ADVANCED TRAINING COURSE on “DEINKING AND RECYCLING”

6th ADVANCED TRAINING COURSE on “PAPER AND BOARD PACKAGING RECYCLING”

11th ADVANCED TRAINING COURSE on “DEINKING”

3 day-conference followed by a Practical Training Session at CTP

May 28-29-30, 2013
CTP – Grenoble – France

A must-attend event in Training Courses for professionals looking for keeping abreast of the latest research and developments on paper industry trends!

In collaboration with PTS
ADVANCED TRAINING COURSE on “DEINKING AND RECYCLING”

Deinking Course Managers: Bruno Carré & Benjamin Fabry

- Bruno Carré
  Deinking Leader
  Manager Dip Pulps, wet end Chemistry

- Benjamin Fabry
  Manager - Deinking Processes

Why attend?
International experts from research and industry expose basic knowledge but also the latest developments in the Deinking Industry. You will be able to use the knowledge acquired in technological developments, to implement real performance improvements in your mill. More than 500 members of the deinking industry worldwide have already profited from this course.

Who should attend?
The programme addresses to key managers, deinking plant engineers & technicians, professionals in institutes, environmental experts, scientists, deinking plant and chemicals vendors and staff.

Recycling Course Managers: Alain Cochaux & Thierry Delagoutte

- Alain Cochaux
  Recycling Leader
  Manager Eco Design & Packaging Recycling

- Thierry Delagoutte
  Research Scientist / Consulting & Expertise
  Dip Pulps, wet end chemistry

Why attend?
This event is the ideal course for an overview of Recycling, for understanding not only what recycling is, but also how collecting and sorting can help in improving your recycling line. The conference will also provide you an excellent opportunity for networking with experts from research as well as from industry.

Who should attend?
This event, a fantastic opportunity to learn all about Recycling, is addressed to production managers, mill managers, sales, quality and operation managers. Engineers and technicians will find an excellent opportunity to learn from speakers’ experience and establish new business relationships.
CONFERENCE PROGRAMME
The programme is planned for an international audience. It covers topics of interest for both people working in research and development, specialists working in the pulp and paper industry, but also in allied industries. International level experts from CTP (France), PTS (Germany) and from other research institutes as well as industry representatives will disseminate their knowledge of fundamental techniques and technologies and also the most recent research results. Managers, engineers, technicians, scientists and technical staff from the paper industry, chemical suppliers, machine construction and engineering sectors are welcome to these courses. Official language of the training courses: English.

OBJECTIVES
The conference provides an overview of the state of the art and recent national and international developments on the various areas of paper, board, based deinking and recycling. The main objective of this event is to get the maximum benefit possible for delegates, speakers and sponsors and a valuable return on their time and investment. You will benefit from an atmosphere of knowledge exchange and experience for your business in the future.

LOCATION
Centre Technique du Papier
Domaine Universitaire
38400 SAINT MARTIN D’HERES
FRANCE

COURSE SUPPORTS
Participants will received at their arrival at CTP a proceeding book including conference presentations, completed by a Key Memory Support with the complete course conferences (texts).

If you want to keep up-to-date with current research and best practices and obtain all this information in only three days, join us in May at CTP – Grenoble – France.
### DAY 1
**Tuesday 28 May 2013**

**13.30 - 14.00** REGISTRATION AND WELCOMING

**14.00-14.30**
**Keynote address:** G. Lenon (CTP)
**Introduction to Recycling, Recovered Papers & Recycled Fibres**
Chairman: Bruno Carré

**The recycling industry - European perspective, facts and figures**
J. Ringman (CEPI)

**Trends in Recovered paper collection, utilization and pricing**
M. Korpivaara (Poyry Management Consulting)

**Paper sorting with a unique combination of thermal imaging and spectroscopy**
A. Bourely (Pellenc ST)

**15.45-16.15** Afternoon Refreshments

**Fast and reliable evaluation of recovered paper & board**
J. Kappen (PTS)

**Specific sensors for quality control in recycling mill**
D. Rech (Techpap)

**17.15- 18.00**
PILOTE PLANT FACILITIES VISIT (optionnal)

End of Day 1: 17.15

### DAY 2
**Wednesday 29 May 2013**

**Opening 9.00** (For each session Deinking and Recycling)

<table>
<thead>
<tr>
<th>DEINKING SESSION</th>
<th>RECYCLING SESSION</th>
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</thead>
</table>
| **Inks & Deinking**
Chairmen: Benjamin Fabry & Bruno Carré | **Packaging Directive**
Chairman: Thierry Delagoutte |
| The French EPR* for graphic paper, an innovative tool for paper recycling development
J.F. Robert (EcoFolio) (*Enlarge producer responsibility)* | Eco-Emballages at the heart of the industrial household packaging recycling process:
A new fee system;
role and missions through the CEREC
Maryon Ginisty-Pailleux (Eco-Emballages) |
| Overview of deinking technology
B. Carré (CTP) | European packaging directive (Part 1)
Essential requirements - A. Cochaux (CTP) |
| Pulping and consequences on the next steps
B. Fabry (CTP) | European packaging directive (Part 2)
Organic recovery - S. Prasse (CTP)
Visit of the installation |

**10.30-11.00** Morning Refreshments

<table>
<thead>
<tr>
<th>Inks &amp; Deinking</th>
<th>Food contact &amp; Nanoparticles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman: Benjamin Fabry &amp; Bruno Carré</td>
<td>Chairman: Alain Cochaux</td>
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</tbody>
</table>
| **Ink removal: Technological aspects**
D. Beneventi (LGP2-UMR5518-CNRS) & F. Julien St Amand (CTP) | **Food contact & regulation**
D. Ottenio (CTP) |
### DAY 2 / Following

<table>
<thead>
<tr>
<th>Ink removal: Physico chemical aspects</th>
<th>Mineral Oil in recovered paper and measures of reduction during stock preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. Beneventi (LGP2-UMR5518-CNRS)</td>
<td>Ch. Ewald, H-J. Putz and S. Schabel</td>
</tr>
<tr>
<td>Effect of flotation pH on deinking yield of OMG</td>
<td>Nanoparticles in papermaking: safety and regulation</td>
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<tr>
<td>J.Y. Ryu (KRICT)</td>
<td>A. Cochaux (CTP)</td>
</tr>
</tbody>
</table>

**12.30-14.00 Lunch Break**

### Deinkability
Chairmen: Bruno Carré and Benjamin Fabry

<table>
<thead>
<tr>
<th>Printing inks and ink/paper interactions</th>
<th>Paper recycling technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Blayo (Grenoble INP-Pagora)</td>
<td>A. Cochaux (CTP)</td>
</tr>
<tr>
<td>Deinking of wood free recovered paper</td>
<td></td>
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<tr>
<td>B. Carré (CTP)</td>
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<tr>
<td>Deinking of wood containing recovered papers</td>
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<tr>
<td>B. Carré (CTP)</td>
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</table>

### Quality control and Recycling technology
Chairman: Thierry Delagoutte

<table>
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<th>Raw material quality control: Use of NIR spectroscopy for automatic monitoring</th>
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**15.30-16.00 Afternoon Refreshments**

<table>
<thead>
<tr>
<th>Bleaching of deinked pulp</th>
<th>Stickies, deposit, ash control in packaging mills</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Fabry (CTP)</td>
<td>S. Pottier, A. Lascar, F. Vaulot (Kadant)</td>
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</tbody>
</table>

### DAY 3
Thursday 30 May 2013

(common session Deinking/Recycling)

**Opening: 9.00 (common session)**

<table>
<thead>
<tr>
<th>Contaminant Removal &amp; Dispersion</th>
<th>Energy &amp; Biorefinery</th>
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<tbody>
<tr>
<td>Chairman: Lutz Hamann / PTS</td>
<td>Chairman: Frédéric Guillet</td>
</tr>
<tr>
<td>Principles &amp; technology of screening / fractionation</td>
<td>Development of most productive use of paper recycling rejects</td>
</tr>
<tr>
<td>- S. Kumar (CTP)</td>
<td>- M. Krouit (CTP)</td>
</tr>
<tr>
<td>Principles and technology of cleaning/ fractionation</td>
<td>Energy reduction in recycling line and energy production from by-products</td>
</tr>
<tr>
<td>- S. Kumar (CTP)</td>
<td>- E. Griffon (CTP)</td>
</tr>
<tr>
<td>Past, present and future of dispersion and kneading</td>
<td>Treatment and utilization of deinking sludges</td>
</tr>
<tr>
<td>- B. Fabry (CTP)</td>
<td>- E. Hanecker (PTS)</td>
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</tbody>
</table>

**10.30-11.00 Morning Refreshments**

<table>
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<tr>
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<th>Chairman: Frédéric Guillet</th>
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<td>Development of most productive use of paper recycling rejects</td>
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<td>- M. Krouit (CTP)</td>
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**12.30-14.00 Lunch Break**

<table>
<thead>
<tr>
<th>Stickies / Contaminants</th>
<th>Reduced water consumption in deinking / recycling mills</th>
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<tbody>
<tr>
<td>Chairman: E. Hanecker / PTS</td>
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</tr>
<tr>
<td>Stickies: definition, origin and characterization</td>
<td>Recycled pulp &amp; wet end chemistry</td>
</tr>
<tr>
<td>- L. Hamann (PTS)</td>
<td>- E. Zeno (CTP)</td>
</tr>
<tr>
<td>Contaminants impact and management in recycled pulps</td>
<td></td>
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<tr>
<td>- T. Delagoutte (CTP)</td>
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</tbody>
</table>

**15.00-15.30 Afternoon Refreshments**

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<td>P. Huber (CTP)</td>
<td>E. Zeno (CTP)</td>
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End of the training course sessions: 16.30
CTP will renew this practical training just after the conferences days. To be efficient, the number of participants is limited to 12. Scheduled on Friday 31 May 2013 (9:00 AM to 4:30 PM). The assessment of deinkability and recyclability as well as some control of the recycled pulps properties require a detailed know-how.

This know-how will be explained by theoretical documentation given during the Advanced Training Course, however a demonstration of the methodologies in the CTP Recycled Fibres laboratories will help you to transfer more easily this knowledge in your mill.

Assessment of deinkability at laboratory scale
Experiments aiming at studying the deinking ability of a mixture of recovered papers will be performed. It will include the pulping and flotation stage, the hyperwashing treatment as well as a demonstration on how to manufacture pulp pads on which controls will be performed.

Quantification of the different macro-stickies contamination at laboratory scale
The macro stickies contamination of an industrial pulp will be characterised. This will include the pre–enzyme of the pulp, the screening stage to recover the contaminants and the methodology aiming at distinguishing the various macro stickies, including the distinction between hot melt and pressure sensitive adhesive, as well as the mini stickies.

Assessment of bleachability at laboratory scale
Experiments aiming at evaluating the bleaching response of a deinked pulp will be performed. Bleaching treatments tested will be: hydrogen peroxide and sodium hydrosulfite. As far as dosage of bleaching chemicals is concerned, the dosage of the added and remaining peroxide, as well the added hydrosulfite will be performed. As bleaching reactions can take some times, description of how to prepare and start the various bleaching will be done, as well as how to finish and control it.

Food contact: participate to the sensorial test as a jury
Are you able to qualify nuisances caused by the odour of the paper or board packaging even if the food taste is not affected? Can you describe an alteration of the food taste due to the migration of fragrant molecules? Be a jury of the sensorial analysis to understand how tests are performed and require trained people.

<table>
<thead>
<tr>
<th>PRACTICAL TRAINING AT CTP LABORATORIES / Friday 31 May</th>
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<tbody>
<tr>
<td><strong>DEINKING SESSION</strong></td>
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<tr>
<td>9.00-13.00</td>
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<tr>
<td>PT 1 - Deinking evaluation</td>
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<tr>
<td>PT 2 - Stickies quantification</td>
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<tr>
<td>13.00-14.15 Lunch Break</td>
</tr>
<tr>
<td>14.15-16.15</td>
</tr>
<tr>
<td>PT 3 - Bleaching deinking pulp</td>
</tr>
<tr>
<td>9.00-13.00</td>
</tr>
<tr>
<td>PT 2 - Stickies quantification</td>
</tr>
<tr>
<td>PT 4 - Food contact &amp; off-flavour - odour tests: you instead of qualified assessors</td>
</tr>
</tbody>
</table>

Important: The number of participants is limited for this practical training, don’t wait to register
CONFERENCE INFORMATION

Venue
The Training Course sessions will be held in Grenoble, on May 28-30, 2013. Organized every two years at Centre Technique du Papier, this training has become the appointment of Papermakers, Scientists, Customers, Suppliers, Manufacturers, Technical and R&D Management. CTP is located in Grenoble Campus, green area, surrounded by mountain range. Very easy to reach from the city centre by tram with a connection in 20 minutes.

Hotel details and accommodations
Participants are responsible for organising their own travel and accommodations. A limited number of rooms have been reserved for conference delegates in several hotels in Grenoble. To take advantage of special rate for accommodations, please contact directly the hotel by phone no later than the date indicated in the list (joined in the programme). Please quote “CTP Meeting” as your reference.

Conference fees
The conference fees include entry to the conference sessions, full documentation, lunches, coffee & refreshments and friendship dinner that is planned on Wednesday 29 May 2013. Practical Training fees (Friday 31 May) are not included in the conference fees. You have to register separately. Note that fees do not include delegate travel and accommodations.

Cancellation
Cancellation with full refund is possible if CTP receives written notification at least 10 days before the event. No refunds can be made for any delegate cancelling for any reason after this limit.

Visas
Participant requiring visa should request a visa invitation letter from CTP at the time of booking; ensuring sufficient time for sending invitation letters and visas to be processed. Participants are then responsible for contacting the appropriate embassy, themselves. CTP can do nothing further to assist in this process.

Organization
CTP (France) in collaboration with PTS (Germany). Both industrial research institutes have acquired outstanding expertise at the interface between research, industrial practice and dissemination of know-how.
Organisation contact: Malou.Caillat@webCTP.com
Phone: +33 (0) 4 76 15 40 69

Language
Proceedings & Conferences are in English language.

Friendship Dinner
Participants are invited by CTP to attend the friendship dinner that is planned on May 29th, 2013 in Grenoble. Additional information will be given at registration.

CTP Pilot Plant Facilities
A visit of CTP Pilot Plant Facilities is planned on Tuesday 28th, afternoon, just after conference session (5.15 pm to 6.00 pm).

Practical Training on May 31st
CTP organises a practical training on Friday 31 May (9.00 am to 4.30 pm) at the CTP Recycled Fibres Laboratories. A demonstration of the methodologies will help you to transfer more easily this knowledge in your mill. Separate registration for this course and payment (see registration form)

Website:
To find information about CTP or about these courses, please visit: www.webCTP.com
REGISTRATION FORM \ ADVANCED TRAINING COURSE on “DEINKING AND RECYCLING”

Date: 28-29-30 May 2013 - Venue: Centre Technique du Papier, Grenoble, France.
Course: 11th CTP/PTS Advanced Training Course on DEINKING Technology
Course: 6th CTP/PTS Advanced Training Course on Paper & Board RECYCLING Technology

Step 1 | FILL IN PERSONAL INFORMATION
Mr/Mrs/Ms  -  First name…………………………………. Surname………………………………………………
Position: .................................................................
Company: .................................................................
Address: ...............................................................................................................................................
Post Code: ................................................................. Country: ...........................................................................
Telephone: ...........................................................................................................................
Fax: .............................................................................................................................................
E-mail: ...........................................................................................................................................
Principal business/activity: ......................................................................................................................

Step 2 | CHOOSE YOUR EVENT OPTION (Please tick the appropriate box)

11th Deinking Course / 28-30 May 2013 □ Fees: € 2300 (VAT included)
6th Recycling Course / 28-30 May 2013 □ Fees: € 2300 (VAT included)
CTP, CTPI, PTS Members □ (Special prices - please contact us)
Visit of CTP Pilot Plant Facilities on May 28 (17.15-18.00) □ Yes □ No
Friendship dinner Wednesday 29 May (included in registration fees) □ Yes □ No
Practical Training Course / Friday 31 May - Deinking attendees 9.00-16.15 □ Fees: € 800 (VAT included)
Practical Training Course / Friday 31 May - Recycling attendees 9.00-13.00 □ Fees: € 600 (VAT included)

TOTAL REGISTRATION FEES (course and practical training) € ..............................

Step 3 | ALL REGISTRATIONS MUST BE PRE-PAID
(All fees must be paid in Euros and must accompany registration forms)
□ Please bill my credit card
  □ Visa card □ Master card □ Other card  (No payment by AMEX card available)
  Card number: ..........................................................................................................................
  Expiry date: ............................................................................................................................
  Card holder name: .................................................................
□ I will pay by cheque (made payable in Euro to CTP)
□ I will pay by wire transfer (see Bank Transfer Details)
Account Name: CENTRE TECHNIQUE DU PAPIER
Bank Address: CL Grenoble CAE  Bank code: 30002
Counter Code: 02625
Account n° 0000060580X Key: 16
IBAN : FR74 3000 2026 5006 0580 X16
Invoice Address: (if different from above) ...............................................................................................................
VAT NUMBER (required for EU Countries) ..............................................................

Late registration: participant who will register too late for payment to be received prior to the event, are requested to pay at the registration desk by cheque or in cash, or to present a copy of their bank transfer payment.

Step 4 | SEND US YOUR BOOKING FORM
Fax to:  +33 (0)4 76 15 40 60
Post to:  Mrs Malou Caillat
  Centre Technique du Papier - Domaine Universitaire - CS 90251 - 38044 Grenoble – Cedex 9 – France
E-mail:  Malou.Caillat@webCTP.com

Date……………………..................................................……
Signature (obligatory)