



Paper Technology

Volume 47 number 1
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The official journal of the Paper Industry Technical Association

Is This The Site Of The Next UK Newsprint Mill?



Picture courtesy of Teeside Evening Gazette

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FRONT COVER PICTURE



A planning application has been submitted to Redcar and Cleveland Council from Ecco Newsprint Ltd who are considering building a newsprint and paper recycling plant. An expected 170 direct staff would be employed at the Wilton International site. For further information, see page 3 of this journal.

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Comment

The PERN and the export trade in recovered packaging

By M.E. Marley

The government's Advisory Committee on Packaging has set up a task force to look at the role of exports in meeting the UK's recovery and recycling targets.

The move comes at a time of growing unease among UK stakeholders as more and more recovered packaging is being exported for recycling in the mills of the Far East, China and India being the main destinations.

Last year, for the first time, the UK Reprocessors of recovered packaging were outnumbered by the Accredited Exporters and the export volume crossed over the 1 million tonne line, according to statistics from DEFRA, see the table on page 5.

Opposition to this rising trend is strong in the UK recycling circles, and is being expressed, *inter alia*, by St Regis, the country's largest board producer. They take the view that

- i) the investment in the recovery and recycling infrastructure of the UK is being discouraged by the booming export trade, and
- ii) the resulting lack of investment leaves the UK dangerously dependent on export markets in its bid to meet the recycling targets of the EU Packaging Directive.

Export markets are notoriously volatile and they are outside UK control. If, at a criti-

cal point, the Chinese buyers were to withdraw from the UK market and switch their business to the US, the UK would fail to meet its recycling obligations because the domestic infrastructure could not carry the load.

At the heart of this problem is the PERN, the export version of the Packaging Recovery Note - i.e. the voucher for 1 tonne of recovered packaging. The Recovery Notes, are bought by Obligated Companies to prove that they have recovered their quotas of packaging from the waste stream, as required by ProRegs, the Producer Responsibility Regulations of the UK.

According to the ProRegs, the revenue raised from the sale of Recovery Notes should be ploughed back into the UK infrastructure - to enable the country to meet the rising recovery and recycling targets of the Packaging Directive.

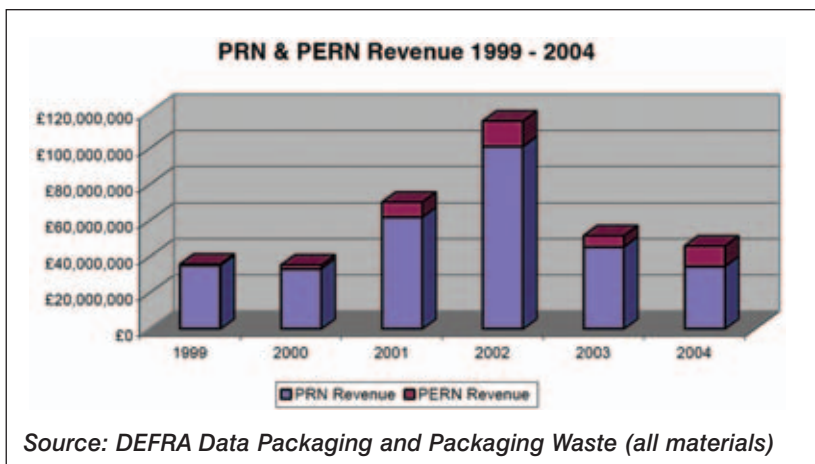
Instead, PERN revenue seems to be boosting the export trade - assisted by protocols which allow a percentage of mixed recycling waste to be counted as packaging waste.

There is a view that these legitimate percentages are being exceeded in export cargoes and that the PERN system is therefore supporting cargoes which would be exported in the normal course of events - irrespective of the ProRegs.

"Speaking personally, I would abolish PERNs", says Don Coates, CEO of St Regis. "Domestic reprocessing has not grown as expected. PERNs are now directly discouraging investment in UK reprocessing capacity."

The line up in favour of the PERN includes the Independent Waste Paper Processors whose members are active in the export trade and the Obligated Companies who supply them with recovered packaging.

For Sainsburys, for example, it is financially beneficial to send their used packaging to exporters because the latter are happy to pass the PERN revenue on to the supplier - in exchange for the recovered packaging. In contrast, domestic reprocessors hold onto PRN revenue to invest in their own infrastructure.



News

300,000 tpy recycled newsprint project for Tees Valley

by M. E. Marley

Ecco Newsprint has applied for planning permission to build a recycling mill in the Tees Valley in North East England - at Wilton Works in the Redcar area, the general location of the 600,000 tpy board mill which St Regis has been mulling over for several years, *figure 1*.

Ecco Newsprint, a new company set up to develop the newsprint project, plans to form an operating team with the help of paper industry experts, according to a report in *Letsrecycle.com*.

Commercial director Markus Moir believes that the mill could “be shipping a saleable product from the start of 2008”. It will produce over 300,000 tpy of newsprint from 100% recycled fibre.

The project has the support of Tees Valley Regeneration, an agency which is promoting the area as a site for papermaking. As a

regeneration area, Tees Valley qualifies for development funding. Grant aid enquiries are underway.

Once planning permission is received, Ecco will move on to the formal financing stage, which involves the raising of some £290 million from a syndicate of banks and private investors.

The application to the Redcar and Cleveland Council outlines plans for a recycling mill associated roads and parking a pumping station an electricity sub-station

The Wilton site offers “uninterruptible power, steam and water on the scale needed for a modern paper plant.” It is also well placed to secure the old newspapers and magazines which will feed the mill.

The UK sorely needs additional recycling capacity, since its paper mills are unable to cope with the vast tonnages of recovered paper which are resulting from statutory recovery and recycling targets - driven by EU legislation and the need to divert used paper from landfill.

Increasing tonnages of paper recovered from in the UK are being exported to China and India and to the dynamic newsprint sectors of Germany and Spain. Holmen, for example, is planning to tap into UK resources to feed the new 300,000 tpy newsprint machine which is ramping up at the Fuenlabrada Mill near Madrid.

The closure of the Bridgewater’s 60,000 tpy PM4 next month will exacerbate this situation. It is likely that the 75,000 tpy of old news and mags processed by the PM will be exported by Abitibi-Consolidated Recycling Europe.

The closure of PM4 also increases the UK’s dependence on imported newsprint which currently accounts for more than half of UK consumption. The country consumes some 2.4 million tonnes of which 1.1 million tonnes is produced at home, see *figure 2*.

Sourced from: *Helen Logan, Evening Gazette and Letsrecycle.com*

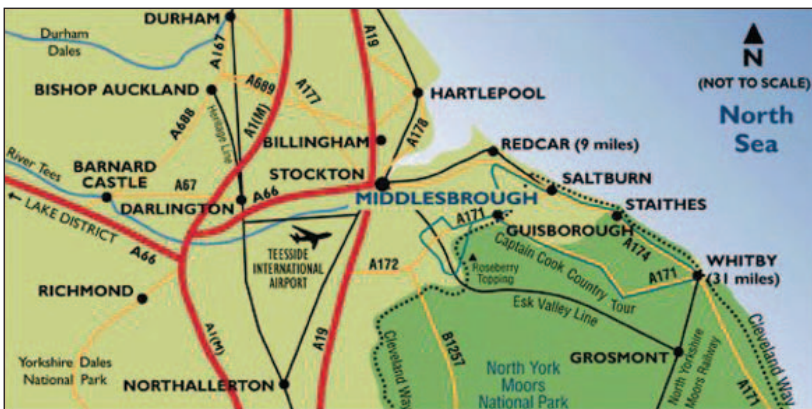
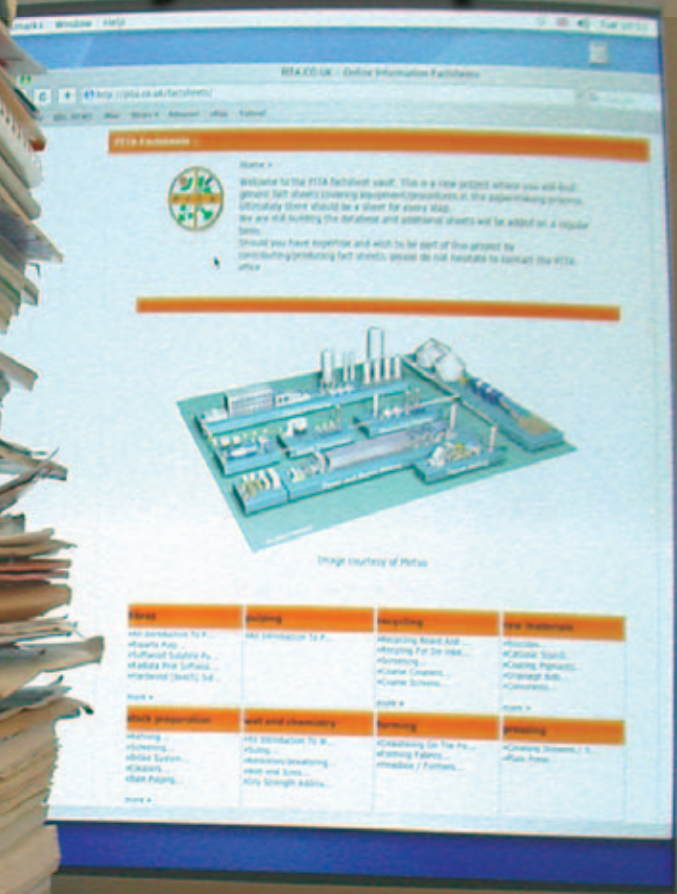


Figure 1 The new mill will be located at Wilton Works, Redcar

UK Recycled Newsprint Capacity	
400,000 tpy:	Aylesford Newsprint in Kent Owned by SCA and Mondi 400
280,000 tpy:	Bridgewater Paper at the Ellesmere Port Mill Owned by Abitibi-Consolidated
470,000 tpy:	Shotton Paper in North Wales Owned by UPM-Kymmene

Figure 2 Bridgewater is shutting down the 60,000 tpy PM4 next month

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CBE for UPM's Martin Gale

Martin Gale of UPM-Kymmene has been awarded a CBE in Her Majesty's New Year Honours List for his services to Forestry.

He is VP for International Forestry, covering UPM's global wood fibre resources, in particular their interests in Metsa-Botnia's pulp mill projects in Uruguay, where he is a director of Forestal Oriental.

Mr Gale is also chairman of Tilhill Forestry, a non-executive Forestry Commissioner, and a non-executive Director of BSW Timber, the UK's largest saw milling group. He is also a director of the Confederation of Forest Industries (UK).

Martin Gale has served on DEFRA's sustainable task force. The CBE award (Companion of the Order of the British Empire) is made for valuable service.

PERNs - diverting revenue for the UK infrastructure

Investment in UK recycling capacity is being discouraged by the PERN system, according to Don Coates, chief executive of St Regis. "Speaking personally, I would abolish PERNs", he said last month at the DEFRA Conference on Packaging Recovery.

The PERN is the export equivalent of the PRN - the Packaging Recovery Note or voucher for 1 tonne of recovered packaging. The Notes, which sell at the same value, are bought by obligated companies to prove that they have recovered their quotas of packaging from the waste stream, as required by the ProRegs, the Producer Responsibility Regulations of the UK.

The export of recovered packaging tripled between 2001 and 2004 and is thought to have crossed the 1 million tonne mark in 2005 - the figure is 798,322 tonnes for the first 3 Quarters, see *figure 1*.

At an average price of £10 per PERN, the export revenue is now substantial and Mr Coates argues that this is diverting investment from the UK infrastructure - revenue from Recovery Notes should be ploughed back into recycling and recovery according to the ProRegs.

"Domestic reprocessing has not grown as expected. PERNs are now directly discouraging investment in UK reprocessing capacity."

In addition, the PERNs system is contributing to the rising cost of recovered paper - the UK now has "the highest cost of recovered fibre in Europe..... Export merchants are using the PERN to boost the price - and that leaves nothing to put into infrastructure."

And, it is not only the paper industry which is being undermined. The growing dependence on exports could jeopardise the UK's ability to meet the rising recovery and recycling targets which have been set for 2008 and beyond, as required by the EU Packaging Directive.

Mr Coates points to the long term risk of depending on volatile world markets to meet these targets. Chinese buyers have an established strategy of switching between European and US suppliers to drive prices down and their withdrawal would leave the UK with a mountain of recovered packaging.

This risk is intensified as more Central and East European countries come under the aegis of the EU. Countries such as Poland and Lithuania are developing producer responsibility schemes based on the PRN system and this will add to the recovered packaging resource into which Chinese and Indian buyers can dip.

"There is now a strong market for packaging materials all over the globe - their export does not need to be supported by the PERN," Says Mr Coates.

In 2004, PERNs for all materials brought in £11.4 million, - some £4.2 million of which was for paper packaging - according to statistics from DEFRA. For 2005, the revenue is expected to be well over £20 million.

The export issue has also been taken up by the Advisory Committee on Packaging which advises DEFRA. The committee has set up a task force to look at the role of exports in meeting the UK's recovery targets under Europe's Packaging Directive.

PERNs and PRNs: Tonnage and Revenue 1999 - 2005

Year	UK Reprocessors	Tonnage UK Reprocessed	Revenue from PRNs	Exporters	Tonnage exported	Revenue from PERNs
2005	32	1,214,016		45	798,322	
2004	43	1,888,200	£12,907,657	42	651,006	£4,160,035
2003	57	1,979,215	£24,137,463	36	449,378	£1,744,263
2002	50	955,115	£51,726,333	29	252,727	£5,719,088
2001	45	1,851,505	£32,028,809	13	179,439	£3,303,221
2000	46		£15,526,547	3		£476,294
1999	41		£21,823,929	1		£88,062

2005 data covers the first 3 Quarters

Source: DEFRA Data Packaging and Packaging Waste

Figure 1: Surging exports of recovered packaging. The number of Accredited exporters now exceeds the number of UK reprocessors and exports are expected to cross the 1 million tonne mark in 2005

The paper industry, the ENGOs and the decision-makers

It is essential that the paper industry's contribution to sustainability be recognised if it is not to be adversely affected by legislative developments, said Teresa Presas director of CEPI, at the 2005 Annual Meeting which had as its theme "Delivering Competitiveness and Sustainability".

2006, will therefore be a year of communication, a year when CEPI seizes the initiative - with consumers, stakeholders, environmental NGOs and the decision makers of the EU - to promote the image and reputation of the European paper industry.

"We must ensure that not only do we keep improving but also that decision-makers

recognize that contribution when developing legislation."

CEPI used the December Meeting to put a new impetus into this strategy by

- Including speakers from the consumer and policy-forming ends of the supply chain: David Halford of BBC Magazines; Michel Ramier of the French Carrefour Group; and Maria da Graca Carvalho of the Bureau of European Policy Advisers.
- Launching 2nd Sustainability Report which incorporates the views the stakeholders in the industry - the result of an open dialogue and a recognition of the fact that 'not all stakeholders share our perception of the industry'.

The Report highlights the industry's achievements to date and maps out a course of future action, *figure 1*. It shows that over the last 12 years, the European pulp and paper industry has invested an average of €560 million a year in environmental improvements.

As a result, environmental impacts are down despite a 150% increase in production, *figure 2*.

In wood procurement and traceability - through the Chain of Custody - the industry has made rapid advances in recent years. In 2004:

- 45.39% of the pulp wood used in European mills was certified by one of the credible forest certification schemes - either PEFC or FSC.
- 39% of European pulp was produced in mills with Chain of Custody certification, an increase of 42% in the last 2 years.

Yet, despite these achievements, the paper industry has an image problem, especially in the field of forestry where it is getting negative fallout from

i) the illegal logging controversy, in which Finnish companies are being targeted by ENGOs. 'It would have seemed inconceivable 10 years ago that paper products from Finland could be targeted in much the same way as wood from tropical rainforest, but

Environmental improvements over the last 10 years

Investments of €560 million a year over the last 12 years have brought substantial environmental improvements

Primary and secondary fibre

Increased use of certified wood - currently at 45%
 Increased CoC traceability - 39% of pulp in 2004, up 12% over 2003 levels
 Increased paper certification - more than 73% is made in EMAS certified mills
 Recycling rate up from 50% to 56% in 10 years
 Improved understanding of recycling flows

Energy: Biomass and CHP

Rising share of biomass in energy consumption
 The pulp sector is 93% self-sufficient in energy
 CHP is up 93% since 1990 and energy efficiency by 13%

Reduced environmental impact

Less water and air pollution: BOD cut by factor of 3 and AOX divided by 10 over 15 years
 Also down - CO₂, SO₂, COD, NOx

New commitments

Logging Code of Conduct
 Mapping biodiversity in Europe and overseas to help preserve biodiversity
 New recycling declaration - improved recyclability and higher recycling rates
 Focus on Recovered Paper Quality and Responsible sourcing
 Monitoring CHP Evolution

Figure 1: CEPI's Second Sustainability Report presents the achievements to date and maps out a future course of action

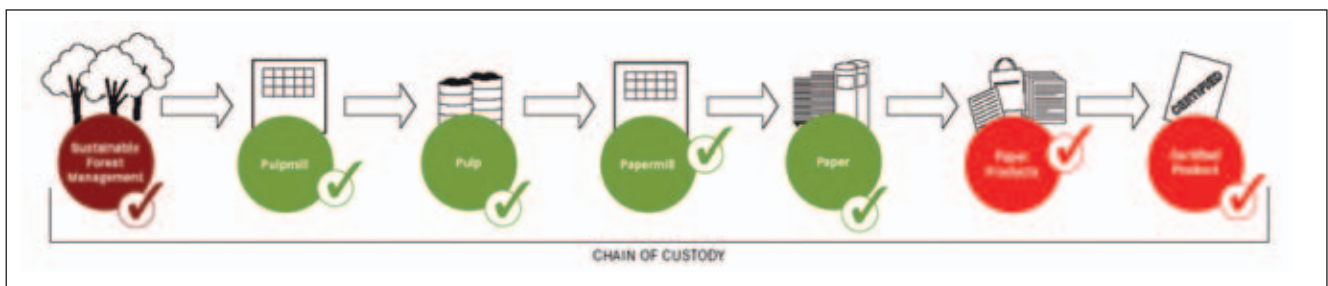


Figure 2: A chain of custody

that's what what's happening right now, *figure 3,*' said David Halford who presented *A Customer's Viewpoint.*

ii) the debate on the credibility of the various forest certification schemes, a debate which, the Report notes, 'is undermining the industry's efforts in this area'.

Of the two main schemes operating in Europe, FSC is favoured by the ENGOS, while PEFC has more widespread support within



Figure 3: The anti logging campaign. A picture from the Greenpeace website, where it is accompanied by assertion that "thousand-year old ancient forests end up as glossy magazines lying on the UK's coffee tables"

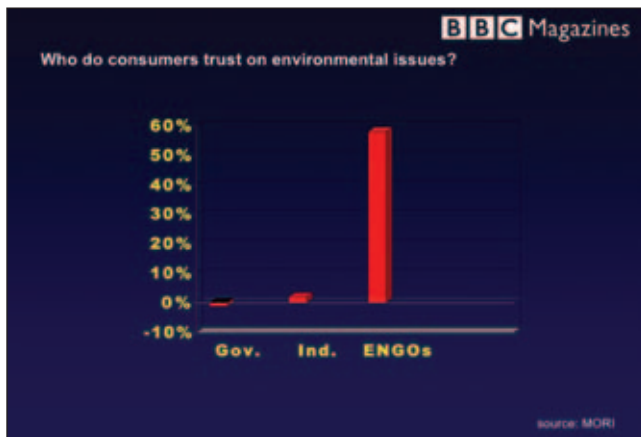


Figure 4: Consumer trust. The British consumer believes the ENGOS but has very little trust in environmental statements from industry or government

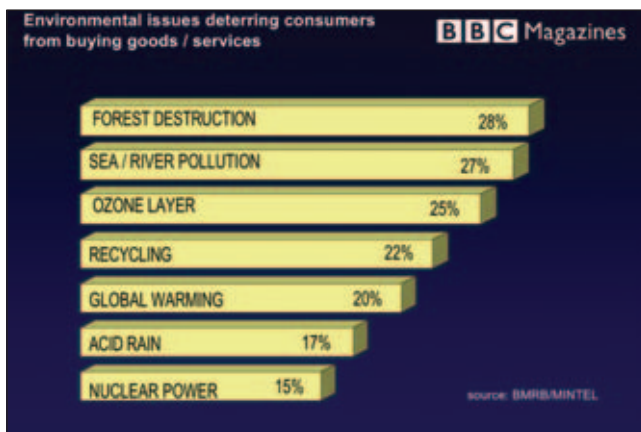


Figure 5: The influence of the ENGO logging campaigns have made forestry to the No 1 environmental concern for the British consumer

the pulp and paper industry.

To CEPI, they are both 'credible forest certification schemes.' But, only the FSC label has the endorsement of the ENGOS, ie, WWF, Greenpeace and Friends of the Earth.

Without ENGO endorsement, PEFC has 'negative credibility', says Mr Halford. And, even though the real differences between the two schemes are minor, PEFC 'is never going to be seen as a useful communications tool by us publishers'.

This is because the British consumer believes the ENGOS but has very little trust in environmental statements from industry or government, *figure 4.*

This trust is reflected in the influence of the ENGO logging campaigns which have made forestry to the No 1 environmental concern for the British consumer, *figure 5.*

BBC Magazines has responded to customer concern by setting out to switch its publications to certified paper. In this, it is working closely with Greenpeace and the WWF forest trade network.

The company is the No 3 in British consumer publishing with 40 titles, for which it buys 70,000 tpy of paper from Sweden and Finland.

Today BBCM is half way to full certification 'with 50% of the paper we buy being FSC certified'. The 6 titles on FSC paper, include *Radio Times* which has a print run of over 1 million copies.

'We've still got a way to go, as much of our paper comes from Finland, which is not yet offering FSC paper - although we're encouraged that there seems to have been some real progress in this area in the past few months'.

The value of ENGO support should not be underestimated, says Mr Halford.

A publisher's reputations can be tarnished by an ENGO campaign and few are willing to take this risk. 'Last month I heard of a European publisher who has decided to switch all their buying away from Finland for this very reason'.

CEPI is addressing these issues by developing partnerships with consumer and environmental associations, European Institutions and National Authorities.

This will provide a structure for success on all fronts - energy, sustainable forest management and raw material supplies.

CEPI will also adapt to change and take the initiative with the ENGOS and the European Institutions.

'Alongside our sustained and significant investment in both industry and the environment, increased cooperation, transparency, and dialogue with other stakeholders are essential for the future', said Carl Björnberg, President of CEPI, in the Closing Remarks at the end of the Annual Meeting.

Kemira becomes world No 1 in pulp and paper chemicals

KEMIRA NO 1 IN PULP & PAPER CHEMICALS			
Pre Acquisition		Post Acquisition	
Ciba	900	Kemira	1090
Kemira	846	Ciba	900
Akzo Nobel	750	Akzo Nobel	750
BASF	730	BASF	730
Dow	670	Dow	670
Nalco	550	Nalco	550
Process & Functional Wet End Chemicals			
Hercules	710	Hercules	710
Ciba	580	Ciba	580
Nalco	475	Kemira	500
BASF	270	Nalco	475
Eka	265	BASF	270
Kemira	262	Eka	265
Lanxess	240	Clariant	260
<i>Sales in Euro Millions</i>			

Figure 1

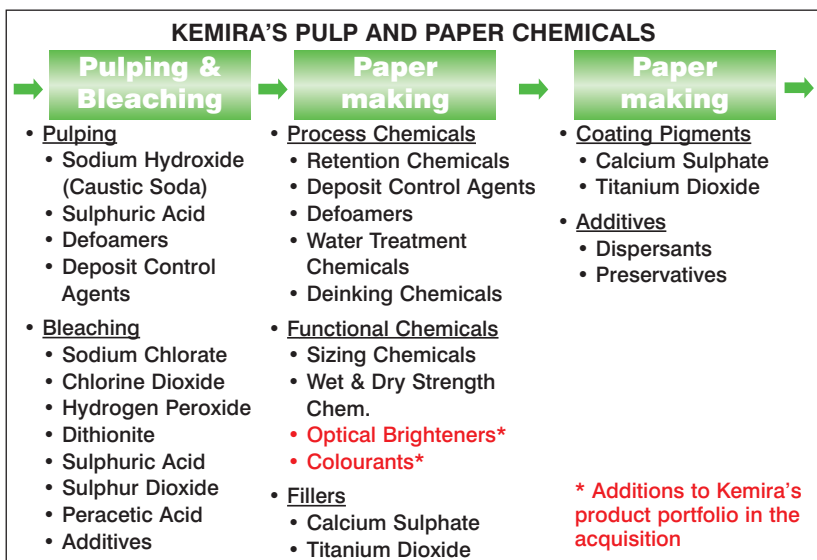


Figure 2

KEMIRA'S MARKET POSITION: PRE AND POST ACQUISITION							
Region	Pulping	Bleaching	Recycling	Process	Functional chemicals	Water quality management	Coating pigments and fillers
Nordic countries	★★★	★★★★★		★★★	★★★★★	★★★★★	★
Rest of WE	★	★★		★	★★★	★★	★
Eastern Europe	★	★★		★	★★★	★	
North America	★	★★	★★★★★	★★★	★★	★	
Latin America				★	★★		
China				★	★★		
Japan		★★★			★		
Rest of Asia		★		★			
Kemira's estimated market share ★ = after acquisition							
		★	1 - 3%				
		★★	3 - 10%				
		★★★	10 - 25%				
		★★★★★	25 - 50%				

Figure 3

Kemira will become the top global producer of pulp and paper chemicals with the acquisition of Lanxess, a global supplier with special competence in functional wet-end chemicals and annual sales of €240 million, figure 1.

Initially, the €88 million deal - for the debt free paper chemicals business - will depress Kemira's earnings, but eventually benefits of €20 million a year are expected. The figures are:

- In 2006, Kemira's earnings will be diluted by 5-10 cents per share - the result of integration costs and the fact that Lanxess paper chemicals is just beginning to recover after losses in 2003 and 2004.
- By 2007, the deal will increase Kemira's earnings per share.
- By 2010, the integration of the businesses should bring annual synergy and cost benefits of some €20 million.

The acquisition will make Kemira 'the top player in all of its core businesses areas, figures 2 and 3 ... and the biggest supplier in pulp and paper chemicals globally', says Lauri Junnila, President of the Pulp & Paper Chemicals Business Area.

It will also increase Kemira's net sales in pulp and paper chemicals from €84 millions to €1.1 billion.

The Lanxess business complements that of Kemira in both product line and geographical reach - in Germany, North America, Asia and South America.

The main range of Lanxess products consists of colourants, optical brighteners, sizing agents and retention aids. Lanxess is the world No 3 in optical brighteners for the paper industry and the leading supplier of direct anionic dyes and organic pigments of North America.

The Lanxess production plant are in Leverkusen, Germany and Bushby Park, South Carolina where 375 staff are employed. The acquisition is subject to antitrust clearance.

Kemira sets up REACH centre

Kemira is preparing for Europe's REACH regulations by setting up a REACH Competence Centre at the Espoo Research Centre in Finland.

The Centre will focus on the registration and authorization procedures for all the substances produced or imported within the EU area, as required by REACH. The number of such substances currently exceeds one hundred, while the number of substances falling under the regulations is limited.

The bulk of the work will be carried out between 2007 and 2010, the opening years of the 10-year registration period. The Centre will also develop product safety IT-tools up to the level required by REACH.

The Centre will be run by Dr Liisa Vahteristo, formerly Head of Unit at the European Food Safety Authority in Italy. She reports to Aarno Salminen, Vice President, Environment and Safety.

The REACH proposal has passed the 1st Reading in the European parliament and has been endorsed by EU Competitiveness Council. It is expected to take effect in 2007 under the aegis of the European Chemicals Agency in Helsinki.

Kemira builds paper chemicals plant in China

Kemira is investing in a production line for paper chemicals at its Chinese plant for water treatment chemicals which is based in Yixing, some 160km from Shanghai. The new line unit will start up in 1H 2006 and will produce speciality chemicals.

Prices for pulp and paper chemicals on a relentless rising curve

The relentless rise in the cost of chemicals for the pulp and paper industry continues with a new round of price hikes in December and January - following hard on the heels of increases last Autumn.

The high price of oil is the main driving force since it has a broad based impact - on the cost of raw materials, energy and transport.

Shortages of chemical intermediates such as urea, phthalic anhydride and polyethylene are driving price increases for aqueous dispersions, for example.

But, these increases do 'not recover the cost increase we are seeing in raw materials today, and it is our hope that as the price of crude oil and pigment intermediates moderate, further increases will not be necessary', says Russ Henke, VP of NAFTA sales at Sun Chemical Performance Pigments. 'However, we are monitoring the situation closely and cannot rule out additional increases in 2006.'

Shortages and costs have also been intensified by natural disasters in the southern USA - the natural gas shortages caused hurricanes Katrina and Rita have led to an energy and freight surcharges, for example.

In the titanium dioxide sector, the new year opened with European hikes of €130 a tonne - on top of increase of €400 in 2005. The suppliers point to rising demand and the need to reinvest to meet future needs - at a time of rising costs for raw material, energy, costs which are likely to climb continuously over the next decade.

The latest round of price increases has been introduced by the following suppliers:

Kronos Worldwide raised the prices of all titanium dioxide grades sold worldwide as of January 2006.

- In Europe, the prices for all Kronos titanium dioxide products increased by €130 a tonne. This hike follows a €150 hike in October 2005.
- In the Asia Pacific, Latin America, Middle Eastern and African regions prices rose by \$150 a tonne. A previous hike of \$180 a tonne was introduced in October.
- In North America prices rose by \$0.05 a pound. In October 2005, there was a \$0.06 increase.

DuPont DuPont Titanium Technologies raised the prices of all its titanium dioxide grades on 1 January.

In Europe the increase is €130 a tonne.

In the Middle East, the increase is \$150 a tonne.

In Latin America, the increase is \$100 a tonne.

This investment will bring Kemira's investment in chemicals production at Yixing to a total of €7 million (CNY 60 million).

Kemira plans to step up its sales of pulp and paper chemicals and water treatment chemicals in China many times over during the next few years.

China produces some 50 million tpy of paper and 'it has been estimated that production figures will rise steadily for next 10 years,' says Juha Kuikka, MD, Kemira Chemicals (Shanghai).

'A sharp rise in demand for paper chemicals is expected with the anticipated transition towards finer paper qualities and following the increasing number of modern, big paper machines.'

The increases are supported by market dynamics, by significant increases in raw material, energy and fuel costs, and by the need to reinvestment to meet future customer needs.

BIM, a supplier of advanced surface treatments to the pulp and paper industry, introduced price increases for its speciality chemicals, as of 1 December 2005.

Rosin sizes rose by 25 % increase while the increase for all other products was in the 10 - 25 % range.

The increases are down to shortages and increasing costs for material, energy and transportation.

Kemira: Due to the increase in the cost of energy and oil-based raw materials Kemira's Pulp and Paper Chemicals division in Europe increased the prices for speciality chemicals as of 1 November 2005.

ASA and rosin sizes rose by 15-25 % because there are also availability issues. Other product groups increased by 10 - 25%.

Sun Chemical Performance Pigments: North American prices for select aqueous dispersions were increased by Sun Chemical Performance Pigments, on 15 December. The hikes include products which contain molybdenum complexed pigments, phthalocyanine blue crude, carbon black and polyethylene.

The hikes reflect the price of oil, global shortages of chemical intermediates such as urea, phthalic anhydride and polyethylene; and natural disasters such as the hurricanes in the southern US.

SCPP hopes the price of crude oil and pigment intermediates will moderate but 'additional increases in 2006 cannot be ruled out'.

Nalco European surcharge: A freight surcharge for the European paper industry as of 1 January 2006 has been introduced by Nalco Holding Company as of 1 January 2006.

The surcharge ranges from Euro cents 1-3 per kilogram of product delivered and applies to both contract and non-contract clients. It will be adjusted subject to movements in fuel costs and freight rates.

Huber energy surcharge: An energy surcharge across the entire kaolin clay portfolio for the global paper industry was introduced by Huber Engineered Materials in early January -in addition to the price increase announced in September 2005.

The surcharge is being implemented to offset rising costs, especially those affected by natural gas, since hurricanes Katrina and Rita hit the US Gulf Coast.

Hercules opens Helsingborg Centre

The Pulp and Paper Division of Hercules has opened a Technical Centre at Helsingborg (HTC) which will provide European and Asian mills with troubleshooting support and promote technology innovation.

The 600 m² facility, which is adjacent to an existing Hercules' plant, will house 20 technical staff with expertise in analytical chemistry, microbiology, papermaking and paper testing applications.

Hercules supplies functional, process and water management chemicals for the pulp and paper industry. Headquarters are in Wilmington, Delaware, www.herc.com.

Celanese Emulsions in Poland

Celanese Emulsions has appointed a Polish agent and distributor for its Mowilith and Vinamul polymer emulsions and there are plans to extend the agreement to cover other countries in Central and Eastern Europe.

The agent is Hamburgska Spolka Handlowa, (HSH).

Patent-pending technology will maximise filler content

Patent-pending technology which will enable mills to maximize the filler content in virgin fibre grades is to be developed by Paprican and BASF - following extensive pilot trials and a commercial mill trial.

The four-year joint project will fully commercialize the technology, which is expected to have significant economic benefits by enabling mills to:

- reduce production costs
- maximize fibre usage and
- enhance end-product performance - there will be no negative impacts on production and print quality of paper

Paprican scientists have been engaged in this research project for the past five years, and have completed extensive laboratory and pilot testing.

The first commercial trial took place in 2005 at a mill owned by a Paprican Member Company.

'BASF's financial support, combined with their technical expertise and marketing capabilities, will ensure a more rapid development of this technology and accelerate implementation at the mill level,' says Chris Kanfers, Director of Patents, Contracts, and Licensing at Paprican.

BASF is very optimistic about the role that chemical advances could play in reducing production costs for the North American paper producer. Given Paprican's proven ability to innovate, 'BASF is confident that this collaboration will lead to significant discoveries that will reduce papermaking costs.' Says Craig Leavitt, Business Manager for BASF's Paper Chemicals business in North America.

Coating breakthrough will bring substantial savings

An advanced additive, which enables a 15% increase in coating speeds has been developed by Cerestar Industrial Starches.

When applied to film press coating colours along with starch, the C*TopBrane additive will 'generate substantial savings for papermakers running at operating speeds of 1500-2000 m/min, without creating the effect of misting'.

These savings can be generated by

- the substitution of latex by starch
- achieving higher machine speeds - up to 15 % have been realized
- the addition of higher coat weights - up to +3 gram per side

The combination of the additive and C*Film TCF starches 'is a natural and eco-

nomically sound solution for papermakers to cope with the increasing cost for coating recipes based on synthetic binder formulations', says Cerestar.

The new additive will be marketed by Topchim, a speciality paper technology company, under the C*TopBrane brand. It will be manufactured by DSM Hybrane, a start-up company which commercialises DSM's technology platform of hyperbranched polyesteramide Hybrane.

The cooperation of Cerestar with DSM and Topchim is a practical demonstration of our "Innovation through Partnership" approach.

C*TopBrane is complementary to Cerestar's portfolio of top-performing starch-based paper coating solutions.

Buckman - the world's Most Admired Knowledge Enterprise

Buckman Laboratories is the world's Most Admired Knowledge Enterprise (MAKE) of 2005, having won the 8th Annual Global MAKE competition.

North America took top honours with 8 winners, followed by Asia with 5 and Europe with 4

These Enterprises have been recognized as leaders in:

- Creating a corporate knowledge-driven culture within which knowledge workers are developed.
- Creating an environment for collaborative knowledge sharing.
- Maximizing intellectual capital and transforming it into shareholder value.

- Delivering knowledge-based products and solutions.
- Delivering value based on customer knowledge.

"We have built a knowledge-driven culture through senior management's leadership and the participation of all our associates worldwide," said Kathy Buckman Gibson, Chairman of the Board at Buckman Laboratories. "It has resulted in delivering superior products and solutions to the marketplace."

Buckman Laboratories produces specialty chemicals for aqueous industrial systems. The company has annual sales of over \$429 million.

EnviroBed: an environmental outlet for papermill sludge

The innovative use of paper mill sludge to produce bedding for animals has won a National Recycling Award for EnviroSystems of Lancashire.

Paper sludge is currently secured from Bridgewater Paper and Shotton and processed in Cheshire. A second plant in Hertfordshire will process sludge from Aylesford.

EnviroSystems is looking for additional supplies of suitable paper crumble, i.e. crumble offering 40 - 45% organic matter or above. High clay/high moisture sludges are not as suitable. Contact: EnviroSystems 01772 860085

Recycled sludge from Bridgewater Paper is being used to bed Dairy cows on a Wiltshire farm - one of the many applications of Envirobed, a product which resulted from a 2 year R&D project by EnviroSystems of Lancashire.

Today Envirobed is being used as a bedding material for animals throughout the UK, including some 50,000 dairy cows. The sludge is derived from Bridgewater and Shotton and processed at the Cheshire plant of EnviroSystems.

A second processing plant, which will be built in Hertfordshire, will process sludge from Aylesford Paper.

With the growing success of its sludge treatment system, EnviroSystems is looking for additional supplies of suitable papermill sludge i.e. a crumble with 40-45% of organic matter or above.

The sludge is treated in a two-stage process:

- i) It is dried down to 90% dry material and crumbled to ensure even particle size and softness.
- ii) It is heat treated and is therefore pathogen free. This ensures its safe use in dairy and poultry farming and other animal bedding markets.

The process produces a soft absorbent product which bio-degrades easily and can therefore be spread on land after use. It provides farmers with a cost effective alternative to traditional bedding products and therefore has a ready market.

UK mills generate 1 million tpy of sludge

Sludge recycling can play a crucial environmental and economic role in the sustainability of the paper industry by:

- Providing an eco-friendly outlet for the 1 million tonnes of sludge which is generated by UK papermills every year - sludge which is landfilled and landspread at ever increasing expense.
- Reducing the cost of sludge disposal, a cost which is significant even for a modern and technologically advanced mill like Aylesford Newsprint. Although 80% of the sludge generated at Aylesford is burnt to provide 17% of the mill's energy needs, the remaining 30,000 tonnes are either composted, landfilled or land spread.

"This is a significant cost to the paper mill and so solving this problem by generating markets for this sludge would be of enormous benefit," says Chris White, Aylesford Newsprint's Commercial Manager.

In the UK paper sector as a whole, the sludge disposal problem is more acute than at Aylesford. It is reckoned that sludge accounts for as much as 40% of the material input at mills which produce high quality white grades from recovered paper.



UK mills generate 1 million tonnes of sludge every year

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PITA Affairs



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PITA Papermaking Conference

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The Association in focus

Let me start by wishing a Happy New Year to all our readers, despite the fact that it will be well into February before people start reading this column. It is never too late for good wishes and never more so than this year as we enter a period of change and a new era for PITA. Many things have fallen into place in recent weeks that will allow us to move forward and start operating properly as a charity. In fact from the start of 2006 from a legal and fiscal point of view PITA will become two companies, one being the charity company looking after all membership aspects and the other being a trading company handling our commercial activities. However,

from the perspective of most members nothing will appear to change as you will still receive your journal in the normal way, still have District meetings and still have your Working Group meetings. More details of these changes will be presented at the AGM in March (see Announcement on page 16). As a further mark of the changes taking place you will notice that the heading of this column has changed. As a charity a paid employee cannot be a Director which is why your Board of Directors decided some time ago that I should adopt the title of Chief Executive. It is therefore also timely to make the above change.

NESDG

Continuing on the theme of change, the last issue of *Paper Technology* in December 2005 carried a report within "Around the Districts" on what was intended to be the last Dinner Dance of the NESDG. It did not quite turn out that way but nevertheless a very enjoyable evening did take place as indicated in the report. Since that report was submitted we have also received a very nice photo of the occasion (pictured below) together with a photo of the very special gift that was presented to John Allan during the course of the evening. We are pleased to publish both of these photos as we come to the end of the NESDG era. It is also fitting that we should publish in this issue an obituary of Bill Barnett who played such a large part in establishing the NESDG in the first place.



The final group gathering of the NESDG

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PITA PAPERMAKING CONFERENCE

Cedar Court Hotel, Bradford

Tuesday 14th and Wednesday 15th March 2006



....Selected Abstracts

Wet End Control enables Efficient use of Chemicals and Improves Process and Productivity in Fluting and Linerboard Production

Peter M. Raser (BTG Mütek GmbH, Germany)
John Munday (BTG UK)

In most fluting and linerboard productions the key challenges are to achieve the demanded dry strength, to minimise the retention (drainage) chemical costs and to maximise machine speed. On-line measurements and closed loop wet end chemical controls contribute to meet these challenges.

The paper machine H2 of Mondi Packaging Holcombe Mill in Ramsbottom produces fluting and linerboard in a basis weight range of 95-180 g/m². The main issues that needed to be addressed were to improve dry strength and increase machine speed. This paper shows the step-by-step implementation of different on-line instruments and associated control loops.

Producing Paper Without Producing Effluent – A Case Study

Leo Habets (Paques BV)

This paper describes the operation of a waste water treatment plant in a zero discharge paper mill in central France, that produces 50,000 tons per year of corrugated case material (with capacity for 70,000 tons per year). As raw material for the production facilities 100% recycled paper is used, the mill was forced into a different water management strategy as they were only allowed to discharge a limited amount of treated effluent. In 2003 it was decided to implement a waste water treatment plant that combines an anaerobic IC reactor and a conventional activated sludge system to treat the water in the closed loop of the mill. The effluent of this waste water treatment plant is completely re-used in the mill and no effluent is discharged to the river. The use of anaerobic technology has numerous advantages if compared to conventional aerobic systems. Since the quantity of aerobic sludge production is limited, the discharge of surplus sludge is not problematic. The waste water treatment plant was started in the summer of 2004. During the first year of operation the COD load to the waste water treatment plant generally varied between 5,000 and 10,000 kg COD/day. The overall removal efficiency of the waste water treatment plant was about 80 to 85%. The paper to be presented at the conference will show in more detail what the effect of the introduction of the waste water treatment plant was.

Improved Dryer Control with Advanced Dryer Management System

David Hall (Kadant Johnson)

The concept of an improved dryer control system is to utilize modern control capabilities to provide supervisory control over the steam control and dryer drainage system. There are many benefits that can be realized with this approach. Consistent dryer operation is produced over the entire machine operating range and for every machine operating crew. Drying conditions are controlled in a manner that produces consistent machine direction sheet moisture, constant draws, and improved runnability. Upsets such as sheet breaks, grade changes, and wash-ups are handled efficiently by the control system. This produces improved machine efficiency. There will be a "live" demonstration of the system during the presentation by means of an "on-line" link to Aylesford Newsprint which will spectacularly illuminate the points raised.

*Energy Savings Upgrade of Air Systems at St. Regis Sudbrook Mill***Borja Cordoba** (Brunnschweiller, Spain)

The first stage of the project has been the verification of the existing installation; the conclusion was that the installation is a non-efficient installation. The solution to increase the efficiency of the installation has been new energy recovery system and new exhaust & blowing groups. First phase: Installation of a new exhaust/blowing group including an energy recovery system. Second phase: Installation of a new exhaust/blowing group including an energy recovery system. Third phase: Substitution of two existing no operative fumes-water recovery systems with a new exhaust/blowing group including an energy recovery system that will be used to blow air in the basement. Actual proposed phase: Installation of a new exhaust/blowing group. Fifth phase: Replacement of the existing hood by a high efficiency new one, and installation of new pocket and felt ventilation blow boxes. Each phase will be described and explained.

*“Advanced Press Felt Measurement and Felt Management for Improved Quality and Paper Machine Performance”.***Thomas Schick** (Voith Automation, Germany)

This paper describes a new press felt measurement system that is designed to assist the paper-maker optimise the press section set-up and its routine operations. The measurement provides both profile and trend information for water weight, permeability and temperature of the individual felts. By combining this information with moisture measurement directly following the press section, it can help improve product quality, felt performance and process efficiency while reducing the energy consumption of the pressing and drying operations.

*A Case Study for Reducing Water Consumption at a Paper Mill***Mikko Siivonen, Matti Ryyppö and Kimmo Pohjalainen** (Metso Paper, Finland)
Luis Rodriguez Pueyo (Holmen Paper, Madrid)

Paper and board mills are faced with demands for higher quality of process water to increase machine speeds and product quality. Conversely, mills are under pressure to decrease water consumption and to have more efficient effluent treatment to reduce the environmental load. This trend forces the paper and board producers to look at advanced water treatment methods when the water consumption in the production has already been reduced to lowest possible level by conventional water management actions.

This paper presents a case study to reduce the fresh water consumption at a paper mill by using membrane technology. The mill, Holmen Paper Madrid in Spain produces 170,000 tpa newsprint and film coated offset from 100 % recycled fibre. Holmen Paper has an ongoing project to build a new newsprint machine to the same mill site and thus the total water consumption is a concern.

*How to save money, increase efficiency and meet regulations by limiting seal water usage***Gary Webb** (John Crane UK Ltd)

The control of Water consumption across all mills is always a hot topic, and with increasing demands from the Environmental Agency to reduce consumption per tonne of production, the water put through mechanical seals and gland packing could be larger than you think.

Seal water usage is often dismissed as a “drop in the ocean” but if you stop to consider just how much a typical plant can use, you may be surprised. This paper will describe this in detail with a case study at Aylesford Newsprint.

NOTICE IS HEREBY GIVEN THAT THE 4th ANNUAL GENERAL MEETING OF PAPER INDUSTRY TECHNICAL ASSOCIATION, A COMPANY LIMITED BY GUARANTEE AND A REGISTERED CHARITY NO 1093335 WILL BE HELD IN THE CEDAR SUITE OF THE CEDAR COURT HOTEL, BRADFORD ON TUESDAY 14TH MARCH 2006 COMMENCING AT 12.15 HOURS.

AGENDA

- 1) Apologies for Absence
- 2) Chairman's Report
- 3) Adoption of Report and Accounts
- 4) Election of Directors
- 5) Election of National Chairman
- 6) Election of Deputy Chairman
- 7) Election of Financial Director
- 8) Appointment of Auditors
- 9) Any Other Business

**J A Clewley
Company Secretary
31st January 2006**



Calendar of PITA Events

Date	Event	Venue	Organiser
FEB 2006			
9	Mini Conference on Energy	The Red Hall Hotel and Restaurant, Bury	Northern District Sharon Hoole Tel: 01254 55101. Fax: 01254 672236
23	Control Technology/Applications	tba	Southern District John Brazier/David Chamberlain Tel: 01483 412000
23	New Technologies Kadant UK Ltd	The Fernhurst Hotel, Bolton Rd Blackburn (opp. Ewood Park)	North West Discussion Group J.D. Smith, Tel/Fax: 01254 830986
MAR 2006			
7	AGM & Mini Conference on Safety	Dean Park Hotel, Kirkcaldy	Scottish District Ewen Jardine, Tel: 01337 857682
9	AGM followed by a Papermaking Quiz Night	The Red Hall Hotel and Restaurant, Bury	Northern District Sharon Hoole Tel: 01254 55101. Fax: 01254 672236
23	New Innovations in the Hot Stuff (Steam) Kadant Johnson Systems International Ltd	The Fernhurst Hotel, Bolton Rd Blackburn (opp. Ewood Park)	North West Discussion Group J.D. Smith, Tel/Fax: 01254 830986
APR 2006			
6	Environmental Legislation – AGM	tba	Southern District Kate Cathie, Tel: 01795 564627
13	What's in Your Pocket Tim Klemz of Compact Engineering	The Red Hall Hotel and Restaurant, Bury	Northern District Sharon Hoole Tel: 01254 55101. Fax: 01254 672236
18	Sizing Changes at Corpach Speakers from Sellukem & Arjo Wiggins	tba	Scottish District Ewen Jardine, Tel: 01337 857682
MAY 2006			
19	Annual Dinner	Venue to be decided	Scottish District Ewen Jardine, Tel: 01337 857682
JUNE 2006			
	Social	tba	Southern District tba

PAPER TECHNOLOGY: EDITORIAL THEMES

February	Stock Preparation and The Environment
March	Coating and Calendering
April	Pressing and Engineering
May	Forming and Water Treatment
June	Automation and Finishing
July	Drying and Surface Treatment
September	Papermaking Fibres and Energy
October	Chemicals and Water Removal
November	Recycling and Information Technology
December	The Wet End and Machine Clothing

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PITA PAPERMAKING CONFERENCE

CEDAR COURT HOTEL,
BRADFORD

CONFERENCE PROGRAMME* – CONTROLLING COSTS IN PAPERMAKING

Tuesday, 14th March 2006

Wednesday, 15th March 2006

09.15 Welcome by *Martin Christmas, Chairman PITA Papermaking Working Group*
09.30 *Key Note Address*
Precision Processing – some experiences from the Chemical Industry
Ian Henderson, Protenive, UK

SESSION 1

... "Improving Efficiency leads to Reduced Costs and Better Product"

10.00 Paper 1 Removing Paper and Board Machine Bottlenecks with Targeted Rebuilds

Jyrki Huovila,
Metsä Paper, Finland



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10.30 Coffee
11.15 Paper 2 Proactive Reliability Maintenance

Scott Morris,
SKF, USA

11.45 Paper 3 New Micro Biological Treatment Programme for the Pulp and Paper Industry

Thord Hassler,
BIM-Kemi, Sweden

12.15 PITA AGM

12.30 Lunch

14.00 Paper 4 Materials Development – It's effect on Forming Fabric Design and Paper Machine Efficiency

Ged Leigh,
Heimbach, UK

14.30 Paper 5 Surface Improvements with New Clothing Technology

Andreas Weis,
Vöith Paper Fabrics, Germany

15.00 Paper 6 Advanced Press Felt Measurement and Felt Management for Improved Quality and Paper Machine Performance

Thomas Schick,
Vöith Automation, Germany



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15.30 Paper 7 Improved Dryer Control with Advanced Dryer Management Systems

Robin Linney,
Aylesford Newsprint, UK

16.45 Paper 8 Production and Quality Improvements in Paper Machines using Automatic Dryer Fabric Stretchers

David Hall,
Kadant Johnson, UK

17.15 Paper 9 End of Day One

Tobias Hain,
Erhardt & Leimer, Germany

20.00 Dinner sponsored by SAFEMATIC

Drinks Reception and Casino sponsored by **Honeywell**



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*Details correct at time of print. Check our website at www.pita.co.uk for any updated information.

SESSION 2

... "Controlling Costs with Better Control"

08.45 Paper 9 Wet End Control enables Efficient Use of Chemicals and Improves Process and Productivity in Fluting and Linerboard Production

Peter Raser,
BTG Murek, Germany
+ *Mondi Packaging, Holcombe Mill, UK*

09.15 Paper 10 MVIDA Methodology for Online Process Monitoring

Matthew Taylor,
Iggesund Paperboard, UK and Manchester University, UK

09.45 Paper 11 Paper Porosity On Line Profiling

Antti Paavola,
Honeywell, Finland



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SESSION 3

... "Controlling Costs by Reducing Energy"

11.00 Paper 12 Energy Efficiency – The Process Suppliers View

Sören Köster,
Vöith Paper, Germany

11.30 Paper 13 Energy Savings due to Cylindrical Refining Concept shown for Different Paper Furnishes

Helmuth Gabl,
Andritz, Austria

12.00 Paper 14 Energy Savings Upgrade of Air Systems at St Regis Sudbrook Mill

Borja Cordoba,
Brunnschweiler, Spain

12.30 Lunch

SESSION 4

... "Controlling Costs with Environmental Improvements"

13.30 Paper 15 How to Save Money, Increase Efficiency and Meet Regulations by Limiting Seal Water Usage: Aylesford Newsprint Case Study

Gary Webb,
John Crane, UK

14.00 Paper 16 A Case Study for Reducing Water Consumption at a Paper Mill

Mikko Siivonen,
Meiso, Finland
+ *Holmen Paper, Madrid, Spain*

14.30 Paper 17 Producing Paper Without Producing Effluent – A Case Study. Results from closing up a mill in central France by the installation of anaerobic waste water treatment

Leo Hobets,
Paques BV, The Netherlands



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15.00 Tea
15.30 Paper 18 Paper about the installation of three filters in a Norwegian mill with a potential saving of over a million US\$ per annum

Len Dewhurst,
Algas, Norway

16.00 Paper 19 New Approach to Paper Mill Sludge – Results of trial at Aylesford

David Powilson,
WRAP, UK

16.30 Paper 20 Recognising De-Inking Waste as a Raw Material for Construction Products

Rob Elias,
Biocomposites Centre
+ *The Building Research Establishment, UK*

17.00 Finish

Tuesday 14th March

Wednesday 15th March

**Dr. Detlev Glittenberg,
Andreas Voigt and
Dr. Andreas Becker**
Cerestar, Germany

Optimisation of the Precoating Share and Binder Compositions of Double Coated Woodfree Papers to Improve Quality and Reduce Costs

The authors describe how a mill reduced coating costs by using recycled coating colour (CC) in the precoat - while using starch as a cobinder and working at maximum coating solids.

Starch and ultrafiltrated CC were cooked together to create a paste with a solids of 49%. The paste was stable and easy to handle and enabled the mill to achieve a CC solids of 70.2%.

In addition, there were quality benefits. The pre-coating formula at 70% solids - where the starch had been cooked in the UCC - led to the following improvements in opacity, stiffness and Prüfbau wet-pick.

An increase of CC solids:

- reduces binder usage, binder migration and mottling
- improves coverage and gloss levels
- reduces the amount of water to be evaporated and therefore drying energy. In this case study, there was 20 kg of water less to evaporate per ton of precoated paper
- increases coating speed by a few mpm in cases where the coater is dryer limited

Coating savings can also be made by i) optimising the ratio of latex to starch and reducing binder levels and ii) substituting precoat for more expensive topcoat at a Constant Total Coat weight.

This feature first analyses options to reduce costs during the production of double coated woodfree papers. Costs can be reduced by:

- using Ultrafiltrated Coating Colour as a pigment additive in precoating colours
- reduction of binder level by increasing coating colour solids
- optimisation of synthetic/natural binder proportion at maximised solids
- increasing the proportion of precoating in the total coating

The feature then describes in detail the results of those different measures alone and in combination on pilot and plant scale by:

- using cold water, swellable starches to achieve coating colour solids of up to 74%
- switching from a higher viscous to a lower viscous starch type to increase coating colour solids dispersing and cooking the starch in the Ultrafiltrated Coating Colour to maximise solids
- reduction of drying energy and simultaneous improvement of mottling by increasing coating colour solids
- quality improvements and savings by replacing a 10 parts Latex/ 6 parts Starch binder composition by one of 7 parts Latex/ 7 parts starch at increased coating colour solids
- influence of low viscous starch in the pre-coating formulation on cracking in the fold applying pre-coatweights of 18-20 g/m² per side at 1400 m/min using a free jet coater with proportional reduction of the subsequent top-coating.

Although the examples cited are all from woodfree papers, we are confident that, within certain limitations, the results can be transferred to the woodcontaining sector.

Introduction

The increase of coating colour solids has reportedly many advantages: Better coverage, higher gloss levels, less binder migration and lower binder demand are some of the main points reported in the literature. A good review of the theoretical background is given in Lit⁽¹⁾.

Besides these effects, increased solids also lower the amount of water that has to be evaporated. This is, in a more or less straightforward way, an economical question. In the simplest form it just saves drying energy.

But, in cases where the coater is dryer limited, it could either mean i) a few metres higher speed and thus increased productivity; or ii) that a less detrimental drying scheme can be applied.

The effect of a too brutal hot air drying on gloss, wetpick and mottling is described by Bettzieche⁽²⁾ and the general importance of a good drying regime by Bauer and Zeyringer.⁽³⁾

Modern starch technology provides products that allow the achievement of solids which are close to or even above what is normal for full synthetic formulations. Figure 1 shows that:

- with the most advanced cooked starches, 70 % solids can easily be achieved in a pure Calcium Carbonate pre-coating.
- the use of a cold water swellable low viscous product added dry to the coating colour enables an even higher level of solids than what is achievable with the fully synthetic formula.

100 parts Coarse Calcium Carbonate 14 parts total Binder

- Latex/CMC - max solids = 71.5 %
- 8 parts Starch as 45% paste - max solids = 70.2%
- 8 parts CWS-Starch added dry - max solids = 74.3%

Figure 1: Achievable Solids for Precoating Formulations

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Customer Service and Troubleshooting: Printing problems associated with coated paper surface characteristics

Since the invention of offset printing over 450 years ago, the desire to perfect the process has pushed commercial printing technology forward. The broadening expectations of modern printers and end users have also placed increasing demands on graphic paper in terms of image and print quality.

One of the challenges to the Mill's service department is to provide sufficient technical support, knowledge and understanding to enable the printer to overcome obstacles to reach a satisfactory outcome.

In this feature, printing problems associated with coated paper surface characteristics will be identified and discussed and recent trends in coated paper properties will be examined, along with their importance to the market. These include the properties of:

strength, profile, stiffness, opacity, fold characteristics, brightness, rub resistance and print contrast.

*PITA Coating Conference
2005*

Paper is an important raw material in printing and must provide the physical properties to meet the demands of the printing process whilst providing a good surface to carry information to the consumer.

Since the introduction of offset printing, the process has developed into an art with tremendous improvements to print quality and colour which is achieved at ever increasing printing speeds. The importance of paper as a raw material in the printing process has created a need to provide the printer with customer service and troubleshooting support should problems arise. This is the realm of the mill technical sales support manager and is commonly categorised under the common theme of 'problems'.

Customer Service: Papermakers often joke that they would like to produce one grammage and just one surface finish, preferably gloss, all the time. Sheet and web press operators often express a similar sentiment regarding their ideal printing substrate. Both groups just want their machines to be able to run as well as possible with as few changes or stops as possible. Who doesn't want an easy life?

Sadly, the commercial world thrives on variety and businesses compete to be different and find 'an edge' on the competition. Designers need an outlet for their creativity, after all!

As a consequence, we are all familiar with paper surface names such as, cast coated, machine glazed, chromo, gloss, silk, satin, velvet, matt, classic matt, dull, eggshell, cartridge and others and paper categories such as lightweight coated, mid-weight coated, wood-free, near wood-free, multi coated etc.

Designers and publishers no doubt delight in the selection available and challenge the printer to meet their demands of print image and quality. The printer will pass on the challenges to the coated paper. Here are some examples:

- Can a designer find satisfactory reproduction of their creation within the constraints of the printing process?

- Will an advertiser accept that the print reproduction is 'near enough' to carry the necessary impact?
- Will the desired job layout allow the printer to apply the ink densities required on each individual page without affecting any of the others?
- Can the press operator meet the output target and keep the quality exactly where it needs to be?

Keeping in step with the ongoing challenges

While the controls and systems around offset printing have developed in huge leaps, the physical method of transferring ink to paper has not changed nearly as much, relatively speaking. Nor has the basis of papermaking.

We now have the ability to put a lot of colours and applications, metallic, varnish, sealers onto a sheet in a single pass through a printing press where not so long ago only 1 or 2 were applied at a time. And although, the surface of that sheet of paper is not so different, it somehow has to cope with receiving all that ink and moisture without losing shape, stability or rigidity and still present a stunning visual image!

For someone who does not appreciate these things, it's easy to plan a super multi-colour publication and expect it to be produced in a single pass on a 4, 5, or even 6 colour perfecting press. In contrast, a wiser, older head, may find many reasons why such a procedure would end in disaster. But, all too often the input of 'wiser older heads' is not sought until something has already gone wrong!

To this end, a key function of mill technical support teams is to try to advise and direct those who sell the paper so that products match demands as optimally as possible and expectations are managed realistically. This is done both formally in seminars, presentations and the production of technical publications dealing with relevant issues as well as more informally, for example, on the telephone.

Troubleshooting: Where do the paper and its coating fit into this? Obviously it needs to

**Liudmila Makhotina,
Svetlana Khvosticova,
Andrey Nikandrov
and Edouard Akim**

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Different Ground Calcium Carbonate Grades and Cost-effectiveness of Paper and Board Coating

Demand for coated paper and board is rising rapidly in Russia and is being met largely by imports which hold a 98% market share. The Russian coating sector is largely based on:

- air knife coating and
- the use of clay as the predominant and calcium carbonate as the complementary pigment - a reversal of European and worldwide practice.

The dominance of clay is due to the fact Russia's chalk - based calcium carbonate is not as effective as the marble-based cc of the West. It does not impart high optical properties and can result in products with poor printability and a high dusting tendency.

This features presents the results of a study of different calcium carbonate grades – produced from marble, limestone and chalk - and their impact on paper properties and papermaking costs.

The properties studied are: whiteness, roughness, trapping and rate of ink fixation.

The authors recommend:

- For high quality paperboard grades, the use of marble based cc which imparts excellent rheological properties and water retention and enables a concentration of coating colours of up to 50 - 55% for air knife

An analysis of the paper and paperboard market shows that the consumption of the coated products has shown the greatest increase in the last 10 years. The commodity grades showing progressive worldwide increase are Printings and Writings and Packaging paper and paperboard.

The production of high quality coated paper and paperboard is expanding at an especially rapid pace, largely due to the increased production and consumption of containers and packages.

In Russia, the increase in consumption of coated paper and paperboard grades started in 1999, *Table 1*. Before 1990, consumption of these grades was relatively low in Russia and did not exceed 0.6 kg per capita per year. But, even this low level of consumption fell considerably in the first half of the nineties, after Russia's transition to a market economy.

However, the temporary stabilization of the economy in 1997 was accompanied by a significant increase in this market capacity and since 1998 there was a progressive increase in consumption in this market.

In 1999, the capacity of the market increased by more than two-fold and exceeded its pre-reform level almost two times. Today, Russian capacity of coated products is as much as 400,000 tons a year.

However, despite the significant growth in consumption of coated paper and paperboard, per capita consumption remains at the extremely low level of 2.8kg.

There are however strong grounds for believing that Russian consumption of coated paper will increase at rates which outrun slightly those of industrial development.

This is due to growing demand for high quality printing grades such as books, newspapers, elite magazines, promotional

products, company and bank reports, containers and packages with multicolour print, labels and insets.

For example, in 2003 the output of printing products increased by 24% in Russia. The market forecast for the most promising paper and board grades is shown in *Figures 1 and 2*.

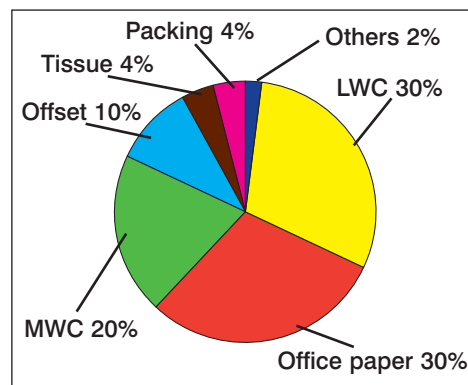


Figure 1 The market forecast for the most promising paper grades

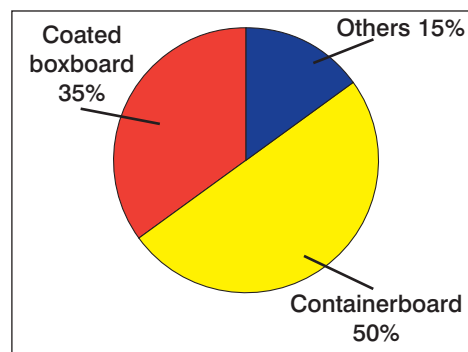


Figure 2 The market forecast for the most promising board grades: as of December 2003.

Source: "Strategy of the Russia's Pulp and Paper Industry for a period till 2015", (GIPROBUM)

	1990	1995	1996	1997	1998	1999	2000	2001	2003
Consumption, thousand tons	97	29	31	60	56	135	190	316	400
Consumption per capita, kg per capita a year	0.6	0.2	0.2	0.4	0.4	0.8	1.3	2.2	2.8

Source: Calculations based on Goscomstat and RF Customs Committee data

Table 1. Dynamics of coated paper and paperboard consumption in the Russian Federation

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Giovanni Cristini
 Vice President Technology,
 Cristini S.p.A.

Innovative Polymeric materials in a new generation of press felts

The use of innovative polymeric materials has resulted in a new generation of press felts which promote the high smoothness values required in graphic grades. They

- bring a 10% increase in smoothness when compared with conventional felts and
- improve sheet dryness and consequently the “R” factor - the relationship between dryness and smoothness of the sheet.

The new materials derive from R&D work on the transfer belts which are used in the most recent press configurations, belts which have a) a roughness which is 38% less than that of the smoothest conventional press fabrics and b) a porosity problem - a porosity which is too low to allow the passage of water required by the nip operations.

The polymeric surfaces of the new felts improve the migration of water from the sheet to the press fabric, thereby enabling the marriage of the high surface finish of the “transfer belt” with the porosity needed for sheet dewatering during nip loading.

The author also describes the role of image analysis in the study of the interface of the press fabric and the FabricScan system, which enables fabric manufacturers to predict, optimize and to appraise the effects of

The constant increase in the quality requirements of paper produced for graphic use requires press fabrics with vastly improved surface characteristics.

In addition, the advent of the extended nip press has accelerated the evolution of press fabrics - since the beginning of the 1990’s, the ENP has been installed on paper machines producing paper for graphic use.

During this time frame, research and production technology improvements of press fabrics has constantly evolved, optimizing various aspects but above all, introducing new concepts and innovative materials.

The research has been pushed in various directions, but only through the advanced technology of image analysis has it been possible to obtain a qualitative and quantitative evaluation of the interface of the press fabric and the sheet.

“Closed loop” control of the smoothness

As a result of close collaboration with research centres and universities, a “closed loop” system has been established for the control of obtainable smoothness. This is the FabricScan system.

FabricScan allows us to foresee, optimize and to qualitatively and quantitatively appraise the effects of press fabric on the qualities of smoothness obtainable from the sheet. Control is founded on two phases:

- 1) Control of the press fabric surface roughness and simulation of the smoothness obtainable.
- 2) Qualitative and quantitative control of the result obtained through digitalization of the sheet surface image and Fast Fourier Transform (FFT) filtration.

The simulation and forecast of fabric smoothness is obtained with the technology of laser interferometry, using a scanner developed specifically for this purpose, figure 1.

Laser Interference: The functioning principle

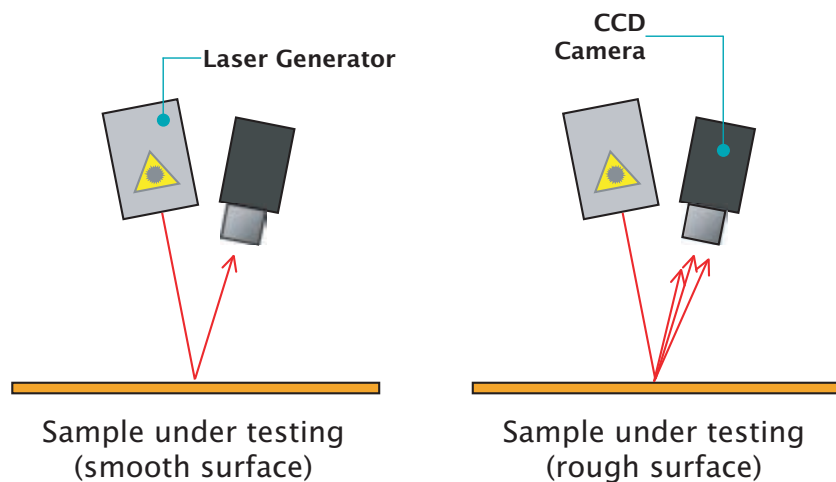


Figure 1: The simulation and forecast of fabric smoothness is obtained via laser interferometry, using a scanner developed specifically for this purpose.

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Jari Lipponen

Sales and Application
Manager

Metso Paper Fibre Lines
Valkeakoski Finland

Each paper machine and each of its end products sets different requirements on the furnish used. Recycled fibre technology offers sub-processes that can be used to tailor the complete line from pulping to water systems.

This feature highlights new developments and experiences with references especially to OptiScreen ProFS screening.

The aim of screening systems is to remove the impurities as early as possible in the process. This is because the possibility of impurity disintegration is increased at all process stages where energy is introduced into the pulp, eg mixing, and pumping.

The state of the art technology for coarse screening has recently been the pressure screen with rotating basket. This basic solution offers many interesting advantages compared with conventional hole basket solutions.

The main target of the fine screening is to remove impurity particles and macro stickies from the process. In addition, the fine screening has a strict requirement to have a high good fibre yield.

The industry standard for recycled fibre fine screening has been the low consistency process. It is generally known that the narrowest slots can give the highest cleanness of the pulp and

State of the Art Screening Systems

Screening processes underwent significant development in the early 1990s, resulting in new technology that considerably simplified screening connections. High screening efficiency was obtained from a single screen by means of a narrow-slot basket. As a result, the accepted flow can be connected forward instead of by the previous cascade connections.

In addition, pressure screening advanced with the introduction of a new design of a pressure screen with a rotating basket. This piece of equipment offers a gentle and an effective sticky removal system with low energy consumption.

There has also been an extensive equipment development both in low consistency (0.8 -2.5 %) and in high consistency (2.5 - 4.0%). And, in connection with fine screening systems, the idea of fractionation is often applied in a new way.

Solutions for Coarse Screening

In principle, coarse screening always continues the process that begins with dissolution; namely, the gentle separation of large impurities with the aim of not further

reducing the size of the impurities. Any impurities that are broken up in the first stage require a great deal of effort to be screened out in the following stages and can have a negative effect on overall sorting efficiency.

As well as the quality aspect, the availability of the machines also has to be considered: Large abrasive contraries such as stones, glass or tramp metal can, for example, reduce the service life of slot baskets.

The OptiScreen CS, which is shown in figure 1, fulfills all the requirements named above. It works as follows:

- The high consistency pulp enters the screen from the side.
- The rotating screen basket and the inflow of the material, together with the conical form of the screen housing, create a vortex or centrifugal field in which heavier impurities are pushed outwards.
- The accepts pass through the basket into the inner chamber where the stator with the foil strips is located.
- The foil strips generate the appropriate pushing and suction impulses on the rotating basket to guarantee a good accept throughput.

This design has the following advantages:

- Gentle screening (foil strips are located on the accept side)
- Low energy consumption (screen basket rotates)
- Low basket wear (specifically heavy, abrasive particles move outwards where they are removed)
- Hard pieces cannot stick to the screen basket
- High capacity (high material density possible), hence cost-effective investment
- By experience we know that with a rotating basket screen of 2.00 mm we can reach the same or better quality than with a classical 1.4 mm stationary basket out-flow screen.

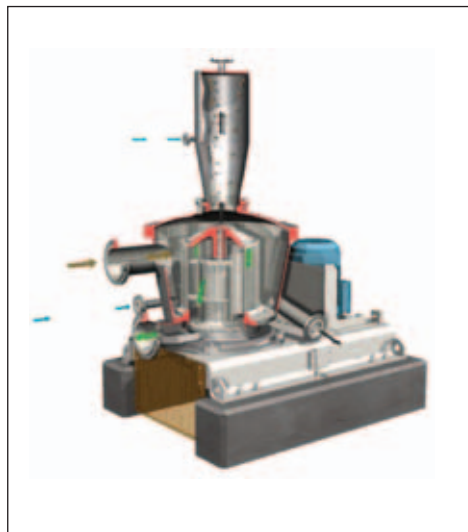


Figure 1 OptiScreen CS – rotating basket coarse screen

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Industry Update

Heimbach invests in Düren

Heimbach is investing €8 m in a new needling machine which, along with a new steam heat-setting calendar, increases the capacity of the Düren site, and reinforces its position as the biggest production site for press felts across the industry.

Heimbach employs some 1,500 staff on six sites in Europe and on one site in China. Half are based at the parent company in Düren-Mariaweiler in Germany.

Executive search merger

Pendleton Consultancy, which focuses on executive recruitment in the paper, packaging and associated industries has merged with The Firth Davies Consultancy to form Taplow Consulting.

Taplow can offer UK clients a network of more than 40 member firms worldwide to their executive recruitment and Human Resource needs. www.taplowconsulting.com

Brazilian accolade for Aker Kvaerner

Kvaerner do Brasil has been named the "Preferred Supplier of machines and equipment for pulp production in 2005" by the Brazilian Pulp and Paper Technical Association.

The recognition follows two major orders from Suzano (Brazil) and ENCE (Uruguay), and is an acknowledgement of Aker Kvaerner's commitment to, and successful presence in the South American pulp production market.

Developing the UK market for recycled-content papers

To demonstrate the quality of recycled-paper content, the Recycled Paper Advocacy Team at WRAP recently distributed full colour prints on both recycled and virgin papers and asked the recipients to spot the difference. Few people could distinguish between the recycled and virgin paper samples, *figure 1*.

This exercise was part of a sustained drive to build a market for recycled products. The RPA Team is working with businesses, local authorities and central government to promote a move to more sustainable procurement policies.

The team will explain the need for recycled content paper and raise awareness of its benefits. They will also advise on products, help to source trial material and provide technical support where appropriate.

In the past, demand for recycled paper has been inhibited by a combination of factors - a lack of awareness and a large component of myth and misconception.

The Recycled Paper Advocacy Team was set up to turn this situation around and boost consumption across the country by

- Dispelling the myths and misconceptions surrounding quality and cost
- Creating markets for recycled products - all too often, in the past, the collection of waste paper for reprocessing has been the beginning and the end of the recycling effort for many organisations

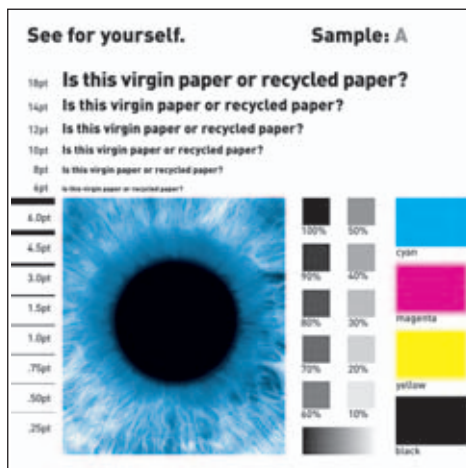
- Raising awareness of the benefits of recycled paper - for example the diversion of valuable raw materials from landfill

"Things are set to change", says David Adams, WRAP's Product Manager for Paper. Demand for recycled content paper is set to increase over the next year, due to increased awareness of the landfill issue and the variety and quality of recycled content papers that are now available - paper which compares favourably with virgin papers in all aspects of performance.

The RPA team points out that the switch to paper with some recycled content is an obvious starting point for many organisations seeking to deliver on sustainability. Organisations with procurement policies which favour recycled papers:

- demonstrate a commitment to improving the environmental impact of products and processes, and, perhaps more importantly,
- help their customers to do the same - thereby gaining a competitive edge.

"As more and more organisations realise that the benefits of recycled content paper tick all the boxes, we will start to see a significant increase in demand." To find out more about recycled content paper or how the team at WRAP can help, please call 0808 100 2040 or visit www.wrap.org.uk/advocacyteam



To demonstrate the quality of recycled content papers, full colour prints on recycled and virgin paper were distributed. Recipients were asked to spot the difference.

Atlas Converting

Atlas Converting Equipment has appointed Stan Braycotton as product manager for the Atlas Slitter Rewinder range. He is responsible for international sales and marketing and the management of the sales team, in Bedford. He reports to MD Kevin Windo.

Mr Braycotton has over 25 years experience in the slitter/re-winders field. He was president and sales director of Cameron Slitter Rewinders before joining Bobst four years ago. For the last two years he was product manager for slitter/re-winders and vacuum metallizers for Bobst in North America. Atlas is a subsidiary of Bobst.

Garnett's strengthens team

P Garnett & Son of Otley has appointed Richard Burnill as key account manager for their new gift wrap range. His main responsibilities will be to develop new and existing business.



Richard Burnill joins Garnett team

In 2005, Garnett carried out a huge investment to equip Otley with a state of the art plant to produce retail-ready rolls of gift wrap.

Mr Burnill will focus on *Alchemy*, Garnett's own brand luxury gift wrap, and will also develop business for the new contract packing facility, a new service available for wrap manufacturers and retailers.

Anti - bacterial paper range fights MRSA hospital bug

Garnett's have developed an anti-bacterial paper which will help fight the MRSA super bug in UK hospitals - patients' notes are helping to spread the bug according to research from the University College London Hospital's NHS Trust.

Hospital-acquired infections kill at least 5,000 people every year in the UK and the



Hospital bugs can be spread by patients' notes and medical records

healthcare industry is calling out for solutions which will help in the fight against infection.

In response to these needs, Garnett's have replaced their leading Filemaster brand with the new Filemaster Anti-Bacterial range which will reduce the danger of cross contamination from the handling of medical records.

Special anti-bacterial products, which have been incorporated into the materials used to make record cards, will help to resist the spread of bacterial infections, such as MRSA.

"This is the first step towards developing a range of products for the healthcare industry that will help counter the effects of disease transmission through paper products", says Cliff Barry, MD of Garnett's.

"We are constantly monitoring the needs of the industry and will be working with key professionals in the healthcare service throughout the whole of 2006 to come up with practical solutions for this very serious matter."

Garnett's new Filemaster Anti-Bacterial is being launched early in 2006 to medical record companies and the like for immediate incorporation into their ranges. This is the first of a range of Anti Bacterial papers and boards.

QISoft hires Brazilian agent

QISoft of Lancashire has engaged Automat of Sao Paõlo as its representative in South America.

- The UK company, which is a specialist in process and paper industry software is already well established in Europe and North America. Dedicated software for the paper industry includes the QIS manufacturing execution systems.
- Automat is a provider of CD process control and moisture and caliper control systems for the paper industry with a blue-chip customer base.

Until now, business in South America was handled by QISoft in the USA.

During the handover, QISoft will provide training for Automat staff who will translate software manuals and other training materials into Portuguese and Spanish.

Already, Automat has received "a number of enquiries from companies who are very enthusiastic about the ability to improve process yields and add value by integrating QIS software into existing process control and management systems."

For QISoft, the South American venture is "strategically important to our plan to expand internationally", according to president Kevin Luxton.

Voith Paper Fabrics management team

Matthias Lindemann of Voith Turbo has been appointed chief financial officer of Voith Paper Fabrics. He succeeds Martin Scherrer who has been named senior VP for the Europe /Africa region.

Mr Scherrer will oversee the entire European sales and operations organization for fabrics.

Bob Gallo, senior VP for the Americas, and Bob Burke, senior VP for the Asia/Pacific region, will remain in their positions

with responsibility for the overall operations and sales functions in their respective regions.

Last year, Voith Fabrics became a division of Voith Paper with the appointment of Bertram Staudenmaier, member of the Voith Paper Executive Board, as head of Voith Paper Fabrics. The Executive Board, which includes Dr. Hans-Peter Sollinger and Norbert Nettesheim oversees the seven divisions of Voith Paper.

Albany International CEO

Joseph G. Morone, President and a director of Albany International has assumed the additional responsibility of Chief Executive Officer as of January 1, 2006. He succeeds Frank R. Schmeler who continues to serve as Chairman.

Stora Enso

Arno Pelkonen has resigned from Stora Enso where he was Senior Executive VP Strategy and Emerging Markets and a member of the Executive Management Group (EMG).

Although his new position was considered both challenging and promising, it did not, unfortunately, finally meet his expectations. He therefore decided to explore new professional opportunities.

Kadant AES

Kadant AES, has made several new appointments: Lynn Wadleigh, as controller; Dick Goldy as R&D manager and Stan Green, a new recruit, as engineering manager.

Metso sells wastewater assets to GL&V

Metso Paper has sold certain assets of its Water Management Business to Groupe Laperrière & Verreault of Montreal. The sale includes assets in the wastewater treatment field, including micro floatation and the FlooBed bioreactor.

Metso Paper will continue to specialise in water-related business, focusing primarily on paper and pulp mills - on productivity, quality and production efficiency improvement.

Metso Automation

Metso Automation has appointed Pekka Ilvonen President of the Process Automation Systems business line. He comes from Alstom in Switzerland and is experienced in automation and power plants. He is based at Metso's Tampere and Helsinki offices.

Environmental leadership award for UPM-Kymmene

UPM's Chain-of-Custody management system has won an Environmental Leadership award which is sponsored by the European Commission - in the European Business Awards for the Environment 2006 competition.

In addition, UPM was commended for the 'Responsible Wood Sourcing in Russia' project. The awards were conferred by the Finnish National Fund for Research and Development.

'These award-winning projects provide UPM with daily tools for tracking the origin of wood,' said Päivi Salpakivi-Salomaa,

director of UPM's Environmental Forestry Affairs. They provide credible information about the origin of wood throughout the whole supply chain - from forest to the customer - and enable UPM to increase the proportion of sustainably certified fibre on the market.

UPM's CoC Management system is the first global model incorporating all the main forest certification schemes. It is implemented in the UK, France, Germany, Finland, Estonia, Latvia, Lithuania and Canada. The aim of the system is to harmonize CoC models in all of UPM's mills.

Recycling 60 million Christmas Cards

The Woodland Trust Christmas Card Campaign aims to recycle 60 million Christmas Cards this year - by encouraging the British public to put their cards in special recycling bins which were located in high street stores from 2-31 January.

The scheme which is supported by WH Smith, Tesco and the Recycle Now campaign, recycled 58 million cards last year.

"The fact that the scheme is now in its fifth year shows how the British public support and value it," says Kathy Bradley, Director of PaperChain.

"Paper plays an enormous part in Christmas each year, from wrapping paper and decorations to Christmas cards and much of it is simply thrown away. The Woodland Trust should be congratulated on making it easy to recycle Christmas cards".

Finnish Forest Industries Federation

Jussi Pesonen, President & CEO of UPM-Kymmene has been elected Chairman of The Finnish Forest Industries Federation for 2006.

Kari Jordan, the President & CEO of Metsäliitto Group, and Kai Korhonen, the Senior Executive VP of Stora Enso were elected deputy chairmen.

The following were elected to the Executive Committee: Matti Jaakola, MD of Georgia-Pacific Nordic, Kalle Kantola, MD of Haapajärven Ha-Sa; Jyri Nenonen, MD of

Kinnaskoski; Sverre Norrgård, President & CEO of Myllykoski, and Sari Rämö, MD of SCA Packaging Finland

The annual autumn meeting elected new members to the board which now numbers 32. They are Jussi Aine, MD of Puustelli Group; Kai Korhonen; Aarno Laukkanen, MD of Stromsdal; Risto Mätäsaho, MD of PRT-Forest; Jyri Nenonen, MD of Kinnaskoski and Kari Nikkanen, Assistant MD of Olavi Räsänen.

Andritz acquires 60% stake in Küsters Paper Business

Andritz is to acquire a 60% stake in the Paper Business of Eduard Küsters Maschinenfabrik of Germany, a leading supplier of rolls and calender technology to the paper, non-woven and textile industries.

Küsters was taken over by Jagenberg in the summer of 2005 from family ownership. The Paper and Nonwoven Business Areas will be integrated into a joint company owned by Andritz and Jagenberg (40)%, with Andritz assuming industrial leadership.

The company will be based in Krefeld,

Germany. It will employ about 500 people and have annual sales of approximately €70 - 80 million.

"Küsters' successful dewatering and finishing technology, which has been in use for many years now, offers a wide range of applications for Andritz in the pulp and paper industry," says Wolfgang Leitner, President and CEO of Andritz.

The deal is now going through the approval processes at Board and Antitrust level.

AF Group process division

Claes-Inge Isacson is the new divisional manager for ÅF Process as of 1 January 2006. He replaces Per Göransson, who is leaving the ÅF Group.

An engineering graduate of Chalmers Technical University in Gothenburg, Mr

Isacson has worked for APRIL as VP for Indonesian operations; for Norske Skog, from 1989 to 2004; for the Stora Group and for Jaakko Pöyry.

ÅF is an international consulting company for process industry.

Kadant Lamort Recertified

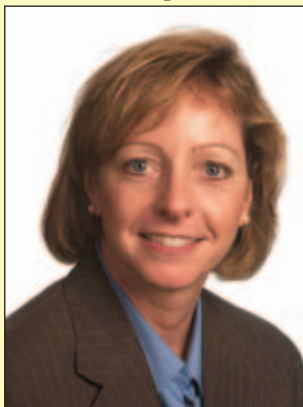
The Quality Management System of Kadant Lamort has received recertification under ISO 9001:2000 for another three years. The recertification audit in November found that the system is well-managed and undergoing continuous improvement.

“Recertification confirms Kadant Lamort’s commitment to quality, and will allow us to provide the most advanced systems and equipment to our pulp and paper customers around the world,” says company president Alain Serres.

Kadant Lamort is a wholly owned subsidiary of Kadant Inc. www.kadant.com

President of International Paper Europe

Mary Laschinger has replaced Thomas Kadien as president of International Paper Europe. She will report to John Faraci, chairman and chief executive officer of International Paper.



Mary Laschinger, President of International Paper Europe

Ms Laschinger joined International Paper in 1993 and has held various sales, marketing, technical, supply chain and operations positions. Most recently, she was VP of the US wood products business, which produces lumber, plywood and engineered wood products. She has also been VP of Pulp and general manager of the Industrial Papers coating business.

Ms Laschinger will relocate from Memphis, Tennessee to the company’s European coordination centre in Brussels, Belgium.

Thomas G. Kadien has been named President of xpedx, the North American distribution business. He has been president for International Paper Europe since

April 2003 and senior VP of International Paper since May 2004. He will relocate from Brussels, Belgium to Memphis. www.internationalpaper.com/europe



Thomas Kadien moves from IP Europe to NA as President of xpedx

Kemira

Dr Frank Wegener is Senior Vice President of Kemira’s ChemiSolutions business - the former SBU Organic Acids and Salts business. He had been Senior VP of SBU Chemidet, where he is succeeded by Tomas Forsgård.

Kemira’s Industrial Chemicals business area has been renamed Performance Chemicals.

Clariant appointments

Jan Secher has been named chief executive designate of Clariant. He will take over from Roland Loesser, who will become chairman of the board on 7 April 2006 at the AGM.

Patrick Jany (37) has been appointed chief financial officer and member of the management board. He replaces Francois Note, who is pursuing opportunities outside Clariant.

Mr Jany had been head of Corporate Development. He joined Sandoz, one of Clariant’s predecessor companies, in 1990.

Talc, salt and borates producers combine to form RTM

Rio Tinto is combining three of its industrial minerals businesses into Rio Tinto Minerals to better serve markets. They are:

- Luzenac, a leading talc producer;
- Rio Tinto Borax, a leader in borate supply and science;
- Dampier Salt, an exporter of solar salt;

Together with Rio Tinto Iron & Titanium the new RTM will form the Rio Tinto Industrial Minerals Product Group (RTIM). The new structure will be implemented progressively throughout 2006.

The aim is to achieve efficiencies of scale, and create a platform for growth, at a time of rising demand for industrial minerals, says Andrew Mackenzie, Chief Executive of RTIM.

Products such as Luzenac talcs will be marketed under the existing brands.

Gary Goldberg, currently president and CEO of Borax, will be appointed chief operating officer of Rio Tinto Minerals. Adam Parr, currently MD of Dampier Salt, will become chief commercial officer. Both will report to Andrew MacKenzie.

Press Release

National Starch & Chemical has appointed **Solstar Europe Limited**, a newly formed company, as its agent in the UK to improve the customer service and marketing of its well-known and effective RediBOND range of products.

Terry Thomas, Divisional Vice President of National Starch’s Natural Polymers Group Europe, commented, “The RediBOND range of dry-strength additives for the paper industry has a proven track record around the world and we are delighted that this alliance will make them even more attractive to our customers.” John Kennedy,

Sales Director, Solstar Europe, added “Our team has over 70 years combined experience in selling and servicing chemical treatments to the Paper Industry. Solstar’s objective is to improve customer response and drive satisfaction to a new level. Growth is very much a part of the plan with complementary, value-enhancing products backed by superior service”.

For more information contact John Kennedy at jmk@solstareurope.com, mobile: 07753 890525 or Catherine Cooper at National Starch & Chemical. Email: Catherine.cooper@nstarch.com

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AIR SHAFTS EXPANDING				
Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
AUTOMATED HANDLING & WRAPPING REELS AND PALLETS				
Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
Machinery and Systems from Finland	West Yorkshire	Jukka Tamminen-Jackson	07766 462783	jtamminen@aol.com
AUTOMATED SPRAYING AND CONTROL				
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GBC (Speciality Chemicals)	Oxford	Adrian Iley	01608 813088	gbcspecs@enablis.co.uk
BIOCIDES				
Kolb Distribution	Lancashire	Malcolm Austin	07720 287460	malcolm.austin@kolb.ch
BLADE HOLDERS, COATING & CREPING				
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Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
BLADES, COATING, CREPING AND PRINTING				
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Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
CHARGE MONITORING CONTROL WET END				
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COATING CONSULTANTS				
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COATING EQUIPMENT & MATERIALS				
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COATING SYSTEMS				
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CONDITION MONITORING				
Monitran Ltd	Buckinghamshire	Suzanne Pearl	01494 816569	suzanne.pearl@monitran.co.uk
CONSISTENCY AND REFINER CONTROL				
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CONSULTANCY SERVICES				
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CONTRACT RESEARCH				
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John Crane UK Ltd	Manchester	Gary Webb	07711 650660	gary.webb@johncranemcr.co.uk
CRANES				
Konecranes	Lanarkshire	Gordon Adie	01355 220591	gordon.adie@konecranes.com
DEFOAMERS				
Blackburn Chemicals	Lancashire	Amanda Lamb	01254 52222	alamb@bbchem.co.uk
Kolb Distribution	Lancashire	Malcolm Austin	07720 287460	malcolm.austin@kolb.ch
DE-INKING CHEMICALS				
Kolb Distribution	Lancashire	Malcolm Austin	07720 287460	malcolm.austin@kolb.ch
Stephenson Recycling Chemicals	Bradford	Ramesh Patel	01274 723811	src@stephensongroup.co.uk
DOCTOR BLADES				
Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
DRYING CYLINDER SERVICES				
Bender Machine Services	Rossendale	Steven Withers	01706 225521	swithers@bendermachine.com
DRYING CYLINDERS				
Clearwater Poole	Bury	John Poole	0161 797 3437	jpoole@clearwaterpoole.co.uk
Sandusky Walmsley	Bolton	Mike Valentine	01204 396060	mavalentine@sanwal.co.uk
DRYING CYLINDERS MAINTENANCE				
Intertechnics-Cumel-ReDoc	Oxford	Anthony Shepherd	01993 810080	info@intertechnics.co.uk

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Greenbank Engineering	Blackburn	David Wilkinson	01254 690555	info@greenbanktechnology.co.uk
DRYING ROLLERS				
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DRYING SYSTEMS				
Greenbank Engineering	Blackburn	David Wilkinson	01254 690555	info@greenbanktechnology.co.uk
Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
DYESTUFFS				
Albion Colours	Halifax	David McCarthy	01422 358431	David.McCarthy@albionchemicals.co.uk
EFFLUENT TREATMENT				
Huber Technology	Chippenham	Nick Hunt	01249 765000	nh@huber.co.uk
KWI (UK) Ltd	Flintshire	Phil Woollen	01352 700224	office-uk@kwi-intl.com
END OF LINE PACKAGING SYSTEMS				
Machinery and Systems from Finland	West Yorkshire	Jukka Tamminen-Jackson	07766 462783	jtamminen@aol.com
ENGINEERING, MAINTENANCE AND INSTALLATION				
Smithtech Engineering	Chorley	JD Smith	07775 732857	jd@trubody.freeserve.co.uk
ENGINEERING SERVICES				
Bender Machine Services	Rossendale	Steven Withers	01706 225521	swithers@bendermachine.com
Clearwater Poole	Bury	John Poole	0161 797 3437	jpoole@clearwaterpoole.co.uk
FIBRE RECOVERY EQUIPMENT				
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KWI (UK) Ltd	Flintshire	Phil Woollen	01352 700224	office-uk@kwi-intl.com
FILTRATION				
Premier Filtration	High Wycombe	Chris Smith	01628 527704	premier@filt.fsnet.co.uk
FILTRATION SYSTEMS WATER				
John Crane UK Ltd	Manchester	Gary Webb	07711 650660	gary.webb@johncranemcr.co.uk
FLAME RETARDANTS				
Mare Paper Chemicals Group	Luton	Mitch Cook	01582 811900	Mitch.Cook@maregroup.co.uk
INFRARED DRYERS				
Compact Engineering	Thirsk	Tim Klemz	01845 525356	apollo@compact.co.uk
Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
INSTALLATION & ALIGNMENT SERVICES				
Bender Forrest Ltd	Rossendale	Stefan Wilds	01706 225521	swilds@bendermachine.com
Clearwater Poole	Bury	John Poole	0161 797 3437	jpoole@clearwaterpoole.co.uk
LUBRICATION MANAGEMENT				
ChevronTexaco Global Lubricants	Staffordshire	Mick Doxford	020 7719 2227	mickdoxford@chevrontexaco.com
LUBRICATION SYSTEMS (CENTRALISED). DESIGN & INSTALL				
Harrison Lubrication	Bolton	Phil Vause	01204 691352	sales@hle.co.uk
John Crane UK Ltd	Manchester	Gary Webb	07711 650660	gary.webb@johncranemcr.co.uk
MACHINERY AND SYSTEMS FROM FINLAND				
Machinery and Systems from Finland	West Yorkshire	Jukka Tamminen-Jackson	07766 462783	jtamminen@aol.com
MACHINERY SAFETY & INSPECTIONS				
Laidler Associates	Teesside	Derek Coulson	08700 111375	enquire@laidler.co.uk
MILLWIDE SYSTEMS				
Applied Software Control (A.S.C.)	Aberdeen	David Capel	01224 643792	d.capel@ascman.co.uk
PACKAGING MATERIALS, MACHINES AND SYSTEMS				
Machinery and Systems from Finland	West Yorkshire	Jukka Tamminen-Jackson	07766 462783	jtamminen@aol.com
PAPER, TISSUE & BOARD MACHINES				
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Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
Sandusky Walmsley	Bolton	Tony Pope	01204 396060	tpope@sanwal.co.uk
Voith Paper	Manchester	Keith Millington	0161 655 2912	keith.millington@voith.com
PEARL LUSTRE PIGMENTS				
Merck Chemicals Ltd	Poole	Stephen Harpham	01202 785313	stephen.harpham@merckscld.co.uk
PIGMENTS				
Clariant	Leeds	Louise Barker	0113 239 8265	louise.barker@clariant.com
Sun Chemical	Milton Keynes	Ian Knowles	0161 443 1174	ian.knowles@eu.sunchem.com

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COMPANY	LOCATION	CONTACT	TELEPHONE	E.MAIL
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University of Manchester	Manchester	Bob Wilde	0161 306 3904	r.wilde@umist.ac.uk
PIPEWORK & VESSEL FABRICATIONS				
Bender Forrest Ltd	Rossendale	Stefan Wilds	01706 225521	swilds@bendermachine.com
PROJECT ENGINEERING/CONSULTANCY				
Bender Forrest Ltd	Rossendale	Stefan Wilds	01706 225521	swilds@bendermachine.com
Clearwater Poole	Bury	John Poole	0161 797 3437	jpoole@clearwaterpoole.co.uk
PULP AND PAPER MILL DESIGNERS & ENGINEERS				
Clearwater Poole	Bury	John Poole	0161 797 3437	jpoole@clearwaterpoole.co.uk
QUALITY CONTROL INSTRUMENTS				
Tendring Pacific	Saffron Walden	Anton Hutson	0870 240 1886	anton@tendringpacific.com
QUALITY INFORMATION SYSTEMS				
QISoft Limited	Leyland	Tim Perris	01772 641133	info@qisoft.com
RAW WATER TREATMENT				
Huber Technology	Chippenham	Nick Hunt	01249 765000	nh@huber.co.uk
KWI (UK) Ltd	Flintshire	Phil Woollen	01352 700224	office-uk@kwi-intl.com
REBUILDS, MAJOR				
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Sandusky Walmsley	Bolton	Tony Pope	01204 396060	tpope@sanwal.co.uk
Voith Paper	Manchester	Keith Millington	0161 655 2912	keith.millington@voith.com
REBUILDS, RECONDITIONED PLANT/PARTS				
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REEL & PALLET WRAPPING SYSTEMS				
Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
REEL STANDS				
Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
REFINING AND DEFLAKING				
Pilao International Ltd	Darwen	Mel Hadfield	01254 873871	info@pilao.co.uk
REPLACEMENT PARTS				
Clearwater Poole	Bury	John Poole	0161 797 3437	jpoole@clearwaterpoole.co.uk
Sandusky Walmsley	Bolton	Derek Lees	01204 396060	dlees@sanwal.co.uk
RF/AIR DRYING				
Greenbank Engineering	Blackburn	David Wilkinson	01254 690555	info@greenbanktechnology.co.uk
Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
ROLL GRINDING, REFURBISHMENT & SERVICING				
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ROLLERS				
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ROTARY JOINTS AND SYPHONS				
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SEALS				
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SHOWER SYSTEMS/SPRAY NOZZLES				
Spraying Systems Ltd	Farnham, Surrey	Rowland Bailey	01252 727200	info@spray-uk.co.uk
SITE SERVICES				
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SIZING				
Mare Paper Chemicals Group	Luton	Mitch Cook	01582 811900	mitch.cook@maregroup.co.uk
SLITTING & CUTTING EQUIPMENT				
Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
SLUDGE DEWATERING				
Huber Technology	Chippenham	Nick Hunt	01249 765000	nh@huber.co.uk
Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk

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STEAM AND CONDENSATE SYSTEMS				
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Kadant Johnson Systems International	West Yorkshire	David Moss	01943 607550	david.moss@kadantjohnson.co.uk
STICKIES CONTROL				
Kolb Distribution	Lancashire	Malcolm Austin	07720 287460	malcolm.austin@kolb.ch
STOCK CHEST CLEANING				
Spraying Systems Ltd	Farnham, Surrey	Rowland Bailey	01252 727200	info@spray-uk.co.uk
STOCK PREPARATION				
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Voith Paper Fibre Systems	Manchester	Darryl Holt	0161 655 2907	darryl.holt@voith.com
John Wilkie - Hett GmbH	Perthshire	John Wilkie	01764 685267	WilkieMaryfield@aol.com
STRETCH FILMS AND WRAPPING MACHINES				
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STROBOSCOPES				
Euroto Ltd	Bolton	Tony Aspinall	01204 665050	sales@euroto.co.uk
SYPHON SYSTEMS				
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TESTING AND ANALYTICAL SERVICES				
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THERMAL SPRAY/METAL SPRAY COATING SERVICES				
Bender Machine Services	Rossendale	Steven Withers	01706 225521	swithers@bendermachine.com
TRAINING				
Bury College	Bury	Jean McLaughlin	0161 797 4325	jeannie.mclaughlin@burycollege.ac.uk
Paper Classroom	Bolton	Steve Mann	07780 614148	steve@paperclassroom.com
PITA Trainers	Bury	John Clewley	0161 764 5858	info@pita.co.uk
University of Manchester	Manchester	Bob Wilde	0161 306 3904	r.wilde@umist.ac.uk
USED RECONDITIONED MACHINERY				
John Wilkie Papermill Services Ltd	Perthshire	John Wilkie	01764 685267	WilkieMaryfield@aol.com
VACUUM PUMPS & SYSTEMS				
Flowtech Pumps	Manchester	Ian Pendleton	0161 794 8038	ipendleton@pumpgroup.co.uk
Gardner Denver Nash UK Ltd	Winsford	Mark Roughsedge	01606 542400	mark.roughsedge@gb.gardnerdenver.com
VALUATION SERVICES				
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VALVES				
Lohse GmbH	Croydon	Kevin Bracken	020 8667 3013	kevin.bracken@voith.com
VIBRATION EQUIPMENT				
Monitran Ltd	Buckinghamshire	Suzanne Pearl	01494 816569	suzanne.pearl@monitran.co.uk
WASTE TRIM REMOVAL SYSTEMS				
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WATER CLARIFICATION				
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Jarshire Ltd	Slough	Bob Longbottom	01753 825122	sales@jarshire.co.uk
John Wilkie Papermill Services Ltd	Perthshire	John Wilkie	01764 685267	WilkieMaryfield@aol.com
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WATER RECOVERY				
Huber Technology	Chippenham	Nick Hunt	01249 765000	nh@huber.co.uk
KWI (UK) Ltd	Flintshire	Phil Woollen	01352 700224	office-uk@kwi-intl.com
WET/DRY STRENGTH RESINS				
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WIRE AND FELT CLEANERS				
Kolb Distribution	Lancashire	Malcolm Austin	07720 287460	malcolm.austin@kolb.ch
WRAPPING EQUIPMENT				
Machinery and Systems from Finland	West Yorkshire	Jukka Tamminen-Jackson	07766 462783	jtamminen@aol.com

Installations

Mill	Supplier	Equipment review
Al Nakhil Paper Industries Saudi Arabia	Jarshire, UK	An unwind and rewind stand for a PM upgrade. Jarshire utilised Svecom multi-bladder air shafts made from lightweight aluminium; Svecom safety chucks; two Nexen BTB10 brakes mounted on each side on safety chucks; and a Nexen closed loop tension control system. The stand was made to the following specifications: Max web width 1600 mm; Machine speed 400 M/min; Max reel diameter 1300 mm; Max reel weight 1500 kg Proposals for additional stands, fitted with a Helios edge and centre trim facility, are being prepared. Jarshire represents Nexen and Svecom in the UK.
April Group Rizhao Pulp Mill China	Dorr-Oliver Eimco Groupe Laperrière & Verreault	An order to increase the capacity of the recausticizing system. The ERP contract will be managed from Dorr-Oliver Eimco's recausticizing technology centre in Salt Lake City, Utah, USA.
April Group Kerinci Mill Indonesia	Dorr-Oliver Eimco Groupe Laperrière & Verreault	A Dregs filter for the 2000+ TPD pulp mill in Kerinci, Indonesia. The EPS contracts will be managed from the Dorr-Oliver Eimco recausticizing technology centre in Salt Lake City, Utah, USA.
Arjo Wiggins Dartford Mill UK	Elyo (Suez Group)	A 10-year, €10 million contract according to which Elyo will take charge of the utilities of the Dartford carbonless/fine paper mill site - including management of the on-site 7-MW cogeneration plant. The contract includes reemploying the existing technical staff and it follows the success of a 10 year contract at Chartham Paper Mill.
AssiDomän Frövi Mill Sweden	Papertech Vancouver, Canada	A 30-camera event capturing system which will monitor production on the 380,000 tpy BM5; WebVision Plus provides instantaneous video analysis following an alert. It will be used i) to find the root cause of breaks using the real-time DefectDetector and PatternMatche software, and ii) to inspect the web for various defects - holes, slime, dirt etc - along the entire production process. Frövi produces liquid and packaging board.
Century Paper & Board Mills Pakistan	Daewoo International Corporation	A 7.5 billion rupee (\$125m) order for machinery and expertise for a capacity expansion project - for prime quality packaging board. Includes a DIP plant and an in-house Co-generation Power Plant to meet the electrical & steam needs of the expanded mill. Century is owned by the Lakson Group and is one of the largest integrated pulp and paper mills in Pakistan where it has a 20% market share.
Century Pulp and Paper Lalkua Mill India	Voith Paper, Germany Voith Paper, India Larsen & Toubro, India	A 200 tpd, 2-loop DIP system which is specified to produce pulp with a brightness of 85% ISO and a very low stickies and dirt speck content. The pulp will be used for the production of P&W grades on the mill's Escher Wyss PM3 and on the new Voith PM4 which was ordered in March 2005. The order also includes full Advanced Wet End Process (AWEP) technology for the approach flow. The main features of DIP Loop I are: HC pulping and cleaning; hole and slot coarse screening; EcoMizer intermediate consistency cleaning; EcoCell pre-flotation before LC slot screening; washing, thickening, dispersion and bleaching in the EcoReact bleaching tower. Loop II has a similar design, with EcoCell post-flotation, Thune disc filter and screw press thickening, followed by kneader type dispersion and bleaching.
CT Paper Sales UK	Webtek UK Somerset	A cutter upgrade on a 3.8m wide winder - one of the largest privately owned winders in the UK.
Domtar Industries Ashdown Mill Arkansas, USA	Metso	A dilution SymFlo AD headbox for PM61. Start-up is scheduled for 4Q 2006. PM61 is a 1967 Beloit machine with a wire width of 6258 mm. It produces uncoated free sheets.
Drenik Serbia	Recard, Italy	The start-up of a new 40 tpd tissue machine by the Serbian tissue converter - its first paper machine. The 600 mpm crescent former will process virgin fibre to produce toilet paper and industrial rolls for the nearby converting plant. The equipment was diverted from a cancelled Italian project - the proposed greenfield mill in Rizziconi, southern Italy.
Ence Celulosas de M.Bopicuá Fray Bentos Uruguay	Aker Kvaerner	A \$250 million order for the main process equipment for the new 500,000 tpy pulp mill which will produce bleached eucalyptus. The \$600 million project is scheduled to be on stream by 2008. Ence is a leading producer of eucalyptus pulp, being No 1 in Europe and No 2 in the world. Kvaerner Pulping and Kvaerner Power will deliver the complete fibre line (cooking, washing, oxygen delignification and bleaching) and the recovery line (evaporation plant, recovery boiler, odorous gas treatment, white liquor plant and biomass boiler).
Georgia Pacific Allo Mill Spain	PMT Italia Pinerolo	A 230 tpd tissue machine which will start-up late this year. TM3 will have a speed of 2000 mpm and a machine width of 5500mm at the reel. It will process virgin fibre. The mill has two tissue machines.

Mill	Supplier	Equipment review
Georgia Pacific Oughtibridge Mill Sheffield	Jarshire UK	The design and supply of an upgraded slitting system for the 3200mm PM1 tissue machine which has a design speed of 350mpm. The order follows the successful installation of 13 Helios S4C knife-holders on a rewinder last November. The mill specified a slitting system that would a) automate the setting of knife-holders and end the need to stop the TM due to knife setting errors; b) provide quick and easy pattern slitting. The new Helios TRC is a modular system with 4 slitting groups consisting of a knife-holder and bottom knife, each independently driven by an AC motor which is controlled from a control panel outside the machine - the display panel shows the position of the cutting groups and is integrated with a measure reading system. Since installation, which took two days, a complete slit pattern can be achieved in less than 20 seconds and there is a significant reduction in wastage. The mill expects payback within 3 months. www.jarshire.co.uk
Hayat Timizlik Turkey	Turbomach, Switzerland	Two 15,030 kWe gas turbine generator packages for cogeneration whereby the exhaust heat of the gas turbine is used to produce steam or hot water for the papermaking process.
Holmen Group Iggesund Paperboard Iggesund Bruk Mill Sweden	Vaaho, Finland	The rebuild of KM2, a board machine with a wire width of 5.1 metres and a max operating speed of 600 mpm. Start-up in October 2007. The rebuild includes: a new three-ply wire section with two new headboxes, one of which will be equipped with dilution water control. The new wire section will ensure Iggesund's position as a leading producer of high quality graphic paperboards. Also includes: the rebuild of the dryer section; equipment and pipes for the water circulations; engineering, production, erection, training and start-up services. Sk 415 has been earmarked for investment at Iggesund Mill in order to increase capacity and improve quality. The wire section of Workington PM1 was rebuilt by Vaaho in 2004.
ICT Tronchetti Tissue Mill Zaragoza Spain	FIS Impianti Jarshire UK	The delivery of a fully automatic roll handling and wrapping system for a 5400mm PM line. The system is designed to handle Jumbo tissue rolls of 2700mm width and 3000mm dia with a max weight of 5 tonnes. Compact and innovative, the new sytem has a centering shuttle which collects split rolls coming from the PM shaft extractor. The rolls are then moved to a rotating-table which is designed for extra soft paper rolls. From the table, wrapped rolls are discharged onto an upender and moved vertically to a weighing station for labelling. For economy of movement, 5 full size rolls can be stored on the line prior to movement. Diagnostic software, includes 570 alarms. In emergencies, rolls can be taken out of the line directly from the centering shuttle. FIS Impianti is represented in the UK by Jarshire.
Ilim Pulp Enterprise Kotlas Mill Koryazhma Arkhangelsk Region Russia	Metso Paper	A €25 million rebuild of the neutral sulphite semi-chemical pulp line which involves the replacement of most of the unit. The rebuilt line, which is scheduled for start up in April 2008, will have a capacity of 900 tpd. Kotlas has 4 PMs which produce 540,000 tpy of kraftliner, fluting, offset paper and sack kraft paper. The integrated plant has a pulp capacity of 950,000 tpy of which 300,000 tonnes is market pulp. An ERP contract for modernisation of the recausticizing system.
ITC Paperboard Andhra Pradesh Pulp Mill India	Dorr-Oliver Eimco Groupe Laperrière & Verreault	Includes a pressurized White Liquor ClariDisc filter, a Lime Mud ClariDisc filter, Slaker, Causticizer, and auxiliary equipment. Start-up is scheduled for August 2006.
Lee & Man Paper Changshu Mill Shanghai China	Metso Paper	A €40 million order for a kraftliner board machine with a wire width of 7250mm, a design speed of 1150 mpm and a capacity of 400,000 tpy. Start-up in December 2006. The delivery includes Metso Automation's metsoDNA machine control systems. Lee & Man Paper produces 1.6 million tpy of containerboard at three mills in Huangyong, Changshu and Hongmei.
M-real Office Papers Europe	Greycon, UK	A supply chain optimisation solution for 4 mills in the UK, France and Sweden. The functionality of the new solution is complementary to M-real's SAP implementation with which it will be tightly integrated.
Metsaliitto Group	Equant	A three-year, multimillion dollar contract for the provision of a worldwide connection solution for the 3500 mobile and home office workers in Metsaliitto's five business sectors - wood procurement, wood products, and the pulp, paper and tissue making. The <i>Business Everywhere</i> system will replace a decentralized infrastructure which is based on multiple vendors. The aim is to increase the productivity of mobile and home office workers, improve customer service, and reduce costs. <i>Business Everywhere</i> will connect mobile workers to corporate IT systems - employees will be able to access applications such as Microsoft Exchange and SAP from a range of devices such as laptops, PDA's, communicators and home PC's with the same login procedure regardless of access technology and location. The simplified technical environment, and an Equant authentication platform will provide a high and Security. <i>Business Everywhere</i> provides one contract, one bill, a single customer experience.

Mill	Supplier	Equipment review
Modern Karton Sanayi Ticaret Turkey	Metso Paper	A €80 million order for the new 400,000 tpy BM4 containerboard line which will start up in 4Q 2007. Also includes an OCC line, stock prep and water management systems, a WinDrum Pro winder and PM ventilation. Metso Automation will supply metsoDNA machine controls. The new line will process 100% recycled fibre and will produce corrugating medium and testliner. The BM will have a wire width of 8.6 m and a design speed of 1800 mpm.
Moritz J. Weig Germany	Turbomach, Switzerland	A 15,000 kW gas turbine generator package for cogeneration - the exhaust heat of the turbine will produce steam or hot water for the papermaking process.
Mudanjiang Hengfeng Paper Group Co Heilongjiang Province North-East China	Allimand, France	A New paper machine to produce technical papers, with start-up in June 2006. The PM has a wire width of 4450 mm, a width of 3860 mm at the reel, a design speed of 700 mpm and lubrication; stock prep equipment and the approach flow system. Allimand is also in charge of the general engineering and the entire control process - for stock prep, approach flow, the white water system, the steam / condensate system and the PM itself.
Nippon Paper Shiraio Mill	Solaronics Bekaert, France	A GemDryer drying system with four GemDryer hoods - one after each coating station. Respectively, they have five, six, five and six rows of Gem9 emitters. The total number of emitters is 1,034 for a total installed power of 9.3 MW. The PM produces rolls of width 6.59 m wide at a speed of 1,100 m/min.
Norske Skog Halden Mill Norway	Jaakko Pöyry, Finland	A €2.5 million engineering contract for the rebuild of the TMP plant which will enable the mill to meet new paper quality standards. Includes engineering management and detail engineering services. The rebuild project is scheduled for March 2007.
North West Timber Co Kamennogorsk Paper Mill (KOPM) Leningrad Region Russia	Kadant Lamort Kadant Inc	An 80 tpd de-inking line which is designed to process 100% Russian recycled fibre for P&W production - at a relatively low cost per tonne. The mill produces 30,000 tpy of offset paper, mainly for notebooks and copy-books. The new DIP line includes: the Helico pulper, the MAC de-inking cell, the DNT washer, and the FiberNET screen. Water treatment is handled by a Poseidon PPM Clarifier. KOPM is located close to the Finnish border. Kadant Lamort's agent Elof Hansson helped to keep the project on schedule and all equipment and services were delivered within one year.
Oji Paper Kanzan Spezialpapiere Germany	Parsytec, Germany	An inspection system for the PM6 line which has recently been converted to a new product line. The mill, which produces thermal and inkjet papers, has Parystec systems at coaters SM1 and SM2 and at the subsequent winder.
Pandawa Sakti Greenfield Pulp Mill Mempakad, Sabah Malaysia	Changsha Engineering China	The construction of a 300 tpd greenfield hardwood kraft pulp mill near the town of Mempakad in Sabah. Funding negotiations with the Export-Import Bank of China are expected to conclude by mid year when construction will begin. Start-up is expected by mid-2009. The company will establish up to 25,000 ha of acacia plantations to feed the mill and output will be exported exclusively to China. Future plans include another 300 tpd of hardwood pulp line and a \$500 million paper mill.
Potlatch Corporation Lewiston Mill Idaho, USA	Toscotec, Italy Lucca	A new headbox is being designed for the mill's 2L machine using 3D modelling and fine element analysis. Made entirely of stainless steel, the headbox will have a 5400mm span and a speed of up to 2000 mpm. The order follows a successful TAD installation at Potlatch, Las Vegas. The single-layer headbox will be installed on an existing double wire machine during a five day shut this year. To avoid positioning problems, the headbox was developed with the help of a 3d modelling system which reproduced the structure of the current machine and its foundations. In addition, special software for the analysis of dynamic stress distribution is being used to optimise the critical components of the headbox - header, the nozzle, and the tube bank. Before delivery in November, the headbox will be pre assembled on a test-bed at Toscotec's Marlia plant. The training of mill engineers will take place concurrently with the testing. The project will optimise fibre orientation and improve quality.
SCA Hygiene Porcari Mill Italy	Toscotec, Italy	A new single-nip heated calender and a TT Transfer tail feeding system which started up recently. They are designed to reach speeds of 1000 mpm although PM5 itself is currently running at 88-850mpm. The PM, which is 5.3m at the pope reel, produces corrugating paper, or white top liner (with the calender). The standard basis weight is 140 gsm. The calender has two cylinders which are pressed together by means of oil-pressure pistons to form the nip; the lower cylinder allows for a constantly variable roll crowning; the upper cylinder features internal canalizations; inside which hot water flows in a three stage course to produce a uniform surface temperature. To maintain high temperatures below boiling point, water is introduced under pressure inside the cylinder, thanks to a special heating unit. TT Transfer is Toscotec innovation.

Mill	Supplier	Equipment review
SCA Hygiene Valls Mill, Tarragona Spain	PMT Italia	A 5.5m tissue machine which came on stream last year. The 2000 mpm crescent former processes virgin fibre to produce tissue of 14-28 gsm for toilet paper and kitchen rolls. The turn key contract included 2 stock prep lines and auxiliary systems - cranes, bale handling, steam plant, air systems, roll handling, compressor plant, vacuum plant, fresh water and waste water treatment, electrics and control systems.
SCA Packaging Obbola Mill Sweden	Andritz Austria	A €60m order for a recovery boiler to which will start-up in Oct 2007 and enable the company to reduce energy costs and emissions and to maximise electricity production and improve the self-sufficiency of energy supply. The high-temperature/high-pressure boiler will have a capacity of 1,000 tds/d. The EPC order includes the main equipment, boiler building, electrostatic precipitators, piping, insulation, instrumentation, electrification, erection and start-up.
Stora Enso Hylte Bruk Mill Sweden	Siemens Industrial Solutions and Services Group (I&S) Germany	The control and automation systems for Boiler 2 which is being revamped to reduce emissions of carbon dioxide and NOx and comply with new EU regulations. The new control system, which is based on Simatic PCS7 and on S7-400 controllers, will replace old 1980 systems from different manufacturers. The rebuild will provide the mill with a uniform and all-inclusive platform for all open-loop and closed-loop control. It will improve operator control, increase fail-safety and availability and make the installation more eco friendly.
StoraEnso Kabel Mill Germany	Voith Paper Automation	A sheet break analysis system for PM 5 and the CM 5 coating machine. The OnV WebVision system uses cameras to monitor the paper web and analyse the cause of sheet breaks. Eight colour cameras with lighting are fitted to PM 5 and seven to CM 5 so that the entire production line can be checked. Another 17 connecting positions are planned at critical points in the process. The installation also includes a control centre, 2 operator stations and 4 real-time monitors which enable the operator to keep up to 4 different camera images per monitor in view simultaneously. The camera will be remotely controlled by a light wave cable, a useful feature for places that are difficult to access. A Remote Access Server enables Voith to provide fast support if any problems occur. The 600,000 tpy Kabel Mill produces wood-containing, coated printing papers in rolls and cut-sizes.
Suzano Bahia Sul Papele Celulose Mucuri Mill Bahia, Brazil	Anritz, Austria	The woodyard and the fibreline (washing, screening, bleaching) for a new pulp line with a capacity of 1 million tpy of eucalyptus pulp. Start-up is scheduled for 3Q 2007. The woodyard consists of a three-line-chipping plant, chip storage and chip screening system as well as bark handling. The chipping lines, which have a capacity of 280 m ³ /h, are designed to produce high and uniform quality chips - using a circular chip storage system with the latest blending bed technology and a rotating stacker-reclaimer. The 3,160 tpd fibre line is designed to produce high brightness eucalyptus pulp, while maximizing pulp quality at the lowest energy and chemical costs. The fibre line includes: 4 Drum Displacer Washers for brown stock and post oxygen washing; Post oxygen pulp screening; Four stages ECF bleaching with the A-stage process for reducing chemical consumption.
	Metso Paper	An €100 million order for a pulp drying line for the expansion project which is due to start up in 2H 2007. The line, which trims at 9,990 mm, has a production capacity 3,340 adt/d of eucalyptus pulp. The delivery covers: bleached stock screening, drying, cutting and three baling lines. The line will include the largest airborne dryer ever built, and its output will be highest ever made on a single drying line. Also includes engineering, procurement and construction services (EPC). A significant part of the delivery will be manufactured in Brazil and pre-assembled in Metso facilities in Sorocaba.
Technocell Dekor Germany	Turbomach, Switzerland	A 5500 kW gas turbine generator package for cogeneration - the exhaust heat of the gas turbine will produce steam or hot water for the papermaking process.

Mill	Supplier	Equipment review
Tento Zilina Mill Slovakia	Toscotec, Italy	The rebuild of PM 1 to increase capacity to 110 tpd and improve quality. The PM makes tissue from virgin fibre in a wide gsm range. The rebuild includes a new headbox and crescent former and the replacement of the press section with a single, large diameter (1,280mm) vacuum press roll. Operating speed will increase from 1600mpm to 2000 mpm - the net format is 2870mm reels - and there will be improvements in formation and bulk. Stock prep will be modified and the approach flow will be adapted to the double layer headbox. Also includes a new tail feeding system between the yankee and the pope reel; the modification of the pope reel and the installation of a creeping doctor blade with variable angle adjustment. Delivery is scheduled in March for an April rebuild.
	Milltech	A new high efficiency gas fired hood in the drying section and the verification of the existing steam and condensate control system.
Tracodi Phuong NamMarket Pulp Mill Long An Province Vietnam	Andritz, Austria	A €60 million order for the construction of a 100,000 tpy market pulp mill which will process kenaf. Start-up is scheduled for 2007 and the mill will supply the Vietnamese paper industry with pulp, for P&W grades. The production process is based on a patented Andritz refiner technology, which reduces plant operating costs, while giving improved fibre quality. The essential advantages are: the waste water (no sulphuric compounds). A complete process plant based on the same technology will process poplar at Estonian Cell, Estonia.
UMKA AD Fabrika Kartona Umka Mill, Belgrade Serbia	Andritz, Austria	The rebuild of KM1, an 8-layer board machine which produces coated folding boxboard from 100% recycled fibre. The rebuild will increase the board machine's capacity from 60,000 to 90,000 tpy. Start up is scheduled for Nov 2006. Includes the upgrade of the press section; the rebuild the pope reel; new process equipment for stock prep lines No 5 and No 6; the approach and the water system. The No 5 line processes OCC and mixed recycled paper for the back and middle liners. The No 6 line processes white shavings and unprinted newsprint trimmings. The BM rebuild includes a shoe press and a new pope reel with reel spool magazine and automatic reel change. Felt guides and conditioning will be upgraded UMKA A.D. will carry out adjustments to the dry end, coating plant, and steam and condensate system.
UPM Kaipola Mill Finland	Metso Paper	A €9 million upgrade of the PM6 finishing line for star-up in August 2006. The 9.1m PM produces LWC grades at a speed of 1600 mpm. The rebuild will improve quality and enable the production of super jumbo rolls measuring 4.32 m and weighing 8 tons. Includes the rebuild of the JR1000 single drum winders with heavy winding stations, a new WinBelt rewinder and a new StreamLine roll wrapping machine with two industrial robots and overlap wrapping. The automation level of the winders will be upgraded with a new control system and automatic set change with tail gluing. The delivery also includes roll conveyors from the winders through the wrapping machine to the warehouse. The wrapping machine and conveyor system are both completely non-hydraulic. Kaipola has 3 PMs which produce 710,000 tpy of LWC, directory paper and newsprint.
UPM Nordland Papier Dörpen, Germany	Voith Paper Automation	An OnV WebVision sheet break analysis system for PM3, following successful installations on PM 1 and PM 2. A total of 24 colour cameras will enable video monitoring of critical points in the papermaking line. WebVision alerts the system computer as soon as a sheet break occurs and the computer automatically saves the video recording of the event for later analysis. This enables the mill to identify the cause of the fault and prevent its recurrence. The cameras are connected to a quad unit so that the operator can follow the camera images either individually or in a quadruple view on a real-time monitor. The cameras will be installed during the rebuild of PM 3 this summer and are expected to come on stream in September 2006. Voith supplied two cameras early this year to enable the operating personnel to become familiar early on with the OnV WebVision System.

Coming Events

9th International refining conference: Vienna 2006

A five day event on Refining and Mechanical Pulping will be held at the Renaissance Wien Hotel, Vienna from 20 - 24 February by Pira International.

Comprising a two day course, a two day conference and a half day workshop, it will cover the latest developments and trends and will provide practical insights into effective papermaking - through tips and advice which can be implemented at the mill.

The course which will run on Monday 20 and Tuesday 21 February, 2006 will cover the theory and practice of refining along with developments in stock prep, screening and cleaning, white water save-all systems and the relationship between mill design and efficiency.

The conference will run from 22 to 23 February and will include presentations from mills, research institutes and suppliers.

The workshop will focus on Energy Usage and will be held on the morning of Friday 24 February from 09:00 - 13.00. The title is *Enhancing papermaking through better energy usage*.

Scientific and technical advances

There will be several presentations from pulp and paper companies, including:

WEYERHAEUSER: In the opening address, Mike McCaw will discuss the commercial imperatives for pulp suppliers and the future for refining and mechanical pulping.

PONDERCEL, Mexico: Salvador Vargas Almodovar will speak on refining in-situ in Mexico.

ILIM PULP, Russia: Rogerio Leal Carneiro will discuss increasing the lifetime of discs for recycled paper.

UPM KYMMENE, Finland: Taisto Tienivieri will present a paper on: Developing better procedures for refining and mechanical pulping.

Several major suppliers will describe technical developments and trends. For GL&V, Colin Baker will present a paper on a refiner for the 21st Century. For Andritz, Olli-Pekka Riippa, will speak on Papillon refiner energy efficiency.

Refiner control will be covered by Manny Sidhu, of Honeywell Controls Canada.

Improving the strength potential of OCC is the theme of a paper from Metso Paper. Jussi Ahola and Petteri Soini, will discuss OCC fibre potential and fibre development.

Mechanical pulping refiner plate optimisation will be covered by Luc Gingras of Durametal, USA. He will discuss energy, quality and yield.

The latest research findings

Research scientists from around the world will describe the latest findings and trends.

From Wageningen in the Netherlands there will be two presentations: i) Annita Westenbroek will speak on Refining and future papermaking trends; and, ii) Jocco Dekker will discuss Energy and Directions for new refining technology.

PTS Paper Germany: Dr Gert Meinl, will cover the simulation of refining behaviour and resulting paper properties.

Åbo Akademi, Finland, Tom Lundin, will present a paper on studies in loadability, including current and future trends.

STFIPackforsk, Sweden: Ulla-Britt Mohlin, will discuss refining intensity and gap clearance.

From British Columbia, there will be two presentations, Dr Richard Kerekes of UBC will describe recent work at UBC on measuring heterogeneity in refiners. Peter Wild of the University of Victoria will discuss the measurement of forces on refiner bars.

Thapar Research India: Dr Pratima Bajpai will cover use of enzymes for reduction in refining energy: laboratory and process scale studies 2004 - 2005.

Contact Jo Stone Tel: 01372 802044; Fax: 01372 802243; Email: jos@pira.co.uk; www.piranet.com

Moving beyond operational excellence to added value

Creating Value is the theme of the 37th PRIMA conference which will be held from 17 to 19 May 2006 at Ludwigshafen, Germany. The full title of the conference is *Beyond Operational Excellence: Creating value in other ways*.

Adding value is the essential next step for survival in the highly competitive global market which is dominated by tight economies, the ever increasing need for environmental compliance and the arrival of new papermaking nations with low cost bases.

By and large, the global paper industry has completed the preliminary steps in the battle for survival - through rationalisation and cost efficiency programmes which have embraced management teams, business units and systems and product portfolios.

These have resulted in streamlined organisations and immense process improvements, and sometimes, in the shifting of operations across the world. But, the opportunity for continued cost reductions is diminishing.

At the same time, European papermakers are facing stiffer international competition, especially from emerging nations with a significantly lower cost base. These nations are beginning to compete one for one with Europe in the areas of product innovation, time to market and engineering excellence.

In this competitive climate, operational excellence is but a starting point. To survive, European papermakers must find new ways to break out in order to add value, to serve the customer better and - most of all - be different.

PRIMA 2006 will offer a fresh approach for identifying new opportunities. On the first day of the conference the focus is on i) using lateral thinking to create profits from paper and ii) the new business models which have been successfully implemented along the value chain.

Session I - Ways to profit from paper

In the keynote address, Martin Brudermüller of BASF will set the scene with a talk on Solutions for a better life after operational excellence. This will be followed up by the following presentations:

- An Introduction by Outi Ervasti, of Jaakko Pöyry, Finland
- Customer Focus by Peter Berg, of McKinsey & Company, Sweden
- Strategic Pricing by Bernhard Ebel, of Simon, Kucher & Partner, Germany
- Grow your market by communication and promotion by Craig Halgreen, of Sappi Europe
- The power of branding by Monique Bollen, of PaperlinX Europe

- Logistics and Transport by Joachim Koch, of TransCare Germany
- Technology and Innovation, the speaker tbc.

Session II - Global Dynamics and Forecast

The second day of the conference will cover the fundamental dynamics of our industry such as sustainability, the energy situation and global fibre supply.

The aim is to provide papermakers and merchants with a comprehensive knowledge of the market place and the challenges ahead - an essential for the development of action which will enable the industry to: maximise responsiveness, dissipate risk and manage increasingly complex customer requirements.

In the closing presentations, speakers will present the short to mid term outlook for economy, packaging trends and global paper markets. The following topics will be covered in Session 11:

- Sustainability by Margareta Renström, Global Forest and Trade Network Coordinator, WWF, Sweden
- Energy by Magnus Hall, President & CEO of Holmen, Sweden
Global Fibre Supply, Speaker tbc
- World Economic Outlook by Jean-Paul Bethèze, Chief Economist, Crédit Agricole, France
- Challenges and Trends in Packaging, Speaker tbc
- Global Paper Markets by Roman Hohol of Amec Forest Industry Consulting, Canada

After lunch, delegates are invited to visit the premises of BASF. Tours and informative presentations will be organised in small focus groups.

BASF will also host a Welcome Dinner on Thursday 18 May - at the BASF Casino Ludwigshafen.

The PRIMA Dinner will be held at Heidelberg Castle, the former home of the Princes of the Pfalz and now one of the best known historical buildings in the region.

The conference itself will be held at the Feierabendhaus, a three story building which was opened in 1913 and is used to host corporate, cultural and social events.

PRIMA has moved to new offices in central Graz. Paper & Related Industries Marketing Association, Hauptplatz 3, 8010 Graz, Austria.

Tel; + 43 316 5737 2088;

Fax + 43 316 5737 206;

www.prima-papernetwork.org

email: office@prima-papernetwork.org

PTS Symposium Chemical Technology of Papermaking

The programme for the 17th PTS Symposium on Chemical Technology is being prepared by a committee of international experts who have issued a Call for Papers - abstracts should arrive in Munich by 28 February 2006.

The Symposium, which will be held in Munich from 12 to 15 September 2006, has been held in Munich for more than 30 years.

Speakers from industry and science are invited to present their latest findings and results on the following topics.

- Market developments and their effects on manufacturing technology and quality requirements
- Novel and improved product functions in the newsprint and magazine sectors; administration papers/fine papers, packaging papers and paper-board
- Optimum use of fibrous raw materials (recycled, mechanical and chemical pulps)

- Targeted use of fillers based on recent findings
- New additives, optimum additive use and prevention of failures and operational trouble for maximum process efficiency and product quality
- Detrimental substances - how to effectively combat and avoid them
- Innovative and improved plant technology and measuring systems in process technology and process design
- Quality assurance for zero defect operation

The abstract should convey both the content of the work and the new ideas it involves, how these ideas are put into practice and which benefits they can bring to the industry.

They should be sent to Dr.-Ing. Reinhard Sangl, email: r.sangl@ptspaper.de

PTS is based in Munich: Tel: +49 89 12146230; Fax +49 89 1214636; www.ptspaper.de

Laboratory Training: Free courses from Hach Lange

A series of free laboratory training courses will be held at the Manchester head quarters of Hach Lange, a specialist in water analysis and a manufacturer of laboratory testing equipment.

The courses will cover the basic principles behind all measurement techniques, an understanding of which is essential if laboratory staff are to attain high levels of accuracy and reliability.

Initial courses have focused on pH, conductivity and turbidity.

pH: Dr Geoff King provides training on pH, outlining key principles including the role of the indicator and reference electrodes, the factors affecting choice of electrode, and the effects of chemical composition and electrolytic strength on measurement technique. The preparation or purchase of calibration or buffer solutions is also discussed.

Conductivity: Training includes sessions on conductivity measurement in the laboratory. The relationship between solution resistance and con-

ductance is explained in addition to a description of the factors affecting choice of electrode.

Good measurement technique is explained in conjunction with key issues such as the 'cell constant' and polarisation avoidance. Calibration techniques and temperature compensation are also covered for all types of water including ultrapure.

Turbidity: Christian Pust provides training on turbidity measurement covering important subjects such as principles of measurement and the differences between USEPA and ISO Standards.

Information is also provided on calibration, the ratio mode and the effects of stray light.

Details on future training courses can be obtained directly from sarah.blayds@hach-lange.co.uk or by subscribing to the company's 'H2O Newsletter' via the web site www.hach-lange.co.uk. Hach-Lange is based in Salford, Manchester.

Tel 0161 872 1487, Fax 0161 848 7324;

email: info@hach-lange.co.uk

www.hach-lange.co.uk

WWEM 2006 - on water and wastewater

WWEM 2006, which covers all aspects of water and wastewater monitoring, will take place at the Telford International Centre on 1 and 2 November 2006. It is jointly organised by the Environment Agency, SWIG (sensors for water interest group), and Environmental Technology Publications.

The event comprises a major Conference, Workshops, Exhibition and a Gala Presentation Dinner. In 2005, the inaugural WWEM exhibition was sold out 6 months in advance, so the larger Telford site was chosen this year.

The Conference will cover issues relating to legislation, technologies and procedures for effective testing and monitoring. Presentations will include the Environment Agency's Modernising Regulations Agenda and MCERTS - for continuous water monitors, wastewater

samplers and for the self-monitoring of effluent flow.

"Some 30 companies are currently going through the process of applying for MCERTS certification for their water monitoring products", says Bob Cooper of SIRA, the body which is running MCERTS for the Agency. "Initially, many companies only apply for MCERTS for their flagship products, but once they see how easy and cost-effective it is, and how users are demanding MCERTS certification, they come back to certify more of their product range."

Further information on MCERTS can be found at the Environment Agency's web site:

www.mcerts.net. For WWEM, contact Marcus Pattison at St. Albans, Tel 01727 858840;

Fax 01727 840310;

email: info@wwem.uk.com; www.wwem.uk.com

Sensors for water: the 2006 workshop schedule

A series of Workshops on the testing or monitoring of water quality will be held during the coming year by the Sensors for Water Interest Group (SWIG). They will be held at different venues including Lancashire, Scotland, the South West and Swindon.

In March there will be two workshops covering:

- Sampling & Data Quality on 2 March at Grafham Water Centre, Nr. Huntingdon. This is a joint venture with the British Measurement & Testing Association.
- Sensors & Control Of Biological Processes on 23 March at The National Memorial Arboretum, Alrewas.

Traditionally, SWIG events have attracted government agencies, instrumentation manufacturers and the water industry. However, given the importance of environmental legislation, sensor technology and process control to almost every industry, a wider attendance is expected and this year, including delegates from manufacturing industries, from the research sector, and from the food and beverage, pharmaceutical, chemical, industries.

The following subjects will be covered throughout 2006:

Filter Bed, Turbidity & Coagulation Control on 25 April at the Scottish Executive Main Building, Victoria Quay, Edinburgh.

This is a joint venture with the Scottish Executive, Drinking Water Quality Division.

- Water Framework Directive on 18 May at United Utilities, The Chorley Conference Centre, Lancashire.
- Automated Customer Meter Reading on 15 June at WRc Swindon.
- Odour Monitoring on 28 September at Bretby Conference Centre, Burton on Trent.
- Implications of Unmanned Works on 19 October at United Utilities, The Chorley Conference Centre, Lancashire.
- Sensor Technologies on 23 November at the National Memorial Arboretum, Alrewas. This is a joint venture with Optocem.net

SWIG is a non-profit organisation created to increase understanding of issues relating to water quality, level and flow measurements in all industries and applications. It provides a forum for manufacturers, end users and researchers in the sensor community for the testing of new ideas, the exchange of views and networking. SWIG workshops focus on practical applications and current challenges. Further information can be obtained from www.swig.org.uk; info@swig.org.uk

Regenerated Cellulose

Regenerated Cellulose and Cellulose Derivatives is the theme of a FPIRC course which will be held from 20 to 24 March 2006 at KaU in Karlstad, Sweden.

The Course will be held in English and registration is through the web - by no later than Feb. 17. The schedule and detailed

course information, including prices can be found at www.fpirc.kth.se/courselist

Dr Micael Stehr is the programme coordinator for the Forest Products Industry Research College. The contact points are: email: fpirc@kth.se; www.fpirc.kth.se

Waste and recycling: September exhibition at NEC

RWM, the recycling and waste management exhibition, will be held at the NEC in Birmingham from 12 to 14 September 2006. It is expected to attract 7,000 visitors and 400 exhibitors - already, over 240 stands have been confirmed.

RWM 05 had 6443 audited visitors and was attended by a total of 8429. Some 89% of RWM 05 exhibitors met new customers on their stands and over 50% report orders from sales leads obtained at the show within one month of the show ending. Consequently

96% are planning to return to RWM 06,

“Our ABC Profile Certificate of Attendance and visitor and exhibitor research prove that RWM is the biggest and best-attended event in the UK’s waste and recycling industry calendar”, says Exhibition director, Steve Crowhurst.

More information including the exhibitor listings and details of the interactive visitor attractions will be published on www.rwmexhibition.com in the coming months.

BIM UK WISH TO APPOINT

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BIM United Kingdom Ltd is committed to delivering to the UK Paper Industry leading technologies such as our Web Uniformity programme for tissue property control and novel microbiological control programmes.

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You will be based in the South of England to manage our existing customers and develop new sales of BIM technologies. Experience in working in a field based sales role serving the Paper Industry is a major plus but applications from strong technical candidates will be considered. You should have an advanced qualification in chemistry, process or paper technology and be strong on interpersonal skills. Ability to work under pressure is a must. The position is home based and you have to be self-motivated and resourceful. An industry leading benefits package is available for this critical position.

For more information please contact Craig Samuels, Sales Manager, phone +44 7921 471499. Please send your application and CV to BIM United Kingdom Ltd, Prince Street, Bolton BL1 2NP. Mark the envelope with "Service Engineer" or "Technical Sales Representative".

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Georgia Pacific is one of the world's largest suppliers of consumer and commercial tissue products boasting an extensive and diverse portfolio of branded and own label goods. Based at one of the company's largest manufacturing sites currently undergoing significant investment, this role provides a high profile opportunity for an exceptional individual to make a tangible impact to the ongoing success of the business.

Leading a professional team, this role will have responsibility for all technical activities across a significant integrated papermaking and converting operation. Specifically, liaising closely with various stakeholder groups internally and externally, the appointee will be responsible for technical performance from goods in through to the final product, with a focus on reducing process variation and improving cost effectiveness. Ideal candidates, of degree calibre, will have a paper science qualification or equivalent along with several years experience gained in a similar role in a paper mill. The ability to lead and manage change in a continuous improvement environment is essential for success in this role and strong candidates will demonstrate a track record of sustainable performance enhancement delivered through existing assets. Specific experience of COSHH issues is also prerequisite.

Interested applicants should send a detailed CV quoting current salary and reference 4134/PITA.

SunChemical

Performance Pigments™

Laboratory Manager Colour Applications Team

Sun Chemical Performance Pigments seeks an experienced laboratory manager with Paper Coloration knowledge for our technical service laboratory in Køge, Denmark.

Responsibilities would include all aspects of external and internal technical service activities for all segments of our Specialties markets including Paper, Non-Woven, Wood & Artist Paints.

A minimum degree level qualification ideally in Paper Technology or scientific related subject is required. Specifically we want to appoint a person who has a minimum of 5 years experience of working within the Paper & Board Industry and specifically with Paper Coloration experience.

Good communication skills are essential for this role as are people management and development experience. The ability to speak other European languages, particularly German and Danish would be an added advantage. We are looking for a team player with a positive work ethic, self-motivated and customer focussed. Some travelling will be required in order to provide both sales support and technical services at Customer sites.

It is a condition that you will take up residence in Denmark. Salary depends on qualifications and experience. We offer pension scheme and other benefits.

For further information about the position, contact:

Marketing Manager Mrs. Margit Sørensen
Tel: +45 56 67 75 81.

If you are interested in this role please send your C.V. and application including certificates and diplomas to

HR Consultant Mrs Birgit Larsen,
not later than 15th of March by e-mail
Birgit.Larsen@Eu.SunChem.com or

Sun Chemical A/S
Københavnsvej 112
4600 Køge
Denmark

Sun Chemical, the world's largest producer of printing inks and pigments, is a leading provider of materials to packaging, publication, coatings, plastics, cosmetics, and other industrial markets. With annual sales approaching \$4 billion, Sun Chemical has over 12,000 employees supporting customers around the world. The Sun Chemical Group of companies includes such well-known names as Coates, Hartmann, Kohl & Madden, and US Ink.

Sun Chemical Corporation in the U.S. and Sun Chemical Limited in England are subsidiaries of Sun Chemical Group B.V., The Netherlands. Sun Chemical has headquarters in Parsippany, New Jersey, U.S.A.; Watford, England; and Weesp, The Netherlands. For more information, please visit our Web site at www.sunchemical.com.

Sun Chemical in Denmark is a middle-sized company manufacturing, testing, developing and marketing organic pigments and dispersions. Sun Chemical is an equal employment opportunity provider, valuing respect for its company, its employees and its community.

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Calendar of World Events

Date	Event	Venue	Organiser
FEB 2006			
6-9	Paper Week International PAPTAC Conference & EXFOR 2006	Palais des Congrès Montreal, Canada	PAPTAC Tel+1 514 392 0265; Fax: +1 514 392 0369 email: rwood@paptac.ca; www.paptac.ca
20-24	Refining and Mechanical Pulping	The Wien Hotel, Vienna	Pira International Jo Stone, Tel: 01372 802044
MARCH 2006			
9-11	NZ Forest Industries International Exhibition	Rotorua Racecourse, New Zealand	FI Events Tel: +64 7 362 7865; Fax: +64 7 362 7875 email: bal@wave.co.nz www.forestevents.co.nz
13-15	PITA Papermaking Conference 2006	The Cedar Court Hotel, Bradford	PITA, John Clewley Tel: 0161 764 5858; Fax: 0161 764 5353
14-17	Tissue World Americas 2006	Miami Beach Convention Centre Florida, USA	CMP Asia www.tissueworld.com
20-24	Regenerated Celulose Derivatives	Karlstad, Sweden	FPIRC Dr Micael Stehr, email: fpirc@kth.se
APRIL 2006			
3-5	Appita Annual Conference	Carlton Crest Hotel, Melbourne, Australia	Appita; Tel.; +61 3 9347 2377; email: admin@appita.com.au www.appita.com.au
9-12	International Conference on Pulp and Paper Mill Effluents	Vitória Convention Centre Espírito Santo, Brazil	ABTCP; Tel: +55 11 3874 2733 email: anapaula@abtcp.org.br; www.abtcp.org.br
9-12	Paper Week	Waldorf Astoria Hotel New York	AF&PA; Tel: +1 800 878 8878 email: info@afandpa.org; www.afandpa.org
25-27	TissueMEC 2006	Budapest, Hungary	Edinova; edinova@edinova.com www.tissuemec.com
MAY 2006			
7-10	International Pulp Week	Fairmont Hotel Vancouver, B.C., Canada	PPPC / Market Pulp Association Tel: +1 514: -861 8828 Fax: +1 514 866 4863 email: general@pppc.org; www.pppc.org
15-20	Corrugated 2006	Paris Nord Villepinte, France	Reed Exhibitions Tel: 020 8910 7817; Fax: 020 8910 7848 email: corrugatedteam@reedexpo.co.uk www.corrugatedexpo.co.uk www.pppc.org
17-19	Prima Conference: Beyond Operational Excellence – Creating Value	Ludwigshafen, Germany	Prima Tel: +43 316 5737 2088
29-31	BIR Convention	China World Hotel Beijing, China	Bureau of International Recycling Tel: +32 2 627 5770; Fax: +32 2 627 5773 email: bir@bir.org; www.bir.org
10-13	International Pulp, Paper and Tissue Forum	St. Petersburg, Russia	Adforum, Sweden and RESTEC email: jan.johansson@adforum.se; or trofimov@restec.ru www.IPPTF.com
SEPT 2006			
12-14	Recycling and Waste Management	NEC, Birmingham	RWM www.rwmexhibition.com
NOV 2006			
1-2	WWEM 2006	Telford International Centre	WWEM Marcus Pattison; Tel: 01727 858 840
8-10	Challenges of Pulp and Papermaking Technology – International Symposium	Bratislava, Slovak Republic	www.challenges06.sk

Registration Form

PITA PAPERMAKING CONFERENCE

“CONTROLLING COSTS IN PAPERMAKING”

14th & 15th March 2006

Cedar Court Hotel, Bradford

Please register the primary delegate

Name	
Position	
Company	
Address	
Telephone	Fax

I wish to attend the PITA Papermaking Conference on (please tick appropriate box)

Both Days (includes Conf. Dinner) Day 1 only Day 2 only

Number of additional conference dinner tickets required at £41.13 (VAT incl)

Total Fee
(see price schedule) Please find enclosed cheque Please invoice my company I wish to pay by Credit Card

Please debit my Visa/Mastercard No.	<input type="text"/>
Cardholder's Name	
Expiry Date	Security No.
Statement Address	

Signature	Date
<input type="text"/>	<input type="text"/>

Please advise of any special dietary requirements, e.g. vegetarian, or if any other special assistance is required.

Please complete the details above and send to:

Helen Dolan, PITA, 5 Frecheville Court, Bury, Lancashire BL9 0UF

Tel: 0161-764-5858 Fax: 0161-764-5353 e.mail: info@pita.co.uk

Fees are payable in advance and cheques should be made payable to PITA. An invoice/receipt will be sent to you as confirmation upon receipt of the registration form. Please use one form per delegate. Photocopies are acceptable. If payment in Sterling against a UK bank is impossible, please add £10 or US\$15 to your payment to cover bank charges, etc.

17.5% VAT is payable on all UK & overseas bookings for conferences held in the UK.

Bankers information for credit transfer payments:

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