



Ink on Paper

Innovations in ink, paper and press technology to improve printability
Two day Pira International conference and half day pre-conference symposium



Wednesday 2 and Thursday 3 November 2005

London Hilton Olympia, London, UK

Half day symposium

Understanding and solving the demands and challenges of deinking

Tuesday 1 November 2005

With presentations from:

Abitibi Consolidated
Aylesford Newsprint
INGEDE
M-Real
Stora Enso

Featuring case studies and presentations from:

BPIF	MAN Roland	Stora Enso
Hercules	Norske Skog	Sun Chemical
HP Indigo	Omya	STFI-Packforsk
Imerys	Pira International	UPM Kymmene
INGEDE	Sappi	VTT
KBA	SCA	Web Offset Champions Group
M-Real	Siegwerk	Welsh Centre for Printing and Coating
Megtec	Steinbeis Temming Paper	West Ferry Printers

Supporting association:



Media partner:



Ink on Paper

Print today is all about cutting costs and increasing speeds. Achieving these improvements without sacrificing quality is a tough challenge the whole supply chain must embrace if it's to succeed. Printers need to work with papermakers, ink suppliers and press manufacturers to not only integrate the latest technology into their processes but also to ensure efficiency by making sure it works well at every link in the chain.

Ink on Paper 2005 for the European market will give you the vital update you need on the latest technology and how to implement it successfully. Packed with real life case studies from every point in the supply chain, this conference will give you a balanced perspective on what's really happening in the industry right now. You'll also hear about future opportunities your business could take advantage of. The blend of pioneering research, practical applications and interactive Q and A sessions mean you'll leave with a broad knowledge of the latest innovations and how to apply them to your business.

Programme highlights

- Learn how printing processes can be adapted to increase speed and reduce costs
- Get up to date with runnability and printability issues at the focused, expert panel debates
- Uncover the latest developments in ink for improved printability
- Find out about the newest technical advances in paper
- Hear unique and cutting edge research from paper mills M-Real, Sappi and Norske Skog
- Benefit from excellent networking opportunities – helping strengthen your supply chain for success

Wednesday 2 November 2005

08:00 Registration and refreshments

09:00 **Opening remarks from the chair TBA**

09:15 **Print and publishing market requirements**

- Growth forecasts for printed materials
- Market requirements
- Increasing speed vs reducing waste
- Niche production vs large scale automation
- Future predictions for market directions

Cicely Brown, Deputy Chief Executive, BRITISH PRINTING INDUSTRIES FEDERATION (BPIF), UK

KEYNOTE ADDRESS

Print processes: increasing speeds and reducing costs

09:50 **Setting up presses for high speeds: a printer's perspective**

- The importance of consistency
- Meeting the needs of the customer
- The necessity of faster drying inks and paper
- Speed, quality and waste trade-offs

Paula Marsh, Quality Assurance Controller, WEST FERRY PRINTERS, UK

PRINTER PERSPECTIVE

10:25 **Productivity maintenance from prepress to delivery**

- Overview of current processes and methodologies
- Running leaner, longer and faster
- Review of predictive maintenance tools and production components
- Integration: operations, maintenance, planning and management working together

Nigel Wells, Managing Editor, WEB OFFSET CHAMPIONS GROUP, France

11:05 **Multi-functional panel debate on core runnability issues**

- Experts from the entire printing industry will listen to, discuss and analyse the research and theory to run leaner, faster and ultimately more efficiently

Nigel Wells, Managing Editor, WEB OFFSET CHAMPIONS GROUP, France
Paul Casey, Technical Service Development Director, SUN CHEMICAL, UK
David Cadman, Technical Service Manager, SCA, UK
Werner Scherpf, Print Director, KBA, Germany
Paula Marsh, Quality Assurance Controller, WEST FERRY PRINTERS, UK

PANEL DEBATE

11:35 Morning refreshments

12:00 **Watch the next step to larger roll diameters**

- A unique study into the complete lifecycle of wider webs
- The basics: considerations from the forest up
- Key conclusions: wider webs and their specific requirements
- Weighing it up: providing the data for an informed decision

Andreas Keil, Marketing Director, MEGTEC SYSTEMS, Germany and Martin Schorn, Technical Marketing Manager, UPM KYMMENE, UK

12:35 **Wider webs: in your best interest?**

- Experts from Magtec, UPM Kymmene and MAN Roland will field questions from the audience on what the results mean for you; extrapolating their research to help you understand whether the move to bigger is better for you and your business.

Q&A SESSION

12:55 Lunch will be served to all speakers and delegates

The latest advances in paper technology

14:25 **Pore size measurements and subsequent modelling for printability**

- Paper surface research
- Pore size and its effect on printability
- Overview and outcomes of research
- Commercial impact for printers

Peter Resch, R&D Project Manager, SAPPI, Austria

MILL PERSPECTIVE

15:00 **Improvements in surface chemistry for printing papers**

- Measuring and controlling surface chemistry
- Impact of coatings
- Impact of fillers and pigments
- Improving the image and look of paper through surface chemistry
- Impact on printability

Nigel Jopson, Chief Consultant and Technical Manager Paper and Board, PIRA INTERNATIONAL, UK

15:35 **Exploring print rub: new measurement techniques**

- The current methodologies for measuring rub
- Why things must change
- Current research: the results
- Next: indicators for solutions

Patrick Gane, Head of Research and Development, OMYA, Switzerland

16:10 Afternoon refreshments

Innovation in ink: developments for improved printability

16:30 **UV curing offset inks and coated paper: from theory to practice**

- Review of previous findings in the lab
- Commercial printing trial variables
- Interactions of the three ink types with model pilot coated papers: print quality, topography, gloss, ink setting and rub
- Determination of ink component penetration into the papers: focused ion beam (FIB) and GPC analysis
- Summary and conclusions

Dr Janet Preston, Printing Scientist, IMERYS, UK with co-authors Dr Sanna Rousu (UK) and Jan Gustafsson (Sweden), Stora Enso, and Dr Peter Heard, University of Bristol, UK

17:05 **Deinking and printing: not always on the same team**

- The European system and the specific challenges this brings
- How ink developments are affecting the deinking process
- Inkjet, flexo and associated problems
- Environmental legislation: European directions on recycling

Andreas Faul, Managing Director, INGEDE, Germany

17:40 **Waterless inks**

- Latest developments in waterless inks
- Branching into new avenues
- Overview of the pros and cons
- On the horizon: developments and their impact on the printing world

Klemens Peters, Manager Application Service Web Offset Business UnitPrint, SIEGWERK, Germany

18:15 Closing comments from the chair

18:30 **Drinks reception**
All speakers and delegates are invited to a relaxed and informal drinks reception, providing an exclusive opportunity to discuss the day's proceedings

Thursday 3 November 2005

08:30 Registration and refreshments

09:15 **Opening remarks from the chair**
Nigel Wells, Managing Editor, WEB OFFSET CHAMPIONS GROUP, France

The latest developments in printing and press technologies

09:30 **Print developments and their impact on presses, papers and inks**

- Market trends in ink developments and print requirements
 - Technical challenges for presses
 - The effect on the processes involved
 - Staying one step ahead: future developments
- Werner Scherpf, Print Director, KBA, Germany**

10:05 **Production efficiency in heatset printing**

- Measuring efficiency: key figures
 - Paper waste: key focus areas
 - Efficiency versus print quality
- Mats Berg, Technical Manager, M-REAL CORPORATION, Finland**

MILL PERSPECTIVE

10:40 Morning refreshments

11:05 **Linting and the use of web cleaners in web offset printing**

- Understanding the dynamic behaviour of linting
 - What to expect from web cleaners
 - Should web cleaners be put on the printing press or paper machine?
 - Strategies for abating lint problems
- Knut Wiik, Senior Development Engineer, NORSKE SKOG, Norway**

MILL PERSPECTIVE

11:40 **Holistic approach to ink transfer in offset printing**

- Research on a holistic approach to printability
- Interactions in the printing process involving:
 - Blanket
 - Ink
 - Fount solution
 - Increased press speed
 - Temperature

Dr Tim Claypole, Centre Director, WELSH CENTRE FOR PRINTING AND COATING, University of Swansea, UK

12:15 **Integrated thinking: cross functional troubleshooting examples for printability problems**

- Expert troubleshooters will field your questions; discussing and expanding on current thinking, providing innovation and cutting-edge advice for all printability challenges

David Dean, Application Specialist, HERCULES LTD, UK
Harry Bower, R&D Co-ordinator Coldset Europe, SUN CHEMICAL, UK
Dr Tim Claypole, Centre Director, WELSH CENTRE FOR PRINTING AND COATING, University of Swansea, UK
Vicky Morris, Product Service Manager, UPM KYMMENE, UK

PANEL DEBATE

12:50 Lunch will be served to all speakers and delegates

14:05 **The impact of printing variables on gravure test printing**

- Effect of print variables on different substrates
- Electrostatically-assisted ink transfer (ESA)
- Nip pressure

Juha Saari, Research Scientist, VTT, Finland

14:40 **Finding crucial surface parameters for flexo printability**

- Requirements of flexo printing
- Specifications of flexo board surfaces
- New tools and developments for analysing surface parameters
- Future research: what is being and needing to be covered?

Per-Åke Johansson, Principal Scientist - Printability Research, STFI-PACKFORSK, Sweden

15:15 **Latest developments in digital technologies**

- Growth markets for inkjet printing
- Cartonboard and corrugated printability requirements
- Ink formulation and behaviour
- Industrial inkjet on paper
- Future growth projects

Senior Representative, HP INDIGO, UK

15:50 Closing remarks from the chair

16:05 Close of conference, refreshments will be served

Who should attend?

Achieving success in printing affects the whole supply chain. With margins getting tighter every year everyone from material providers to printers needs to be on the ball with the latest innovations and how to apply them. **Ink on Paper 2005** gives you the vital knowledge you need.

Printers

- Hear from industry thought-leaders how to successfully reduce costs and increase machine speed
- Understanding how a holistic approach can help problem solving
- Hear unique research into the future of printing
- Learn how to minimise waste and maximise efficiency through innovation in the supply chain
- Get to grips with how building effective working relationships with your suppliers can be the route to success

Inks and press manufacturers

- Understand how current research in the core areas of inks, paper and presses is effecting the printing process
- See how you can work with the whole supply chain to meet printing challenges
- Benefit from an unmissable opportunity to network with existing and potential clients whilst forging links with other suppliers

Paper mills

- Pose your specific questions and benefit from expert experience at the panel debates
- Hear leading research into wider webs and production efficiency to ensure you stay abreast of the current thinking
- Get the full picture with integrated, multi-disciplinary approaches to specific printing and paper challenges

Your event organiser

Pira International is a leading supplier of strategic and technical consultancy with major publishing and conference activities. We provide innovative business solutions to companies in the packaging, printing, paper and retail supply chains. Our high profile international events attract senior level delegates from leading companies around the globe to discuss and learn more about new technologies and best business practices. To find out more visit our web site at: www.piranet.com

PLUS - Free CD!

A CD-Rom of all the conference presentations will be sent free of charge after the event. You'll get the maximum benefit from the days' proceedings by having the information permanently available back at the office, all at no additional cost!

Exhibition and sponsorship opportunities

If your business supplies to the paper, ink or printing communities don't miss this opportunity to reach your audience by taking advantage of the limited number of exhibition and sponsorship opportunities available. Sponsorship of the conference will help you realise your marketing objectives and strengthen your company's position as a leading provider for these businesses. For more details on our sponsorship and exhibiting opportunities, please contact Caroline Potapa on +44 (0)1372 802101, carolinep@pira.co.uk

Afternoon, Tuesday 1 November 2005

Understanding and solving the demands and challenges of deinking

Pre-conference symposium

Stringent legislation and consumer demand are driving the need to recycle. It's an essential slice of the printing process, however, as print technology advances

in other areas, these developments are often working against economic and environmental drivers for recycling paper. The technologies simply aren't compatible – ink innovations that improve speed, efficiency and lower cost at the print end are creating new problems at the deinking end of the chain.

To move forward, the process must be addressed as a whole by the print and paper community. Pira and INGEDE have put together this special half day symposium to give you the insight you need to address how deinking issues affect you and how you can make recycling work effectively for your business.

About INGEDE

INGEDE is an association of leading European paper manufacturers founded in 1989. INGEDE promotes the use of recovered graphic paper (newsprint, magazines and office paper) and the improvement of recovered paper for the production of graphic and hygiene papers.

The agenda

Ink off paper: recycling and deinking challenges

13:30 Introduction
Ulrich Höke, Chairman, INGEDE and Head of Production and Technology, STORA ENSO, Germany

13:40 **Comparison of collecting techniques in Europe and the US**

- Collection methods and their importance for recycling
- Overview of European collection system
- Key differences between this and the US system
- What this means for the global printing market

Senior representative, ABITIBI CONSOLIDATED

14:10 **Flexographic printing, collection systems and material quality**

- Aylesbury Newsprint and flexographic printing
- Detailing the results
- Clear analysis of the data and ramifications
- Lessons that can be drawn from the experience

Chris White, Commercial Manager, AYLESFORD NEWSPRINT LTD, UK

14:40 Afternoon refreshments

15:00 **Flexo, digital and UV inks: the daily challenges for a deinker**

- Technical analysis of problems with ever increasing printing materials
 - Flexo
 - Digital
 - UV curable inks
- Understanding why such inks are so harmful to the deinking process
- Working in co-operation with recycling: even with flexo, digital and UV

Ulrich Höke, Chairman, INGEDE and Head of Production and Technology, STORA ENSO, Germany

15:30 **Recovered paper for printing and writing grades**

- The recovered paper market and its demands
- Outline of specific need for:
 - Printing papers
 - Writing grades
- Latest developments enabling recycled material for the finest papers

MILL PERSPECTIVE

Dr. Volker Gehr, Head of R&D, STEINBEIS TEMMING PAPER, Germany

16:00 **How can recovered paper remain a cost effective resource?**

An expert panel will discuss your questions on the afternoon's proceedings and develop key themes and challenges everyone in the printing industry must take ownership of. Group discussion and analysis will suggest how we can ensure that recovered paper stays cost effective.

ROUND TABLE DISCUSSION

16:30 **Drinks reception**

INGEDE and Pira International would like to invite all speakers and delegates to an informal drinks reception to network and discuss the days proceedings.

Symposium in association with:

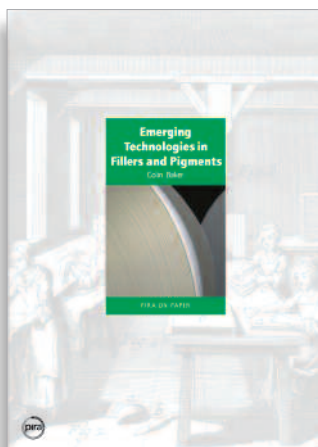


INGEDE
International Association of the Deinking Industry

SPECIAL OFFER
Buy two studies
and get one free!

Paper science technology studies

Four new technology studies from Pira assessing ground breaking innovations in paper science



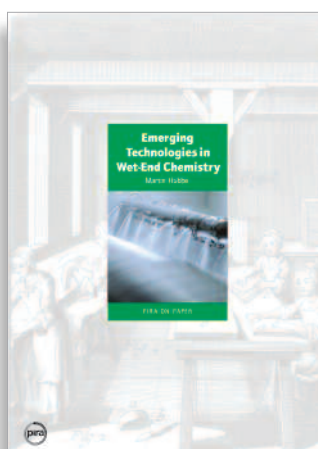
Emerging Technologies in Fillers and Pigments

This technology study analyses how state-of-the-art technologies can be used to enhance the properties and uses of fillers and pigments. It provides analysis of how each filler and pigment type can be utilised to maximise effectiveness in the paper production process.

Who needs this study?

- R&D managers
- Process engineers
- Mill managers
- Technical managers
- Product development managers
- Suppliers of minerals and fillers
- Suppliers of pigments and paper chemicals
- Academics and consultants

Price: £295 / €429 / \$529



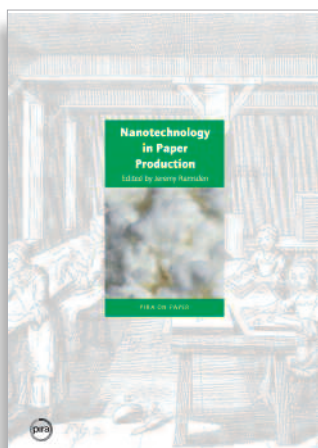
Emerging Technologies in Wet End Chemistry

At the wet end of a paper machine, papermakers already use various chemical additives to enhance end-use performance and manufacturing efficiency. This study looks at emerging strategies that can help papermakers leverage their investments in papermaking equipment and deal with new challenges.

The study focuses on the following critical technology areas:

- Nanotechnology in the wet end
- New wet end starch technologies
- Process control developments for wet end additives
- Changes in the chemical environment of the wet end
- Efforts to enhance the performance of wet end additives

Price: £295 / €429 / \$529



Nanotechnology in Paper Production

The paper industry has been using nanoscience principles for many years, particularly in wet end chemistry, for the development of retention and drainage systems. However now nanotechnology is poised to enter areas of papermaking way beyond the wet end. This study examines all possible applications for nanotechnology in the papermaking industry and includes research that is already taking place in areas such as nanotechnology in process water purification, nanostructuring of cell walls for better properties, and using the technology in paper coatings.

Price: £295 / €429 / \$529

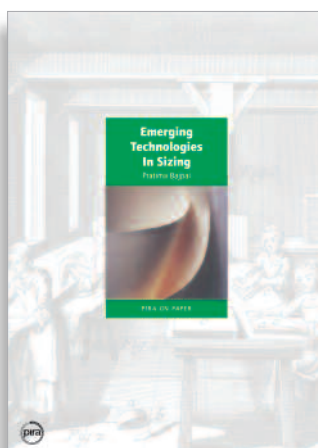
Emerging Technologies in Sizing

Gaining tangible improvements from the sizing process enables papermakers to boost critical paper properties such as printability and water resistance. But the key issue is to achieve performance enhancements in a cost-effective way. This new study examines the latest scientific and technical advances in the sizing process, focusing on both internal and surface sizing, and shows how these innovations can be deployed efficiently.

Get a practical use of sizing in the mill or the development of sizing technology, whatever your area:

- Paper manufacturers/mills
- Senior paper scientists
- R&D professionals
- Technical managers
- Mill chemists
- Suppliers of paper chemicals
- Academics and consultants

Price: £295 / €429 / \$529



SPECIAL OFFER
Buy two studies and get one free!
Order now, visit our bookshop at
www.piranet.com or send your details to
denised@pira.co.uk

