

# Print and Paper Myths and Facts



Print and Paper  
have a great  
environmental  
story to tell



[www.twosides.info](http://www.twosides.info)

When it comes to the sustainability of Print and Paper, it's important to separate verifiable facts from opinion and misleading information. This booklet is designed to provide you with relevant and balanced information – we call it informed choice.

Two Sides is an organisation which is committed to promote the responsible production, use and recovery of Print and Paper and dispel common environmental misconceptions by providing users with verifiable information on why Print and Paper is an attractive, practical and sustainable communications medium.

'There aren't many industries around that can aspire to becoming genuinely sustainable. The paper industry, however, is one of them; it is inherently sustainable.'

Jonathan Porritt, Co-Founder, Forum for the Future, January 2013

# What a great sustainable idea



'For sheer flexibility, style and effectiveness, Print and Paper can be the natural and recyclable choice for sustainable and powerful communications.'



THERMAL, INKJET, CARBONLESS OR LABEL PAPERS – THE RANGE OF PRODUCTS FROM MITSUBISHI HITEC PAPER OFFERS FIRST-CLASS COATED SPECIALITY PAPERS FOR ALL FIELDS OF USE AND PRINTING TECHNOLOGIES. OUR SPECIALIST INTERNATIONAL SALES NETWORK AND TECHNICAL SERVICE IS AVAILABLE TO OUR CUSTOMERS WORLDWIDE.

### Clearing things up

The challenge of achieving optimum quality whilst protecting the environment is what shapes both day-to-day work and fundamental strategic decisions at Mitsubishi HiTec Paper.

We believe in transparency, both in internal and external communication.

Mitsubishi HiTec Paper has held official certification for quality awareness since 1994. All production is monitored by a quality system that is regularly certified in accordance with ISO 9001.

We have given special attention to ensuring our paper is manufactured using environmentally aware production and further processing methods for many years.

Energy recovery happens through environmentally friendly combined heat and power generation, and our environmental policy goes far beyond both national and EU statutes. Our energy management system is certified as ISO 50001 compliant.

The environmental management systems of the Bielefeld and Flensburg mills are certified according to ISO 14001. Both sites are also certified in accordance with FSC® Chain of Custody and naturally the whole production is compliant with REACH regulations.

### Environmental certifications & memberships

- ISO 9001
- ISO 14001
- ISO 50001
- FSC® Mix
- B.A.U.M.
- BRC Global Standard – Consumer Products
- Wirtschaft pro Klima
- Klimapakt Flensburg
- Two Sides

We are pleased to answer any questions. Our Environmental Affairs Officer looks forward to hearing from you:  
[environment.mpe@mitsubishi-paper.com](mailto:environment.mpe@mitsubishi-paper.com)



### Membership

Two Sides is an initiative by companies from the Graphic Communications Industry including Forestry, Pulp, Paper, Inks and Chemicals, Prepress, Press Finishing, Publishing, Printing, Envelopes and Postal Operators. Our common goal is to promote the sustainability of the Graphic Communications Industry and dispel common environmental misconceptions by providing users with veritable information on why Print and Paper is an attractive, practical and sustainable communications medium.

Mitsubishi HiTec Paper supports this initiative and works together with Two Sides to communicate print and papers unique sustainable benefits in an increasingly multi-media world.

Please go to <http://www.twosides.info/> **how-to-join** and find out how to participate.



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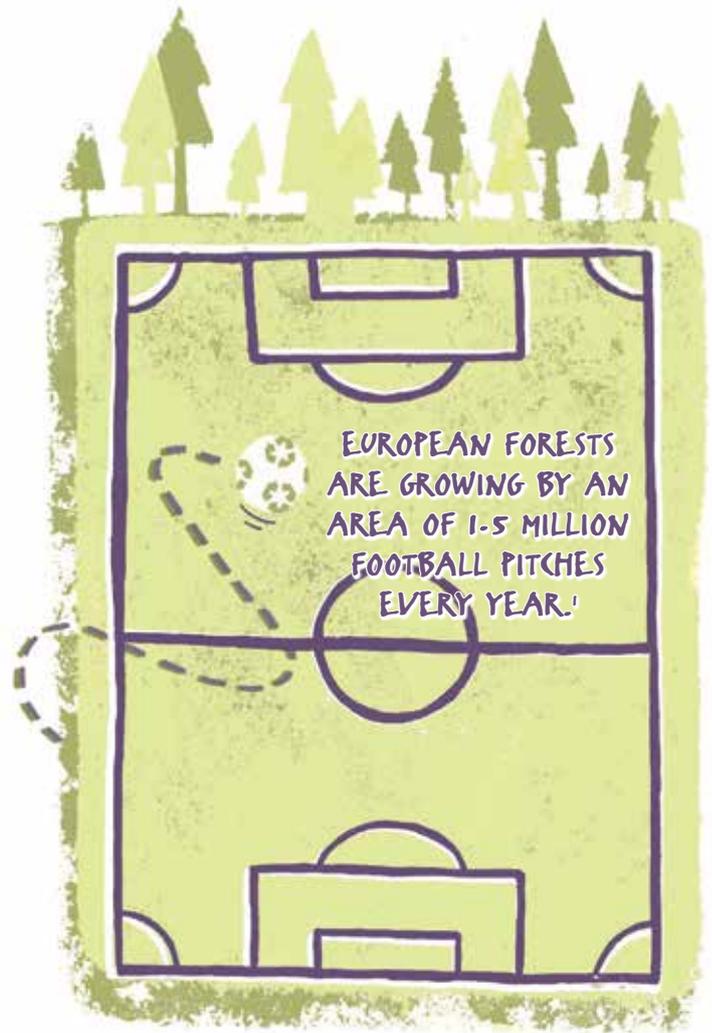


[www.twosides.info](http://www.twosides.info)

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**THE MYTH:**  
MAKING PAPER  
ALWAYS DESTROYS  
FORESTS.

**THE FACT:**  
PAPER PRODUCTION  
SUPPORTS  
SUSTAINABLE FOREST  
MANAGEMENT.



EUROPEAN FORESTS HAVE GROWN BY OVER 30% SINCE 1950 AND ARE INCREASING IN SIZE BY AN AREA FOUR TIMES THE SIZE OF LONDON EVERY YEAR!<sup>1</sup>

**55% of the world's wood harvest is used for energy and 25% for construction. There are some other uses but paper only directly takes 11% and in addition can utilise up to 7% from construction waste.**

Derived from FAOSTAT, 2011

In some countries, particularly in the tropics, there are issues over land rights and natural forest conversion to industrial plantations which are a cause of concern to the paper industry, NGOs and consumers alike.

**'The single biggest direct cause of tropical deforestation is conversion to crop land and pasture, mainly for subsistence.'**

[www.replantingtherainforests.org](http://www.replantingtherainforests.org), April 2013

**'90% of deforestation is caused by unsustainable agricultural practices.'**

Underlying causes of deforestation,  
World Rainforest Movement  
and UN FAO, 2013



In Northern Europe, where almost all ancient forests are protected, paper comes from managed semi-natural forests where the cycle of planting, growing and logging is carefully controlled. Historical concerns in Northern Europe and Canada have now been largely resolved through co-operation between legislators, campaigners and forest industries to protect ancient forests.

**'82.7% of the pulp we use originates from Europe.'**

Cepi Sustainability Report, 2011

Well managed forests provide a natural habitat for wildlife. There is always room for improvement and the European Environment Agency (EEA) has stated that 'Forestry practice in Europe is developing in a way that can be considered good for biodiversity.'<sup>4</sup> All imported pulp to Europe is covered by EU Timber Regulation which prohibits the import of wood products from illegally harvested timber.

**Forests cover almost half of Europe's land and forest area continues to increase. 'Over the last 20 years the forest area has expanded in all European regions.'**

MCPFE, State of Europe's Forests, 2011

**THE MYTH:**  
PLANTED FORESTS  
ARE BAD FOR THE  
ENVIRONMENT.

**THE FACT:**  
WELL MANAGED  
PLANTED FORESTS  
ARE ESSENTIAL TO  
MEET INCREASED  
DEMAND FOR  
FOREST GOODS.

WELL MANAGED PLANTED FORESTS  
SUPPORT SUSTAINABLE DEVELOPMENT



FORESTS ARE ESSENTIAL FOR THE TRANSITION TO THE GREEN ECONOMY. WELL MANAGED PLANTED FORESTS ARE A VITAL ELEMENT IN THE GLOBAL FORESTRY MIX.

There are around 25 million hectares of planted forests worldwide, representing 0.2% of global land area.

They are usually tropical fast growing plantations of acacia and eucalyptus as well as northern conifers.<sup>5</sup>

### Planted Forests:

- In Europe, are not replacing natural forests
- Can be more productive and can grow faster than natural forests
- Can be independently certified
- Can provide new recreational facilities
- Can prevent soil degradation and erosion
- Provide new habitat shade and shelter for wildlife
- Contribute to rural development



In the right place and managed sustainably, tree plantations can reduce the pressure to bring natural forest areas into production.<sup>10</sup>

**'Planted forests can be environmentally sound sources of renewable energy and industrial raw material.'**

WWF, Living Forest Report, 2012, Ch 4

Planted Forests can be well managed. Initiatives such as the FAO Guidelines for Responsible Forest Management of Planted Forests and forest certification can help maintain ecosystems and biodiversity, protect High Conservation Values, involve multiple stakeholders and aid economic development.

### Worldwide re-forestation will require expansion of a range of plantation types.

- The WWF Living Forests Model projects that around 250 million hectares of new tree plantations for all end uses might need to be established by 2050 due to population and GDP growth
- 11 million of those might be needed in Europe
- The paper Industry is one user of many, including lumber and increasingly, biofuels

WWF, Living Forest Report, 2012, Ch 4



**THE MYTH:**  
PAPER IS BAD FOR  
THE ENVIRONMENT.

**THE FACT:**  
PAPER IS ONE OF  
THE FEW TRULY  
SUSTAINABLE  
PRODUCTS.



PAPER IS BASED ON WOOD, A NATURAL AND RENEWABLE MATERIAL. AS YOUNG TREES GROW THEY ABSORB CO<sub>2</sub> FROM THE ATMOSPHERE. FURTHERMORE, AS A WOOD PRODUCT, PAPER ALSO CONTINUES TO STORE CARBON THROUGHOUT ITS LIFETIME.

The paper industry has a number of respected certification schemes ensuring the paper you use has come from a sustainable forest source. There are some 30 schemes in existence, but the two main auditable certifications that have emerged are the Forest Stewardship Council (FSC®) and the Programme for the Endorsement of Forest Certification (PEFC®).

At the moment too few of the world's forests are formally certified but Two Sides members support certification programmes and believe these provide consumers with reassurance.

**In the period 2005-2010, 870 million tonnes of CO<sub>2</sub> have been removed by European forests; equivalent to about 10% of Europe's Greenhouse Gas emissions.**

MCPFE, State of Europe's Forests 2011



**FSC®** (Forest Stewardship Council) FSC® provides global standards for forest management which cover a balance of environmental, social and economic aspects. The wellbeing of forest communities and ecosystems is as important as replacing trees in ensuring the future of the world's forests. The FSC® system also provides a way of tracking forest products through independently verified Chain of Custody certification. This has to cover every stage in processing, conversion, distribution and printing before the final product can carry the FSC® label.



**PEFC®** The PEFC® Council (Programme for the Endorsement of Forest Certification schemes) is an independent, non-profit, non-governmental organisation, founded in 1999 which promotes sustainably managed forests through independent third party certification.

The PEFC® provides an assurance mechanism to purchasers of wood and paper products that they are promoting the sustainable management of forests.

## Sustainability Facts.

- Paper is based on wood, a fully renewable and sustainable resource
- Forest certification ensures wood comes from well managed forests
- Paper production is not a major cause of deforestation globally
- Responsible wood, pulp and paper production ensures healthy growing forests
- European forests are today 30% larger than in 1950<sup>1</sup>
- The annual increase of forest cover in Europe is equivalent to more than 1.5 million football pitches<sup>1</sup>
- In 2010, 61.6% of the European paper industry's virgin wood fibre was certified, 5% more than in 2008<sup>2</sup>



**THE MYTH:**  
MAKING PAPER USES  
A LOT OF NON-  
RENEWABLE ENERGY  
AND HAS A HIGH  
CARBON FOOTPRINT.

**THE FACT:**  
MOST ENERGY  
USED IS RENEWABLE.  
CARBON INTENSITY  
IS SURPRISINGLY  
LOW.



ONE EMAIL WITH 400K ATTACHMENT SENT  
TO 20 PEOPLE, IS EQUIVALENT TO BURNING  
100W LIGHT BULB FOR 20 MINUTES.'

**WITH 1.1% OF THE WORLD'S GREENHOUSE GAS EMISSIONS, THE VALUE CHAIN OF PULP, PAPER AND PRINT IS ONE OF THE LOWEST INDUSTRIAL EMITTERS.**

World Resources Institute, July 2009

On average it takes 500 kilowatt hours (Kwh) to produce 200kg of paper; the average consumption per head in Europe. This is comparable to driving an average family car 600 miles.<sup>3</sup>

The paper industry is the biggest user of renewable, low carbon energy and 54%<sup>2</sup> of the energy used in European paper making is biomass based – more than in any other sector.

Recyclable paper is made from wood, a renewable carbon storing resource.

Industry research indicates that mail comprises 0.1% of total household CO<sub>2</sub> emissions in Europe. These 14kg of CO<sub>2</sub> emitted are the equivalent of:

- One 70km car journey
- Five Cheeseburgers
- Nine litres of milk
- 6.6 minutes of transatlantic flight

EMIP, The Facts Of Our Value Chain, 2008



**The European paper industry has reduced the CO<sub>2</sub> emissions per tonne of paper produced by 40% since 1990.**

Cepi Sustainability Report, 2011



**Reading a newspaper can consume 20% less carbon than viewing news online.**

Swedish Royal Institute for Technology, Moberg et al, 2007

**The sector, Pulp, Paper and Print, is one of the smallest greenhouse gas emitters on the planet.**

Greenhouse Gas Emissions in 2005, (Extracts):

- Electricity and Heat 24.9%
- Industry 14.7%
- Transportation 14.3%
- Agriculture 13.8%
- Pulp, Paper and Print 1.1%

World Resources Institute, July 2009



In a multimedia world, responsibly sourced print and paper may be the most sustainable way to communicate.

Alternative media has its own impact too:

- One email with 400k attachment sent to 20 people, is equivalent to burning 100w light bulb for 20 minutes.<sup>6</sup>
- 100 searches on Google is equivalent to Ironing a shirt which is equivalent to 20g CO<sub>2</sub>.<sup>7</sup>
- The average energy consumption on the level of a typical Google user is about 180 watt-hours a month, or the equivalent of running a 60-watt light bulb for three hours.<sup>11</sup>
- E-waste is fast growing and can be toxic.

**THE MYTH:**  
ONLY RECYCLED  
PAPER SHOULD  
BE USED.

**THE FACT:**  
PAPER MADE  
FROM SUSTAINABLE  
FORESTS IS NEEDED  
TO START THE  
PAPER CYCLE.



WITHOUT NEW FIBRES, FROM NEW TREES, THE PAPER CYCLE CAN NOT BEGIN. RECYCLED FIBRES DEGRADE AFTER SEVERAL USES AND THE PAPER INDUSTRY NEEDS FRESH FIBRE FROM RESPONSIBLY MANAGED FORESTS TO KEEP THE RENEWABLE CYCLE GOING.

In choosing your paper you must consider its full life cycle and not just the fibre source. It's important to remember that virgin fibre is always required to make recycled paper possible in the first place. It is estimated that up to 48% of new wood fibre is currently needed to keep the global fibre cycle going.<sup>12</sup>

**Maximising the use of recovered fibre – versus virgin fibre – in appropriate paper grades and under appropriate circumstances can be economically beneficial and specifically reduce environmental impacts. Maximising recycled content for its own sake without regard for product type, mill performance or mill location, however, may produce much more serious – if unintended – negative environmental impacts and no economic rationale.**

Recycled Content and Virgin Fibre: Environmental, Economic and Technical Considerations for Magazine Publishers Metafore Inc, June 2009

It is very difficult to directly compare the environmental impact of recycled and virgin fibre paper. Both are important and can have an equally strong environmental argument. Forests are part of the cycle that helps remove CO<sub>2</sub> from the atmosphere. This extends from trees to wood and paper products, which continue to store carbon through their lifetime and can help to reduce climate change.

The fact that paper products are recyclable and renewable means that their lifecycle can be extended, prolonging this benefit and reducing waste into the bargain.

Like so many stories, there are two sides to the story of paper, but the more you know, the better placed you are to make the right decision.

**Keeping waste paper in the loop, ensuring fibres remain available for remanufacture, is key to sustainability.**

- Specify papers that can be recycled, grades made from recycled fibres or from virgin fibres that originate from certified forests
- Virgin fibre grades are needed to continue the cycle
- Recycled fibres degrade after several uses



**THE MYTH:**  
PRINT AND PAPER  
IS A WASTEFUL  
PRODUCT.

**THE FACT:**  
PAPER IS ONE OF  
THE MOST RECYCLED  
PRODUCTS  
IN THE WORLD.

THE EUROPEAN RECYCLING  
RATES FOR PAPER  
REACHED 72% IN 2012.<sup>1</sup>



THE EUROPEAN RECYCLING RATES FOR PAPER REACHED 72% IN 2012.<sup>8</sup> IN EUROPE 2 TONNES OF PAPER ARE RECYCLED EVERY SECOND.<sup>9</sup>

The European paper industry is a leading recycler and, with local collecting systems improving, will increase its recycling rates significantly further.

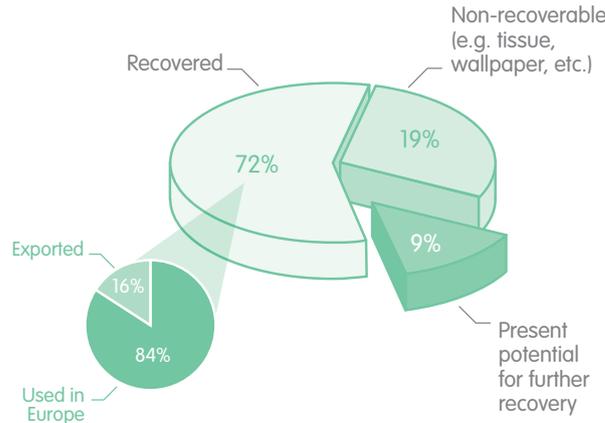
Some paper fibres, for example hygienic tissues, wall coverings, permanent documents are not usually recycled.

It is estimated that, with improved recovery, significant reduction in landfill can be achieved.

**‘Two Sides members support the implementation of effective recycling schemes and the minimisation and eventual elimination, of print and paper waste in landfill.’**

Two Sides Membership Charter, 2013

**Recovery of European print and paper waste products**

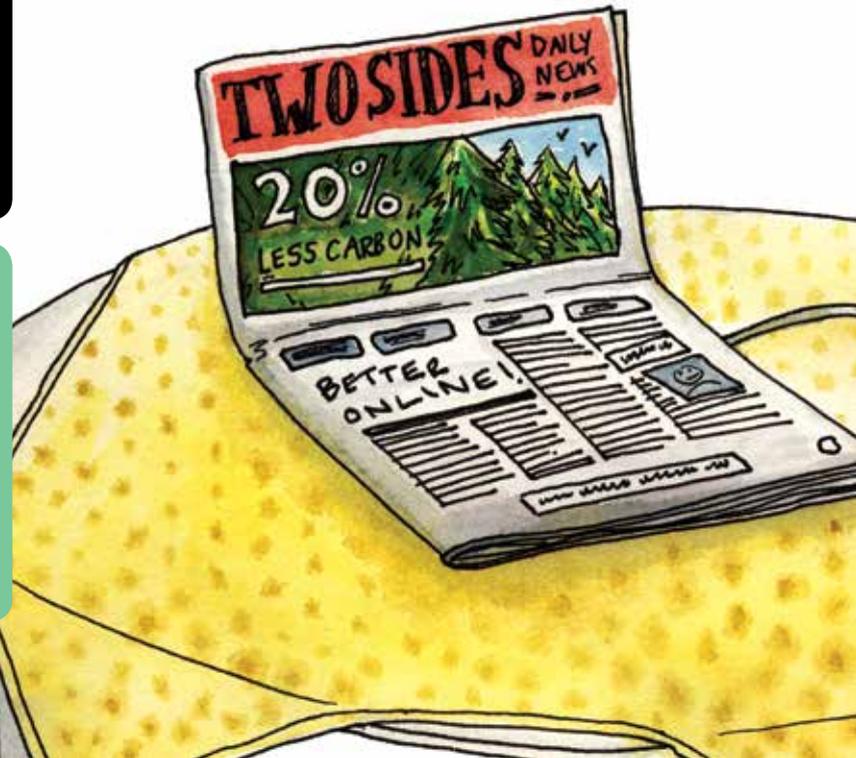


Print and paper waste is now a valuable and sought after resource with market demand being high. The number of cycles a paper fibre goes through in the loop reached an average of 3.4 in Europe<sup>8</sup>, compared to a global average of 2.4. Over 84% of the paper recovered in Europe is recycled in Europe. 16% was exported to other countries for recycling in 2011.<sup>8</sup>

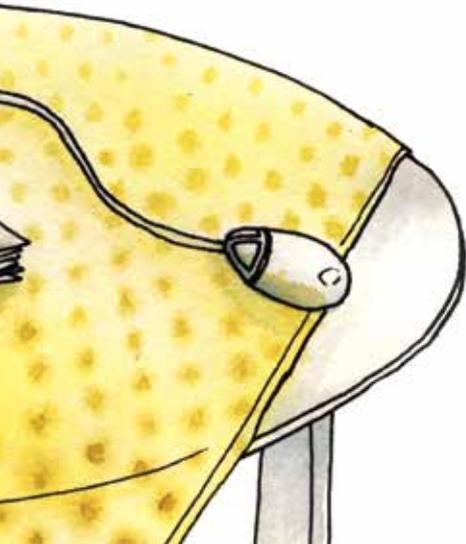
**Two Sides encourages responsible consumption. Double sided printing in the office and segregated recycling schemes will save cost and improve sustainability.**

**THE MYTH:**  
ELECTRONIC  
COMMUNICATION  
IS MORE  
ENVIRONMENTALLY  
FRIENDLY THAN  
PRINT AND PAPER.

**THE FACT:**  
NOT NECESSARILY.  
E-MEDIA ALSO HAS  
ENVIRONMENTAL  
IMPACTS.



**"GO PAPERLESS", "GO GREEN" AND "SAVE TREES" ARE COMMON THEMES THESE DAYS AS MANY CORPORATIONS AND GOVERNMENTS ENCOURAGE THEIR CUSTOMERS AND EMPLOYEES TO SWITCH TO ELECTRONIC TRANSACTIONS OR COMMUNICATIONS.**



### **But are these appeals to help the environment regardless of the facts?**

Campaigns that seek to eliminate paper are often focused on a single characteristic and do not take into account every stage in the life cycle of both paper and on-line methods.

Organisations that truly want to make responsible environmental choices should do so based on factual, verifiable information. Customers' preferences and online access are also important.

Rather than asking which is better, paper or electronic communication, we should use this life cycle thinking to figure out which combination of the two has the least impact on the environment while best meeting social and economic needs.

**'With a reading time of 30 minutes per day the environmental impact of a web based newspaper is, in general, in the same range as a printed newspaper's environmental impact.'**

Swedish Royal Institute for Technology, Moberg et al, 2007

When considering that Print and Paper is based on wood, a natural and renewable resource, and that over 70% of print and paper is recycled in Europe for reuse, it can be concluded that, in a multi-media world, print and paper may be the sustainable way to communicate.

- **Electronic waste is now the fastest growing component of the municipal waste stream**
- **The amount of electronic products discarded globally has sky rocketed recently with 20-50 million tonnes generated every year**
- **In Europe, e-waste is increasing at 3-5% a year, almost three times faster than the total waste stream**

Greenpeace,  
The e-waste problem, 2013



### **The Problem of Greenwash**

In a UK survey conducted by Two Sides in November 2010, 43% of Banks, 70% Utilities and 30% Telecoms were making unsubstantiated 'green', 'e-billing is better for the environment', claims.

On being challenged by Two Sides, 82% of these Greenwash messages were removed or amended.

**Greenwash needs to be challenged wherever it is found.**

From newspapers to magazines, from photocopies to leaflets, we believe Print and Paper cannot be beaten for sheer flexibility, impact and sustainability.

As you have read, there are two sides to paper and you should now feel confident about using it. Paper is made from renewable resources, recyclable and produced by an environmentally-conscious industry whose future depends on planting more trees than it consumes, and which is progressively improving standards in the whole supply chain.

This booklet can only scratch the surface of all the issues surrounding the responsible use of paper, print and packaging.

To know more about the production and consumption of paper and its impact upon the environment, go to the Two Sides website and discover more facts about our industry.

[www.twosides.info](http://www.twosides.info)



‘Forestry, paper and packaging are among the most sustainable industries in existence.’



Produced in collaboration between Two Sides  
and Mitsubishi HiTec Paper Europe GmbH.

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