

COST Action E48 “Limits of paper recycling”

(continued from April edition)



Jan Erik Levlin, Chairman of the Action

The major overall achievements of the Action can be summarized as follows:

- Development of scenarios for the future of paper recycling in Europe.
- Definition of research priorities aiming at safeguarding recovered paper as a raw material for the paper industry.
- Compilation of new information not easily available concerning paper recovery and recycling statistics in Europe.
- Compilation of a Book describing opportunities and limitations for future paper recycling in Europe.
- Creation of a pan-European research network including also many new EU countries around general aspects of paper recycling.
- Participation of some heavy industrial organisations in the field of paper recycling.

More specifically, some results obtained in the Action are the following:

Systems for collection and sorting recovered paper

A survey of collection and sorting

systems indicated that these systems are quite different in different parts of Europe. Surprisingly enough, neither the type nor the composition of the collection systems seem to have a significant influence on collection rates. Well functioning systems are, however, instrumental for a good result.

The quality of recovered paper is depending on the collection and sorting system used. From a quality point of view separate collection of paper from other waste is definitely to be preferred.

In 2007 the average collection rate in CEPI countries was 66%, corresponding to an annual amount of 58 million tons of collected paper. If all European countries would reach the current maximum collection rate of the best ones (c. 74%), an additional amount of some 10 million tons/year of recovered paper could be made available in Europe.

As some paper products are not recoverable (some books, wallpapers, hygiene papers etc.) the maximum achievable collection rate is estimated to be appr. 81% of the consumption in any country.

Competitiveness of paper collection

Via a large questionnaire the Action participants have given their views on the future of paper collection and factors influencing it in their respective countries. This has provided a good overview of the factors influencing the collection rates.

Environmental awareness of the society has been identified as one significant driving force for paper collection. This could be improved by further information and education of the public.

Some countries with low collection rates try to improve collection by rewarding and educating the consumers.continued on page 2

CALENDAR OF EVENTS

23 June 2009

Gruppo di lavoro stampa flessografica
(Flexo Round Table)
SSCCP Milano/Italy

23–25 June 2009

Zellcheming Expo
meet INGEDE at Booth 315
Wiesbaden/Germany

26 June 2009

INGEDE
Country Representatives
Wiesbaden/Germany

1 July 2009

INGEDE Project meeting
129 09 PMV
“Adhesive applications”
Darmstadt/Germany

2 July 2009

INGEDE Project meeting
130 09 PTS
“Process oriented deinking”
Munich/Germany

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- Öko Print Forum Vienna (page 3)

Read more about COST E48 results and conclusions in the following issue.



Collection of recovered paper from industry and administration could be improved in some countries but improved household collection is often the best way to increase collection.

The awareness of the printing and converting industries of problems related to the recycling of paper is not yet on a sufficient level. Even though the situation has improved more discussions between these and the recycling industries are required.

An increasing competition concerning the use of recovered paper may be foreseen in the future. Potential competing uses of recovered paper include

- Production of bioenergy (incineration)
- Manufacturing of non-paper fiber based products
- Raw material for biorefineries

Today, some 4-5% of recovered paper is used for these purposes. There is, however, a substantial lack of reliable statistics.

The quality of recovered paper based furnishes

A survey of research activities on topics related to the Action's objectives was carried out. In this some 66 relevant research projects dealing mainly with recycling technology aspects have been identified.

Adhesives and stickies have been identified as important factors detrimental to the quality of recovered paper.

Recovered paper recycling yield and reuse of recycling rejects have been identified as key issues concerning energy consumption in processing of recycled furnishes.

Close contacts with Action E46, dealing with de-inking technology, was established in order to enable a utilization of their results concerning

quality of de-inked furnishes.

Presentations and inputs concerning their views on future recycling technology have also been received from leading suppliers of recycling machineries and equipment.

Recycling statistics and fibre flows as a mean to identify the future limits of paper recycling

Based on input from the Action members work aiming at identifying future collection and utilization rates in different countries has been carried out.

An interesting result obtained is the estimate for the overall development of the recycling rate in Europe:

2005	54,6%
2010	66,0%
2015	71,0%

The highest increase rates are to be found in Eastern and Southern Europe.

Information on paper grade specific collection and utilization in Europe is strongly needed and research work on this should be initiated.

Work on identifying recovered fibre flows in Europe as well as globally has been carried out. More than 10% of the paper collected in Europe is used elsewhere in the world, mainly in the Far East. China is currently importing more recovered paper than Europe can ever export.

In general terms it seems that the availability of recovered paper will not be the factor limiting the utilization of recovered paper in Europe. Availability of certain higher grades could, however, become a bottleneck. Furthermore, some discrepancies between local availability of recovered paper and utilization possibilities may be expected in Europe.

Legislation governing the use of recycled paper

Legislation and Directives are of utmost importance for recovery and utilization of recovered paper. With the help of CEPI a good monitoring of the legislation development concern-

ing recovery and recycling of paper has been carried out.

Development of scenarios for future paper recycling in Europe

The development of scenarios for future paper recycling in Europe - one of the main objectives of the Action - was initiated in 2007. The work was based on four different scenarios for manufacturing in Europe developed by The Institute for Prospective Technological Studies of the EU Joint Research Centre.

The scenario work clearly indicated that the future paper recycling will to a large extent be influenced not only by technology aspects but also by political and economical developments in Europe.

The Actions' final report

The Actions' final report is being developed in the form of a book of c. 200 pages to be published during the autumn of 2009. The title of the book will be:

"The Future Of Paper Recycling in Europe— Opportunities and limitations."

Jan-Erik Levlín

COST E48 Action's book
The Future of Paper Recycling in Europe
Opportunities and limitations
 printed in autumn 2009
 an order form will be available in the June edition of the News

INGEDE Project meetings

On 1st and 2nd July 2009 kick-off meetings of the two current projects "Adhesive applications" (129 09 PMV) and "Process oriented deinking" (130 09 PTS) will take place in Darmstadt and Munich. Participation of our members will be appreciated. Please contact the INGEDE office:

(marion.klabunde@ingede.org)

Marion Klabunde



European Paper Recycling Award 2009

Paper recycling initiatives are encouraged to apply for the annual European Paper Recycling Award, which is granted for the second time. With this award the European Recovered Paper Council (ERPC) will recognise efforts in innovative projects that enhance paper recycling in Europe and hopes to inspire others to copy good practices.

The criteria for evaluation of the projects will be:

- Relevance and originality
- Achievements
- Possibility to reproduce the project

- Cost effectiveness

This year, awards will be given in two categories: Information & Education and Technology Improvement & R&D. The award is open to all organisations (educational institutions, NGOs, national and regional authorities, companies,...)

All entries must be submitted by Friday, 31 July 2009. You can download the appropriate application form on the ERPC website at www.paperrecovery.org/award/erpc_award.asp or send an email to erpc@cepi.org

Projects applying may be ongoing or completed, but they must already have started; however, not before

January 2005. An independent panel of experts from across Europe will judge the entries in each category

The panel includes representatives from the European Parliament, the European Commission as well as associations of regional authorities and NGO's.

Europe wide recognition of the winner's efforts will be accompanied by an original piece of 'paper' artwork. The award will be officially handed over to the winners in an award ceremony.

The ERPC will cover all travel costs for representatives of the winning teams.

source: ERPC

Deadline for entry is Friday 31 July 2009

Öko Print Forum in Vienna

The „Verein Forschung für die graphischen Medien“, based in Vienna, Austria, hosted a conference called „Öko Print Forum“ on 7 May 2009, in Vienna.

The green aspects of printing were to be adressed, which included ecolabelling of print shops, the contribution of (new) printing technologies in order to improve the environmental performance of printing operations, the role of inks, to name a few. Representatives from public and private ecology groups, printers, and producers of printing presses, inks and equipment were found, both, in the audience and on the podium.

INGEDE was invited to give a presentation on „Deinkbarkeit – das Maß aller Dinge für Gedrucktes“ (loosely: Deinkability – the measure for everything printed). A kind of a pompous title, but highlighting the reception of



the importance of deinkability by the printing chain. Lecturing was done by Dr. Josef Augusta, INGEDEs Austrian



Country Representative. After a general introduction in deinking itself, focus was hold on the deinkability scheme, particularly as a tool to measure and to compare.

The presentation was well received, and references to it were made by quite a number of speakers. One of the four sessions of the conference completely was dedicated to digital printing, and all the speakers referred to deinkability. Some of them came close to seeing the INGEDE scheme and evaluation as a new ecolabel. Liquid toner was admitted to cause problems.

Further developments have to be scrutinized closely. The general impression can be given that there is awareness of the problems impeding deinkability.

Josef Augusta