in contradiction with the objectives of the EU White Paper on Transport.

CLICK FOR MORE ON ENERGY AND CLIMATE CHANGE

INNOVATION

CEPI set out to boost innovation in low carbon technology by launching the Two Team Project. We established two competing teams (Red and Blue) and gave them the task of identifying breakthrough concepts of technologies and processes to make the pulp and paper manufacturing process more energy efficient and to add more value. The teams applied a unique method of open innovation in a trade association, crowdsourcing ideas from all interested stakeholders.

Breakthrough technologies are at the core of CEPI's '2050 Roadmap to a low-carbon bioeconomy'. Such technologies must be available by 2030 if the industry hopes to deliver on the Roadmap's two objectives: 80% decarbonisation of the sector and 50% value creation by 2050. In November 2013, eight breakthrough technology concepts will be delivered as the outcome of the Two Team Project. One will be crowned by a jury as the most promising.

CLICK FOR MORE INFORMATION

SOFIDEL REDUCES ITS CO_2 EMISSIONS BY 11%

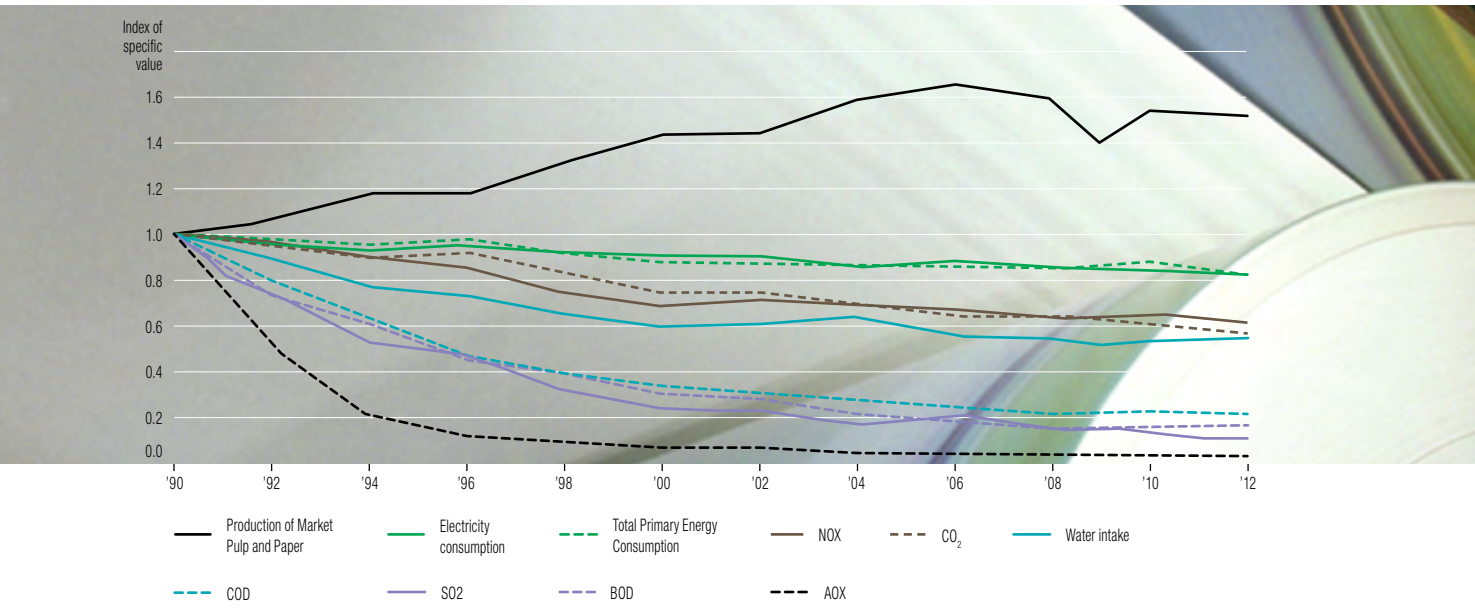
Sofidel, a European manufacturer of paper for hygiene and domestic use, is pleased to announce that they met their five-year target to reduce CO_2 emissions by 11%, a goal that was set in 2008.

To meet their target, Sofidel invested 25 million Euros over a five-year period in renewable sources (photovoltaic and hydro-electric), cogeneration (combined production of electricity and steam) and improvement works to increase energy efficiency (e.g., LED lighting).

WORKING WITH THE ENVIRON-MENT

The many business start-ups and shut-downs during the economic turmoil of recent years have temporarily increased the level of emissions from paper manufacturing, but the industry's overall emission reductions remain remarkable: two digit reductions in all emissions in the past 20 years, and up to a 95% cut in emissions of chlorinated organic compounds (AOX).

PAPER PRODUCTION: DECOUPLED GROWTH LEVELS AND ENVIRONMENTAL IMPACTS



	% 2012/1990	% 2012/2002
Specific Electricity Consumption (MWh/t)	-18.7%	-8.6%
Specific Direct CO_2 (kt CO_2 / kt of product)	-42.7%	-23.0%
Specific Indirect CO_2 (kt CO_2 / kt of product)	-49.8%	-30.9%
Specific Amount of Residues Landfilled (kg / t of product)	-81.4%	-56.3%
Specific BOD (kg / t of product)	-82.8%	-41.7%
Specific COD (kg / t of product)	-76.8%	-25.8%
Specific AOX (kg / t of product)	-94.9%	-36.3%
Specific SO2 Emissions (kg SO2 / t of product)	-88.8%	-52.4%
Specific NOx Emissions (kg NOx / t of product)	-38.4%	-13.0%

The graph shows a reduction in the industry's total environmental impact as well as a relative decoupling of production and environmental impact, i.e. an efficiency improvement has been achieved.

With a long-term trend in the industry to produce lighter paper, performance per tonne of paper does not give an accurate picture of resource efficient improvements. Calculating paper production and sales per square metre instead of per tonne would make water and energy savings in paper production more visible.

We achieved relative decoupling of production and environmental impact.

ENVIRONMENTAL MANAGEMENT SYSTEMS

By systematically managing the environmental impact of pulp and papermaking, along with that of its related activities and the products and services produced, overall environmental performance continually improves.

Among CEPI members, 88% of production capacity is certified or registered according to internationally recognised environmental management standards ISO 14001 and EMAS. This figure has fallen by 5% in the last two years. In 2003, CEPI set the aspirational goal to have all pulp and paper mills in CEPI member countries certified to an internationally recognised environmental management system. However, mergers and the high percentage of SMEs in our industry make it difficult to increase further the proportion of EMAS or ISO standard use, but CEPI will continue to promote its use.

SMEs represent about two-thirds of pulp and paper companies operating in Europe. This is according to the Eurostat definition of SMEs: companies with less than 250 employees and less than €50 million turnover. This estimate is based on RISI mill asset database figures.

EMAS CERTIFIED PAPER MILLS IN URUGUAY AND CHINA

UPM is one of the first companies and the Changshu site the first ever paper mill to receive the EU Eco-Management and Audit Scheme (EMAS) registration in China.

UPM already led the way in open and transparent environmental reporting in 2012 when UPM Fray Bentos pulp mill in Uruguay became the first non-European site ever to achieve the EMAS registration as a result of a pilot project between UPM, the EU, Finnish Environmental Institute SYKE, the Finnish Ministry of the Environment and Inspecta Certification.

BREF – THE PERMIT TO OPERATE

The reference document for best available techniques (BAT) for pulp and paper manufacturing, the so called BREF-PP document, is under review by the European IPPC (Integrated Pollution Prevention Control) Bureau. The revision process started in 2006 but finalisation of the document has been delayed. The new BAT conclusions are expected to be adopted at the end of 2013, and will be followed by a four-year implementation process by member states.

WHAT IS BREF? AN INTRODUCTION

The purpose of the Industrial Emissions Directive (IED) is to minimise pollution and emissions to the environment from industrial sources throughout the European Union. The IED requires all operators of industrial installations to obtain an integrated permit from national authorities. The operating permit must be based on the Best Available Techniques reference document (BREF).

The BREF document on pulp and paper manufacturing is currently being finalised by the European Commission.

A new BREF chapter will contain Best Available Techniques (BAT) Conclusions that specify the associated emission limit values and other requirements the pulp and paper mill must comply with in order to operate.

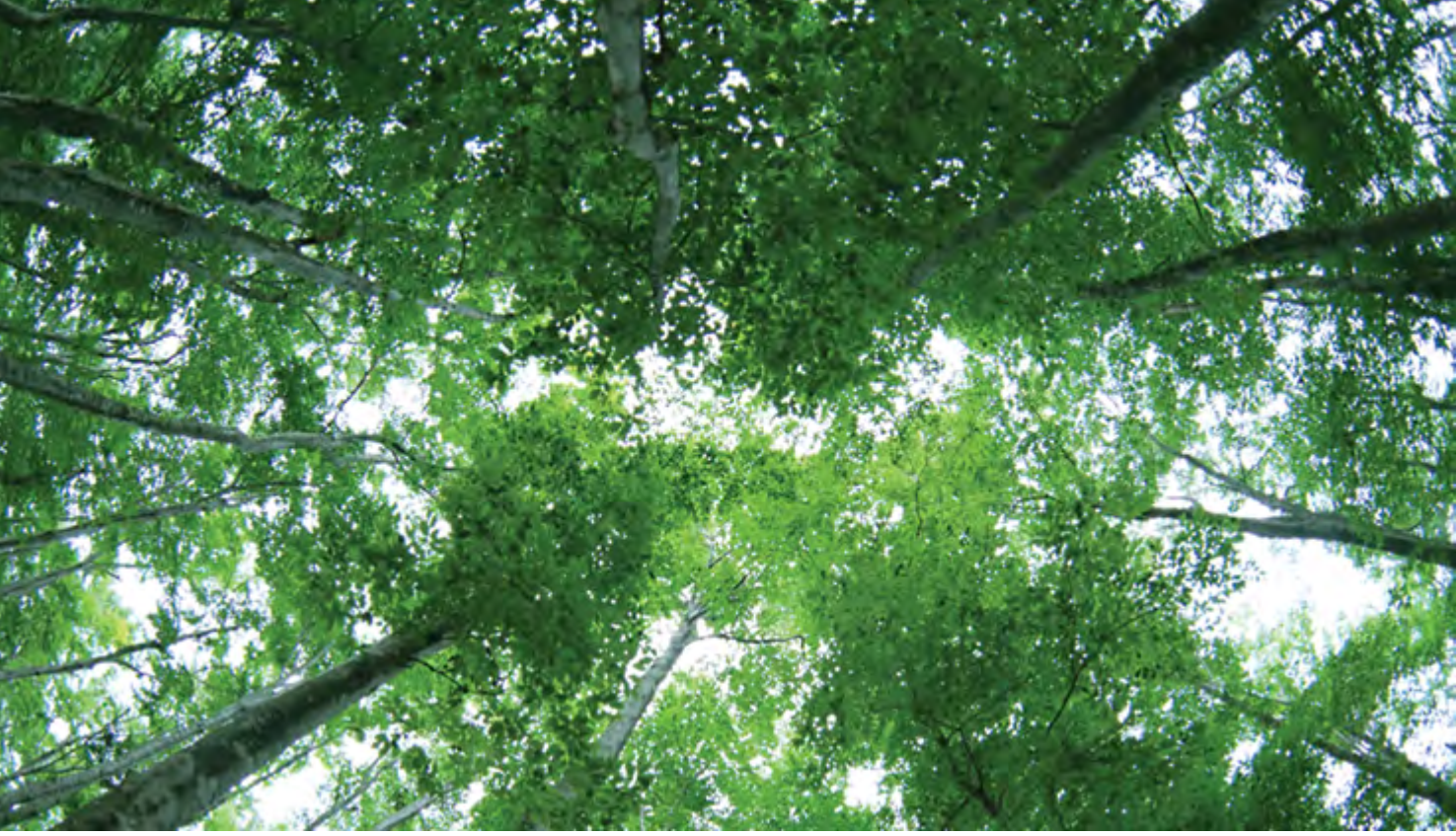
IED and BAT Conclusions will set legally binding emission levels for all operators. Whereas in the past BAT were references for local permitting authorities, now all operators must comply with them within four years after the BREF is adopted.

RIDING RESOURCE EFFICIENCY

A single industrial site can host the operations of five different companies benefiting from a saw mill's by-products and residues: construction timber, pallets, wood chips for pulp, energy pellets, and energy production.

A paper mill situated next to a baby food plant uses the excess nutrients from the baby food production for its own biological water treatment processes. Another plant provides the warm water for the local swimming pool and the heat for the local city.

Resin from bio-based polylactic acid can encapsulate paper fibres to create a material as strong as wood, steel or hard plastics.



FORESTS IN EUROPE

Policymakers have increasingly focused on Europe's forests in recent years. In fact, the EU institutions are currently working on a new Forest strategy to incorporate this focus on forestry resource, while the EU has no mandate on that topic as such. CEPI has also stepped up efforts in the area and signed a Memorandum of Understanding with the Confederation of European Forest Owners (CEPF), the European State Forest Association (EUSTAFOR) and the European Confederation of Woodworking Industries (CEI-Bois). The organisations formally committed themselves to strengthen their communication and cooperation in the future.

The good news for European forests is that they are growing. Forest growth from 2005-2010 was at 512,000 hectares. Forests are more than 30% larger now than in the 1950s.

We care for the forest and promote the use of certification systems and responsible forest management.

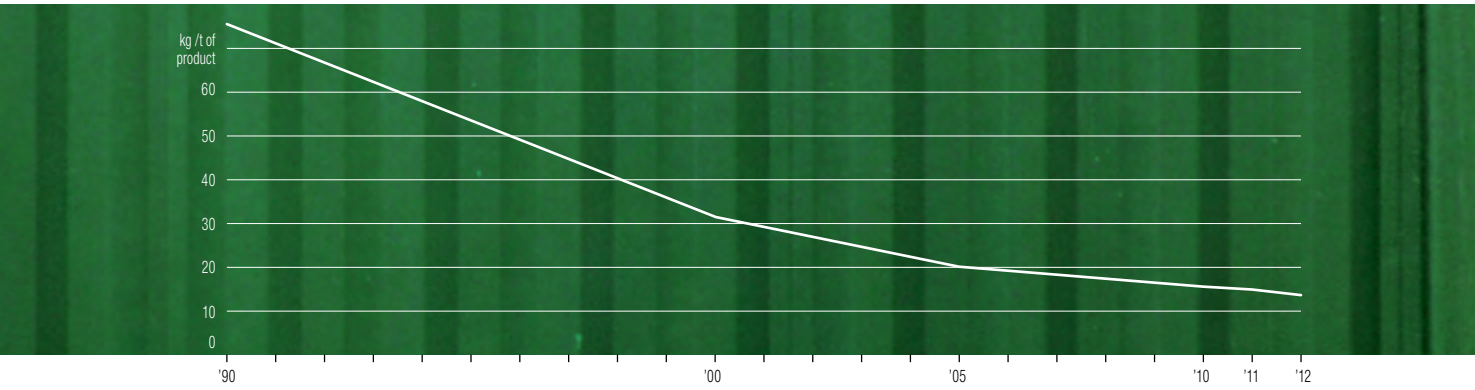
To ensure the continuing health and sustainable use of forest raw material in Europe, solid biomass should only be eligible for subsidies when it is proven to be efficient. If biomass is procured from countries with no mandatory forest accounting, credible proof should be provided that the harvesting rate in the country does not exceed 100% and the biomass does not come from land conversion. Forest biomass should come from legal sources and creating bioenergy from wood should only be considered when the "cascading principle" applies. This principle promotes the most efficient use of natural resources, optimising value creation and using the material ideally firstly for food, then products and finally for energy.

CEPI also advocates a biomass supply policy that would improve wood supply from forests in a sustainable manner to cover the increasing bioenergy demand for wood. While Eurostat stated that 'a possible further increase in the demand for fuelwood would be sustainable' as sustainable forest management ensures a growing forest in Europe.However, the paper industry in Europe is making policymakers aware that we have long used easily accessible forest biomass. The remaining forest resources are mostly located in small and scattered private properties or areas that are difficult to access, making the mobilisation of such biomass more difficult and less cost competitive. To gain access to such resources, a relevant intergrated biomass supply policy is required.

WASTE AND RESIDUES

Production residues can be measured per tonne of finished product. Reducing this volume will increase resource efficiency and help avoid greenhouse gas emissions. Over the past decade, residues to landfill from the pulp and paper industry fell 55%, from 32.7 kg/tonne of product to 14.3 kg/t.

SPECIFIC AMOUNT OF RESIDUES LANDFILLED



Research into waste streams from paper production has revealed that the waste contains useful elements for delivering value-added products or energy. Some paper producers are already capitalising on these opportunities, but even current best practices are far from gaining the maximum value from paper sources.

Since the start of 2013 CEPI has been a partner in an EU-funded project, Refibre, which is looking into this area and at how to apply principles of industrial ecology. By 2015 this project should also give an updated picture on recovery and disposal methods for by-products in our industry.

CEPI made an inventory of current best practice for sustainable material management of fibre in the light of existing EU policies and identified areas of improvement. These include in particular setting collection targets for paper and restrictions for landfilling or incinerating recyclable paper.

CEPI advocates a complete EU-wide ban of landfilling and incineration of recyclable paper by 2015 in line with the Waste Framework Directive that prioritises recycling over energy recovery and disposal. Also the Roadmap for a Resource Efficient Europe foresees: by 2020, waste is managed as a resource and energy recovery is limited to non recyclable materials. Europe needs to step up its efforts to ensure that today's practices do not put at risk the achievements of those milestones.

WATER

CEPI has paid close attention to recent developments and policy debates on water sustainability, which policymakers view as a useful indicator of climate change adaptation.

Private initiatives on water stewardship, management standards and footprinting calculations have proliferated. CEPI participates in the Alliance for Water Stewardship, the European Water Partnership and the Water Footprint Network. The European pulp and paper industry has focused to date on water abstraction by mills. The trend over the past two decades has been to reduce freshwater withdrawal, by 20% in total volume and by 47% when calculated as a specific value, per m^3/t of product.

Water issues are local and carry different weight across Europe. Starting from a local mill level, but with the entire value-chain of the paper product in mind, CEPI, together with NCASI [1], developed new definitions on water use with a local perspective, using 2008 data. Reporting in 2012 using the same methodology, water consumption amounts to 298 million m^3 (2012), or 7.7% of the water abstracted. Water consumption in the European paper industry is the sum of evaporative losses from process operation and secondary waste treatment, water in solid residuals and water in products.

In 2012, the pulp and paper industry within CEPI member countries withdrew approximately 3.71 million m^3 of water from surface and ground water sources; of which 92.3% were returned to surface water supplies cleaner than before.

Water is fundamental for pulp and paper manufacturing, and CEPI gives the water issue a high priority. With the purpose of supporting the paper industry and its value chain in its commitment to improving water management, CEPI and the University of Twente, Netherlands, will further apply and improve the 2010 Water Footprint Assessment (WFA) methodology for the sector published by UNESCO-IHE (Institute for Water Education). A number of important issues remain to be explored, including calculations on forestry in green water footprint, comparison of grey water footprint with life cycle assessment (LCA), and allocation methods when considering the recycling of paper and board in WFA. The result of the project is expected in 2014.

CEPI is closely following the development of the international water footprint standard ISO 14046. Several issues are relevant for the paper industry, especially the definition of water consumption. The new standard is expected to be issued early 2014.

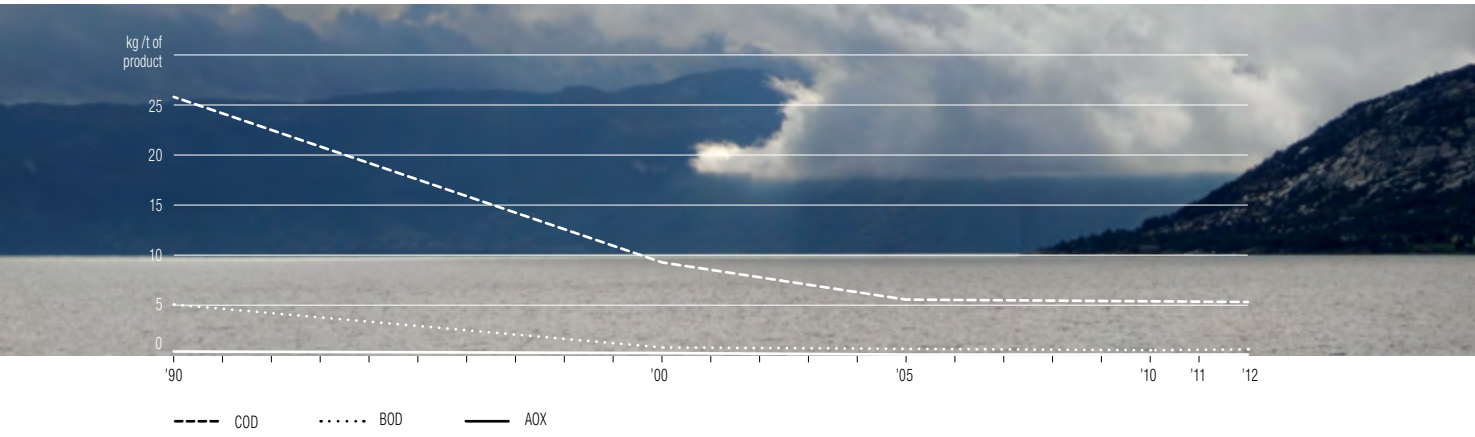
We are also, within the Alliance for Water Stewardship (AWS), developing a standard for water stewardship. This is designed to give companies and utilities a roadmap towards sustainable water use, including engagement with stakeholders. The intention is to reduce water risk and generate social, environmental and economic benefits across all sectors and regions.

USE IS NOT THE SAME AS CONSUMPTION

The forest industry uses large volumes of water, but only a small part of this water is 'consumed'. Water bound up in products and waste counts as consumed. Water that escapes from the processes as steam is also considered to be consumed. The remaining process water can be reused. It is important to remember the distinction between use and consumption when discussing water issues and the forest industry. There is an increased interest in the water footprint of products as a way to measure the effect of a product on access to water and water quality from a lifecycle perspective.

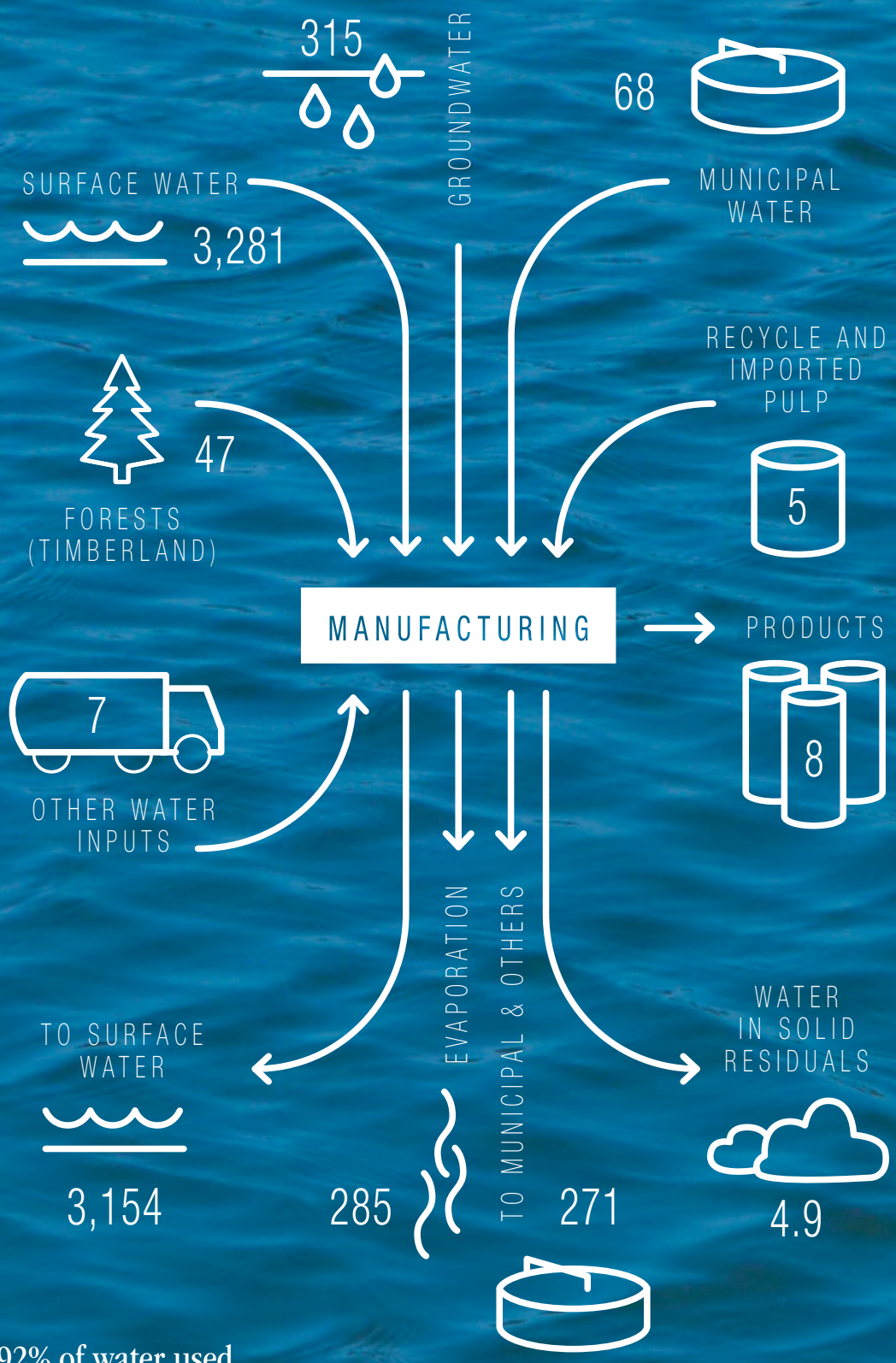
CLICK FOR MORE ON THE ENVIRONMENT

WATER EMISSIONS

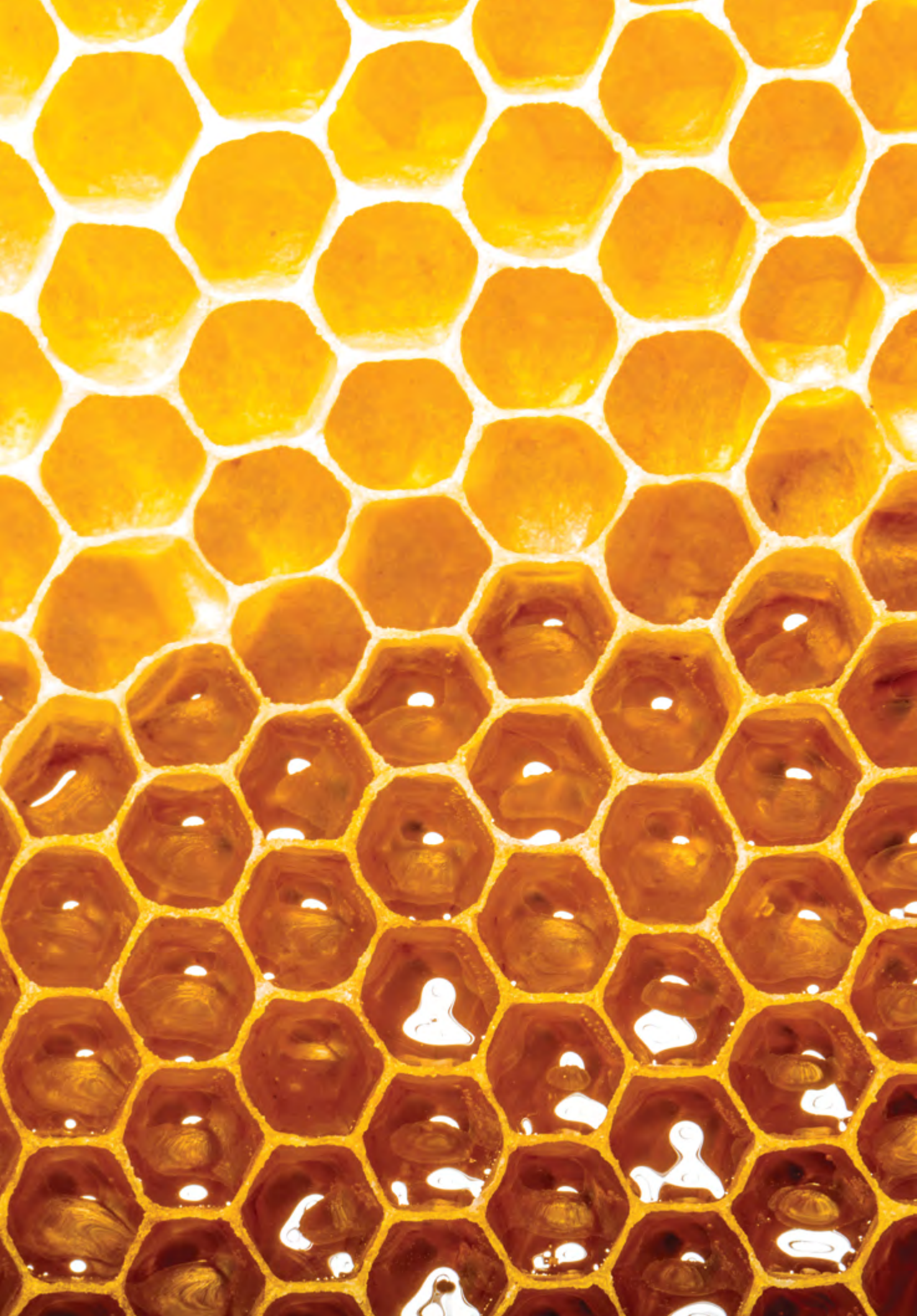


1 National Council for Air and Stream Improvement, http://www.ncasi.org/

WATER PROFILE FOR THE PULP AND PAPER INDUSTRY – CEPI COUNTRIES 2012 (MILLION M³)



92% of water used is returned to the environment



MAINTAINING A SAFE WORKPLACE

As a result of the economic downturn the number of people employed by the European paper industry decreased by 4.8% to 185,112 between 2010 and 2012. Recent initiatives emphasise the importance the industry attaches to its social responsibilities through investment in forest certification and continuous improvements in safety standards.

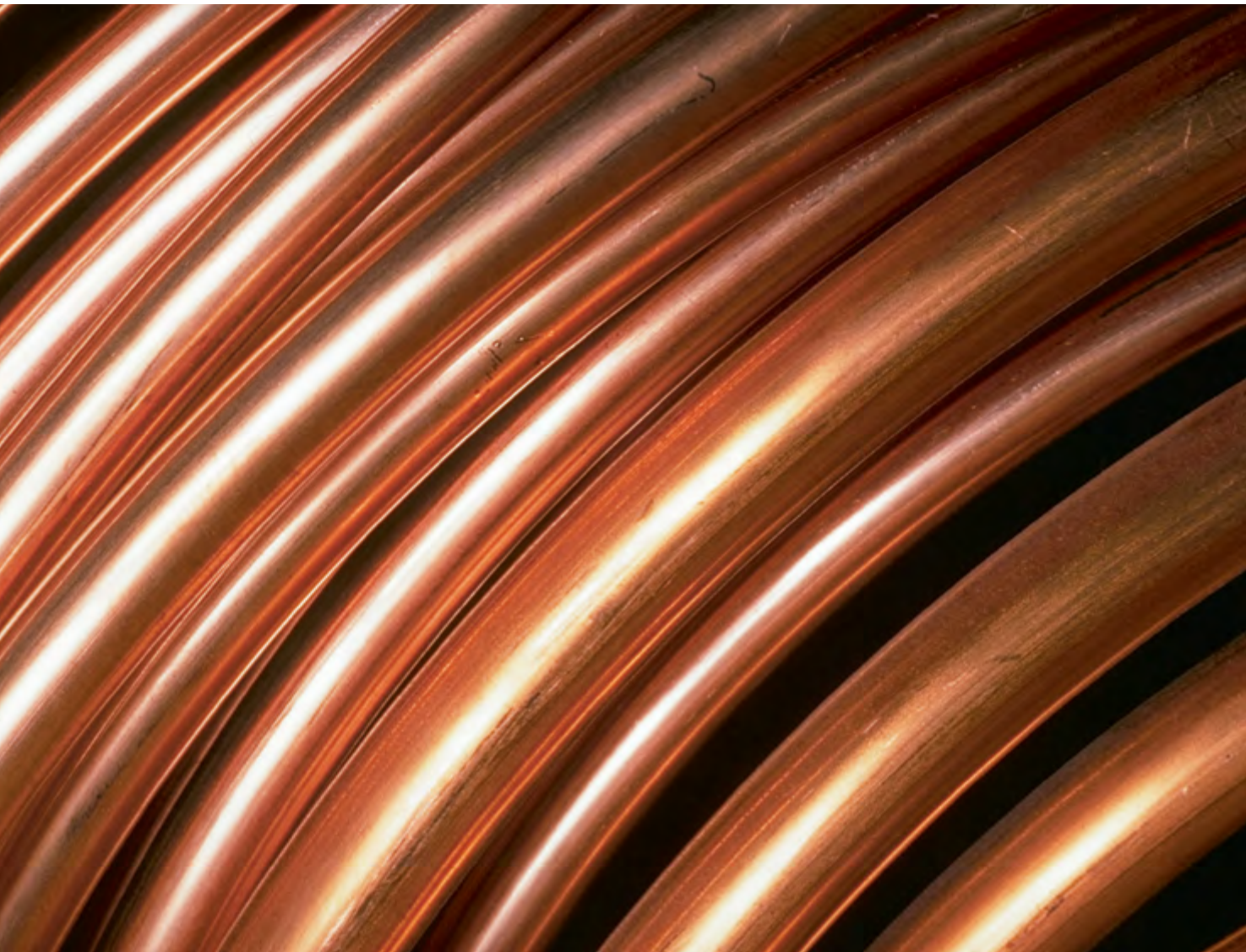
The European paper industry contributes to people's livelihoods through direct and indirect employment especially in rural areas. According to a recent study [1] the indirect employment figure derived through the paper value chain is seven times that of direct employment in the paper industry, with 1,597,200 people involved in Europe.

Additionally, the extensive use of certification systems in sustainable forest management adds to social benefits and improvements for forest owners and workers with systematic inclusion of social requirements. Certification can improve representation, discussion of social issues, and relationships with stakeholder groups.

SOCIAL DIALOGUE

In 2010, CEPI initiated a European social dialogue with the European Mining, Chemical and Energy Workers Federation (EMCEF) under the auspices of the European Commission. In the meantime EMCEF became part of IndustriAll Europe. The dialogue continues and the two organisations developed a guide of good health and safety practices for the paper industry in 2012 (details under 'Health and Safety').

Social Dialogue is a platform to address new challenges faced by the industry: ageing staff, lack of appeal in the industry among young workers and gap in knowledge transmission.



HEALTH AND SAFETY

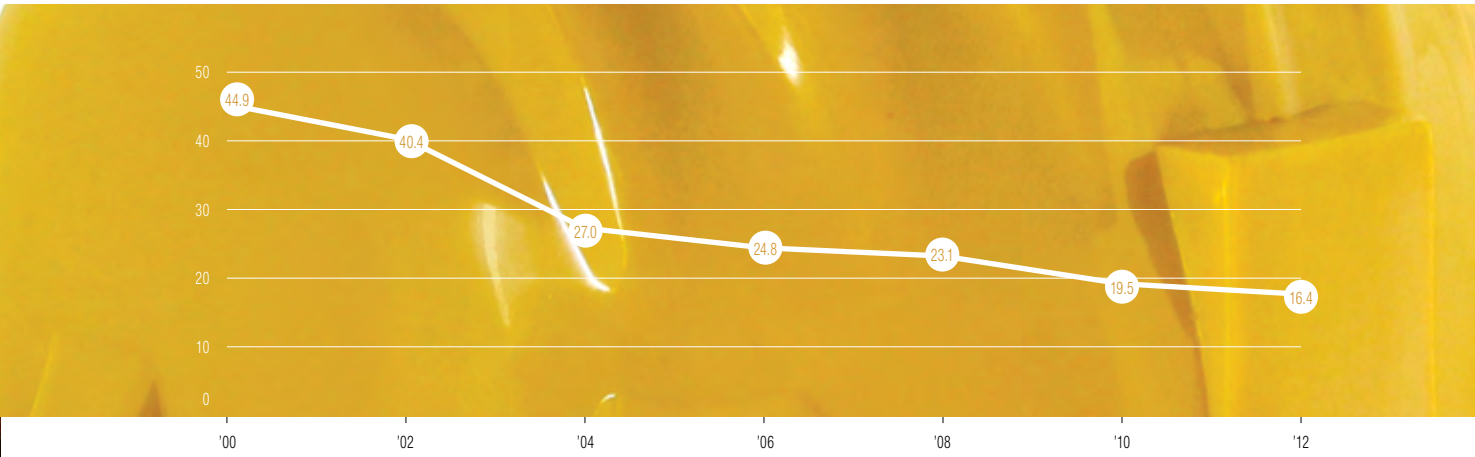
CEPI and IndustriAll Europe launched the good practice report on health and safety in the European paper industry in Germany in 2012. The organisations worked jointly on this new report compiling a set of 22 exemplary practices, collected from members under the auspices of the paper sector Social Dialogue, funded with the support of the European Commission.

The good practice report addresses different types of pulp and/or paper mills and their associated health and safety issues, as well as various kinds of activities (daily operation, transport and handling, maintenance) and can in most cases be adapted and transposed.

CEPI is also a partner in the Healthy Workplaces Campaign 2012-13 'Working together for risk prevention', encouraging managers, workers and other stakeholders to join forces to improve safety and health.

- 60% accidents since 2002

ACCIDENT RATE (ABSENCE OF MORE THAN 3 DAYS)

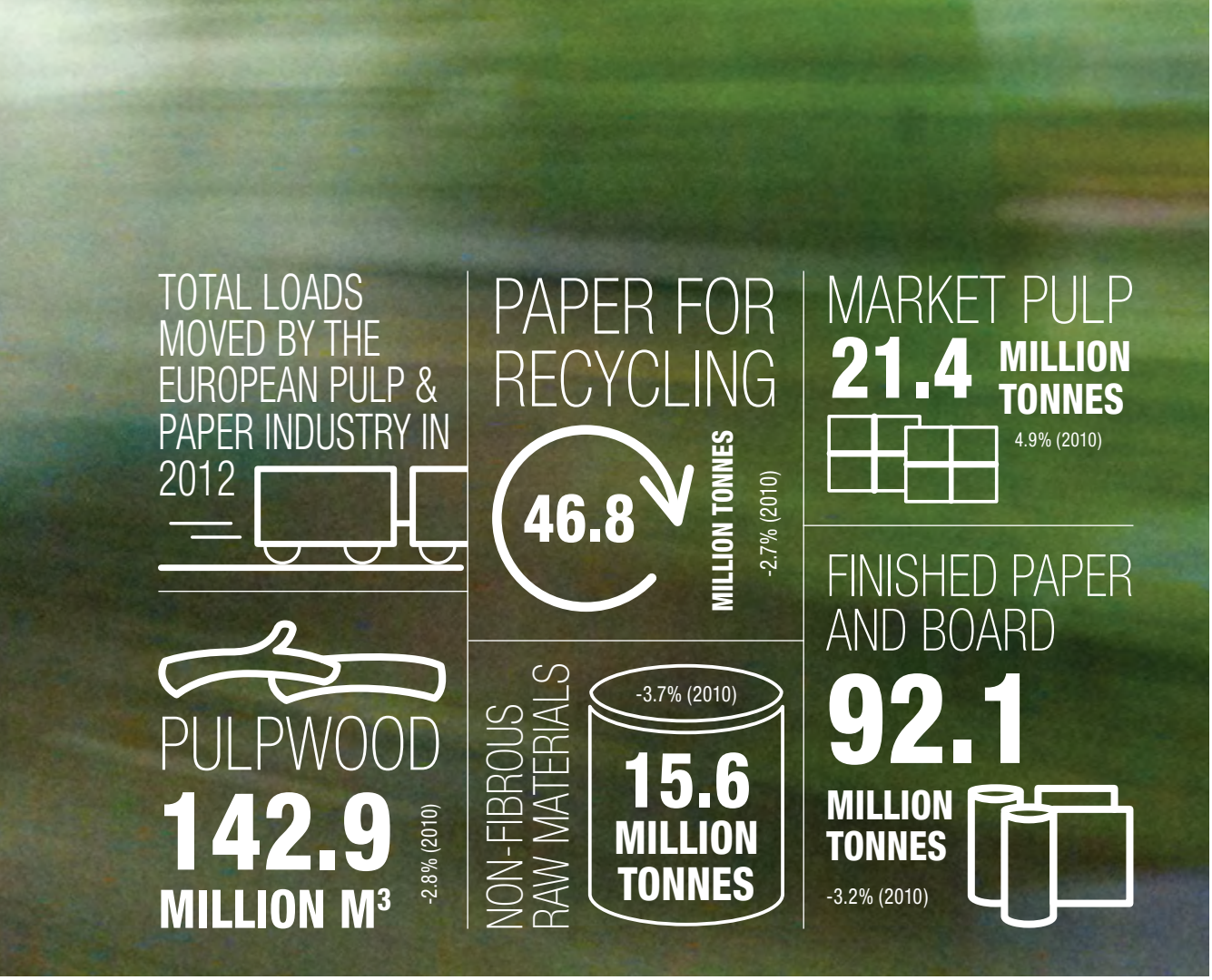


CLICK TO DOWNLOAD THE PUBLICATION

The health and occupational safety of its workers is of paramount importance for the paper industry. In 2003, CEPI committed to an aspirational target of zero accidents in the workplace. The decrease in the number of accidents causing an absence of more than three days off work can be partly attributed to falling employment levels but is also due to the ever present awareness and diligent work in mills regarding safety and incident prevention. More efficient alert systems have been introduced and companies are increasingly aware of the role prevention has to play in reducing the number of days lost as a result of health and safety issues. [2]

Healthy Workplaces

1, 2 Poyry 2012



GUIDELINES TO PROMOTE LOAD SAFETY ON ROAD

Because load safety on road is essential, CEPI has been developing some guidelines on storage and securing of paper products according to the principles included in the revised European standard EN 12195-1 in 2010. They mainly consist of an interpretation of the EN 12195-1 specifically dedicated for the European pulp and paper industry. These guidelines will be made available to all pulp and paper companies and translated in several EU languages to secure a good understanding and a broad implementation by companies and supply chain partners (consignors, operators and drivers).

Rail and single wagonload transport services are of key importance for the paper industry in Europe

The negative developments of rail freight transport over recent years and the decline of single wagonload transport services in many countries has been a growing concern. Many customers often require only small shipments, with volumes that are too low for a full train.

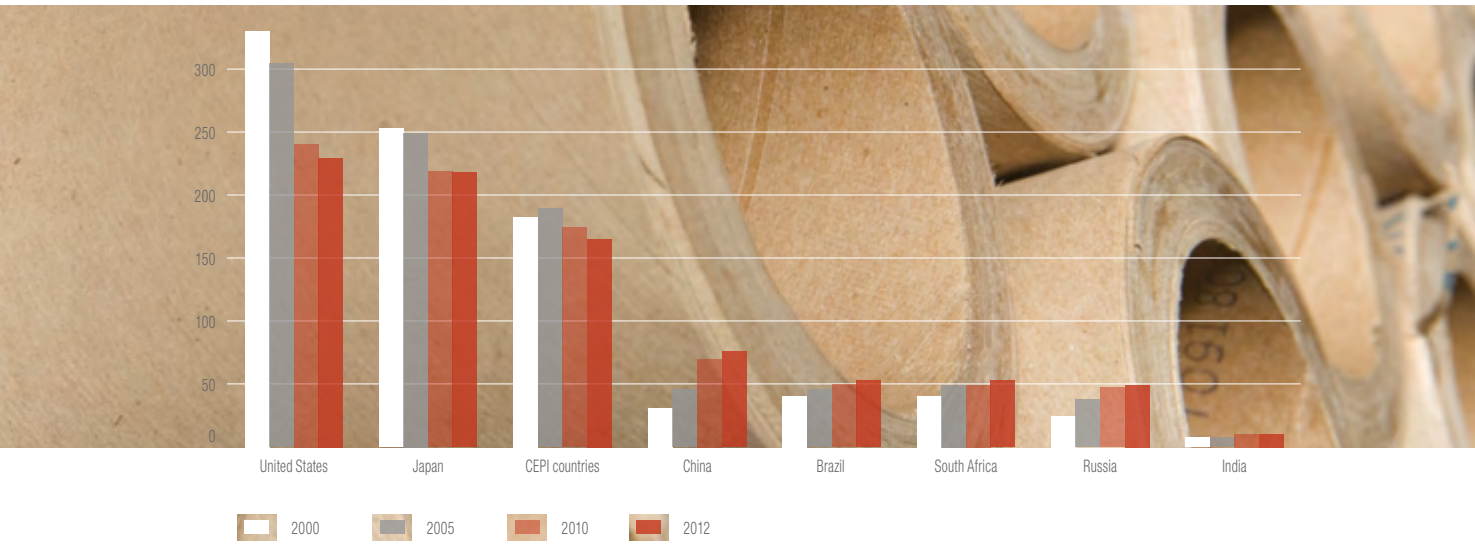
The demand for single wagon-load transport services remains strong however, and could grow even further if it could be relied upon. The effective and non-discriminatory access to rail infrastructure is a key enabling condition. Dedicated competitive and modern rail freight networks and increased load capacity of wagons through a more sophisticated design would enhance rail freight attractiveness too.

CEPI has engaged in a constructive dialogue with other industry sectors such as chemicals and steel as well as the European Shippers' Council with rail freight companies to identify viable economical and practical solutions.

EDUCATION AND TRAINING

Paper consumption is closely correlated to a country's develoment stage. The graph below shows that developed countries and regions such as the US, Europe and Japan consume larger amounts of paper and board (though falling), while developing countries such as Brazil, China or India are low in paper consumption at present, but show a continuous upward trend.

PAPER AND BOARD CONSUMPTION PER CAPITA



PAPER AND BOARD CONSUMPTION PER CAPITA

Paper and board consumption per capita has remained relatively stable in Europe compared to the US. The potential for higher consumption in emerging countries is substantial. New emerging markets offer a great opportunity for European companies. The focus on bioeconomy development in Europe also offers many opportunities for the European pulp and paper sector as an employer.

CLICK FOR MORE ON SOCIAL AFFAIRS

CONFEDERATION OF PAPER INDUSTRIES' PAPERWORKS SITE WINS WEBSITE OF THE YEAR AWARD

PaperWorks has been developed to fit with modern classroom teaching techniques and facilities, and supports the Paper Industry's aim to counter some of the common misconceptions of what has become one of the most sustainable and forward-thinking industries in the UK.

CEPI has continued to invite stakeholders from the European institutions, suppliers, NGOs, trade unions, and the value chain as well as members to join small roundtable sessions at CEPI's office to discuss their views on how our sustainability reporting can gain value and credence as a reference source. The European Commission, forestry, publishing, paper board converting, suppliers, trade unions, NGOs and printing sectors that attended the event provided views on which issues the report should cover and areas for improvement. CEPI also heard how it could reinforce relationships with stakeholders.

ENGAGING STAKE-HOLDERS

Feedback was extensive, but it mainly focused on the structure of the report and audience rather than additional information, suggesting that we have reached a good level of information content. We at CEPI looked at the wish list of our stakeholders and identified the items that we could already implement in this year's report. Not all wishes can be fulfilled due to missing data (more under 'Data collection'), difficulties in obtaining the data or data which was intended to be reported for a specific stakeholder group and was not material for the bigger part of the readers of this report.

Our stakeholders wanted to see the innovation activities highlighted as well as resource efficiency, which we did through special icons throughout the report. Furthermore, stakeholders requested more information about the challenges our industry faces and details about the minerals and chemicals the paper industry uses. Both issues have been addressed in this report already.

Here a list of other interesting subjects that summarise the discussions at our stakeholder meeting:

- Insist on the need for profitability
- Add data about investments outside Europe
- Address the energy cost issue
- Tell the 'made in Europe' story of our industry
- Address the social aspects of forests
- Stronger communication on the fact that our raw materials are natural products
- Address the continuous threat of greenwashing by digital service providers.

CEPI staff members keep in touch with various stakeholder groups to discuss specific topics such as energy, water or social affairs in more details and meet them when needed.

CEPI'S ENVIRONMENT

CEPI is a channel for communication between its numerous stakeholder groups in industry and commerce, policymakers, civil society and decision makers. We develop and issue best practice guidelines in several areas in order to improve the performance throughout the sector. CEPI also carries out surveys and studies that help support our activities and communication on a regular basis. We are active in external networks such as the European Commission's Retail Forum set up in 2009 to find workable paths to sustainable consumption and production, who meet on a regular basis several times a year. We also belong to the European Water Partnership, Business Europe Working Groups and Employers' Network, industry alliances and the Water Footprint Network.

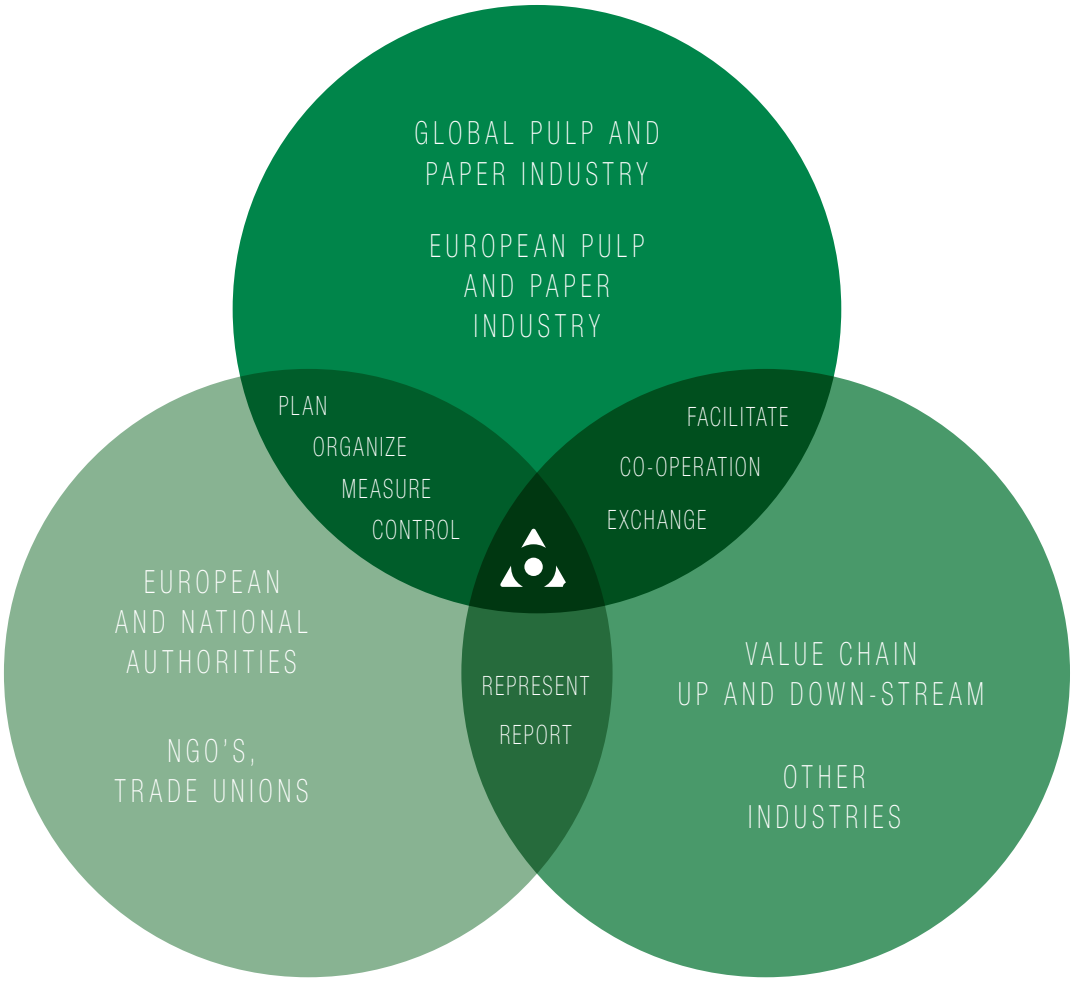
In 2011 we began a new partnership with suppliers aiming to promote mutual corporation, share technical information and expertise on common issues and to promote common interests. We also organise Industry Forums to mark the bridge to suppliers and downstream users. The Partnership Programme is open to stakeholders in the pulp, paper and cardboard industry, namely machine and/or chemical suppliers active in the industry with a direct link to paper manufacturing. Current CEPI Partners are Buckman, Omya, Imerys and Voith (see page 84).

We forge links with the entire paper chain from the forest to packaging and labels, graphic and newsprint paper, hygienic tissue and recycled paper. These cross-category networks share experiences and knowledge, and make full use of their collective resources. With the Print Media Group we keep track of joint interests in promoting print. And the ERPC (European Recovered Paper Council) has just started the next European Declaration on Paper Recycling with a long list of value chain associations.

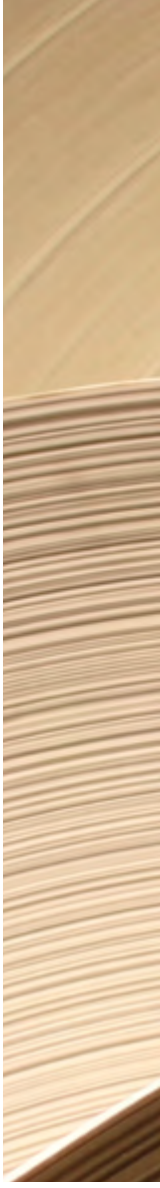
International collaboration is an important part of CEPI's work, several staff members are involved in the ICFPA (International Council of Forest and Paper Associations). Transparency is also an important aspect of CEPI's work, which is why we registered with the transparency register of the European Commission in October 2010.

We run workshops to pool insights from business, industry and interest groups. This achieves balance and clarity in our understanding of complex, multi-disciplinary issues and promotes well-supported policy positions. Successful events in the last two years focused on innovation, bio-economy, industry guidelines, recycling, health & safety and transport. Our networking event of the year, European Paper Week, attracts a cross-section of the stakeholder community to Brussels for three days every November. In addition to the CEPI Annual Meeting, open sessions are opportunities to hear experts talk on topical themes and engage in debate on subjects close to the hearts of everyone in the paper chain.

CLICK FOR MORE ON CEPI'S EUROPEAN PAPER WEEK



ABOUT CEPI AND THE EUROPEAN PULP AND PAPER INDUSTRY



WHAT WE DO

CEPI coordinates activities across the entire pulp and paper industry in Europe. The organisation responds to EU institutions' consultations and represents the European paper industry in discussions with these institutions. Our approach and structure ensures that we are open, flexible and responsive. CEPI organises several events each year and publishes trade publications on various topics and interests. We also conduct a large amount of projects, most recently the Two Team Project on breakthrough technologies.

WHO WE ARE

The CEPI secretariat is located in Brussels where Director General Teresa Presas heads a 20-strong team. Directors and managers are appointed for their expertise and skills in key policy areas for the industry; namely forestry and innovation, environment, energy and climate change, competitiveness and trade, recycling and products, social affairs as well as in communication. The national associations nominate members to standing committees, which take strategic views on these six areas of interest, supported by Issue Groups. Social affairs, research, food contact, statistics, trade and transport issues are covered by specially formed groups. The CEPI Board of Directors comprises national association chairpersons and company chief executives. The current chairman is Jussi Pesonen, CEO of UPM.

CEPI STRUCTURE

The CEPI Board is the ultimate decision-making and governance body in CEPI. It is assisted by a more operational Executive Committee.The Associations Directors Group (ADG) is the senior advisory group to the CEPI Director General. Sustainability Strategy and Communication are transversal issues under the Director General. Innovation and Social affairs are supervised by the ADG. The Committees are responsible for strategy and political perspective in the policy areas. The Innovation Committee is a support Committee that crosses all policy areas. Issue Groups are formed as needed, to work on the problems/issues identified by the Committees.

The Board of CEPI receives no remuneration for its activities and the staff of CEPI is subject to periodical evaluation. The Board has clear voting rules for decision making and anti-competition rules are applied to all its meetings. An agreed work programme is developed and implemented each year and the Board ensures that all activities reflect environmental, economic and social topics. In all meetings CEPI follows its "Guidelines for Compliance with EU competition rules" that were especially prepared for CEPI. Stakeholder and supply chain action will multiply and spread the positive effects of sustainable thinking. The good practices we recommend aim to improve the supply, the availability and use of resources. These are developed using the valuable knowledge that we gain from stakeholders.This goes hand-in-hand with the goal to be competitive globally and strengthen the market for paper products.

Ecological risks and regulation issues lead to collaborations with many stakeholders and expert networks. In line with European decision making, CEPI follows the precautionary principle in all its activities and acts to ensure that the paper industry does not cause harm to its stakeholders and customers. Paper is a credible partner in the evolution of the low-carbon economy. It is made of a renewable raw material and its production relies mostly on renewable energy. The sector is characteristically responsible and invests strategically in technical research and insight studies. We work to optimise our use of natural resources, extend the role of paper in our lives, and improve the health and safety of people and the environment. CEPI's aim is to communicate our performance and to improve the understanding of our industry and its products.

CEPI STRUCTURE IN 2012

ANNEX

OUR SUSTAINABILITY REPORTING

Materiality
Each subject area contained in this report is materially relevant because it can and does impact, directly or indirectly, on the sustainable development of the industry, and the industry can and does, directly or indirectly, influence change or improvement in the social, economic or environmental related topic in question. This report is a tool for making better-informed decisions that fit the European vision of a society that uses natural resources efficiently, innovatively and wisely.

Report Parameters
CEPI staff met with stakeholders in 2013 to determine ideas/ improvements and changes to the last Sustainability Report published in 2011. An internal working group was formed to specify further the structure of the new report according to those comments and to recurring themes from the CEPI work and projects completed by the association in 2011 / 2012 / 2013. This report is prepared for all stakeholders fitting in the graphic on page 73

Report Boundary
For this report the GRI 'Profile Disclosures' and 'Disclosures on management approach' are reported for CEPI as the reporting organisation, but as a European industry association the 'Performance indicators' relate to the performance of the paper industry in the CEPI region as a whole.

Report Methodology
Data generation at CEPI relies on our national association members and pulp and paper company measurements. Information is collected from the available sources and with a view to ensure accuracy and robustness to avoid risks of overlapping and gaps. Standardised definitions were developed for all indicators. CEPI's Statistics department confirms the completeness and accuracy of reported data. Cross-checks (with other sources used for industry specific data) are performed systematically. Feedback and commenting loops with the reporting members ensure high data quality. If we identify limitations in the coverage or reliability of data, we disclose them and introduce measures to improve the reporting process.

Data Quality
Responsibility for the collection of environmental data lies with the statistics department, which is constantly working to improve the quality of the data reported. Due to revisions of some national associations' data, we had to adjust our data on energy consumption, biomass use and emissions reported in recent years. Our figures in this edition cover the years up to 2012 or 2010. Environmental figures exclude data from Romania, Hungary and Slovenia, as we were unable to obtain relevant data from those countries (except for CO_2 emission data, which include all CEPI countries); and we do not include figures from Poland before 2003. The Environment Committee is investigating possibilities to improve data collection. Sometimes indicators do not apply to all our members; exceptions are explained in footnotes. Occasionally, updates on economic indicators necessarily rely on data from external consultancies; in each case the source is credited in a footnote. In some instances consultancy figures cover a different spectrum of Europe (not CEPI countries, but EU 27 or other); this is explained when relevant.

2012 Figures from Belgium, the Czech Republic and Slovakia have not been received and have been estimated by CEPI, based on specific figures from 2011. Ernst & Young issued a limited assurance statement on the data quality rating (DQR) that CEPI made on some of the core indicators in the full sustainability report. The detailed assurance statement is available in the Annex on page 88.

CLICK FOR MORE INFORMATION ABOUT SUSTAINABILITY

MANAGEMENT APPROACH

SOCIAL AFFAIRS

In social affairs, including product responsibility, health and safety, as well as training and education, CEPI works to improve worker safety and wellbeing and maintain good relations with trade unions. CEPI aims to make a difference and complements the work carried out by national associations and pulp and paper companies. The Social Affairs Director at CEPI, who reports to the Director General, works with the statistics department in order to improve the data available at European level. Through him, CEPI has also initiated a social dialogue with the EU and trade bodies to improve stakeholder collaboration in this area. One major goal is the improvement of data available on social affairs and employment issues.

TRADE, ECONOMIC ACTIVITY AND COMPETITIVENESS

Dedicated resources are employed to monitor international trade, economic activity and competition, and CEPI consistently promotes the competitiveness of the paper sector in Europe. The organisation has a designated director responsible for trade and competitiveness who reports to the Director General. He oversees the monitoring of economic KPIs and ensures that the statistics department collects and produces reliable and relevant data. The aim is to create a level playing field for pulp and paper companies in Europe in trade and to support members with relevant European data. The Trade and Competitiveness Director at CEPI is closely involved with CEPI's mission to promote the members' business performance through specific actions, and by monitoring and analysing activities in the areas of industrial policy, transport and trade.

PRODUCT POLICY

In product policy, CEPI works to identify potential reduction of products' environmental impacts. It strives to communicate the safety of paper products and deals with environmental labelling and footprinting. The Director at CEPI responsible for product policy reports to the Director General and works with the Technical Director and the Environmental Manager on product policy at European level. Together with the association for paper converters (CITPA) the Product Director runs the Food Contact Strategy Group to integrate the value chain in a broader perspective. It contributes to a competitive legal framework for paper and board for food contact.

FOREST

Among the priorities for the Forest Committee is the topic of bio-energy, where it raises awareness about the competition between wood biomass and raw material, identify concrete measures to better mobilise wood and improve agricultural responsiveness to the energy challenges. As described above, certification, biodiversity and the follow up of the Legal Logging Code of Conduct are also among the main tasks of the Forest Committee and the Forestry department within CEPI.

RAW MATERIALS

Securing raw materials is a very important issue for CEPI. The organisation's Recycling Director and the Raw Materials Senior are responsible for developing and managing activities and policies related to paper recycling. The Forest Director works with his colleagues and the Forest Committees, which comprise experts from national paper associations and paper companies, to develop and implement clear and well-defined activities on behalf of the industry. The Recycling Director works with his colleagues and the Recycling Committees, which comprise experts from national paper associations and paper companies, to develop and implement clear and well-defined activities on behalf of the industry. All proposed activities are scrutinised and eventually adopted by the CEPI Board. An important role is to monitor recycling-related key performance indicators (KPIs), on which CEPI reports every two years. The recycling department, together with the Recycling Committee, works to ensure the availability of the required quantities of good quality paper for recycling at an affordable cost. It also collaborates with standardisation bodies to improve standards and founded the European Recovered Paper Council to improve paper recycling still further. Every two years the European Paper Recycling Awards are organised, which has the benefit of creating a pool of best practice cases for others to copy and disseminate. The European Declaration on Paper Recycling set a target of 70% recycling rate for 2015.

ENVIRONMENT

The environment is central to all CEPI activities and a large proportion of its resources are focused both horizontally and vertically on ensuring the industry minimises its impacts across the EU. All Directors at CEPI have responsibility for developing and managing environmental activities and policies. The Environment Director works with his colleagues and their expert committees, particularly with the Environment Committee, which are made up of experts from national paper associations and paper companies, to develop and implement clear and well-defined actions on behalf of the industry. All activities proposed are scrutinised and eventually adopted by the CEPI Board. An important role is to monitor environmental key performance indicators (KPIs), which CEPI reports on every two years. Water, waste and emissions are clearly

the responsibility of the Environment department, which is working on footprinting methodologies and responds to information requests from EU agencies and institutions.

SOCIAL ASPECTS, PUBLIC POLICY, ANTI-COMPETITIVE BEHAVIOUR, COMPLIANCE

CEPI itself registered under the Transparency Register of the European Commission and European Parliament committing to the rules and Code of Conduct related to it (http://ec.europa.eu/transparencyregister/info/about-register/codeOfConduct.do?locale=en).

Addtionally, CEPI follows in all meetings with member associations and pulp and paper companies competition rules that need to be followed in each meeting that CEPI convenes. These rules are available as paper copies for every meeting. All CEPI Directors and Managers are aware of these rules and assistants ensure their presence at all meetings. Reponsible for correct implementation is the Director General and in his/her absence the Deputy Director General. CEPI staff is regularly briefed about competitiveness issues and the Directors follow policy initiatives that impact it.

DATA QUALITY

Over the years, CEPI has increased the amount of the statistics collected and released and improved substantially their quality to better communicate on the European pulp and paper industry.

However, there is no place for complacency: progress is needed and achievable. The need for relevant and robust statistics is higher than ever, particularly in the context of the CEPI 2050 Roadmap.

	DATA QUALITY RATING	RESULTS	
INDUSTRY STRUCTURE			
Number of companies	1.3	Excellent Quality	✓
Number of mills	1.3	Excellent Quality	✓
Number of paper machines	1.3	Excellent Quality	✓
Paper & board capacity	1.3	Excellent Quality	✓
Pulp capacity	1.3	Excellent Quality	✓
Paper & board production	1.0	Excellent Quality	✓
Market pulp production	1.0	Excellent Quality	✓
Paper & board consumption	1.5	Excellent Quality	✓
Pulp consumption	1.3	Excellent Quality	✓
Paper & board exports	1.3	Excellent Quality	✓
Pulp exports	1.0	Excellent Quality	✓
Paper & board imports	1.8	Very Good Quality	✓
Pulp imports	1.5	Excellent Quality	✓
Employment	2.3	Good Quality	✓
Turnover	3.0	Fair Quality	✓
RAW MATERIALS			
Wood consumption	2.0	Good Quality	✓
Collection of Paper for Recycling	1.5	Excellent Quality	✓
Utilisation of Paper for Recycling	1.3	Excellent Quality	✓
Utilisation of Paper for Recycling **by sector**	2.3	Good Quality	✓
Exports of Paper for Recycling	1.8	Very Good Quality	✓
Imports of Paper for Recycling	1.8	Very Good Quality	✓
Non-fibrous materials consumption	2.0	Good Quality	✓
ENERGY AND ENVIRONMENT			
Energy consumption	1.5	Excellent Quality	✓
Electricity consumption	1.3	Excellent Quality	✓
Electricity production from CHP	1.3	Excellent Quality	✓
Net bought electricity	1.3	Excellent Quality	✓
Biomass use (*)	1.5	Excellent Quality	✓
SO2	2.8	Good Quality	✓
NOx	2.5	Good Quality	✓
Water intake	1.8	Very Good Quality	✓
BOD	3.5	Fair Quality	✓
COD	1.5	Excellent Quality	✓
AOX	2.3	Good Quality	✓
Residues	1.8	Very Good Quality	✓
EMS certification	2.0	Good Quality	✓
SOCIAL ASPECTS			
Incident rate	2.3	Good Quality	✓

To reach new heights in the field of statistics, CEPI has adopted a new strategy for the 2013-2016 period, concentrating on data quality, wood use and resource efficiency as well as new business areas. It has decided to work with EY Belgium during this period of time to facilitate CEPI in addressing the data quality aspect.

To check data quality, CEPI has decided to focus on a few key performance indicators - see the list below, which are reported in the Sustainability report and has been using a data quality assessment formula. This formula was developed by the Joint Research Centre of the EU Commission when setting the Product Footprint Category Rules for Intermediate Paper Products. This step constitutes a pre-assessment of the key performance indicators quality. EY Belgium has issued a limited assurance statement on the data quality assessment we have performed. This development constitutes a first step to further improve data quality. In the years to come, CEPI will enlarge the list of the core data and report on progress achieved in a transparent way.

The meaning of the rating according to the Joint Research Centre of the EU Commission:

TOTAL P&B	1998	1999
< or = 1.6	"Excellent quality"	Results
>1.6 to < or = 2	"Very good quality"	
>2 to < or = 3	"Good quality"	Excellent Quality
>3 to < or = 4	"Fair quality"	Excellent Quality
>4	"Poor quality"	Excellent Quality

CEPI PARTNERS

The Partnership Programme is open to stakeholders in the pulp, and paper or cardboard industry, namely machine and/or chemical suppliers with a direct link to paper manufacturing. Current CEPI Partners are:

VOITH

Engineered Reliability

18 67 founded | since 2010 | 50 countries | 40,000 employees | € 5.6 billion Sales

Voith is active in the markets energy, oil & gas, paper, raw materials and transportation & automotive. Founded in 1867, Voith employs almost 40,000 people, generates €5.6 billion in sales, operates in about 50 countries around the world and is today one of the biggest family-owned companies in Europe.

Paper making has a long tradition at Voith. As early as 1859, Johann Matthäus Voith built the first wood grinder for the production of paper from wood fiber. Today, a large proportion of the world's paper production is performed on Voith paper machines. The company focuseson solutions for an efficient, resource-sparing paper production. Using new processes and concepts, Voith is working intensively on the paper production of the future. The company is a pioneer in waste paper preparation. After developing the technology decades ago, Voith was the first to make the production of paper from waste paper actually possible. Since then, Voith engineers have continually improved and refined the process.

www.voith.com

OMYA

18 84 founded | since 2010 | 100 locations 50 countries | 7000 employees | headquarter

Omya is a leading global producer of industrial minerals, mainly fillers and pigments derived from calcium carbonate and dolomite, and a worldwide distributor of chemical products. Its main segments of activity are: Paper, Paints, Coatings, Adhesives, Plastics, Animal Feed, Food, Construction, Environment and Agriculture. Omya's roots date back to 1884 when the company was founded by Gottfried Plüss-Staufer in Oftringen, Switzerland. In the beginning the company engaged in the production of glazier's putty by combining fine chalk with linseed oil.

The use of minerals in papermaking is a practice that has long been known. Owing to the acidic conditions of paper making in former times, kaolin clay and talc were the main materials used as filler. But highly cost efficient and abundant calcium carbonate in combination with a lot of pioneer work of Omya changed the process conditions from acidic to neutral and alkaline some 30 years ago. Its use spread and today it is the most important filler and coating pigment for the paper making process. Today it is natural that almost all paper and cardboard contain calcium carbonate: coated and uncoated, wood-free and wood-containing papers as well as to an increasing extent, board and packaging grades.

www.omya.com

IMERYS
Paper & Packaging

18 80 founded | since 2010 | PA RIS headquarter | 240 sites 47 countries | 16,000 employees | 117 mines 30 minerals | € 3.7 billion Sales

Imerys, world leader in mineral-based specialty solutions for industry, transforms a unique range of minerals to deliver essential functions (heat resistance, mechanical strength, conductivity, coverage, barrier effect, etc.) that are essential to its customers' products and manufacturing processes. Whether mineral components, functional additives, process enablers or finished products, Imerys' solutions contribute to the quality of a great number of applications in consumer goods, industrial equipment or construction. Combining expertise, creativity and attentiveness to customers' needs, the Group's international teams constantly identify new applications and develop high value-added solutions under a determined approach to responsible development.

The Pigments for Paper & Packaging business group provides kaolin, calcium carbonates and talc to paper and paper-based packaging manufacturers. It ranks world number 1 in kaolin and talc, and world number 2 in ground calcium carbonate (GCC) for paper.

www.imerys-paper.com

Buckman

Commitment makes the best chemistry.

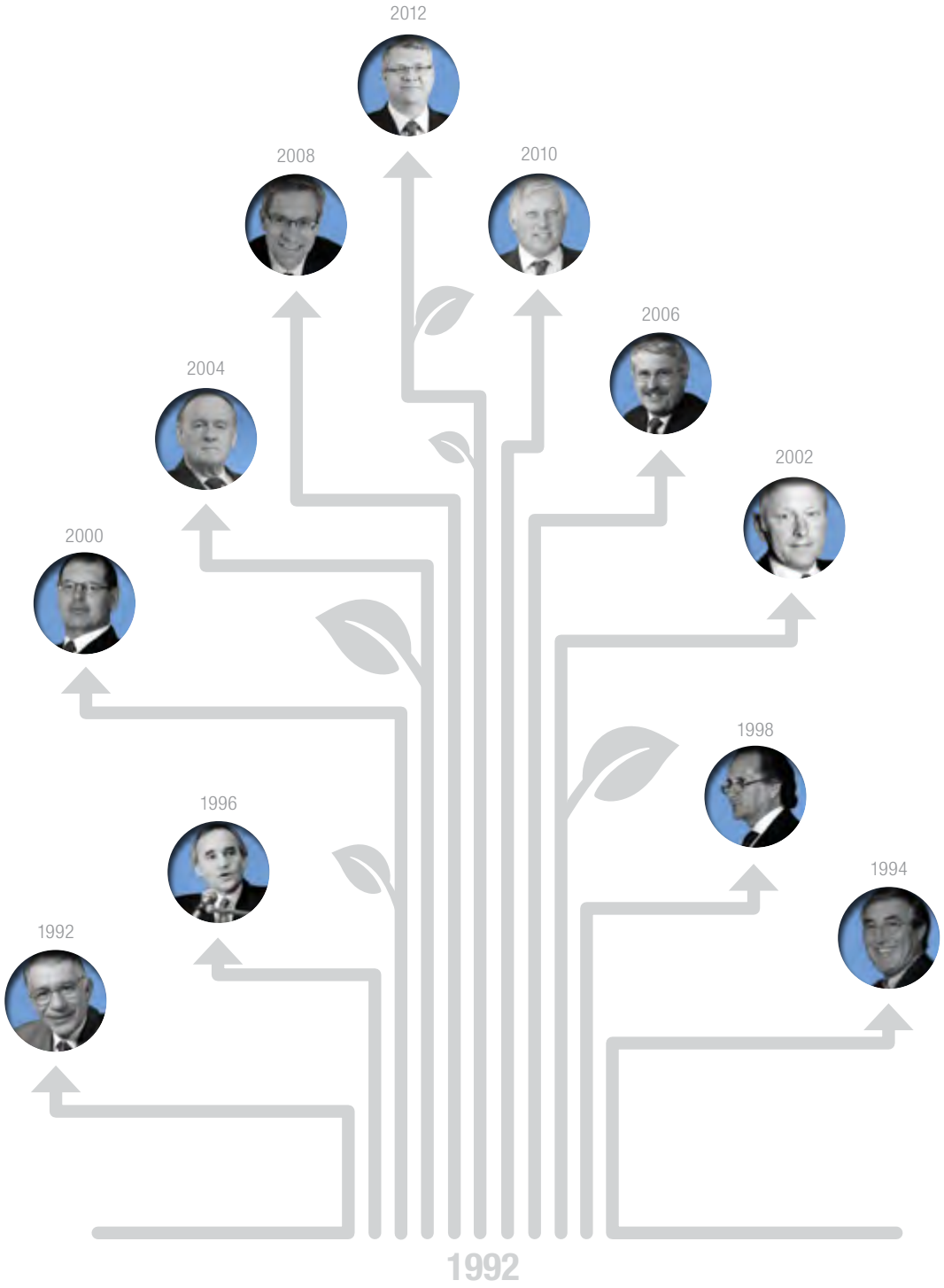
19 45 founded | since 2013 | 16,000 employees | 10 sites 90 countries

Buckman is a privately held, ISO-certified, global specialty chemical company headquartered in Memphis, Tennesse, USA. The company was founded in 1945 and conducts business in over 90 countries. It operates 10 manufacturing sites (Memphis, TN; Cadet, MO; Canada, Europe, Mexico, Brasil, Australia, South Africa, Signapore and China), and employs approximately 1500. Core industries include performance chemicals (paint, coatings, plastics, water, formulators, wood treatment and agriculture). An early pioneer in microorganism control, Buckman has grown to be a leading supplier of new-generation water treatmen solutions for the pulp an paper industry, including:

- Influent and effluent treatment using our innovative green chemistries that have full regulatory approval
- Water recovery and reuse processes, including liquid-solid separation, filtration, thermal and membrane desalination
- Cooling and boiler water treatment
- Energy efficiencies to reduce your carbon footprint
- Equipment maintenance
- Process integrity
- Odor control

www.buckman.com

OVERVIEW CHAIRMEN



CLICK FOR MORE DETAILS ON
THE CURRENT CEPI BOARD

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ASSURANCE STATEMENT E&Y

Building a better working world

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Limited Assurance Audit Report on the Data Quality Rating Method used by the Confederation of European Paper Industries on a selection of key performance indicators

We have been engaged by the Confederation of European Paper Industries ("CEPI") to issue a limited assurance statement on the data quality rating ("DQR") that CEPI makes of a selection of Global Reporting Initiative ("GRI") core indicators published in the 2012 CEPI sustainability report ("the Report". The indicators covered by our assurance statement are indicated with the following tick mark "√" in the report. The DQR method used by CEPI is based on the application of the following European methodology for the calculation of environmental footprints of products (for definitions, we refer to the Appendix to our report):

$$DQR = \frac{TeR + GR + TiR + C + P + M}{6}$$

The data quality rating method used by CEPI to evaluate the quality of the indicators can be found in the Annex of the full CEPI 2013 Sustainability Report.

The management of CEPI is responsible for the preparation of the indicators and their data quality assessment based on the information received directly from the CEPI member associations, from individual companies or based on estimates provided by paper industry consultants.

Limitations in our scope

The scope of our assurance engagement as described above does not include an assessment of the selected core indicators nor the reliability of the underlying data provided to CEPI by the CEPI member associations, from individual companies or based on estimates provided by paper industry consultants.

The Auditor's Responsibility

As defined by the International Federation of Accountants ("IFAC"), our review was designed to obtain a limited level of assurance. Procedures to obtain limited level of assurance are less extensive in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks, than those for a reasonable level of assurance and therefore less assurance is provided.

It is our responsibility, based on our limited assurance review procedures, to express a conclusion regarding the data quality rating made by CEPI. We conducted our procedures in accordance with the international standard as defined in ISAE 3000 (International Standard for Assurance Engagements, December 2003). With respect to independence rules, these are defined by the respective legal and regulatory texts as well as by the professional code of ethics, issued by the IFAC.

Nature and scope of the procedures

We performed the following procedures to support our conclusion:

- Obtaining an understanding of the data quality rating formula and assessment of the suitability of the applied methodology by CEPI. We have organized interviews to discuss whether it was reasonable to remove two criteria (Ter and M) from the formula ;
- Challenging the data quality rating made by CEPI at consolidation level, based on four criteria :
  - Completeness (C), has been checked by verifying if all the figures have been send by the National Associations and whether the appropriate action has been taken in case of a lack of figures from a National Association.

EY

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- Time-related representativeness (TiR), has been checked by verifying if the received figures related to the appropriate reporting year and if, in case of extrapolation, the correct quality assumption has been systematically performed.
- Geographical representativeness (GR), has been checked by reviewing the weight of the various members according to the CEPI assumption.
- Parameter uncertainty (P), has been checked by verifying the consolidation of the figures sent by the National Associations in the CEPI reporting and, in case of difference, by checking the impact on the data quality rating performed by CEPI.

- Assessing the adequacy of the documentation and "audit trail" ;
- Conducting interviews with CEPI responsible company staff, mainly for the purpose of assessing the understanding of the data quality rating and eventual assumptions made ;

Conclusion

Based on our procedures performed with respect to the financial year 2012 nothing has come to our attention that causes us to believe that the data quality rating performed by CEPI has not been done appropriately, in all material aspects, in accordance with the European methodology for the calculation of environmental footprints of products.

Diegem, 26 September 2013

Ernst & Young Réviseurs d'Entreprises SCCRL
Represented by

Harry Everaerts
Partner

Appendix: CEPI data quality rating methodology

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working world

Appendix: CEPI data quality rating methodology

CEPI data quality rating formula.

The European methodology for the calculation of environmental footprints of products has been altered to be used as a quality assessment tool on a larger variety of indicators than only environmental footprint indicators. Therefore, CEPI has decided to remove the following two parameters: (i) Technological representativeness and (ii) the Methodological appropriateness.

$$DQR = \frac{GR + TiR + C + P}{4}$$

C - Completeness

The completeness is calculated as follows: figures that have not been received by the National Associations are deleted from the total to obtain a total B.
The percentage of this total B compared to the total is considered:
≥ 90% = 1
≥ 80% and < 90% = 2
≥ 70% and < 80% = 3
≥ 50% and < 70% = 4
< 50% = 5

TIR - Time related representativeness

Annual figures reported to CEPI by the National Associations are one year old. When a figure is estimated by CEPI or the National Association, the age of the basis year for estimation is considered (2 years, 3 years, etc...). A total B is calculated by multiplying for each country the volume with the "year number".
The ratio between total B and total is considered:
≤ 1 = 1
≤ 2 and > 1 = 2
≤ 3 and > 2 = 3
≤ 4 and > 3 = 4
> 4 = 5

GR - Geographical representativeness

The geographical representativeness is considering the GDP for each country. The GDP of countries without any figure received is deleted from the total to obtain a total B.
The percentage of this total B compared to the total is considered:
≥ 95% = 1
≥ 85% and < 95% = 2
≥ 75% and < 85% = 3
≥ 50% and < 75% = 4
< 50% = 5

P - Parameter uncertainty

Through a survey, the National Associations have provided CEPI with a "reliability factor" for each core data: (1) high - (2) satisfactory - (3) can be further improved - (4) low. Factors for Belgium, Czech Republic, Hungary, Italy and Slovak Republic have been given by CEPI.
Figures estimated by CEPI are given factor (4) by default.
A total B is calculated by multiplying for each country the volume with a specific percentage for each factor: (1) =100% - (2) = 75% - (3) = 50% and (4) = 25%.
The percentage of this total B compared to the total is considered:
≥ 90% = 1
≥ 80% and < 90% = 2
≥ 70% and < 80% = 3
≥ 50% and < 70% = 4
< 50% = 5

ABSOLUTE FIGURES

TOTAL P&B	1990	1991	1992	1993	1994	1995	1996	1997
Total Europe		76,250	76,999	77,284	82,352	84,362	82,861	89,393
CEPI countries		66,312	66,650	68,513	74,436	75,685	75,286	81,475
Other Europe		9,938	10,349	8,771	7,916	8,677	7,575	7,918
North America		88,687	92,015	94,421	99,487	99,679	100,277	105,596
Asia		59,218	64,155	65,586	71,368	76,768	81,859	86,281
Latin America		10,971	10,920	11,128	11,762	12,355	12,982	13,686
Oceania		2,890	2,829	2,967	3,084	3,170	3,245	3,291
Africa		2,630	2,628	2,616	2,763	2,913	2,813	3,006
World		240,646	249,545	254,003	270,817	279,247	284,035	301,252
TOTAL P&B	1998	1999	2000	2001	2002	2003	2004	2005
Total Europe	91,868	95,351	101,296	99,475	102,835	105,865	110,991	111,745
CEPI countries	83,478	85,947	90,653	88,467	91,214	93,520	97,947	98,293
Other Europe	8,390	9,404	10,643	11,008	11,621	12,345	13,044	13,452
North America	104,474	108,329	106,823	100,577	101,744	100,633	104,363	102,427
Asia	86,134	91,167	97,412	98,212	103,436	110,124	119,114	127,030
Latin America	13,901	14,504	14,894	15,161	15,753	16,299	17,465	17,886
Oceania	3,380	3,358	3,518	3,584	3,874	3,904	4,021	4,044
Africa	3,095	3,050	3,253	3,419	3,584	3,642	3,920	4,002
World	302,852	315,758	327,197	320,427	331,225	340,467	359,874	367,133
TOTAL P&B	2006	2007	2008	2009	2010	2011	2012	
Total Europe	115,420	116,426	112,347	101,376	109,342	108,137	106,829	
CEPI countries	101,625	102,146	97,930	87,779	95,031	93,544	92,081	
Other Europe	13,795	14,280	14,417	13,597	14,311	14,593	14,748	
North America	102,119	100,950	95,707	84,585	88,667	87,184	85,127	
Asia	137,910	148,751	154,716	157,063	167,169	174,788	178,625	
Latin America	18,501	19,162	19,538	19,659	20,400	20,791	20,975	
Oceania	3,939	3,989	4,001	3,891	4,093	4,084	4,008	
Africa	4,123	4,398	4,603	3,946	4,336	4,183	4,422	
World	382,012	393,676	390,912	370,520	394,007	399,167	399,985	

Total fuels consumption (TJ)*	1990	1995	2000	2005	2007	2009	2011	2012
Coal	121,473	86,061	59,304	48,314	55,089	48,986	51,077	42,958
Gas	246,729	347,676	404,946	489,425	497,256	448,264	443,521	432,916
Fuel Oil	129,600	131,921	90,914	67,454	57,770	42,777	30,851	27,299
Other Fossil Fuels	12,832	11,601	19,052	19,714	20,243	12,874	13,134	11,048
Biomass	407,699	475,056	562,865	635,511	687,600	634,141	672,491	670,590
Other: Waste of Waste	3,305	4,399	4,151	8,602	8,804	8,314	10,310	11,828
Total Fuels Consumption	921,639	1,056,714	1,141,232	1,269,020	1,326,762	1,195,355	1,221,383	1,196,639

Net Bought Electricity *	1990	1995	2000	2005	2007	2009	2011	2012
Net Bought Electricity (GWh)	58,048	59,940	68,573	63,347	66,905	53,369	52,459	51,148
Net Bought Electricity (TJ)	208,973	215,784	246,864	228,050	240,858	192,130	188,851	184,133

Total Primary Energy Consumption (TJ)	1990	1995	2000	2005	2007	2009	2011	2012
Net Bought Electricity (GWh)	1,130,611	1,272,498	1,388,096	63,347	1,567,620	1,387,485	1,410,234	1,380,771

* CEPI countries only (except HU, RO and SI)

ASSURANCE STATEMENT

Assurance Engagement
plenum [1] was commissioned by the Confederation of European Paper Industries (CEPI) to perform an assurance engagement on the CEPI Sustainability Report to evaluate its adherence to reporting principles and the reliability of specified sustainability performance information contained in the Report. plenum is an Organizational Stakeholder of the Global Reporting Initiative (GRI), [2] and acts independently and impartially with regard to the reporting organisation.

Level of Assurance
plenum's assurance engagement provides a high level of assurance for adherence to the following GRI principles: materiality, completeness, stakeholder inclusiveness, and sustainability context; and a moderate level of assurance for the information relating to sustainability performance in accordance with the GRI Performance Indicators. [3]

Criteria
The information in the Report was prepared by CEPI using the GRI Reporting Principles for Defining Quality. [4] We evaluated the Report against these criteria, based on the assumption that the criteria are suitable for the performance of the assurance engagement.

Management Responsibilities
The CEPI management is responsible for the preparation of the Report and the information it contains, in adherence to the above-mentioned criteria. This responsibility includes developing, implementing and maintaining internal control aimed at ensuring that the Report does not contain any material false statements.

Assurance Process
Our assurance engagement is based on evidence obtained from the organisation at management level. The following steps were undertaken:

- We considered the possible assurance level based on the first draft of the Report and a series of discussions with CEPI management
- We determined the scope and level of assurance
- We made recommendations regarding the content based on the first draft of the Report
- We obtained and evaluated information on the processes which CEPI used to adhere to the GRI principles (in accordance with GRI G3.1)
- We obtained and evaluated information on the systems and processes used by CEPI to collect, manage and aggregate specified reporting data
- We reviewed the principles and performance indicators using the above-mentioned criteria.

Limitations
The basic data for the Sustainability Report were submitted by the National Associations of the CEPI. These were aggregate data concerning the member companies of the National Associations. Testing the quality of the original company data exceeded the scope of our engagement. Therefore the evaluation of the GRI Performance Indicators applies to the previously aggregated country data and focuses on the credibility of the information (moderate level of assurance).

Conclusion
Based on the assurance procedures we performed we formed the following conclusions:

Principles
The reporting organisation adhered to all the principles which we evaluated. All the material sustainability issues identified by the stakeholders and CEPI are covered to an appropriate extent and in accordance with the GRI quality criteria. Stakeholder expectations receive sufficient attention, and the measures that have been or will be taken to meet them are credibly described.

GRI Performance Indicators
The Report provides in all material respects a reliable and sufficient representation of the policies, business operations, events and performance of CEPI and the paper industry in the CEPI area. Our evaluation of the credibility of the reported information and indicators gave no indication that the Report contains any material false statements.

Recommendations
CEPI represents the interests of almost 1,000 European paper mills. Thus their activities have strong economic, environmental and social impacts – not only in Europe but also beyond its borders. CEPI therefore deserves recognition for its engagement, particularly in the area of environmental and climate protection and the development of the CEPI roadmap 2050.

We recommend that in future CEPI aims to develop its sustainability reporting towards the new generation of the GRI guidelines, called G4 and launched 2013. Aspects like governance, supply chain, ethics and integrity, anti-corruption, green house gas emissions and energy have to be disclosed in even greater depth. This will lead in expanding or adapting the data structure and reporting on these material aspects to continue the good practice in being "in accordance with" the GRI G4 Reporting Guidelines.

DI Harald Reisinger
Project Leader

DI Dr Alfred Strigl
Executive Director

plenum
sustainability · change · impact

1 plenum - gesellschaft für ganzheitlich nachhaltige entwicklung gmbh [www.plenum.at]
2 http://www.globalreporting.org/
3 See p. XY: "GRI table of indicators"
4 http://www.globalreporting.org/ReportingFramework/G3Online/DefiningReportQuality/

GRI CONTENT INDEX

1. Strategy and Analysis		
1.1	Statement from the most senior decision-maker of the organization.	F
1.2	Description of key impacts, risks, and opportunities.	F

2. Organizational Profile		
2.1	Name of the organization.	F
2.2	Primary brands, products, and/or services.	F
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	F
2.4	Location of organization's headquarters.	F
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	F
2.6	Nature of ownership and legal form.	F
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	F
2.8	Scale of the reporting organization.	F
2.9	Significant changes during the reporting period regarding size, structure, or ownership.	F
2.10	Awards received in the reporting period.	F

3. Report Parameters		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	F
3.2	Date of most recent previous report (if any).	F
3.3	Reporting cycle (annual, biennial, etc.)	F
3.4	Contact point for questions regarding the report or its contents.	F
3.5	Process for defining report content.	F
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	F
3.7	State any specific limitations on the scope or boundary of the report (see completeness principle for explanation of scope).	F
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	F
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report. Explain any decisions not to apply, or to substantially diverge from, the GRI Indicator Protocols.	F
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g.,mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	F
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	F
3.12	Table identifying the location of the Standard Disclosures in the report.	F
3.13	Policy and current practice with regard to seeking external assurance for the report.	F

4. Governance, Commitments, and Engagement		
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	F
4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: * Has positions in governance bodies; * Participates in projects or committees; * Provides substantive funding beyond routine membership dues; or * Views membership as strategic.	
4.14	List of stakeholder groups engaged by the organization.	
4.15	Basis for identification and selection of stakeholders with whom to engage.	
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	

Disclosures on Management Approach

DMA EC	**Disclosure on Management Approach EC**	
	Economic performance	F
	Market presence	F
	Indirect economic impacts	F
DMA EN	**Disclosure on Management Approach EN**	
	Materials	F
	Energy	F
	Water	F
	Biodiversity	P
	Emissions, effluents and waste	P
	Products and services	F
	Compliance	P
	Transport	P
	Overall	F
DMA LA	**Disclosure on Management Approach LA**	
	Employment	F
	Labor/management relations	F
	Occupational health and safety	F
	Training and education	F
	Diversity and equal opportunity	P
	Equal remuneration for women and men	P
DMA HR	**Disclosure on Management Approach HR**	
	Investment and procurement practices	N
	Non-discrimination	N
	Freedom of association and collective bargaining	P
	Child labor	N
	Prevention of forced and compulsory labor	N
	Security practices	N
	Indigenous rights	N
	Assessment	N
	Remediation	N
DMA SO	**Disclosure on Management Approach SO**	
	Local communities	P
	Corruption	N
	Public policy	F
	Anti-competitive behavior	N
	Compliance	P
DMA PR	**Disclosure on Management Approach PR**	
	Customer health and safety	P
	Product and service labelling	P
	Marketing communications	P
	Customer privacy	N
	Compliance	N

Performance Indicators

ECONOMIC

	Economic	
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	F
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	
EC3	Coverage of the organization's defined benefit plan obligations.	
EC4	Significant financial assistance received from government.	F
	Market presence	
EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	N
EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	
	Indirect economic impacts	
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	

ENVIRONMENTAL

	Materials	
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	F
EN1	Materials used by weight or volume.	F
EN2	Percentage of materials used that are recycled input materials.	F
	Energy	
EN3	Direct energy consumption by primary energy source.	F
EN4	Indirect energy consumption by primary source.	P
EN5	Energy saved due to conservation and efficiency improvements.	F
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	F
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	F
	Water	
EN8	Total water withdrawal by source.	F
EN9	Water sources significantly affected by withdrawal of water.	
EN10	Percentage and total volume of water recycled and reused.	F
	Biodiversity	
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	
EN13	Habitats protected or restored.	
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	F

EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	
	Emissions, effluents and waste	
EN16	Total direct and indirect greenhouse gas emissions by weight.	F
EN17	Other relevant indirect greenhouse gas emissions by weight.	F
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	
EN19	Emissions of ozone-depleting substances by weight.	F
EN20	NOx, SOx, and other significant air emissions by type and weight.	F
EN21	Total water discharge by quality and destination.	F
EN22	Total weight of waste by type and disposal method.	F
EN23	Total number and volume of significant spills.	F
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	
	Products and services	
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	F
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	
	Compliance	
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	
	Transport	
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	F
	Overall	
EN30	Total environmental protection expenditures and investments by type.	

SOCIAL: LABOR PRACTICES AND DECENT WORK

	Employment	
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	F
LA1	Total workforce by employment type, employment contract, and region, broken down by gender.	P
LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	
LA15	Return to work and retention rates after parental leave, by gender.	
	Labor/management relations	
LA4	Percentage of employees covered by collective bargaining agreements.	
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	
	Occupational health and safety	
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	P
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender.	F
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	P
LA9	Health and safety topics covered in formal agreements with trade unions.	F
	Training and education	
LA10	Average hours of training per year per employee by gender, and by employee category.	
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	
LA12	Percentage of employees receiving regular performance and career development reviews, by gender.	
	Diversity and equal opportunity	
LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	
	Equal remuneration for women and men	
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	

SOCIAL: HUMAN RIGHTS

	Investment and procurement practices	
HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	F
HR2	Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	F
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	F
	Non-discrimination	
HR4	Total number of incidents of discrimination and actions taken.	
	Freedom of association and collective bargaining	
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	
	Child labor	
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	

	Forced and compulsory labor	
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	
	Security practices	
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	
	Indigenous rights	
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	
	Assessment	
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	
	Remediation	
HR11	"Number of grievances related to human rights filed, addressed and resolved through formal	

	SOCIAL: SOCIETY	
	Local communities	
SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	N
SO9	Operations with significant potential or actual negative impacts on local communities.	
SO10	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	
	Corruption	
SO2	Percentage and total number of business units analyzed for risks related to corruption.	
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	
SO4	Actions taken in response to incidents of corruption.	F
	Public policy	
SO5	Public policy positions and participation in public policy development and lobbying.	F
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	N
	Anti-competitive behavior	
SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	
	Compliance	
SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	

	SOCIAL: PRODUCT RESPONSIBILITY	
	Customer health and safety	
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.	F
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	

	Product and service labelling	
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	
	Marketing communications	
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	N
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	
	Customer privacy	
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	F
	Compliance	
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	F

F - Fully reported
P - Partially reported
N - Not reported

Global Reporting Initiative™

Statement
GRI Application Level Check

GRI hereby states that **Confederation of European Paper Industries - CEPI** has presented its report "CEPI 2013 Sustainability Report" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level B+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 31 October 2013

GB+ GRI REPORT GRI CHECKED

Nelmara Arbex
Deputy Chief Executive
Global Reporting Initiative

The "+" has been added to this Application Level because Confederation of European Paper Industries - CEPI has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

***Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 24 October 2013. GRI explicitly excludes the statement being applied to any later changes to such material.*

ABBREVIATIONS / ACRONYMS

TJ/kt Terra Joules divided by kilo tonne of product

MWh/t Mega watt hour divided by tonne of product

allowances/t Benchmark allowances calculated for the Emissions trading system divided by tonnes

AOX Absorbable organo-halogens

BAT Best Available Technique

BOD Biological Oxygen Demand

BREF Best available techniques Reference Document

CEN European Committee for Standardization

CHP Combined Heat and Power

CO2 Carbon dioxide

COD Chemical Oxygen Demand

EMAS/ISO 14001 Eco-Management and Audit Scheme

EMCEF European Mine, Chemical and Energy Workers' Federation

EMS Environmental Management Systems

ENGOs Environmental Non-Governmental Organisations

FAO Food and Agricultural Organisation of the United Nations

FSC Forest Stewardship Council

FTP Forest-based sector technology platform

GDP Gross Domestic Product

GHG Greenhouse gas emissions

ICFPA International Council of Forest and Paper Associations

ICT Information and Communication Technology

ILO International Labour Organisation

IMO International Marine Organisation

IIIEE International Institute for Industrial Environmental Economics, Lund, Sweden

IPCC Intergovernmental Panel on Climate Change

IPPC Integrated Pollution Prevention Control

JPC Jaakko Poyry Consulting

NOx Nitrogen Oxides, including nitric oxide (NO) and nitrogen dioxide (NO2)

PEFC Programme for the Endorsement of Forest Certification

PPI Pulp and Paper Industry

RES Renewable Energy Sources

SO2 Sulphur dioxide

TBFRA Temperate and Boreal Forest Resource Assessment

WBCSD World Business Council on Sustainable Development

GLOSSARY

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Page 43: Calcium Carbonate pulver, image provided by Omya

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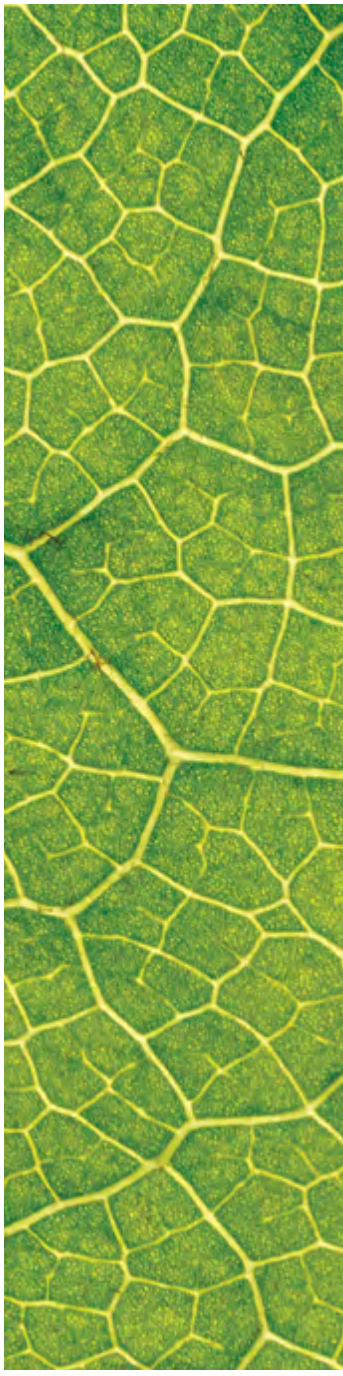

NOVEMBER 2013

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