



a clear vision for a bright future

sustainability performance 2008

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# Stora Enso in brief

Stora Enso is a global paper, packaging and forest products company producing newsprint and book paper, magazine paper, fine paper, consumer board, industrial packaging and wood products. The Group has 32 000 employees and 85 production facilities in more than 35 countries worldwide, and is a publicly traded company listed in Helsinki and Stockholm. Our annual production capacity is 12.7 million tonnes of paper and board, 1.5 billion square metres of corrugated packaging and 6.9 million cubic metres of sawn wood products, including 3.2 million cubic metres of value-added products. Our sales in 2008 were EUR 11.0 billion.

## The scope

The scope of consolidated data on sustainability generally follows the principles of financial reporting. This means that the consolidated financial statement includes the parent company, Stora Enso Oyj, and all companies that are under Stora Enso Oyj's direct or indirect control. Associated companies are accounted in the consolidated financial statement using equity method. Associated companies represent undertakings in which the Group has significant influence, but which it does not control (see Notes to the Consolidated Financial Statements on pp. 95–180 in the Annual Report 2008).

The following limitations relate to the principles described above:

- Consolidated environmental performance data covers all production units unless otherwise specified. Sales offices and corporate functions are excluded.
- Consolidated Occupational Health and Safety (OHS) performance data covers 30 984 employees. Some smaller corporate functions and sales offices are not yet included in the Group's OHS statistics.
- Human Resources (HR) data derived from financial accounting (average number of employees and employee distribution by country) covers all employees on the payroll during the year. HR data derived from separately collected HR statistics covers permanent and temporary employees as of 31 December 2008.

Due to the fact that the joint venture at Veracel in Brazil, of which Stora Enso owns 50%, has attracted attention among stakeholders, the most significant stakeholder issues with relation to Veracel pulp mill and its associated plantations are also reported here. However, data from Veracel is not consolidated into the performance data for Stora Enso as a whole.

## The profile

Environmental, OHS and HR performance data is reported according to the Group's internal guidelines. The guidelines for environmental liabilities, capital expenditure and operating expenses are based on International Financial Reporting Standards (IFRS) and EU recommendations on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies. Emission factors used for calculating and reporting greenhouse gas emissions are consistent with the World Resource Institute/World Business Council for Sustainable Development Greenhouse Gas Protocol.

Environmental, OHS and HR performance data is checked internally before data consolidation. All performance data and related texts in this report have been subjected to an external assurance process by an independent third party (see pp. 30–31).

Readers requiring more background material about Stora Enso's sustainability management or previous years' reports can visit [www.storaenso.com/sustainability](http://www.storaenso.com/sustainability)

Several Stora Enso units produce unit-specific sustainability reports. These publications can be found at [www.storaenso.com/EMAS](http://www.storaenso.com/EMAS)

For more information on Veracel's sustainability performance, please see the separate sustainability report at [www.veracel.com.br](http://www.veracel.com.br)





## Sustainability targets and performance in 2008

Stora Enso continues to report on sustainability performance against Group-level sustainability targets. These targets have been established to ensure effective sustainability management at all organisational levels. During 2008 the majority of the targets were either completely or partially achieved. All of the targets set for 2008 are listed on the following page, with notes on their achievement and references to the sections of this report where progress towards each target is described in more detail.

Targets for 2008	Achievement	Targets for 2009
<b>Common targets</b>		
Introduce strategic sustainability issues into business area strategies.	V (see Annual Report 2008 pp. 12–35)	
Further develop training and monitoring related to Code of Conduct.	V (see p. 24)	All of our employees to complete the Code of Conduct training by the end of 2009.
Improve suppliers' compliance with Stora Enso's sustainability standards.	O <sup>1)</sup>	Improve suppliers' compliance with Stora Enso's sustainability standards.
<b>Wood sourcing</b>		
New wood supply units and pulp supply to ensure third-party certification for their traceability systems.	O (see p. 6)	All wood and pulp supply units to have third-party verified traceability systems in place by the end of 2009.
<b>Climate change</b>		
Reduce Group-level CO <sub>2</sub> intensity from pulp, paper and board mills by 20% by 2020 from the baseline year 2006.	V (see p. 14)	Reduce Group-level CO <sub>2</sub> intensity from pulp, paper and board mills by 20% by 2020 from the baseline year 2006.
<ul style="list-style-type: none"> <li>Increasing trend in the power-to-heat ratio of internal energy production.</li> </ul>	V (see p. 14)	<ul style="list-style-type: none"> <li>Increasing trend in the power-to-heat ratio of internal energy production.</li> </ul>
<ul style="list-style-type: none"> <li>Conduct energy efficiency reviews at each pulp, paper and board mill at least once in a two-year cycle.</li> </ul>	O (see p. 14)	<ul style="list-style-type: none"> <li>Conduct energy efficiency reviews at each pulp, paper and board mill at least once in a two-year cycle.</li> </ul>
<b>Mills and environment</b>		
Reduce SO <sub>2</sub> emissions by 15% by 2009 from the baseline year 2004.	V (see p. 16)	Reduce SO <sub>2</sub> emissions by 30% by 2013 from the baseline year 2007.
Reduce Chemical Oxygen Demand (COD) by 10% by 2009 from the baseline year 2004.	V (see p. 16)	Reduce Chemical Oxygen Demand (COD) by 10% by 2013 from the baseline year 2007.
Reduce waste to landfill by 10% by 2009 from the baseline year 2004.	V (see p. 16)	Reduce waste to landfill by 5% by 2013 from the baseline year 2007.
Reduce process water discharge by 10% by 2010 from the baseline year 2005.	O (see p. 16)	Reduce process water discharge by 10% by 2010 from the baseline year 2005.
<b>Social responsibility</b>		
Increase the share of women in management and executive positions and strengthen gender work by expanding the Women in Stora Enso (WISE) network.	O (see p. 25)	Increase the share of women in management and executive positions and strengthen gender work by expanding the Women in Stora Enso (WISE) network.
100% of the Group's employees covered by social management systems by the end of 2008.	X <sup>2) 3)</sup>	
All production units covered by OHS management systems by the end of 2008.	X <sup>3)</sup> (see p. 20)	
Lost-time accident rate in each unit in the top 25% within the national forest industry by the end of 2008.	X (see pp. 20–21)	Zero lost-time accidents
Absenteeism rate in each unit lower than the national forest industry average by the end of 2008.	X (see p. 21)	Attendance rate above 97%

<sup>1)</sup> The compliance level of the sustainability standards in the supplier contracts was studied during 2008. The compliance work will continue in 2009.

<sup>2)</sup> Social management systems were not actively promoted during 2008.

<sup>3)</sup> The Group will revise its approach to management systems by consolidating them to business area level.

V Achieved / in line with the target

O Partially achieved

X Not achieved



Our success relies upon the continued availability of wood – we only use wood from sustainable sources and make sure forests are regenerated after the final felling.

The renewable nature of wood offers many advantages over materials made from non-renewable resources. Replenishing the wood supply is as simple as growing new trees and sustainably managing forests and tree plantations. Products made of wood are recyclable, and can be transformed to recreate products many times over before they are eventually burned to produce bioenergy. As many global resources become scarcer, wood is increasingly a more viable material.

At Stora Enso, sustainable forest management is the foundation for our operations. It balances economic, social and environmental concerns to meet today's needs while guaranteeing that there will be forests and wood for future generations. The economic concerns are primarily focused on ensuring that our business operations remain feasible. The social concerns include respect for human and labour rights, health and safety issues, sharing economic benefits, multiple use of forests and protecting sites of historical or spiritual value. Environmental aspects include concerns about conservation and sustainable use of forest resources, biodiversity, soil protection, and maintaining water quality and quantity. The right balance between these concerns varies from region to region.

In 2008, the total amount of wood (roundwood, chips and sawdust) delivered to our mills totalled 38.2 (45.8) million m<sup>3</sup> of wood (solid under bark). Most of the wood was bought from external suppliers. For reasons related to quality and logistics, we bought 7% (20%) of our chemical pulp from external suppliers in 2008. Some 6% (5%) of our wood supply is from tree plantations including pulp produced by Veracel.

### **We promote forest certification**

Forest certification is the process where an independent, external body provides assurance that the management of a forest meets certain standards. Two schemes lead forest management certification: the Programme for the Endorsement of Forest Certification schemes (PEFC) and the Forest Stewardship Council (FSC). These organisations promote sustainably managed forests through independent third-party certification.

At Stora Enso, we work with both PEFC and FSC because we see the need for more than one forest certification scheme. Less than 10% of the world's forests are certified, and our goal to increase the share of certified wood is a challenging one. So far we have been successful; we have increased our share of certified wood use from 45% in 2003 to 63% in 2008.

### **We work with small forest owners**

There are approximately 16 million forest owners in Europe, most of whom own small forest properties, and currently the share of PEFC-certified forests is higher than FSC-certified forests. In order to make FSC a more attractive option, we have established FSC-certification groups to offset the cost to small forest owners in Estonia, Lithuania, Finland and Sweden.

In Sweden, we worked within FSC Sweden together with WWF, global conservation organisation, and other stakeholders to further adapt the national FSC forest management standard for small- and medium-sized forest owners as part of the Small and Low Intensity Managed Forests (SLIMF) concept.

In the Baltics, we collaborated with FSC, WWF and NEPCon (Nature, Ecology and People Consult) to develop a pilot project that provides FSC certification to small private forest owners.

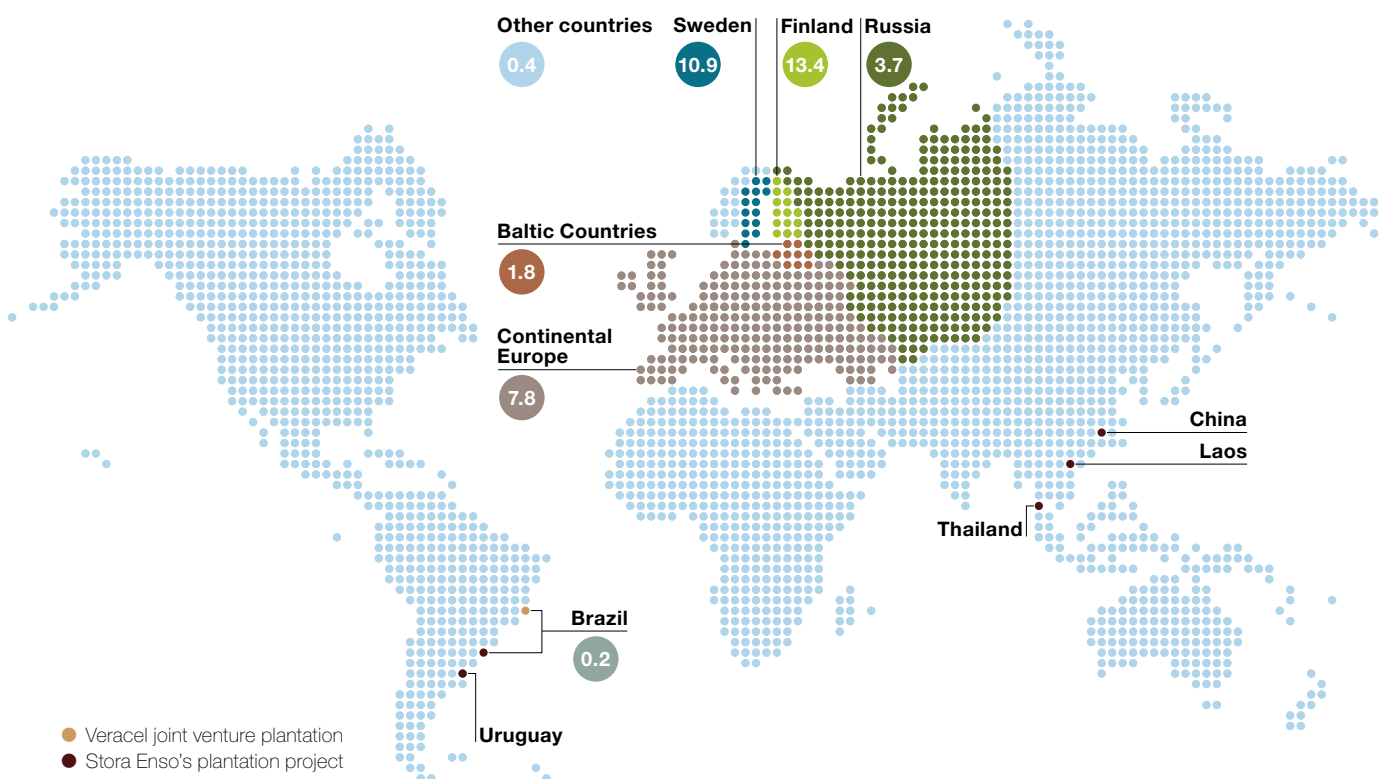
In Finland Stora Enso participates in the Finnish PEFC standard review and in the Finnish FSC standard review. These review processes aim to make the two certification schemes more attractive to forest owners and other stakeholders.

### **We are confident about the origin of our wood**

We take our commitment to environmental stewardship seriously. Whether the wood we use comes from certified forests or not, you can trust that it always originates from sustainable sources.

We use traceability systems to check that all wood has been harvested in compliance with national legislation and according to our Wood Procurement Principles. The traceability systems cover roundwood, chips, sawdust and externally purchased pulp. Our target for 2008 was to have new wood supply units and pulp supply to ensure third-party certification for their traceability systems. This was almost achieved as in 2008, 98% (91%) of the wood and pulp that passed through these systems was also covered by third-party certification schemes such as Chain-of-Custody, Controlled Wood, EMAS and/or ISO 14001. Our target is that all wood and pulp supply units to have 100% coverage of third-party verified traceability systems in place by the end of year 2009.

Stora Enso's global wood flows in 2008



Total amount of wood (roundwood, chips and sawdust) delivered to own mills within these areas (million m<sup>3</sup>, solid under bark)

**Forests, plantations and lands owned by Stora Enso\***

As of 31 December 2008

<b>Unit</b>	<b>Hectares</b>	<b>Forest management certification scheme</b>
Veracel plantations and lands, Bahia, Brazil (joint venture with Aracruz)	211 590, of which 90 870 planted	CERFLOR (PEFC), FSC
Plantations and lands, Uruguay	69 760, of which 14 950 planted	
Plantations and lands, Rio Grande do Sul, Brazil	45 350, of which 20 530 planted	
Trial plantations, Thailand	1 350, of which 1 280 planted	
Wood Supply Baltic, Latvia	860	
Wood Supply Baltic, Lithuania	470	FSC

\* Including units where Stora Enso's shareholding is at least 50%.

**Forests and plantations leased and managed by Stora Enso**

As of 31 December 2008

<b>Unit</b>	<b>Hectares</b>	<b>Forest management certification scheme</b>
Olonetsles, Russia	222 500	FSC
Ladens, Russia	153 900	FSC
Plantations and lands, Uruguay	5 570, of which 400 planted	
Ruskiy Les, Russia	133 200	FSC
Plantations and lands, Guangxi, China	93 430, of which 77 000 planted	
KLPP, Russia*	53 300	FSC
Terminal, Russia	42 800	FSC
STF Strug, Russia*	22 500	
STF Gdov, Russia*	22 300	FSC
Wood Supply Continental Europe, Czech Republic	20 000	PEFC
Trial plantations, Laos	300, of which 275 planted	

\* Operations discontinued.



Pulp from tree plantations is a cost-competitive raw material that helps to meet the world's growing needs for paper and forest products. The fast-growing trees grow the fibre required for making paper up to ten times faster than traditional forests. Although tree plantations cover only 0.3% of the world's forests, they are a significant source of industrial wood supply that ensures the availability of sustainably produced wood at competitive prices.

Stora Enso is well positioned to capitalise on its growth potential, with tree plantations located in Brazil, Uruguay and China, and small-scale trial plantations in Thailand and Laos. Currently some 6% of our wood supply is from tree plantations, and our goal is to increase this amount.

### **Our tree plantations are sustainable**

All our tree plantations are sustainably managed from an environmental, social and economic perspective. Together with a balanced land use, a sustainable tree plantation can conserve native ecosystems, enhance local welfare and be profitable.

We do not convert natural forests or protected areas into plantations, and we identify and protect areas under our management that are important socially, culturally and ecologically. We establish our tree plantations on lands with low biodiversity value, and we carefully monitor the water balance and quality at these locations. Well-designed tree plantations can also help save existing natural forests and absorb carbon from the atmosphere, mitigating the effects of climate change.

When establishing tree plantations, we use Environmental and Social Impact Assessment (ESIA) as an essential part of our planning and decision-making process. This identifies the potential impacts of our operations and suggests how we can mitigate adverse impacts and strengthen positive ones.

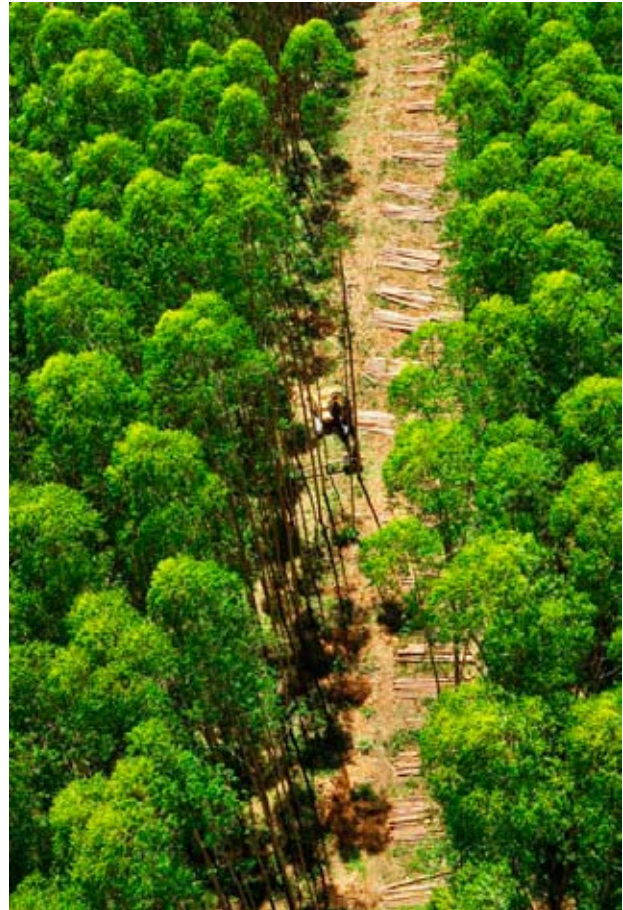
### **Benefitting the local community**

A tree plantation creates opportunities for local people in the way of jobs, business and capacity building. Many of our tree plantations also benefit local land owners through tree farming and land rental partnerships, and we actively encourage local communities in the diversified use of land. In Uruguay, for example, cattle farmers are able to use our land for grazing, and in Brazil our Veracel Mill supports local communities in sustainable piassava extraction and bee-keeping.

As well as benefitting local communities, these partnerships foster understanding, helping us to respect the culture and rights of the local people who live around our tree plantations. We also engage in dialogue with local communities and encourage our people to take part in local community work.

### **Veracel in Brazil**

Veracel is a state-of-the-art pulp mill and eucalyptus plantation in southern Bahia, Brazil, and a joint venture between Stora Enso and Brazilian eucalyptus pulp producer Aracruz. As a consequence of receiving a Forest Stewardship Council (FSC) forest management



certification in March 2008, all of the pulp produced at Veracel's mill is FSC certified. Since much of Veracel's pulp ends up in our coated fine paper, a number of graphic paper products made from Stora Enso fine paper now bear the FSC label.

In addition, Veracel was certified in 2005 by the Brazilian Program of Forest Certification (CERFLOR), which is endorsed by the Programme for the Endorsement of Forest Certification schemes (PEFC). This certifies that Veracel's tree plantation operations are socially beneficial and managed in an environmentally appropriate and economically viable way.

Veracel is committed to a best practice approach to plantation management, and pursues its own sustainability agenda, which it has agreed with its owners. This involves environmentally responsible measures at the pulp mill and in the plantations, a strong commitment to social responsibility and active stakeholder dialogue.

Veracel plantations occupy only half of the lands it has acquired. It has a unique plantation setup where it plants trees on flat areas and allows original vegetation to regenerate naturally in valleys. In addition, each year Veracel restores of some 400 hectares of local rainforest, helping to conserve local biodiversity.

Veracel employs 4 022 people directly and through contractors at the mill and plantations. According to a study conducted by Brazilian research institute Fundação Getulio Vargas, Veracel adds 30 400 jobs in the Brazilian economy in addition to those people employed

at the mill. It also partners with 98 local farmers who supply it with plantation wood and supports several local social projects.

### Projects in Southern Brazil and Uruguay

We began our two ongoing tree plantation projects in 2005 by purchasing land in the southern Brazilian state of Rio Grande do Sul and the central regions of Uruguay. When entering new areas, we first try to understand local conditions to help us to create a long-term sustainability agenda and adopt best environmental practices.

In 2006 we conducted Environmental and Social Impact Assessments (ESIAs) in both regions to assess regional economic, social and environmental conditions. We completed the ESIA in Rio Grande do Sul in late 2007 and in Uruguay in late 2008. We are also working to establish dialogue with local stakeholders in these regions through initiatives such as the good neighbour programme, WWF's Landscape Outcomes Assessment Methodology (LOAM) and The Forests Dialogue.

We are also working in both locations to build integrated systems to manage environmental issues, quality control and occupational health and safety. Together with the ESIA's, these new management systems allow us to address and monitor biodiversity, water protection and soil conservation. Of the two sites, Uruguay is further along in establishing a third-party-certified management system, to be audited externally in 2009.

We also aim to have forest management certification in place for both projects by the time the trees are ready to harvest.

### New forms of stakeholder dialogue with WWF

Introducing a tree plantation to a region changes the original landscape. To ensure our tree plantations are accepted locally, we take steps to respect local concerns, values and culture.

In 2008 our tree plantations in Uruguay were the scene for a joint project between Stora Enso and WWF. This aimed to test WWF's methodology for enabling local stakeholders to assess outcomes and changes in livelihoods as a result of introducing a tree plantation to the local landscape. This is the first time the Landscape Outcomes Assessments Methodology (LOAM) methodology has been used for a plantation project or applied in Latin America.

For this project, we invited representatives from local communities to one-day workshops, during which they identified important features in their living environment and their main concerns and expectations for tree plantations. We identified two main themes that were of particular interest for the participants – the potential impacts on water sources and new job opportunities.

Since founding our tree plantations in Uruguay, we have also built a network of local stakeholders. The LOAM process provides a good platform for systematising the dialogue with the local stakeholders, revealing to us how locals view our tree plantation activities and explaining to locals how and why we work the way we do.

### NGOs criticise Stora Enso for jeopardizing land reform in Brazil

Some non-governmental organisations (NGOs) have been criticising Stora Enso for jeopardizing land reform in Brazil. In 2008, Brazil's Landless Worker's Movement (MST) and Via Campesina together with the Friends of the Earth in Finland began a letter campaign against Stora Enso's operations to draw attention to land reform problems.

Stora Enso began purchasing land in Rio Grande do Sul from private individuals in 2005. Our principles for land acquisition prevent us from purchasing land set aside for land reform use. The plantations are being established on former pasture lands, where the original native grassland vegetation has been heavily modified over the past century by grazing. Stora Enso's current land holdings represent only 1% of the areas in the 11 Rio Grande do Sul municipalities where we are present.

Since the views of the NGOs and Stora Enso differ greatly, we met with each party to hear their views and concerns. Although this face-to-face dialogue organised did not reach a common understanding, it at least allowed the parties to hear one another's views. We agreed to continue the dialogue, which is a valuable result for future conflict resolutions.

### Guangxi plantations in China

In 2002 we started establishing eucalyptus plantations in the south of Guangxi province, China. Based on an ESIA conducted by the United Nations Development Programme (UNDP), our sustainability work at Guangxi focused on the following areas in 2008: community development and engagement; supply chain development; and biodiversity conservation.

We initiated a new biodiversity conservation partnership together with UNDP China, involving also China's State Ocean Administration and the Beihai Mangrove Research Institute. Work continues on a survey of flora and fauna in coastal areas of Guangxi. Additionally, China's National Forest Certification scheme is using our tree plantations as a pilot site, and we are participating in the development of the FSC National Initiative and national forest management certification standard in China.

### IFC partnership to train sustainable contractors

Stora Enso and the International Finance Corporation (IFC), are working together to develop a sustainable contractor base for Stora Enso's operations in Guangxi, China. In China, IFC supports the development of small and medium sized enterprises (SMEs) by helping entrepreneurs capture opportunities.

This contractor development programme is part of IFC's advisory services and focuses on training Stora Enso's contractors and providing them with technical, business, environmental and health and safety management skills, combining classroom lessons with hands-on work experience.

The programme helps us to identify potential long-term partners from local SMEs that follow Stora Enso's environmental and social principles and technical and management standards that can provide a sustainable and competitive supply to Stora Enso's operations. Through the programme we hope to increase the impact of Stora Enso's investments to the benefit of the local economy, society and environment in Guangxi.

In Guangxi, the forestry sector it is very outdated and there are very few private contractors in the market. Contractors mainly consist of unregulated individuals that rely on temporary migrant workforces of 15–20 employees. Typically they have no form of administration or record keeping. They do not have official contracts and do not provide benefits or insurance to their employees. On the environmental side the main challenge is to raise the contractors' awareness and basic understanding of their operations' environmental impact. So far, ten pilot contractors have been trained and the work continues.

Through building linkages with local SMEs, Stora Enso will help create jobs in Guangxi and increase worker income. This is an important achievement as poverty reduction and sustainable development in Guangxi's rural areas is challenging for the regional government. The partnership with IFC will help Stora Enso to set world-class environmental and social standards that provide an example for local companies to follow.

#### **Community development plan with UNDP**

Our eucalyptus plantations in China's Guangxi province are an important source of fibre for paper and board, and provide income for local communities. As part of our commitment to the region, we also help these local communities to improve their standard of living.

We have a five-year community development plan in partnership with the UNDP China. One initiative has been to establish a network of rural telecentres, together with the Chinese Ministry of Science and Technology and local authorities.

The telecentres bring communication technology such as internet access to rural areas, giving farmers access to market information and better farming and forestry practices. The telecentres also share information on biodiversity, hygiene, HIV and AIDS, and enable locals to communicate – all vital to the sustainable development of the local community.

#### **Trial plantations in Laos and Thailand**

We have small trial plantations in Laos and Thailand. In Laos, we are exploring opportunities for the industrial wood production of eucalyptus. In Thailand we are exploring agroforestry, the growing of trees together with agricultural crops.



At Stora Enso, we believe that the key solutions to control climate change will be based on greater use of renewable raw materials, efficient use of energy in our operations, and cleaner and more efficient production processes.

We are moving towards more sustainable solutions, both because the nature of the forest products industry presents good opportunities to curb climate change, and because we are actively working to reduce our carbon dioxide (CO<sub>2</sub>) emissions. We fully intend to leverage this unique position with solutions based on renewable materials that benefit people, the planet and our business.

**Unique product opportunities**

Our product lifecycle provides unique opportunities to curb climate change. This is driven by the fact that our main raw material, wood, is a renewable resource. Growing forests that are sustainably managed act as carbon sinks as they absorb CO<sub>2</sub> from the atmosphere and store it as carbon in the wood. The carbon is further stored in our products that can be recycled many times over, and at the very end of their life cycle can be burned to generate bioenergy.

**Following our carbon footprint**

In 2007 we estimated our Group-wide carbon footprint for the first time, with the aim of identifying our main sources of CO<sub>2</sub> emissions across our operations. We base our carbon footprint study on the guidelines provided by the World Resource Institute (WRI) and World

Business Council for Sustainable Development's (WBCSD) Greenhouse Gas Protocol, the most widely used international accounting tool for greenhouse gas emissions. We concentrate on accounting for CO<sub>2</sub> which dominates our carbon footprint, but also include other greenhouse gases where data exists.

We report on three areas:

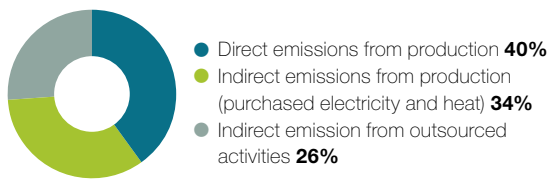
- Scope 1: Emissions from sources we directly own or control, including on-site energy generation and processes, power boilers, lime kilns, paper drying, vehicles, engines and harvesting equipment.
- Scope 2: Emissions from purchased electricity and heat consumed in our operations.
- Scope 3: Emissions from other indirect sources: harvesting, processing and transporting raw materials, transporting finished products, recycling and disposing of used products, business travel and emissions from raw material suppliers.

In 2008, our total estimated carbon footprint was equivalent to 8.58 million tonnes of CO<sub>2</sub>, a reduction of 13% compared with 2007's 9.91 million tonnes.

**Reducing our CO<sub>2</sub> emissions**

Most of our greenhouse gas emissions come from the energy we purchase and produce to operate our mills and manufacturing processes. At Stora Enso, we have set a Group-wide target to reduce our fossil CO<sub>2</sub> emissions per unit sales production from pulp, paper and board facilities by 20% by the year 2020 from 2006 levels. The target includes both the emissions we produce directly in our own facilities (Scope 1), and the emissions we produce through the energy we purchase for electricity and heat (Scope 2). This 20% reduction will be achieved primarily by improving our

**Our carbon footprint 2008**  
8.58 million tonnes of fossil CO<sub>2</sub> equivalents

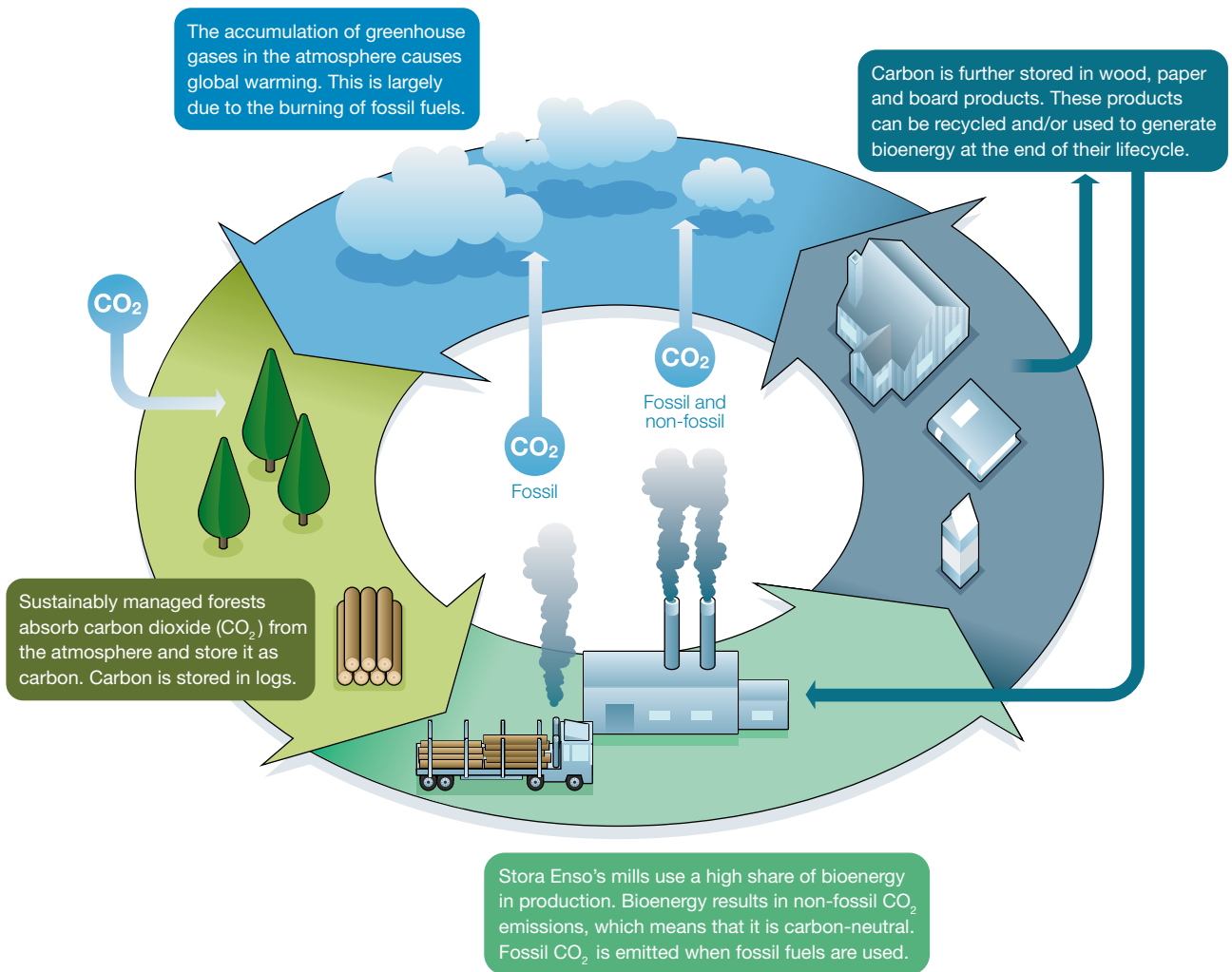


Emission source	Boundary	Fossil CO <sub>2</sub> equivalents (million tonnes)		
		2008	2007	2006
Stationary and mobile combustion sources (direct)*	Scope 1	3.48	3.91	4.30
Purchased electricity and heat (indirect)	Scope 2	2.91	3.69**	3.83
Other sources (indirect)	Scope 3	2.19***	2.31	2.31
<b>Total</b>		<b>8.58</b>	<b>9.91</b>	<b>10.44</b>

\* Including cars, trucks and other mobile sources on the mill sites.  
 \*\* Figure has been restated upwards by 143 kilotonnes due to a reporting error.  
 \*\*\* Estimate based on 2007 information and 2008 production levels.



The carbon cycle of the forest products industry



productivity and energy efficiency, as well as by using more bioenergy in place of energy produced from fossil fuels.

In 2008 we reduced our fossil CO<sub>2</sub> emissions from our pulp, paper and board mills by 16% from our target baseline year 2006. We have achieved this significant decrease by investments in energy production assets, mill energy efficiency projects and the increased use of biomass.

**Our direct CO<sub>2</sub> emissions**

We continued to reduce our direct fossil CO<sub>2</sub> emissions in 2008 both in absolute terms and per unit sales production. We achieved this reduction mainly through the increased use of biomass at seven of our mills in Finland and Sweden.

Over the three years since 2006 we have reduced our direct CO<sub>2</sub> emissions from stationary combustion sources at our pulp, paper and board mills by 13% per unit sales production.

**Our indirect CO<sub>2</sub> emissions**

Our indirect CO<sub>2</sub> emissions are significantly influenced by the energy mix in the countries where we operate. Our fossil CO<sub>2</sub> emissions from energy purchased for electricity and heat have decreased by 24% in 2008 compared with 2006. Most of the reduction was achieved by selecting for a low carbon supply mix for our Swedish mills, which includes nuclear power.

**Our use of energy**

We purchase fuel, electricity and heat from external suppliers, and generate steam and electricity internally for use at our production facilities. Our energy procurement and energy generation strategies focus on our long-term needs, and are consistent with our CO<sub>2</sub> reduction target. We generated 35% of our electricity needs from our own power plants in 2008 with a further 13% coming from Pohjolan Voima, including nuclear power production in Finland, in which we have a minority holding. Existing contracts and internal

electricity generation will cover approximately 76% of our electricity needs for the next 10 years.

**Increasing biomass in internal energy production**

The nature of our production processes means that we can re-use many of the by-products as a source of bioenergy. The most important of these are black liquor from pulp cooking, bark and de-inking and biosludge. Other important sources of bioenergy are logging residues and recovered wood. In 2008 we increased our use of biomass for internal energy production to 72% (70%)

In addition to our ongoing investments in Maxau Mill in Germany and Langerbrugge Mill in Belgium, we also committed EUR 137 million to build a new power plant at the Ostroleka Mill in Poland. Scheduled for completion in 2010, the new power plant will use a mixture of coal, biomass and recycling rejects. Once operational, the plant will improve our energy efficiency and self-sufficiency in energy production, thereby reducing our carbon footprint by an estimated 100 000 tonnes of CO<sub>2</sub> annually.

**Improving energy efficiency**

Improving energy efficiency is good for business, and good for the planet. It reduces our costs, and helps us toward our target reduction in CO<sub>2</sub> emissions. In 2008, the overall energy efficiency improved by 1.7% from 2007.

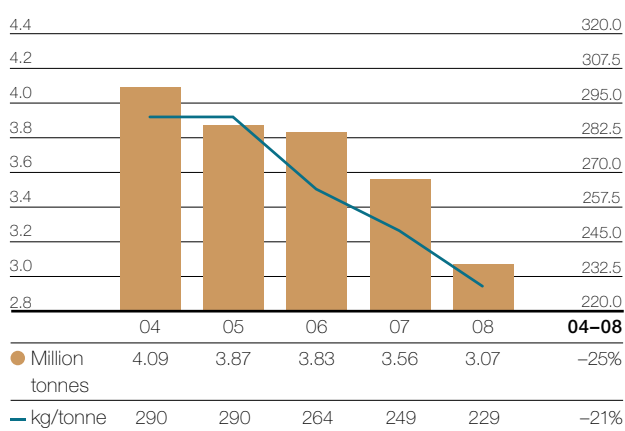
Better use of the combined heat and power potential of our mills increases the power-to-heat ratio. In 2008, our progress towards our target to increase the power-to-heat ratio for internal energy production remained stable. The power-to-heat ratio across the Group in 2008 was 22% (22%).

Our other target related to energy efficiency is to conduct energy efficiency reviews at our pulp, paper and board mills at least once every two years. We conducted 21 energy efficiency reviews at Stora Enso production units in 2007–2008, which mean our target is partially achieved. In 2008 the focus of the energy efficiency work moved from conducting reviews to implementation of efficiency improvements. The implementation efforts were divided between two main activities.

First, we created a special efficiency team that started working with our mills to find new ways to save energy and cut their energy costs. We will continue this work into 2010. During 2008 we focused on the two mills consuming the most energy in the Group: Kvarnsveden Mill in Sweden and Imatra Mills in Finland. The mills' energy consumption and saving opportunities were examined together with the mill personnel. Efficiency improvements will be achieved from changes in operations and the production processes.

Additionally, we set up a centralised investment fund to support energy efficiency projects for our mills. In total 30 different projects that will improve reductions in heat and electricity consumption were supported. These are estimated to reduce heat and electricity

**Direct stationary fossil CO<sub>2</sub> emissions <sup>1)</sup>**



<sup>1)</sup> From pulp, paper and board facilities. Figures are normalised per unit of sales production.

consumption by a total of about 500 000 MWh/a when in full effect in Q2 in 2009.

### Product-specific carbon footprints

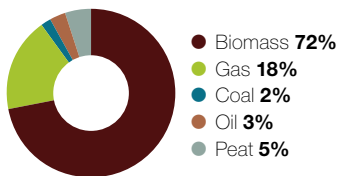
Our products can provide climate-friendly alternatives and have a smaller carbon footprint than products made from many competing non-renewable materials. One good example is our fibre-based packaging materials. Our in-depth research indicates that it is possible to significantly reduce the CO<sub>2</sub> emissions of disc packaging by using the board-based DBS case instead of the standard plastic jewel case. The fossil CO<sub>2</sub> emissions of the DBS case are only ten percent of the CO<sub>2</sub> emissions of the jewel case.

In 2008 Stora Enso Consumer Board calculated the carbon footprints for their main products to help customers determine their own carbon footprints. This was one example of carbon calculations for specific product groups in our business areas in 2008. Fibre-based packaging material normally represents only 3–10% of a final product's total carbon footprint, including the packed content.

Stora Enso Consumer Board's carbon footprint calculations are based on the life cycle approach and the rules developed by the European Paper Industry. We will update the carbon footprint calculations as new, publicly approved methodologies for calculation become available.

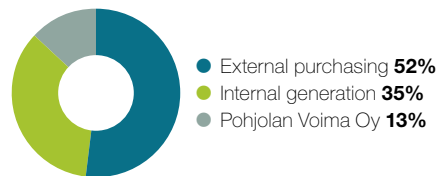
### Energy consumption in 2008

#### Fuels



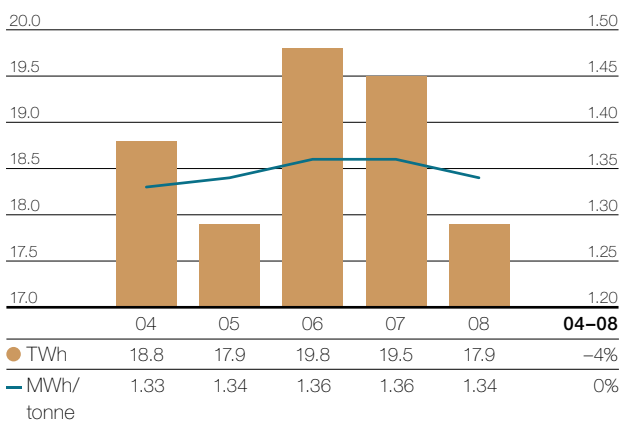
Our total annual fuel consumption was 159 496 (174 118) terajoules (TJ) in 2008.  
1 TJ = 10<sup>12</sup> joules

#### Electricity



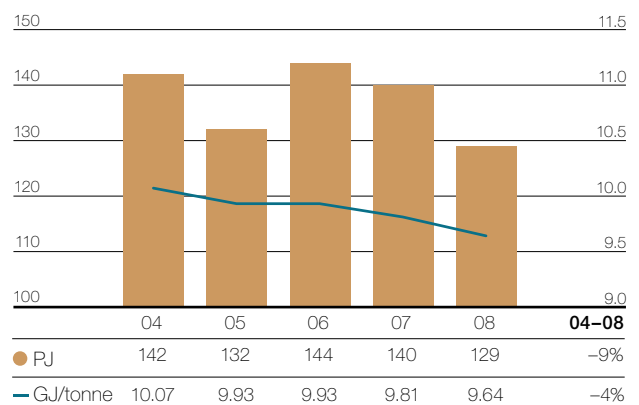
Our mills consumed 17.9 (19.5) TWh of electricity in 2008.  
TWh (terawatt hour) = 109 kilowatt hours

#### Electricity consumption <sup>1)</sup>



TWh (terawatt hour) = 10<sup>9</sup> kilowatt hours  
MWh (megawatt hour) = 10<sup>3</sup> kilowatt hours

#### Heat consumption <sup>1) 2)</sup>



PJ (petajoule) = 10<sup>15</sup> joules  
GJ (gigajoule) = 10<sup>9</sup> joules

<sup>1)</sup> From pulp, paper and board facilities. Figures are normalised per unit of sales production.

<sup>2)</sup> Excluding heat used for electricity generation.

At Stora Enso, we use advanced control technologies to minimise our emissions to air, water and soil, and constantly strive to find new and innovative ways to reuse and recycle waste.

A Group-level Sustainability Policy and Group-level targets guide our environmental work. We use third-party-certified management systems to help set measurable targets and regularly monitor and report on our environmental performance. All of our pulp, paper and board production units have earned ISO 14001 certification and/or EU Eco-Management and Audit Scheme (EMAS) registration, with the exception of Arapoti Mill in Brazil, which is working toward ISO 14001 certification. Our policy is to ensure that all newly acquired companies and units are ISO 14001 certified as soon as possible.

### Environmental targets renewed

We have set Group-level targets in the areas of air emissions, process water discharges, and waste to landfill. All our environmental targets are normalised for production and apply only to pulp, paper and board facilities.

The targets for Chemical Oxygen Demand (COD), sulphur dioxide (SO<sub>2</sub>) and waste to landfill were renewed in the beginning of 2009. As a result of this we introduce new targets for the same parameters to be reached by 2013 from the baseline year 2007 (see p. 5).

### Air emissions

The majority of our air emissions result from the combustion of fuels to produce energy for making paper. Burning fuels releases carbon dioxide (CO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>). SO<sub>2</sub> and NO<sub>x</sub> can contribute to the acidification of soil and water and impact local air quality. We have reduced our air emissions by striving to maximise our use of renewable energy, improving energy and production efficiency, and using more advanced control technologies, such as scrubbers and boiler process efficiencies. For more information about our performance in reducing fossil CO<sub>2</sub> emissions, see pp. 12–14.

In 2008 we continued to decrease our SO<sub>2</sub> emissions. The Group has already reached its target to reduce total SO<sub>2</sub> emissions by 15% by 2009 from the baseline year 2004. We have reduced our normalised emissions for both SO<sub>2</sub> and nitrogen oxides (NO<sub>x</sub>) over the period 2004–2008 by 41% for SO<sub>2</sub> and 8% for NO<sub>x</sub>.

### Our water use and discharges

Water is essential to our production processes and we take approximately 99% of the water we use at our mills from lakes and rivers, and the remaining 1% from groundwater and municipal sources. The water treatment systems in our mills recycle water within the mill many times over, reducing the total volume we use. Our waste water treatment plants are designed to ensure that the quality of water we release back into the environment meet regulatory requirements.

In 2008, we made good steps towards our target to reduce process water discharges by 10% by the year 2010 from 2005 levels, after two years of little progress. Our normalised process water discharges are currently 5% lower than in the baseline year 2005.

Our target is to reduce Chemical Oxygen Demand (COD), which measures the quantity of organic compounds in water, by 10% by 2009 from 2004 levels. Our level of normalised COD discharges decreased from 2007, and is 14% below the baseline year 2004.

Adsorbable Organic Halogen Compounds (AOX) is a collective term for the amount of chlorine or other halogens bound to organic matter in waste water. We reduced our normalised discharges of AOX in 2008 by 2% compared to 2004. Our discharges of AOX have fluctuated within a range of good performance levels over the last five years.

We reduced our normalised discharges of both nitrogen and phosphorous in 2008. We add both of these compounds as nutrient sources for the micro-organisms in our biological waste water treatment process. Excessive amounts of nitrogen and phosphorus in water bodies can lead to increased biological activity through eutrophication. During the period 2004–2008, we have reduced our normalised discharges of both nitrogen and phosphorus, by 20% for nitrogen and 39% for phosphorus.

### Our waste to landfill

The largest sources of solid waste we create during our production processes are wood residuals from wood handling and debarking operations, waste water treatment sludge, ash resulting from energy production, and lime solids from pulping processes. Our mills are constantly looking for new and innovative ways to reuse waste. For example, waste can be used in pulp manufacturing and for bioenergy generation, brick manufacturing and agricultural use. By reusing our waste products we have achieved a waste use rate of 97% across the Group.

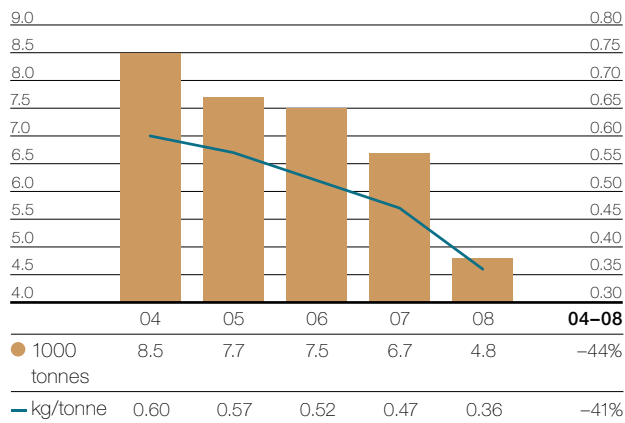
We maintained our total waste to landfill at the same level, but our normalised waste to landfill increased from 12.3 to 13.1 kg/tonne due to a decreased total production of pulp, paper and board during 2008. However, we are on track to meet our target to reduce normalised waste to landfill by 10% by 2009 from the baseline year 2004, as 2008 we sent 13% less waste to landfill than in 2004.

Stora Enso's pulp, paper and board production units created 3 626 tonnes of hazardous waste in 2008, down from 3 982 tonnes in 2007. Hazardous wastes from our production generally include used oils, solvents, paints, laboratory chemicals and batteries. We dispose hazardous wastes by either burning for energy recovery, or safe processing and disposal at licensed hazardous waste facilities or incinerators. We report hazardous wastes using the definitions of respective national regulations.

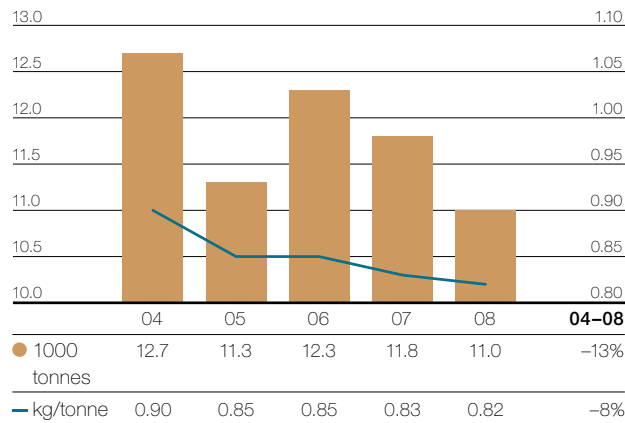
All trends and historical environmental performance figures presented in this text and the diagrams exclude data from the North American operations, which were divested in December 2007.



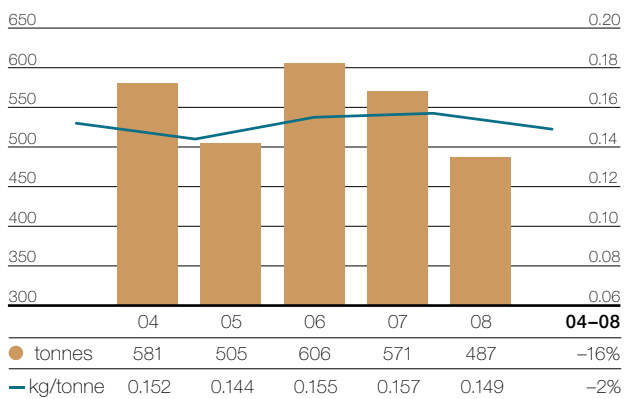
**Total sulphur as SO<sub>2</sub> 1)**



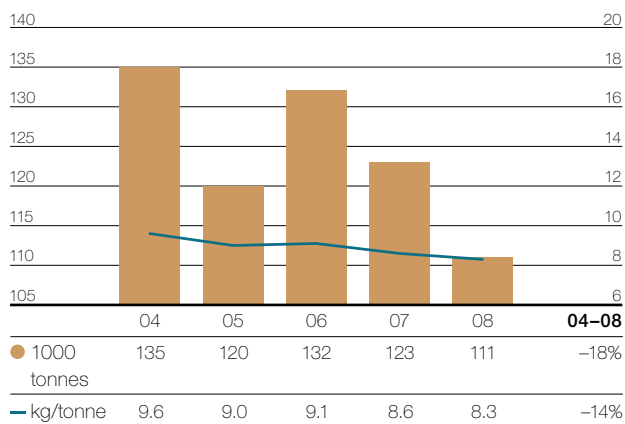
**NO<sub>x</sub> 1)**



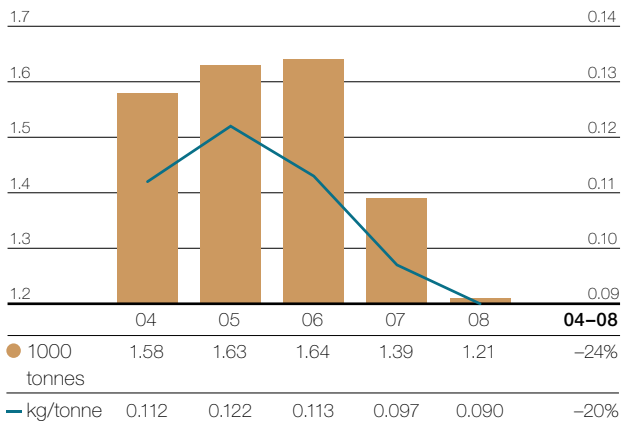
**AOX 1) 2)**



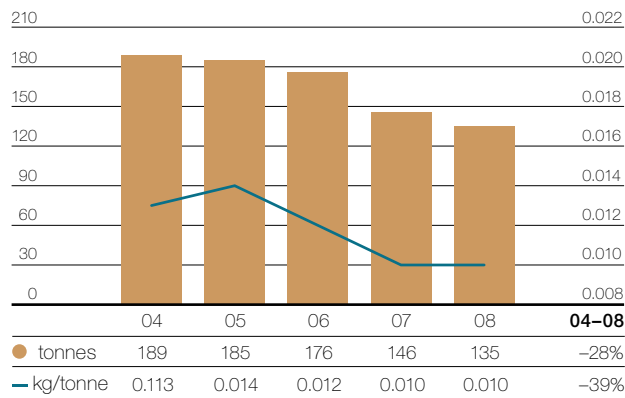
**COD 1)**



**Nitrogen 1)**



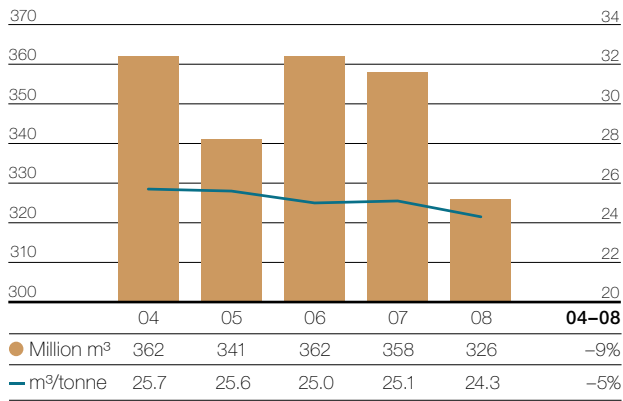
**Phosphorus 1)**



1) From pulp, paper and board facilities. Figures are normalised per unit of sales production.

2) From bleached chemical pulp facilities only. Figures are normalised per unit of bleached chemical pulp production.

**Process water discharge <sup>1)</sup>**



<sup>1)</sup> From pulp, paper and board facilities. Figures are normalised per unit of sales production.

**Environmental impact of mill closures**

Stora Enso submitted environmental permit applications in relation to all mill closures in accordance with legislative procedures in each country.

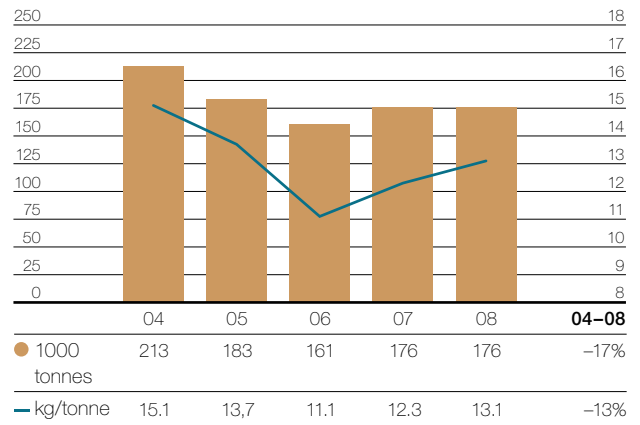
We stopped production at Kemijärvi Mill in Finland in April 2008. Used as a biological water treatment plant until 2006, the mill's aeration basin caused malodours in the area after the mill closure due to temporary lack of oxygen in the basin. As part of the environmental permit application Stora Enso proposed actions on how to restore the aeration basin. We are waiting for a decision on the matter from the authorities. We also assessed contaminated land and groundwater areas, and created an action plan to decontaminate the area.

**Environmental investments**

In 2008, Stora Enso's environmental investments amounted to EUR 40 (EUR 33) million. These were mainly directed to improve the quality of air and water, enhance resource efficiency and minimise the risk of accidental spills.

Significant environmental investments during 2008 were made at Hylte Mill in Sweden, Uetersen Mill in Germany and Enocell Mill in Finland. Hylte Mill made an investment to rebuild one of its boilers to facilitate the co-combustion of different fuel types. This will enable replacing fossil fuels with biofuels. Uetersen Mill installed a new cooling tower, which is targeted to reduce the consumption of water by 800 m<sup>3</sup> per day. Enocell Mill built a new landfill and closed the old one in 2008.

**Waste to landfill <sup>1)</sup>**



Stora Enso's environmental costs excluding interest and depreciation totalled EUR 184 (EUR 178) million in 2008. These include taxes, fees, refunds, and permit-related costs, repair and maintenance costs as well as chemicals and materials. Estimates indicate that a total of EUR 81 (68) million will be needed to cover future environmental liabilities, such as removing mercury and other contaminants from Stora Enso mill sites. There are currently no active or pending legal claims concerning environmental issues which could have material adverse effect on Stora Enso's financial position.

**Complying with environmental permits**

Each of our mills is regulated by environmental permits based on the national, regional and local legislations applicable to each location. Our mills continuously monitor their own compliance with these permits, as do the appropriate environmental authorities. All of the environmental incidents at Stora Enso mills in 2008 that resulted in major permit violations, claims or compensations, or significant media coverage are detailed in the following table.

Unit	Environmental incident	Status/corrective actions
Corbehem Mill, France	The fuel stations both at the wood yard and the mill did not meet permit requirements for retention and fire protection.	Pending – A feasibility study is under work to improve the stations by reconstruction or new building.
Kvarnsveden Mill, Sweden	The COD guideline value was exceeded due to cleaning process disturbances in the waste water treatment plant in May.	Resolved – The problem occurred in conjunction with rebuilding of one bio-reactor. After the rebuilt reactor was taken into operation, the problems have been resolved.
Nebolchi Sawmill, Russia	Waste storage area was not kept in order as required in local procedures and a fine had to be paid.	Resolved – A new maintenance contract with an external specialist company was agreed.
Ostroleka Mill, Poland	Emissions of dust from the recovery boiler exceeded the permitted level.  Raised BOD and COD concentrations in the effluent water.	Resolved – A major overhaul of the electrostatic precipitator was conducted in August.  Pending – A programme to improve these waste water parameters has been implemented.
Skoghall Mill, Sweden	The gas destruction incinerator installed as part of the Energy 2005 project has not been sufficient. During sweeping of the chimney in 2008 the sulphur guideline-level was exceeded.	Pending – Results have been reported to the County Administrative Board. New methods for sweeping of the chimney during operation are being investigated.
Skutskär Mill, Sweden	The pipeline carrying lime to the lime kilns broke and lime was carried by wind and deposited at the mill site and in the nearby community.	Resolved – The pipeline was repaired. The mill provided assistance in washing cars and houses for affected people.
Wood Supply Sweden	A route going through a protected area was accidentally used as the main road for forwarding wood in Wood Supply Sweden's East Region, District Hagge.	Resolved – The case has been handled in court and Wood Supply Sweden and a Stora Enso employee were found guilty.
Wood Supply Finland	Two breaches. An incompletely filled out forest harvesting declaration submitted to the authorities, and incorrect harvesting along a stream bank.	Resolved – Corrective measures have been taken to prevent violations in the future.

Stora Enso's principles for social responsibility include the principles for business practice, open and transparent communication, community involvement, responsible reduction in workforce and human and labour rights.

In 2008 our main working priorities were the ethical business practices with special focus on establishing the Stora Enso's Code of Conduct e-learning tool for all employees, human and labour rights evaluation and Occupational Health and Safety (OHS). Due to the efficiency improvements and the restructuring of the company it has been necessary to reduce workforce. As part of our responsible workforce reduction guidelines we have been supporting our people so that they can make the most of their strengths when finding new solutions.

Stora Enso did not pay any political contributions during 2008. According to our Business Practice Principles we avoid political contributions and only the CEO can approve exceptions. Since this new rule came into force in 2007 no political contributions have been approved and we are not aware of any to come.

#### Challenging year in terms of health and safety

The year 2008 continued to be a challenge for us in terms of health and safety. Five fatal accidents occurred in Stora Enso's operations, and two fatal accidents with contractors. Insufficient improvements were made in lost-time accident and absenteeism rates. The lost-time accident rate was 16.5 (17.7) and the absenteeism rate was 4.3 (4.7) in 2008.

However, eight production units – Arapoti Mill in Brazil, Gruvön Sawmill in Sweden and six smaller production units with fewer than 100 employees – reached the level of zero lost-time accidents, and altogether 17 production units achieved an attendance rate above 97%.

#### Global refocusing of our OHS work

Several steps were taken in 2008 to refocus and revitalize the OHS work in Stora Enso, continuing in 2009. The OHS Policy and corporate OHS targets were reviewed towards the end of 2008, and new OHS Principles and Group OHS Targets were approved by the Group Executive Team for the year 2009. The new Group targets for OHS are zero lost-time accidents and an attendance rate above 97%. The new principles and targets will be implemented through the global OHS networks that were strengthened during 2008.

In addition to simplifying the corporate OHS targets, we complemented our current lag indicators, which measure outcomes in accidents and absenteeism, by a selection of lead indicators that measure our processes and people development which drive OHS performance. In 2009, all of our units will set targets and milestones aligned with the new indicators.

Several actions have been taken to support the units in their OHS work. A global guidelines and best practice database was launched in early 2009 to support organizational learning and to ensure we adhere to the same rules across the entire organisation. Best practice sharing and benchmarking is done also through country and regional networks of OHS professionals. Success stories are being communicated regionally and globally to recognize achievement and stronger focus will be put on rewarding best units globally, and in linking OHS performance to the overall performance of our operations. Poorly performing units are support through special actions, such as focused auditing, unit-specific action plans and regular follow-up.

#### OHS management and certificates

By the end of 2008, a total of 42 (43 in 2007) OHS management certificates had been achieved in line with OHSAS 18001 or an equivalent national standard. These cover 69 production units (78%) and 21 349 employees. The number decreased mainly due to the divestment of the North American operations, but 7 new certificates were awarded in 2008.

#### Fatal accidents

On 29 January, a maintenance operator at Ala Sawmill in Sweden was killed in an accident at the grading plant.

On 2 May, an employee of Veitsiluoto Mill was killed in a car accident on his way to work.

On 29 May, an employee of Corenso Hangzhou, China, was killed in a traffic accident while making a customer delivery in a subcontractor's truck.

On 31 October, an employee of Stora Enso Guangxi, China, was killed in a traffic accident while returning from work to the company dormitory.

On 22 November, an operator at Imatra Mills was killed at a packaging machine while doing maintenance work.

Additionally, there were two fatalities of contractors working at Stora Enso's sites:

On 5 May, a labourer working for a contractor providing loading services to Varkaus Mill in Finland was killed during routine maintenance operations.

On 11 September, a labourer working for a contractor providing planting services was killed when struck by lightning in a field of Stora Enso's plantation project in Rio Grande Do Sul, Brazil.

In all cases the root causes for the accidents have been investigated, and appropriate actions have been taken to prevent similar accidents in the future.



**Accident rates**

Our average lost-time accident rate dropped slightly from 2007, although this was insufficient. There are marked differences between countries and units, for example Finland has a significantly higher lost-time accident rate (28.3) than Sweden (10.3) or Germany (12.9). Comparing our pulp and paper units to country-specific industry benchmark figures, our German units perform notably better than the industry average, our Finnish units perform slightly better than the industry average, and our Swedish units perform slightly poorer than the country average. In sawmills, our Finnish units' lost-time accident rate is significantly lower (32.9) than the country-specific industry average of 55.0.

**Absenteeism rates**

In 2008 the Group's absenteeism rate due to sickness and accidents was approximately the same as in 2007. There are marked differences between the countries, with Finland clearly above (6.5) and Sweden slightly below (3.6) the corporate average of 4.3. Our Finnish units performed better than the country-specific industry averages (pulp and paper industry 7.4 and timber industry 6.6 in 2007). The country with the lowest rate of absenteeism was China, primarily due to cultural differences and local labour practices.

**Top OHS performer for 2008**

The 2008 award for the best performance in OHS went to Skoghall Mill in Sweden for their consistent high performance in both

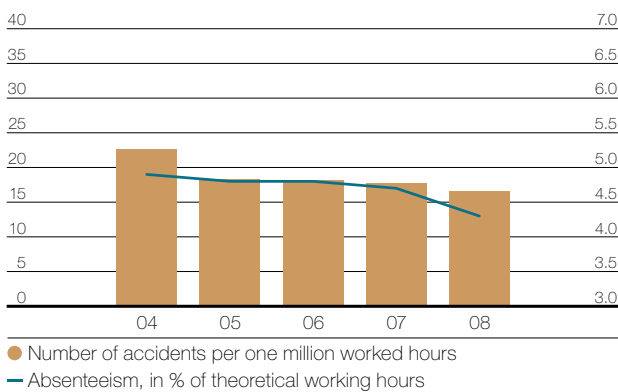
preventing accidents and controlling absenteeism. This award is part of our Business Excellence Award scheme. Skoghall Mill credits its success to strong commitment from management, active health and safety programmes, and integrating health and safety into its culture. The runner-up in the competition was Kabel Mill in Germany.

**OHS initiatives at our units**

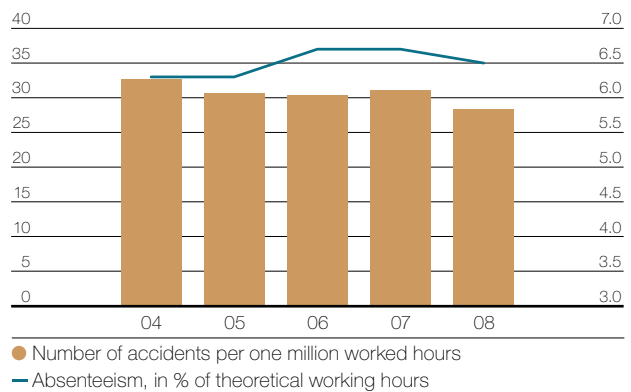
Our Arapoti Mill in Brazil has done much to improve safety awareness with its employees and contractors, and has one of the best safety records within Stora Enso. It has done this through measures such as long-term safety training, regular safety meetings and daily discussions about safety. The mill's approach is thorough and pragmatic, for example training employees to recognise unsafe behaviour in colleagues and eliminate risks at the workstation. Arapoti expects everyone at the mill to know the correct safety rules and procedures and put these into practice. Arapoti maintained a zero accident level in 2008.

During the first half of 2008, our Finnish maintenance companies and ABB Service in Finland (representing approximately 4 000 employees) organized a safety competition. The companies competed against each other in OHS performance, and shared best practices in the process. The most successful maintenance company was Fortek, which credits its success mostly to strong top management commitment and focus in building a safety culture.

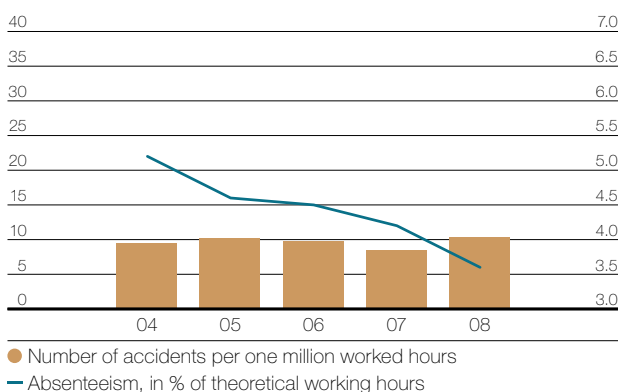
**Lost-time due to accidents and absenteeism**



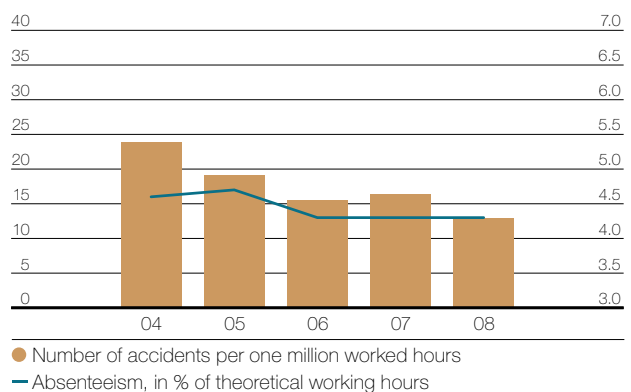
**Lost-time accidents and absenteeism in Finland**



**Lost-time accident rate and absenteeism in Sweden**



**Lost-time accident rate and absenteeism in Germany**



In 2008, Stora Enso Packaging Hungary placed special focus on reducing accidents and absenteeism at the plant. This focus included thoroughly analyzing the reasons behind accidents and absenteeism, concentrating on communication and training, and developing a comprehensive follow-up and reward system. The unit was able to reduce its lost-time accident rate from 13.2 in 2007 to 3.8 in 2008.

### Responsible reduction in workforce

People are our key resource and highest priority as we build our future and renew our company. Stora Enso plans to change radically. This will reward us all with a company that grows more competitive by the day, but it will also demand tremendous effort from our people. The business environment continues to be highly challenging, with several external factors requiring our decisive action. At the same time we are strengthening our capabilities intensively for the future success of the company.

The efficiency improvements and the restructuring of our company have made it necessary for us to reduce our workforce. In 2008 we reduced the number of our staff by approximately 3 400. In these cases we support those who are affected with both internal and external initiatives, offering solutions such as redeployment, retirement planning, outplacement, supported moves to other locations and retraining.

The closing of our mills at Kemijärvi and Summa and a book paper machine at Anjala continued in 2008, affecting 1 000 employees in Finland. We provided funds of around EUR 10 million to support our affected Finnish employees, in addition to that provided by the Finnish government. We applied measures such as an extended re-employment period and start-up assistance for new business initiatives and retraining, and we have attracted new business to the closed sites.

In Sweden, we closed Norrsundet Mill and our research facility at Falun, affecting a total of 380 people. We delivered an extensive package to support those affected with both internal and external initiatives.

So far we have found solutions for more than 800 employees affected by the restructuring programme that we announced in October 2007 and continued in 2008.

In 2008 we announced further restructuring plans, including investment plans to strengthen units with future potential, closing poorly competitive production lines and adjusting support functions to the renewed size and structure of the company. This will impact a total of 1 700 employees: 600 in Germany, 550 in Finland, 400 in Russia and 150 in other countries.

In 2008 we closed poorly performing machines at our Baienfurt and Kabel mills in Germany and Varkaus Mill in Finland. In addition, we will close machines at Imatra and Karhula in Finland in 2009 and 2010 respectively. Meanwhile, we aim to improve productivity at Veitsiluoto Mill in Finland, Maxau Mill in Germany and Hylte Mill in Sweden.

To ensure effective and professional maintenance services expertise, we have formed a joint venture with ABB, which will provide maintenance for six of our mills in Finland. At the year-end 1 450 of our employees were transferred to the new company, which began operations at the start of 2009 and is managed by ABB.

Stora Enso Wood Products announced a number of restructuring measures to address ongoing profitability issues in 2008. Curtailments and temporary mill closures will affect all units in Wood Products, with the permanent closure of the sawmill at Paikuse and component mill at Viljandi, both in Estonia.

We plan to streamline our administrative function in 2009 and 2010 to adjust to the renewed structure and needs of our operations. We will achieve efficiency improvements through structural changes, shared services and outsourcing.

We have restructured the finance function, and began the planned outsourcing of most of its transactions at the start of 2009, decreasing our staff by approximately 300. We will centralise shared international services in Kotka, Finland. The Human Resources function will continue the restructuring efforts it began in 2007, and develop its new country-based service model by making better use of information technology and applying a consistent approach to all countries where we have substantial operations.

### Human and labour rights

Wherever in the world you see Stora Enso people at work, their tasks are guided by the same principles. During 2008, we have given special attention to this fundamental commitment of our company by reviewing the biggest human rights risks in our operations and the tools we have to address them, and creating Stora Enso's Code of Conduct and related e-learning tool.

The United Nations Universal Declaration of Human Rights calls on "every individual and every organ of society" to help secure universal human rights for all. Companies are organs of society and, as a global player, Stora Enso expresses its full commitment to the Universal Declaration of Human Rights. We also comply with the International Labour Organization's Core Conventions defining labour rights.

We need to know and understand the human rights impacts of our operations to be able to manage and promote the human rights of our stakeholders. According to our own global review, the main human rights risks within Stora Enso's operations are health and safety at work, the right to environment, the right to healthy and safe living environment, land rights, and indigenous people's rights.

When we build and operate a mill, for example, we must avoid harming the environment, or local conflicts (in many countries there is competition or conflict over natural resources). We therefore conduct an Environmental and Social Impact Assessment (ESIA) for projects that could cause a significant adverse impact or change to local conditions (such as building a mill or establishing a tree plantation).



Our countries of operation where indigenous people's rights are relevant are Brazil, China, Laos, Finland and Sweden.

In Veracel in Brazil, we have developed (with the help of a consultant) cooperation and dialogue with indigenous people, as well as educational and development programmes for nearby indigenous people. In 2007 this included a UNICEF programme to prevent sexual exploitation and abuse of children and adolescents.

Our major human rights risks in the supply chain and other third parties include health and safety at work, civil rights, labour rights and protection, child labour and remuneration.

In China, migrant workers account for about half of the outsourced plantation workforce on our land in Guangxi. We provide these migrants with good housing and living conditions. We are also working with the International Finance Corporation in China to train our suppliers in technical skills, business management, and environmental and health and safety management. For each contracting company, we have also defined sustainability action plans addressing employees' living conditions.

In 2008 we sought to improve our ability to handle demonstrations and land invasions. In March 2008, a group composed mainly of women belonging to a local land rights organisation called Via Campesina invaded one of our farms in Rio Grande do Sul, Brazil. The invaders accused us of operating illegally in the region and demanded that the land be expropriated and used for land reform.

We requested through the local court authority that the invaders be removed peacefully. Regrettably the invasion ended in violence. According to the police report 14 people, including one police man, were injured, mainly bruising from rubber bullets or falling down. This outcome is totally unacceptable to us and against our policies.

After the incident we clarified our internal procedures for handling land invasions and strengthened dialogue with local officials to prevent the police resorting to the use of force should there be a similar incident in the future. We are also trying to restart dialogue with Brazil's Landless Rural Workers' Movement (MST).

We have developed several tools to reduce the human rights risk of our own operations or in our supply chain. In addition, we insist our suppliers and contractors meet certain sustainability requirements. As well as our commitment to the UN Declaration of Human Rights, we use management systems such as ISO 14000, EMAS, OHSAS 18001, forest certification and chain-of-custody certifications that include third party verification.

Environmental and Social Impact Assessment (ESIA) is an excellent tool to manage risks related to human and labour rights, to guide our decision making and field operations. In 2008 we prepared with the help of extensive internal know-how Stora Enso's common guidelines for conducting ESIA's and integrated them as part of the Group's Investment Guidelines.

ESIA is an essential part of our sustainability and risk management and we use it to manage implementation risks by adapting project plans to local circumstances and reducing and monitoring project impacts. Our use of ESIA includes:

- Investment decisions to stop non-viable projects in time and understand risks and opportunities;
- Managing implementation risks by adapting project plans to local circumstances and reducing and monitoring project impacts.

### The Stora Enso Code of Conduct

Our new Code of Conduct was launched in October 2008 and summarises the essence of our policies, principles and guidelines relating to human and labour rights. Its purpose is to ensure that every one of our employees has an equal right to a workplace that is safe, healthy and free of discrimination and that as a global organisation we always take responsibility for our actions in different countries, and comply with local laws and regulations. The Code of Conduct applies equally to every single Stora Enso employee, no matter who they are or where they are.

The Code of Conduct also includes a grievance channel for employee complaints or concerns regarding violations of the Stora Enso Code. All concerns can be reported in confidentiality to the Stora Enso Head of Internal Audit.

The Code of Conduct is supported by an e-learning tool with practical examples, advice and interactive case exercises, and every one of our employees will take it. We will give face-to-face training to our employees who don't have access to the internet.

Our target is to have all of our employees to complete the Code of Conduct training by the end of 2009.

#### *The Stora Enso Code of Conduct highlights the following:*

##### **Stora Enso's behaviour towards employees and communities**

- We obey local laws and regulations
- We respect and promote international human and labour rights
- We are a responsible neighbour
- We are committed to sustainability
- We communicate clearly and on time

##### **Our employees' behaviour towards Stora Enso**

- Follow the house rules
- Ensure your workplace is safe, healthy and fair
- Take care of the company's valuables
- Safeguard confidential information

##### **The way we do business in Stora Enso**

- We don't allow bribes or corruption
- We believe in fair and free trade
- We avoid conflicts of interest

### Competition law compliance

In the context of coated magazine paper sales in the USA in 2002 and 2003, Stora Enso has been named in the class action lawsuits filed in the USA. These lawsuits are still pending.

As a result of an investigation, the Finnish Competition Authority proposed in 2006 to the Finnish Market Court that a fine of EUR 30 million should be imposed on Stora Enso for violating competition laws in the purchase of wood in Finland during the period 1997–2004. Stora Enso considers the proposal groundless. The Finnish Market Court is handling the case and the verdict is expected before the end of 2009.

No provision has been made in Stora Enso's accounts for these investigations and lawsuits.

Stora Enso's Competition Law Compliance Programme, which was launched in 2002 based on previous Enso and Stora policies, is kept continuously up to date (the current version dates from December 2008). This programme states clearly Stora Enso's support of free and fair competition, and Stora Enso's commitment to comply with competition laws. This commitment is an integral part of Stora Enso's Code of Conduct and Principles of Business Practice. Stora Enso continues to take action to emphasise its commitment to compliance through corporate policies and training.

### Key HR indicators

Our annual Performance Management process, launched in 2007, aligns individual goals with company targets, and sets priorities for each person's development. It supports and focuses on the performance culture that we as a company want – and need – to have.

The rich cultural diversity of Stora Enso is made up of many different backgrounds, competences and experiences, and is essential to run and develop our businesses successfully all over the world. The global character and prospects of our company offer a wide variety of exciting and inspiring career opportunities for talented and energetic people, irrespective of gender and nationality.

The average number of our employees decreased by 6% in 2008, from 36 137 to 33 815. This was mainly due to forming a joint venture with ABB and closure of machines and mills. Our personnel turnover was 6.3%, up from 5.1% in 2007. The number of training days per employee was 3.1, down from 3.4 in 2007.

Most of our employees are concentrated in Finland, Sweden and Germany (64%) with a decrease of 11% during 2008. Although our overall number of employees is decreasing, our company is growing in size in certain geographic areas. China grew most in employees, with an increase of 19%. Our other major growth area is Poland, with an increase of 6%. Due to our strong focus on growth markets, we expect further growth in Latin America and Asia, relative to the Nordics and Germany.

In most of our countries we face the ageing of our workforce. In 2008, 24% of our employees were 51–60 years old, and 3% over 61 years old. Our ageing staff works mainly in the Nordics and Germany.

As part of our WISE (Women in Stora Enso) programme we introduced a mentoring programme to provide career development advice for women in 2008. This complements our existing portfolio of development activities, and will continue into 2009.

In 2008, 17% of the employees identified as potentials to become Top 200 managers in our Management Audit were women, up from 8% in 2007. The share of women among employees identified as early career talents was 31%, compared to 34% in 2007. In addition, the share of women in our corporate training programmes (Management Programme, Executive Programme and Talent Programme) was 27%, compared to 30% in 2007.

Our company workforce is 20% women, almost the same as in 2007 (21%). The share of women we recruited to permanent positions was 20% in 2008 (22% in 2007), 30% of whom had a bachelor's degree or higher qualification (32% in 2007).

### Key HR indicators

	2008	2007	2006
Average number of employees*	33 815	36 137	37 859
Number of employees at year-end	31 667	34 906	36 282
Sales/employee at year-end, EUR	364 992	398 545	332 534
Personnel turnover** %	6.3	5.1	5.6
Training days/employee	3.1	3.4	3.1

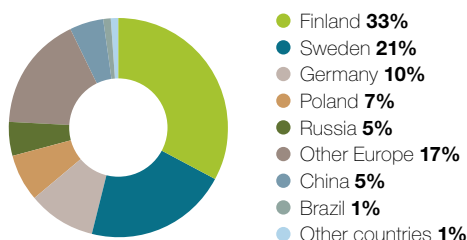
\* Continuing operations.

\*\* Based on the number of permanent employees who left Stora Enso of their own volition

### Women in Stora Enso

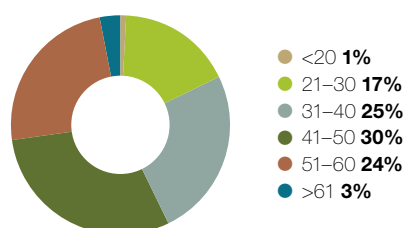
	2008	2007	2006
Share of women, %	20	21	18
Board of Directors, %	22	22	20
Group Executive Team, %	9	10	13
Management Audit: Top 200 managers, %	17	8	
Management Audit: early career talents, %	31	34	27

### Number of employees by country 2008\*



\* Continuing operations

### Age distribution in 2008





Unit	Number of employees <sup>a)</sup>	Products	Production <sup>b)</sup>	Recovered fibre <sup>c)</sup>	Environmental management systems	ISO 9001	OHSAS 18001	Chain-of-custody	Landfill <sup>*</sup>
<b>Belgium</b>									
Langerbrugge Mill	428	①	527 265	x	ISO 14001	x			11 656
<b>Brazil</b>									
Arapoti Mill	367	①	182 722			x	x		4 775
<b>China</b>									
Dawang Mill	245	①	83 397	x	ISO 14001	x	x		203
Suzhou Mill	565	②	201 241		ISO 14001	x	x		0
<b>Estonia</b>									
Tallinn Mill	43	⑤	5 671			x			10
Tartu Mill <sup>h)</sup>	4	⑤	375						1
<b>Finland</b>									
Anjalankoski Mill	437	①, ③	541 088		ISO 14001/EMAS	x	x	FSC/PEFC	13 178
Enocell Mill	209	④	463 249		ISO 14001/EMAS	x	x	FSC/PEFC	3 655
Heinola Fluting Mill	271	③	263 400	x	ISO 14001/EMAS	x	x	PEFC	5 031
Heinola Mill	178	⑤	45 133		ISO 14001/EMAS	x	x		41
Imatra Mills	1 391 <sup>l)</sup>	②, ③, ④	1 130 984		ISO 14001/EMAS	x	x	FSC/PEFC	9 677
Kernijarvi Mill <sup>h)</sup>	67	④	74 346		ISO 14001/EMAS	x	x	PEFC	1 734
Kotka Mill	139 <sup>l)</sup>	①, ③, ⑤	321 181		ISO 14001/EMAS	x	x	PEFC	3 055
Lahti Mill	275	⑤	33 650		ISO 14001/EMAS	x	x		62
Oulu Mill	733	②, ④	1 172 041		ISO 14001/EMAS	x	x	FSC/PEFC	12 100
Ruovesi Mill	99	⑤	7 519		ISO 14001/EMAS	x	x		14
Summa Mill <sup>h)</sup>	115	①	19 607		ISO 14001/EMAS	x	x	FSC/PEFC	575
Tiukka Mill	56	⑤	7 013		ISO 14001/EMAS	x	x		15
Varkaus Mill	462	①, ②, ③, ⑤	633 869		ISO 14001/EMAS	x	x	PEFC	12 363
Veitsiluoto Mill	916	①, ②, ④	845 299		ISO 14001/EMAS	x	x	FSC/PEFC	2 407
<b>France</b>									
Corbehem Mill	379	①	299 331		ISO 14001/EMAS	x		PEFC	946
<b>Germany</b>									
Baienfurt Mill	391	③	179 206		ISO 14001/EMAS	x	x	FSC/PEFC	4
Kabel Mill	955	①	533 429		ISO 14001/EMAS	x	x	FSC/PEFC	0
Maxau Mill	710	④	692 301	x	ISO 14001/EMAS	x	x	FSC/PEFC	929
Sachsen Mill	321	①, ④	387 659	x	ISO 14001/EMAS	x	x	FSC	0
Uetersen Mill	459	②, ③	268 959		ISO 14001/EMAS	x		FSC/PEFC	0
<b>Hungary</b>									
Páty Mill	143	⑤	7 597		ISO 14001	x			0
<b>Latvia</b>									
Riga Mill	135	⑤	35 968			x			47
<b>Lithuania</b>									
Kaunas Mill	55	⑤	7 262			x			12
<b>Malaysia</b>									
Pasir Gudang Mill	44	⑤	7 000		ISO 14001	x	x		8
<b>Poland</b>									
Łódź Mill	261	⑤	50 017		ISO 14001	x	x		105
Mosina Mill	87	⑤	4 981		ISO 14001	x	x		57
Ostrołęka Mill	1 067	⑤, ⑥	314 263	x	ISO 14001	x	x		8 602
Tychy Mill	189	⑤	75 909		ISO 14001	x	x		30
<b>Russia</b>									
Arzamas Mill	228	⑤	60 310			x			145
Balabanovo Mill	466	⑤	72 726			x			330
Lukhovitsy Mill	94	⑤	13 930						191
<b>Spain</b>									
Barcelona Mill	267	3	158 274	x	ISO 14001/EMAS	x			14 094
<b>Sweden</b>									
Falu Rödfärg	i)	⑦	357		ISO 14001/EMAS	x			1
Fors Mill	725	③	388 199		ISO 14001/EMAS	x	x	FSC/PEFC	140
Hylte Mill	827	①	805 158	x	ISO 14001/EMAS	x	x	FSC/PEFC	46 171
Jönköping Mill	262	⑤	28 292		ISO 14001	x			25
Kvamsveden Mill	898	①	919 082		ISO 14001/EMAS	x		FSC/PEFC	44
Norrundet Mill <sup>h)</sup>	194	④	179 233		ISO 14001/EMAS	x		FSC	600
Nymölla Mill	825	②, ④	432 543		ISO 14001/EMAS	x	x	FSC/PEFC	376
Skene Mill	200	⑤	41 221		ISO 14001	x			30
Skoghall Mill	964	⑥	703 617		ISO 14001/EMAS	x	x	FSC/PEFC	3 285
Skoghall Mill, Forshaga	125	⑥	72 059					FSC/PEFC	0
Skutskär Mill	349	④	501 082		ISO 14001/EMAS	x		FSC	11 092
Vikingsstad Mill	68	⑤	19 004		ISO 14001	x			24
<b>Corenso</b>									
Corenso, core factories	870	⑤	191 916		k)	k)	k)	k)	511
Corenso Pori Coreboard Mill	110	②	99 729	x	ISO 14001/EMAS	x	x		107
Corenso Soustre Coreboard Mill	90	③	82 476	x	ISO 14001	x	x		7 095
Wisconsin Rapids Coreboard Mill	59	⑥	47 661	x	ISO 14001	x	x		1 987
<b>Stora Enso Timber</b>									
Sawmills	4 835	⑥	6 473 902		k)	k)	k)	k)	10 608
<b>Total pulp, paper, board and converted products, tonnes</b>			14 189 444						177 539
<b>Total wood products, m<sup>3</sup></b>			6 473 902						10 608
<b>Grand Total</b>									<b>188 148</b>

**Footnotes**

a) Year average. Source: financial accounting database. b) Sales production. Sawm timber is reported in m<sup>3</sup>, other products in tonnes. c) Mills using recovered fibre as raw material (fully or partly). d) Reported on the basis of country-specific definitions applied in national regulations. e) Total sulphur is reported as SO<sub>2</sub> (sulphur dioxide) and includes all sulphurous compounds. f) All CO<sub>2</sub> figures are calculated using the WRI/WBCSD greenhouse gas protocol. Direct emissions from internal transport are excluded. g) Indirect emissions from purchased heat and electricity. h) Divested or closed in 2008. Data only reflects period of ownership. i) Does not have personnel but buys this as a service from Stora Enso AB. j) The figure does not include service company personnel k) See www.storaenso.com/certificates.

\* tonnes  
\*\* 1000 m<sup>3</sup>

Hazardous waste <sup>d)</sup> *	SO <sub>2</sub> <sup>e)</sup> *	NO <sub>x</sub> as NO <sub>2</sub> *	Direct CO <sub>2</sub> fossil <sup>f)</sup> *	Direct CO <sub>2</sub> biomass <sup>f)</sup> *	Indirect CO <sub>2</sub> <sup>g)</sup> *	COD *	AOX *	Phosphorous *	Nitrogen *	Process water discharge **
46	6	127	22 190	177 029	254 047	1 265	1	8.2	24	6 695
	0	201	61	172 961	116 800	686				3 444
0			0		132 761	185	0.1	0.9	1.8	1 849
9	306	296	130 292		76 611	77		0.3	3.5	1 569
					2 880					4
					13					3
107	6	307	400 461	73 776	32 693	2 613		3.2	118.9	10 709
36	244	809	45 382	1 350 978	0	7 468	70.9	1.9	38.7	21 659
34	535	359	164 402	183 076	13 127	882		1.9	12.7	4 338
6	29	13	5 148		1 023					66
183	282	1 943	187 043	2 772 958	82 082	21 016	196	13	216.8	66 537
35	16	185	16 590	216 870	3 653	2 457	12.3	2.4	23.8	8 120
106	163	322	261 425	255 735	0	1 480		5.2	41	8 760
8					3 405					23
85	435	1 014	376 154	1 172 504	54 886	8 083	69	10.6	58.5	18 229
12		1	659		352					3
178	6	29	6 256	15 236	12 818	267		1.1	11.3	1 103
1			120		98					1
424	344	873	126 376	699 858	151 123	5 890	17.9	6.7	95.1	15 617
32	827	1 466	372 531	1 107 511	68 333	10 923	36.7	9.1	87	12 769
92	0	36	53 464		48 229	858	1	10.5		6 192
40		5	5 145		134 439	335	0.3	0.7	5.8	3 791
178		19	23 659		480 388	1 219	0.3	3.8	18.6	7 382
918	9	179	179 354	96 371	392 514	2 892	0.7	5.1	13.9	6 814
50	0	345	192 610	74 799	27 795	778	0.6	0.9	9.6	3 797
46	0	28	74 679		62 458	46	0.1	0	0.3	1 325
			803		1 513					1
			2		3 667					17
					1 692					1
0	0	0	984		1	0				
5	0	2	79 955		4 136					15
16			319		1 180					3
9	143	44	14 002	133 904	427 400	1 097		2.4	25.7	4 969
4			2 522		3 068					14
1	1	4	4 059		15 393					38
4	1	4	5 212		17 707					52
0	4	5	2 350	0	10 479	0	0	0	0	15
45		89	177 614		0	150				860
0	0		315		5					
125	9	90	10 741	280 359	4 247	2 125	1.1	1.2	23.4	4 327
135	3	192	40 896	274 291	12 943	1 900	0.1	4	34	7 605
9	2		858		330					
282	93	166	45 058	385 451	25 517	3 760	2.4	3.7	78.8	13 539
30	212	307	60 028	538 700	137	2 870	20	6	22	10 300
115	345	472	-17 291	716 219	3 858	12 211	0	11.7	72.2	28 142
1			18		68					
254	316	454	63 427	884 090	8 089	7 547	17	7.3	74.8	21 110
11			20		703					
29	462	689	13 054	1 498 108	394	8 356	47	13.6	90	22 018
5	2		1 201		10					
10	5	0	5 101	0	12 024	0	0	0	0	29
4	1	1	919		37 742	550		0.1	6.5	675
0			20 731		1 309	59				466
					31 301	568				1 188
551	48	600	7 615	301 071	134 372	389	0	6	4.1	451
3 720	4 807	11 076	3 176 583	13 080 784	2 777 436	110 613	495	136	1 209	326 183
551	48	600	7 615	301 071	134 372	389	0	6	4.1	451
<b>4 271</b>	<b>4 855</b>	<b>11 676</b>	<b>3 184 513</b>	<b>13 381 855</b>	<b>2 911 813</b>	<b>111 002</b>	<b>495</b>	<b>142</b>	<b>1 213</b>	<b>326 634</b>

Products: ① newsprint and magazine paper ② fine paper ③ board and packaging paper  
 ④ market pulp ⑤ converted products (e.g. cores, impregnated laminating paper, corrugated board) ⑥ wood products ⑦ red paint pigment

**AOX**

Adsorbable organic halogen compounds – a collective term for the amount of chlorine or other halogens bound to organic matter in waste water.

**Biomass**

Organic materials such as wood, logging residues and plants, which can be combusted to generate bioenergy.

**Bioenergy**

All types of biomass-derived energies: bioheat, bioelectricity and biofuels

**Biofuels**

Liquid and gaseous fuels for combustion motors (vehicles) derived from biomass

**BOD**

Biological Oxygen Demand – a measure of the demand oxygen consumed by micro-organisms in breaking down organic matter in effluent during a certain period.

**Carbon footprint**

The amount greenhouse gases produced by an individual, organisation, single event or product, expressed as a CO<sub>2</sub> equivalent (usually in kilograms or tonnes).

**Carbon-neutral CO<sub>2</sub>**

CO<sub>2</sub> released when burning biofuels

**CERFLOR**

Sistema Brasileiro de Certificação Florestal – a Brazilian forest management certification system endorsed by PEFC.

**Chain-of-custody**

Certified chain-of-custody systems are used to ensure that wood comes from certified forests. They are established and audited according to rules set by the relevant forest management certification system, for example PEFC or FSC.

**Chemical pulp**

Pulp produced by using cooking chemicals which dissolve lignin, the natural glue in the wood, to release the cellulose fibres.

**Combined heat and power**

An efficient, clean, and reliable approach to generating power and thermal energy from a common fuel source.

**CO<sub>2</sub>**

Carbon dioxide – a gas formed during combustion and certain natural processes. Trees utilise carbon dioxide as they grow, through photosynthesis.

**COD**

Chemical Oxygen Demand – a measure of the amount of oxygen required for the total chemical breakdown of organic substances in water.

**Controlled wood**

An FSC standard developed for the tracing of wood originating from forests that are not FSC-certified. This standard aims to ensure that FSC-certified products do not contain any wood from unacceptable sources.

**EMAS**

Eco-Management and Audit Scheme – a voluntary environmental management system applicable in Europe, based on the EU EMAS Regulation.

**ESIA**

Environmental and Social Impact Assessment – a thorough study of the impact of an investment project on the environmental and social foundation of local communities.

**Forest management certification system**

A system through which an independent third-party institution assesses and certifies the forest management practices according to its own specific standards. Certification aims to verify that forest management practices are ecologically, socially and economically sustainable.

**Fossil fuels**

Solid, liquid or gaseous fuels formed in the ground over millions of years e.g. oil, natural gas and coal.

**Fossil CO<sub>2</sub>**

CO<sub>2</sub> released when burning fossil fuels

**FSC**

Forest Stewardship Council – an international forest management certification system.

**Greenhouse gases**

A collective term for following gases: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF<sub>6</sub>).

**ISO 14001**

A global standard created for corporate environmental management systems by the International Organization for Standardization. Other ISO certifications cover issues including quality management (ISO 9001).

**Mechanical pulp**

Pulp produced by mechanically grinding logs or wood chips.

**Nitrogen**

An element that is common as a gas in the atmosphere, and in nitrogen compounds in nutrients that are vital for all plants and animals. Nitrogen may be added as a nutrient to enhance biological waste water treatment processes. Excessive concentrations of nitrogen compounds in water bodies can lead to increased biological activity through eutrophication.

**NO<sub>x</sub>**

A collective term for the nitrogen oxides formed during combustion, which can contribute to the acidification of soil and water.

**OHSAS 18001**

A global standard created for occupational health and safety management by the International Organization for Standardization.

**PEFC**

Programme for the Endorsement of Forest Certification schemes – an international forest certification system.

**Phosphorus**

An element common in nutrients that are vital for all plants and animals. Phosphorus may be added as a nutrient to enhance biological waste water treatment processes. Excessive concentrations of phosphorus compounds in water bodies can lead to increased biological activity through eutrophication.

**SO<sub>2</sub>**

Sulphur dioxide – a gas formed when fuels that contain sulphur, such as oil and coal, are burned. Sulphur dioxide contributes to the acidification of soil and water.

**Traceability**

A system used by Stora Enso to trace wood all the way from the forest to wherever it first comes into Stora Enso's possession.

**Global 100: Most Sustainable Corporations in the World**

Stora Enso considered among the best in class in the forest products industry in managing environmental, social and governance risks and opportunities



**Dow Jones Sustainability Indexes**

Stora Enso only forest products industry company in the European DJSI STOXX index  
Stora Enso included in DJSI STOXX index since the launch in 2001



**FTSE4Good Index**

Stora Enso included in the FTSE4Good Index since 2001



**Ethibel Excellence Index**

Stora Enso included in the Ethibel Sustainability Index that includes the world's leading companies in terms of sustainability



**Storebrand SRI**

Stora Enso awarded "Best in Class" status for leading environmental and social performance



**Climate Disclosure Leadership Index**

Stora Enso ranked the third best corporation among Nordic carbon-intensive companies and the best paper and forest products company in the Nordic region

**World's Most Ethical Companies**

Stora Enso named one of the Ethisphere Institute's 2008 World's Most Ethical Companies



Csrnetwork is a business focused, corporate social responsibility consultancy organisation, bringing together specialists from the fields of environmental management, social accounting, and sustainable development. Csr network Limited (trading as Csrnetwork) is a wholly owned subsidiary of Two Tomorrows (Group) Limited [www.twotomorrows.com](http://www.twotomorrows.com)

### Scope and objectives

Stora Enso commissioned Csrnetwork to offer independent assurance on its "Sustainability Performance 2008" Report.

The scope of our assurance work included:

- All information within the Sustainability Performance 2008 Report, unless specifically excluded;
- Human Resources data and claims for the following indicators: gender, number of women in management, age distribution, training days, lost-time accident rate, absenteeism;
- Environmental data systems, data and claims except greenhouse gas emissions for carbon trading and environmental costs, liabilities and investments.

The scope of our assurance work excluded:

- Data and claims for employee numbers and employee distribution;
- Economic performance and competition law information;
- The table comparing the report with GRI (Global Reporting Initiative) requirements.

The objectives of the assurance process were to check claims and systems for collection of data, and to review the arrangements for the management and reporting of sustainability issues. The assurance process was conducted in accordance with the AA1000 Assurance Standard (2003).

### Responsibilities of the directors of Stora Enso and the assurance providers

The directors of Stora Enso have sole responsibility for the preparation of the Sustainability Performance 2008 Report and associated publications. In performing our assurance activities, our responsibility is to the management of Stora Enso, however our statement represents our independent opinion and is intended to inform all of Stora Enso's stakeholders, including the management of Stora Enso. We were not involved in the preparation of any part of the Report. In 2008/09, we had one other contract with Stora Enso related to GRI requirements.

This is the sixth year that we have acted as independent assurance providers for Stora Enso. We adopt a balanced approach towards all Stora Enso stakeholders and a Statement of Impartiality relating to our contract with Stora Enso will be made available on request. The opinion expressed in this assurance statement should not be relied upon as the basis for any financial or investment decisions. The independent assurance team for this contract with Stora Enso comprised Mark Line, Todd Cort, Katy Anderson, Judith Murphy and Sini Forssell. Further information, including a statement of competencies relating to the team can be found at: [www.csrnetwork.com](http://www.csrnetwork.com)

### Basis of our opinion

Our work was designed to gather evidence on which to base our conclusions. We undertook the following activities:

- We conducted telephone interviews with a selection of directors and senior managers responsible for areas of management and stakeholder relationships covered by the Report in Stockholm, Helsinki and Uruguay. The objective of these discussions was to understand Stora Enso's governance arrangements and management priorities;
- We discussed Stora Enso's approach to stakeholder engagement with relevant managers at both the Group and site levels, although we undertook no direct engagement with external stakeholders to test the findings from these discussions;
- We conducted a general review of issues raised by external parties that could be relevant to Stora Enso's policies, to provide a check on the appropriateness of statements made in the Report;
- We made two operational site visits to: the mills at Imatra, Finland and Skoghall, Sweden. Site-level sustainability data for January through September 2008 was reviewed during these site visits. We also discussed local management arrangements with managers at each site on this occasion focussing, in particular, on management of health and safety;
- We reviewed full 12-month sustainability data collated at the corporate level, and claims made in the Report. The external assurance team worked in parallel with, but independently from, Stora Enso's internal data validation processes. We interviewed managers responsible for internal data validation, reviewed their work processes and undertook sample checks on consolidated sustainability data and also sustainability data submitted by Imatra Mills and Skoghall Mill;
- We undertook an assessment of the company's reporting and management processes against the principles of materiality, completeness and responsiveness as described in the AA1000 Assurance Standard (2003).

### Observations:

#### Materiality – has Stora Enso provided information on material issues to enable stakeholders to make informed judgements?

- Nothing came to our attention to suggest that material issues have been omitted from the scope of the Report. We found evidence that appropriate systems are in place for monitoring and gathering information on relevant management arrangements and performance.
- Last year, Stora Enso developed its approach to the identification and reporting of material issues. We recommend that the prioritisation of material issues be reviewed routinely



against evolving stakeholder and company priorities. The materiality process, outputs and stakeholder expectations should be disclosed in line with best practice in sustainability reporting.

- The 2008 internal review of human rights risks is a positive development and has provided a clearer context for understanding Stora Enso's position which should enable the company to develop its strategy and future reporting in this area.

**Completeness – does Stora Enso have systems in place to understand changes to stakeholder expectations and to provide complete and accurate information against the issues identified as material for inclusion in the report?**

On the basis of the method and scope of work undertaken and the information provided to us by Stora Enso, we believe:

- For Occupational Health and Safety Performance, Raw Materials data (including Wood Supply), Environmental Performance data (including Compliance), Social Performance and Employee Well-Being – with the exception of the item stated below – nothing came to our attention to suggest that these data have not been properly collated from information reported at operational level. We found an anomaly in the reporting of compliance where two breaches at Wood Supply Finland had been omitted. This was corrected in the final version of the report text. We are not aware of any other errors that would materially affect the Group-level data.
- The processes undertaken by the Group and regions for improving Occupational Health and Safety performance has been described clearly – including new clearer targets for accidents and absenteeism. This provides a strong platform to improve health and safety performance in the future and is an important step, not least given the seven fatalities reported this year. Future reports should include more information about contractor health and safety performance beyond fatalities.
- Stora Enso has provided a clear account of its performance against targets. We note that some targets have not been achieved, including suppliers' compliance with sustainability standards. Future reports should describe management processes intended to drive improvements in performance for these issues. The early revision of environmental targets for production units and clearer health and safety targets is welcome.

- In future reports, Stora Enso should clarify its overall approach to identifying and engaging with stakeholders and its processes for understanding changes in their expectations.
- We recommend that Stora Enso should reflect upon the benefits of greater alignment of its reporting with a recognised framework, such as the GRI, and amend its reporting strategy accordingly.

**Responsiveness – how does Stora Enso demonstrate that it has responded to stakeholder concerns?**

- Stora Enso continues to invest in describing its carbon footprint, which is a positive development. While this work is to be commended we believe there should be more discussion of the relative contribution of forest operations, processing at mills and other activities. Future reports should also describe how conclusions drawn from the footprint are being integrated into the future business strategy, for example on energy policy and developments in the product mix.
- We note the work Stora Enso has undertaken to establish a global Code of Conduct, including a commitment to sustainability, and is now being rolled out to all employees globally. Stora Enso should review and report upon its effectiveness as a tool to raise awareness and accountability for sustainability amongst its employees.
- Consumers and manufacturers are increasing their demands for sustainable packaging, although currently, there is no consensus on what this means. Stora Enso is well positioned to adopt a leadership position, enabling better definitions in this area and then to work with its customers in developing solutions. Stora Enso Consumer Board division's work to calculate the carbon footprints of its main products should support this effort.
- Stora Enso faces different sustainability challenges in the varied countries and continents it operates. Sustainability management is adapted to align with local priorities, and this year we noted a regional sustainability strategy was established for Latin America. We encourage the Group to provide further detail on the local and regional sustainability challenges it faces and how these are managed.

Csrnetwork Limited  
U.K. February 2009



Mark Line  
Director



Judith Murphy  
Consultant



Katy Anderson  
Consultant

The Sustainability Performance 2008 report follows the Sustainability Reporting Guidelines 2006 (G3) of the Global Reporting Initiative (GRI) as far as it is appropriate and applicable to Stora Enso. The index below shows how and where Stora Enso addresses GRI indicators.

AR = Annual Report 2008  
 SP = Sustainability Performance 2008

- Fully reported
- Partially reported
- Not reported

	Location	Level
<b>1. Strategy and analysis</b>		
1.1 Statement from the CEO	AR	●
1.2 Description of key impacts, risks and opportunities	SP, AR	●
<b>2. Organisational profile</b>		
2.1 Name of the organisation	SP, AR	●
2.2 Primary brands, products and/or services	SP, AR	●
2.3 Operational structure of the organisation	AR	●
2.4 Location of organisation's headquarters	AR	●
2.5 Countries in which the organisation's operations are located	AR	●
2.6 Nature of ownership and legal form	AR	●
2.7 Markets served	AR	●
2.8 Scale of the reporting organisation	SP	●
2.9 Significant changes during the reporting period	AR	●
2.10 Awards received during the reporting period	SP	●
<b>3. Report parameters</b>		
<b>Report profile</b>		
3.1 Reporting period	SP	●
3.2 Date of most recent previous report	SP	●
3.3 Reporting cycle	SP	●
3.4 Contact point for questions	SP	●
<b>Report scope and boundary</b>		
3.5 Process for defining report content		○
3.6 Boundary of the report	SP	●
3.7 Specific limitations on the scope or boundary	SP	●
3.8 Basis for reporting on joint ventures, subsidiaries etc	SP	●
3.9 Data measurement techniques	SP	●
3.10 Explanation of the effect of any re-statements of information	SP, AR	●
3.11 Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied	SP	●
<b>Assurance</b>		
3.13 Policy and current practice with regard to seeking external assurance	SP	●

	Location	Level
<b>4. Governance, commitments and engagement</b>		
<b>Governance</b>		
4.1 Governance structure	AR	●
4.2 Position of the chair of the board of directors	AR	●
4.3 Independent, non-executive directors on the board of directors	AR	●
4.4 Mechanisms for shareholders and employees to provide recommendations to the board of directors		○
4.5 Executive compensation	AR	●
4.6 Avoiding conflicts of interest	AR	●
4.7 Determining the qualifications and expertise board members need for guiding strategy on sustainability		○
4.8 Mission or values statements, codes of conduct, sustainability principles	SP, AR	●
4.9 Board-level procedures overseeing sustainability performance		○
4.10 Evaluating board performance with respect to sustainability performance		○
<b>Commitments to external initiatives</b>		
4.11 Addressing the precautionary approach or principle		○
4.12 External charters, principles or initiatives endorsed	SP	●
4.13 Memberships in associations		○
<b>Stakeholder engagement</b>		
4.14 Stakeholder groups engaged		○
4.15 Identification and selection of stakeholders		○
4.16 Approaches to stakeholder engagement	SP, AR	●
4.17 Responding to key topics resulting from stakeholder engagements	SP	●
<b>Economic indicators</b>		
Economic performance		
EC1 Direct economic value generated and distributed	AR	●
EC2 Risks and opportunities due to climate change	AR	●
EC3 Coverage of defined benefit plan obligations	AR	●
EC4 Significant financial assistance from government	AR	●
Market presence		
EC5 Entry level wage compared to minimum wage		○
EC6 Spending on locally-based suppliers		○
EC7 Local hiring		○
Indirect economic impacts		
EC8. Infrastructure investments provided for public benefit		○
EC9. Significant indirect impacts		○
<b>Environmental indicators</b>		
Materials		
EN1 Materials used by weight or volume	SP	●
EN2 Recycled materials used	AR	●
Energy		
EN3 Direct energy consumption	SP	●
EN4 Indirect energy consumption	SP	●
EN5 Energy saved through conservation and efficiency improvements	SP	●
EN6 Initiatives to provide energy-efficient or renewable energy based products	SP, AR	●
EN7 Initiatives to reduce indirect energy consumption	SP	●
Water		
EN8 Total water withdrawal	SP	●
EN9 Water sources significantly affected	SP	●
EN10 Total recycling and reuse of water	SP	●
Biodiversity		
EN11 Location and size of land holdings in biodiversity-rich habitats	SP	●
EN12 Significant impacts on biodiversity in protected areas and biodiversity-rich areas outside protected areas		○
EN13 Habitats protected or restored	SP, AR	●
EN14 Managing impacts on biodiversity	SP	●
EN15 Species with extinction risk with habitats in areas affected by operations		○
Emissions, effluents and waste		
EN16 Total direct and indirect greenhouse gas emissions	SP	●
EN17 Other relevant indirect greenhouse gas emissions		○
EN18 Initiatives to reduce greenhouse gas emissions	SP	●

	Location	Level
EN19 Emissions of ozone-depleting substances		○
EN20 NO <sub>x</sub> , SO <sub>x</sub> and other significant air emissions	SP	●
EN21 Total water discharge	SP	●
EN22 Total amount of waste	SP	●
EN23 Significant spills	SP	●
EN24 Transported, imported, exported or treated hazardous waste	SP	●
EN25 Water bodies and habitats affected by discharges of water		○
Products and services		
EN26 Mitigating environmental impacts of products and services	SP, AR	●
EN27 Reclaimable products and reuse	SP, AR	●
Compliance		
EN28 Fines and sanctions for non-compliance with environmental regulations	SP	●
Transport		
EN29 Environmental impacts of transportation	SP	●
Overall		
EN30 Environmental expenditures	SP	●

## Social indicators

### Labour practices and decent work

#### Employment

LA1 Breakdown of workforce

AR

●

LA2 Breakdown of employee turnover

AR

●

LA3 Employee benefits

AR

●

#### Labour/management relations

LA4 Coverage of collective bargaining agreements

○

LA5 Minimum notice period regarding operational changes

○

#### Occupational health and safety

LA6 Workforce representation in joint health and safety committees

○

LA7 Injuries, lost days, absentee rates and fatalities

SP

●

LA8 Programmes to assist workforce members regarding serious diseases

○

LA9 Health and safety topics covered in trade union agreements

○

#### Training and education

LA10 Average hours of training per year per employee

SP, AR

●

LA11 Programmes for skills management and lifelong learning to support continued employability and manage career endings

SP, AR

●

LA12 Employees receiving performance and career development reviews

○

#### Diversity and equal opportunity

LA13 Composition of governance bodies and employee breakdown

SP, AR

●

LA14 Ratio of basic salary of men to women

○

## Human rights

### Investment and procurement practices

HR1 Human rights screening or clauses included in significant investment agreements

SP

●

HR2 Screening suppliers and contractors on human rights and actions taken

SP

●

HR3 Employee training on human rights

SP

●

### Non-discrimination

HR4 Actions taken in incidents of discrimination

○

### Freedom of association and collective bargaining

HR5 Supporting right to freedom of association and collective bargaining in risk areas

SP

●

### Child labour

HR6 Measures taken to eliminate child labour in risk areas

SP

●

### Forced and compulsory labour

HR7 Measures taken to eliminate forced and compulsory labour in risk areas

SP

●

### Security practices

HR8 Human rights training for security personnel

○

### Indigenous rights

HR9 Violations of indigenous people's rights and actions taken

SP

●

	Location	Level
<b>Society</b>		
Community		
SO1 Management of impacts on communities in areas affected by activities	SP, AR	●
Corruption		
SO2 Business unit analyzed for corruption risks		○
SO3 Anti-corruption training	SP	●
SO4 Actions taken in response to incidents of corruption	SP	●
Public policy		
SO5 Public policy development and lobbying		○
SO6 Contributions to political parties, politicians and institutions	SP	●
Anti-competitive behaviour		
SO7 Anti-trust and monopoly court cases	SP	●
Compliance		
SO8 Fines and sanctions for non-compliance with laws and regulations	SP, AR	●
<b>Product responsibility</b>		
Customer health and safety		
PR1 Assessment of health and safety impacts of products	AR	●
PR2 Non-compliance with regulations concerning health and safety impacts of products		○
Product and service labelling		
PR3 Product information required by procedures		○
PR4 Non-compliance with regulations concerning product information and labelling		○
PR5 Customer satisfaction		○
Marketing communications		
PR6 Adherence to marketing communications laws, standards and voluntary codes		○
PR7 Non-compliance with marketing communications regulations and voluntary codes		○
Customer privacy		
PR8 Complaints regarding breaches of customer privacy		○
Compliance		
PR9 Fines for non-compliance concerning the provision and use of products and services		○



Stora Enso supports the ten principles of the UN Global Compact. The table below lists the ten principles of the UN Global Compact, and states where information on how Stora Enso addresses these issues is included in our reporting for 2008.

	<b>Page</b>
<b>Human Rights</b>	
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.	6–11, 20–25
Principle 2: Businesses should make sure that they are not complicit in human rights abuses.	6–11, 20–25
<b>Labour Standards</b>	
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	20–25
Principle 4: Businesses should uphold the elimination of all forms of forced and compulsory labour.	20–25
Principle 5: Businesses should uphold the effective abolition of child labour.	6–11, 20–25
Principle 6: Businesses should uphold the elimination of discrimination in respect of employment and occupation.	6–11, 20–25
<b>Environment</b>	
Principle 7: Businesses should support a precautionary approach to environmental challenges.	80–84*
Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility.	12–19, 26–27
Principle 9: Businesses should encourage the development and diffusion of environmentally friendly technologies.	12–19, 26–27
<b>Anti-Corruption</b>	
Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	20–25

\* See Stora Enso Annual Report 2008



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It should be noted that certain statements herein which are not historical facts, including, without limitation those regarding expectations for market growth and developments; expectations for growth and profitability; and statements preceded by "believes", "expects", "anticipates", "foresees", or similar expressions, are forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995. Since these statements are based on current plans, estimates and projections, they involve risks and uncertainties, which may cause actual results to materially differ from those expressed in such forward-looking statements. Such factors include, but are not limited to: (1) operating factors such as continued success of manufacturing activities and the achievement of efficiencies therein, continued success of product development, acceptance of new products or services by the Group's targeted customers, success of the existing and future collaboration arrangements, changes in business strategy or development plans or targets, changes in the degree of protection created by the Group's patents and other intellectual property rights, the availability of capital on acceptable terms; (2) industry conditions, such as strength of product demand, intensity of competition, prevailing and future global market prices for the Group's products and the pricing pressures thereto, price fluctuations in raw materials, financial condition of the customers and the competitors of the Group, the potential introduction of competing products and technologies by competitors; and (3) general economic conditions, such as rates of economic growth in the Group's principal geographic markets or fluctuations in exchange and interest rates.