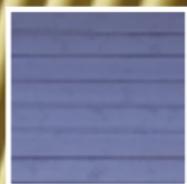


# The truth about the Forest-Based Sector





Using wood is the most natural way of removing carbon dioxide from the air

Wood and paper are used in a vast range of everyday consumer goods that contribute to our quality of life

Wood is one of the only truly renewable raw materials in the world

Forests provide peace and quiet for the public to enjoy

### **Sustainability – A new concept?**

Not so. In 1346, Article 4 of L'Ordonnance of Brunoy, a law decreed by Philippe VI of France stated that those in charge of, and selling wood from, forests should visit, care for and ensure that their forests and woods were growing in a manner that allowed them to be continually and healthily sustained.

And 300 years ago a German forester defined it as being when "the amount of harvested wood should not exceed the annual increment". The concept of sustainability is therefore deeply anchored in European forestry and the forest-based sector.

# The forest-based sector Promoting Europe's forests

## **Europe's forests are increasing**

Forest area in Europe is increasing **not** decreasing. One third of Europe is covered with forest and annually it is increasing by an area the size of Cyprus (925 100 Hectares). Each year the forest-based sector sustainably harvests only 55% of the yearly growth of wood.

## **Europe's forests are in good hands**

Maintaining healthy forests produces many benefits for society. Europe's forests are sustainably managed. About 70 % are privately owned and the remainder are looked after by public authorities. They fulfil important environmental, social and economic functions for forest and society. They provide the renewable raw material for wood and paper-based products, which make an important contribution to the quality of everyday life.

## **Responsibility is an important issue in forestry**

Responsibly managed forests provide an inherently sustainable and renewable resource base and the forest-based sector fully supports and actively promotes sustainable forest management. Forest owners and the forest-based sector therefore support voluntary forest certification systems, which provide a tool to assure that wood comes from sustainably managed forests.

## Certification

Wood products from responsibly managed forests  
Certified forest areas are increasing. In 1994, a couple of hundred thousand hectares were certified, in 2004 the number had risen to around 190 million hectares worldwide. Across Europe around 50 % of the forest area is certified. For the European paper and packaging industry 85% of wood used comes from Europe.

## Managing Europe's forests guarantees biodiversity

Of all ecosystems, sustainably, or responsibly, managed forests contain the greatest diversity in terms of species, genetic material and ecological processes. Studies prove that a lot of today's protected species would no longer exist without forest management. Sustainably managed forests help to ensure species-rich forests that provide a high quality of water and stabilisation of soils.

### Comparison of species diversity in a natural beech woodland community (A) and a managed pine forest (B) in central Europe

Particular to A Number of sample areas = 8	Particular to B Number of sample areas = 10	Common
<i>Deschampsia cespitosa</i>	<i>Dicranum undulatum</i>	<i>Oxalis acetosella</i>
<i>Poa nemoralis</i>	<i>Scleropodium purum</i>	<i>Hieracium murorum</i>
<i>Viola reichenbachiana</i>	<i>Pleurozium schreberi</i>	<i>Luzula pilosa</i>
<i>Mycelis muralis</i>	<i>Anthoxanthum odoratum</i>	<i>Carex pilulifera</i>
<i>Majanthemum bifolium</i>	<i>Festuca ovina</i>	<i>Avenella flexuosa</i>
	<i>Pteridium aquilinum</i>	<i>Fagus sylvatica</i>
	<i>Vaccinium myrtillus</i>	<i>Fagus sylvestris</i>
	<i>Melampyrum pratense</i>	<i>Sorbus aucuparia</i>
	<i>Sarothammus cespitosa</i>	

Average number of species A = 9, B = 16      Quantity according to Braun-Blanquet

The general guidelines for the sustainable management of forests in Europe were developed in 1993 during the Second Ministerial Conference on the Protection of Forests (MCPFE) in Europe in Helsinki/Finland. [www.mcpfe.org](http://www.mcpfe.org)

# The forest-based sector Supporting the spirit of Kyoto

Sustainability is recognised as a major concern both for environment and for industry. The forest-based sector is one of the most sustainable industry sectors in the world.

## **Wood and paper products help to reduce climate change**

Wood is the Kyoto-Material: it stores carbon over several hundred years in both forests & wood-based products. The world's forests are the second largest stores of CO<sub>2</sub> next to its oceans.

Using wood is only a stepping-stone in the biological cycle, wood and paper products are important carbon stores. The carbon continues to be stored through the different possible stages of a product's life-cycle; in trees and in paper-based products. The carbon stored in wood and paper products plays a significant role in reducing climate change. Choosing wood and paper products help to reduce climate change.

- Each house built with timber instead of brick reduces carbon emissions by 10 tonnes.
- By using the full potential of wood (sink and substitution effects) in buildings, Europe could reduce emissions of CO<sub>2</sub> by 300 million tonnes or 15 to 20%.



## Renewable – Recyclable – Responsible

Wood, paper and board products are made from natural and renewable resources. The unique properties of wood mean that not only does it result in sustainable products that act as carbon stores but it is also ideal for recycling. Recycling has an important and positive effect environmentally, on both sustainable development and climate change. Wood and paper products are the most commonly used materials for recycling into new products.

The forest-based industries have shown continued commitment and success in its efforts to increase recycling rates. Recycling of wood and paper products is increasing across Europe. This increase is being driven and supported by voluntary commitments and active efforts across the forest-based sector.

- Recycled wood is increasingly used for the production of particleboard, up from 21.5% in 2002 to nearly 26% in 2004.
- Paper and board recycling is up by 10 million tonnes in real terms since the industry's voluntary commitment in 2000 to increase it to 56% by 2005. The recycling rate in 2003 was at almost 54% - 48 million tonnes of paper and board were recycled.
- According to the European Commission's latest data on Recovery and Recycling (2001), paper and board is the most recycled packaging material, achieving the highest rate at 67%! Plastic for example has a recycling rate of only 21%.
- Paper-based packaging is 100% recyclable in many cases, becoming new paper again for the benefit of the environment: used packaging is collected, recycled and used again for the manufacturing of new paperboard products. Recycling is essential for the industry, as recycled paper and board is a vitally important raw material source.





## An environmentally responsible sector

The European forest-based sector is amongst the most environmentally responsible in the world. The forest-based sector firmly supports the aims of the Kyoto protocol to reduce greenhouse gases and has been investing heavily and working actively to achieve this. Emissions have decreased significantly and consistently since 1992.

### Environmental investments in the paper-based industry:

1990 to 2002 -156 million Euros a year\* = 7% of capital expenditure

### The results have been:

35% production growth over last decade BUT emissions reduced significantly:

25% reduction of CO<sub>2</sub> emissions from solid fuel use.

65% reduction of sulphur dioxide release to air.

10% reduction of primary energy consumption.

70% reduction in BOD specific discharge in water (Biological Oxygen demand).

90% reduction in AOX discharges

(Adsorbable organically bound halogens).

95% effluents treated by primary or secondary treatment.

\*Paper industry

## Experts in renewable energy sources

The forest-based sector is the **least fossil fuel intensive** of any manufacturing sector. It has a long history of both developing and investing in energy-efficient power systems. It has invested heavily to become not only the biggest user, but also producer, of renewable energy in Europe.



Once wood and wood-based products have been used as products they can also be used as an excellent source of renewable energy. They are CO<sub>2</sub> neutral and the best solution for substituting fossil energy.

Bio-energy markets enhance local entrepreneurship and offer opportunities to improve the income for small-scale forest owners contributing to social-welfare and social cohesion in rural areas.

- Sawmills and wood-based panel plants produce up to 75% of their own energy needs from wood residues.
- The Paper & Packaging industry is responsible for 17% of the renewable energy in Europe.
- Over 50% of energy used in producing paper is CO<sub>2</sub> neutral.

### **Declaration of Intent on Renewable Energy Sources**

The European Union has committed itself to reducing greenhouse gas emissions by 8% by 2008–2012 (from 1990). The European Pulp and Paper Industry has made an additional voluntary commitment to contribute, by 2010, to this target by achieving on average: a 25% increase in biomass share of on-site biomass primary energy consumption for heat and power; and an increase in biomass share of total on-site primary energy consumption from 49% to 56%.



# The forest-based sector Contributing to Europe's competitiveness

## **An important economic sector for Europe**

The Forestry and forest-based industry sector provides employment directly and indirectly to three million Europeans creating an annual turnover of around 400 Billion Euros in forestry and its downstream sector – representing 8% of GDP in Europe.

The forest-based sector not only provides employment and skilled jobs in city areas, it is also responsible for maintaining vitally important jobs in rural areas across Europe and contributing to quality of life. In particular, forests are an important resource for new Member States of the European Union.

Using 10% more of the renewable material wood, means creating around one million more jobs in Europe. And Europe's forest area would still be increasing by 35% annually.

## **A modern and innovative sector**

The forest-based sector has an ongoing commitment to research and innovation. In some sectors we are now world technological leaders in our field.

The forest-based sector in Western Europe has experienced some of the highest raw material and labour costs in the world, forcing it to adopt leading edge technologies to remain competitive and profitable.



However, investment and technological advances have not been restricted to processing: logistics, transports, procurement, etc. have all benefited from technological development, enhancing the quantitative and qualitative competitiveness of the forest-based sector. Innovation impacts many elements of competitiveness; opportunities to work in a well-developed area are essential in attracting future generations to employment and in securing the sector's future knowledge base.

As well as providing high quality everyday products that significantly contribute to our daily lives, the forest-based sector strives to deliver innovative products and processes that will provide environmental and social benefits in the 21st century.

For example, the industry has invested in technological developments resulting in paper seals approved for drinking water taps and paper-based automobile gaskets that can withstand temperatures of up to 1000 degrees Centigrade. Applications exist for wood to be used in sports cars and space rockets as a result of its flexibility and high resistance to heat.

Intelligent paper and board packaging not only means that your shopping can be scanned but that products can be traced along the entire chain from packaging to purchase, reducing loss and theft and new 'responsive' packaging will tell you when your food is out of date. Industry is developing cds and DVDs for music, movies and computer games made from recycled paper packaging, while paper-based packaging for these hi-tech products already exists.

The annual production of European engineered wood products is about 2.5 million m<sup>3</sup>. These products are mainly used in structural applications, especially for large-scale constructions, such as wooden bridges, sport halls, etc.

The forest-based sector has also developed a European Forest-Based Technology Platform, a vision focused on Research and Innovation that will drive our sector forward, well into the 21st Century.

**Paper and board packaging products are:**

- Lightweight yet offering the best protection (avoiding product loss and unwarranted environmental effects).
- Hygienic and safe: clean and hygienic new containers each time; paper-based is one-way/recyclable packaging requiring no washing, cleaning or drying, thus saving water and detergent use and is safe for human health and the environment.



## Contact information

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