Europe is a global leader in paper recycling – in millions of tonnes and in knowledge – and our aim is to ensure that this continues to be the case. The 2007 Annual Report shows that the paper value chain is on the path to performing better and being more sustainable. The voluntary commitment in the European Declaration on Paper Recycling\(^1\) has been followed up remarkably with both quantitative and qualitative progress.

Another positive development in 2007 was the European Association of Directory and Database Publishers (EADP) joining the ERPC, and discussions on membership with the European Envelope Manufacturers’ Association (FEPE) started.

A sustainable increase in paper recycling entails an emphasis on eco-design and waste prevention, which the different sectors have pledged to support. It is a contribution by the ERPC to support Europe’s sustainable development and long-term, robust growth and employment. Industry cannot, however, do this alone.

Paper has to be collected separately from waste and other recyclables, a decision usually made by local authorities. Now, based on the advocacy amongst the ERPC members, separate collection has for the first time been introduced in the EU Waste Directive and will be an obligation for all the member states by 2015.

The ERPC has been chaired by Anders Hildeman, Senior Vice President of Public Affairs, SCA, representing CITPA. The ERPC Technical Committee has been chaired by another CITPA representative, Ilse Vervloet, FETRA.

For the commitment period from 2006 to 2010, PricewaterhouseCoopers will independently verify recycling rate calculations using the ISAE 3000\(^2\) standard. Confident about the high quality of the paper recycling rate calculation, CEPI has requested as of 2007 the verification to be upgraded from a limited to a reasonable assurance engagement.

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\(^1\) Downloadable from the ERPC website www.paperrecovery.eu

\(^2\) International Standard on Assurance Engagements
Recycling Rate 2007

The recycling rate in Europe reached 64.5%\(^3\) in 2007, which confirms that the industry is on the path to meeting its voluntary target of 66% by 2010.

The total amount of paper collected and sent to be recycled in paper mills came to 60.1 million tonnes, an increase of 7.6 million tonnes (or +14.5%) since 2004, the base year for the target.

Some 8.8 million tonnes (or 14.6%) of the total 60.1 million tonnes was exported for recycling in third countries outside the commitment region of EU-27 plus Norway and Switzerland.

The data used to calculate the recycling rate is collected by CEPI. The data comes from the results of a questionnaire sent by CEPI to its national member associations (Austria, Belgium, Czech Republic, Finland, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland and the United Kingdom). In addition, data for Romania was provided by the national association of that country as Romania joined CEPI in 2008. The source was the same for Romania in the 2006 Report.

The national associations supply the data, which they collect from their member mills/companies plus official sources where appropriate.

The data, including recovered paper utilisation and trade plus paper and board production, trade and consumption for non-CEPI members of the EU-27 (Bulgaria, Cyprus, Denmark, Estonia, Greece, Ireland, Latvia, Lithuania, Malta and Slovenia), is obtained from Pöyry Consulting.

The same data for Luxembourg was delivered by CEPI, as the best possible estimates, based on previous returns, industry knowledge and official sources.

\(^3\) See verification report by PricewaterhouseCoopers on page 7
Progress in Qualitative Targets – An Overview

By joining the European Declaration on Paper Recycling, European Recovered Paper Council (ERPC) members committed to qualitative actions, in particular by the ecodesign of paper products, to improve the recycling rate by 2010. The members represent 14 sectors along the paper value chain. In 2007, ERPC members dedicated a substantial amount of their time to several initiatives that will facilitate the recycling process and increase recycling activity. This work was coordinated and, where joint action was required, finalised in the ERPC Technical Committee.

Collection
CEPI finished the design for a forerunner system for tracing recovered paper up and down the stream: a Recovered Paper Identification System⁴. Agreement for the system was achieved with suppliers in the European Federation of Waste Management and Environmental Services (FEAD). The goal of the system is to improve recovered paper traceability and to secure safe paper production processes and products. Separate collection and paper recycling were key issues for amendments by CEPI in the revision of the Waste Directive; several amendments were successfully adopted. ERPA had advocacy on clarifying the definitions of waste and recycling in the EU Waste Directive.

ERPA national member associations have followed up and implemented ERPA executive board recommendations towards stronger recovered paper collections at sources and higher quality in order to increase supply of paper and board mills worldwide.

Work continues on the revision of the European standard list of recovered paper and board grades (EN 643) and a first draft by ERPA was submitted to CEPI and FEAD for discussion.

Ecodesign
The main focus in the ecodesign of paper products has been in inks and adhesive applications: The vast majority of printing inks are readily deinkable. Some specialty inks and new developments, however, show inferior deinking characteristics, and can, therefore, spoil the recycling process by leaving visible traces in paper. Depending on the characteristics of those inks, the traces can either be a pronounced discolouration (waterbased inks) or ink specks (cross-linked inks and toners). Similarly, adhesive applications not suitable for recycling may lead to flaws in the quality of recycled paper.

INGEDE has developed a series of harmonised test methods and a scheme to assess deinkability (for test methods see: www.ingede.org). INGEDE and RadTech Europe started a joint research project for the deinkability and recyclability of UV cured inks: changes in the formulation of UV and EB curable ink and coating will lead to a better deinkability. The German research institute FOGRA is carrying out the project. For UV inks, the particle size of the disintegrated ink film is the most important factor for deinking. The inks were investigated with regard to their level of curing by using a high performance liquid chromatography (HPLC) analysis for each UV print. The amount of dirt specks depended mainly on the type of acrylate and to a lesser extent on the type of photo initiator. A preliminary conclusion is that hard and brittle ink films are easier to deink than soft ones. This has already been observed with toners: higher glass transition temperatures of toners generally lead to better deinkability results.

A FEICA member company is actively participating in another INGEDE project for recyclability of adhesive applications. FEICA has published a recommendation to phase out di-isobutyl phthalate (DiBP) in adhesive applications for packaging in order to eliminate DiBP in recycled paper. CITPA, CEPI and other relevant sectors have joined the recommendation. FEICA companies have developed a series of DiBP-free products. EUPIA members do not use DiBP as a constituent component of printing inks. INGEDE has continued its work with the relevant stakeholders to improve deinkability of waterbased flexographic prints and of digital prints.

⁴See www.recoveredpaper-id.eu
Research and Development
In the course of an INGEDE research project, the Institute for Paper Science and Technology of the Technical University of Darmstadt looked into the development of a dispersion process simulating on a laboratory scale the industrial dispersion. This simulation also includes a second process loop which follows the dispersion step in many deinking plants. Radtech Europe supported the project. Its outcome will soon be available as an INGEDE Method with the title "Laboratory simulation of a two-loop deinking process". Members of EUPIA and FEICA serve as technical experts in the technical committees of INGEDE research projects relating to printing inks, and participate in bilateral research projects concerning ink related questions about paper recycling.

INGEDE’s major activities in this area were continuations of the research projects on offset deinkability and on automated inspection of recovered paper.

Technical Committee
A Technical Committee, open to experts among the ERPC members, was set up in 2007 to prepare issues of a very technical nature for adoption in the ERPC.

The Committee started the work on recyclability of printed products by discussing the possibility of adopting at European level deinkability scores that would make it easy for any producer of printed material to assess the recyclability of its products. The assessment scheme is based on the orientation values for recyclability developed under the German Agrapa agreement. A revision of the Guidelines for optimal recyclability for graphic papers, issued by six ERPC members, begun. Possibilities of adopting a similar scheme for packaging grades were discussed.

The ERPC Technical Committee also discussed projects on increasing collection from offices.

Education and Information
Translations of the European Declaration were produced and are downloadable at www.paperrecovery.eu in English, Dutch, French, German, Italian and Spanish. The ERPC adopted a graph illustrating the paper value chain. This illustration is also available on the internet.

Intergraf published a revised version of the information brochure “Recycling of Printed Products”. The brochure is intended as a communication tool between printers and customers in their decision making process. Customers are often insufficiently aware of the impact of their decisions in placing orders for printed material.

Members of EUPIA inform print shops and their customers about printing inks, deinking and a favourable choice of printing materials upon request. Members of EUPIA support INGEDE in drafting statements or leaflets concerning the influence of printing inks on deinkability.

Members of EUPIA and FEICA regularly attend INGEDE meetings. EUPIA informs its members about ink related deinking topics (via the EUPIA Technical Committee, and the EUPIA deinking working group). Leaflets about deinking topics are available on the websites of EUPIA and its national associations where common activities about the definition of recyclability, exchange of information and support for research activities are discussed.

Based on an initiative of INGEDE members in Scandinavia, the graphic paper value chain will meet regularly.
European Paper Recycling Award 2007

The first European Paper Recycling Award ceremony took place on 28 November 2007 in Brussels in the context of the European Paper Week. An independent jury, consisting of Margareta Renström (WWF), Dorette Corbey (European Parliament), Miroslav Ouzky (European Parliament), Olivier De Clercq (ACR+) and Anders Hildeman (ERPC Chairman), chose three winners:

- Automated Entry Inspection of Recovered Paper project, UPM-Kymmene, Augsburg, Germany (for the Industry category)
- Tu Papel Es Importante project, ASPAPEL, Madrid, Spain (for the With Communities category)
- Action Eco-Bloc, Maison des Lycéens, Lycée Jules Guesde, Montpellier, France (for the Special Projects and Campaigns category)

In addition, seven projects were highly commended:
- Klimaschutz Beginnt Beim Papier, Initiative Pro Recyclingpapier
- Kreislauf Papier, HS Nord Laakirchen
- Cartoniadi d’Abruzzo, Comieco
- FOST Plus ou les clés de la réussite en matière de recyclage de déchets d’emballages ménagers, FOST Plus
- More Newsprint – Less Footprint, National Newspapers of Ireland
- EDIP operates deinking plants automatically better! First successful realisation of a comprehensive model predictive control solution for deinking plants by EPOSC, EposC Process Optimization GmbH
- Post-Consumer Beverage Cartons Separte Collection in Milan, Tetra Pak Italiana S.p.A.

The Awards were kindly sponsored by SCA.

Glossary

- Consumption of paper and board: internal deliveries to particular countries plus imports from countries outside this list of countries.
- Europe: for the purposes of the declaration, ‘Europe’ means the 27 EU member states plus Norway and Switzerland.
- Net trade in recovered paper: the difference between recovered paper exports to and imports from the defined area.
- Recovered paper: used paper and board separately collected and in general processed according to the European Standard List of Recovered Paper and Board Grades (EN 643) for paper recycling.
- Recycling: reprocessing of recovered paper in a production process into new paper and board.
- Recycled paper: new paper and board where fibres originate from recovered paper.
- Recycling rate: the ratio of recovered paper utilised for recycling including recovered paper net trade, and paper and board consumption.
- Utilisation: use of recovered paper in a paper mill while producing recycled paper.

THE PAPER & BOARD RECYCLING CHAIN

Agents in the chain
Consumers (industries, big commercial areas, offices, households...)
Collectors of used paper and board
Paper and board producers (mills)
Recycling, Recovery, Consumers... What they do
Consume paper and board
Produce 100% recyclable waste
Collect paper and board waste
Clean and sort used paper to produce raw material for the paper industry
Recycle paper and board
Use recovered paper to produce NEW RECYCLED PAPER
Product
USED PAPER AND BOARD
RECOVERED PAPER
EN 643
RECYCLED PAPER
To the Managing Director of CEPI


Scope of our engagement
We have been engaged by the Managing Director of CEPI to express an independent opinion on the calculation of the paper recycling rate in Europe over 2007 as presented on page 3 of the European Declaration on Paper Recycling 2006-2010 Monitoring Report 2007 (Monitoring Report 2007).

The paper recycling rate over 2007 in the Monitoring Report 2007 has been prepared under the responsibility of the Managing Director of CEPI. The paper recycling rate is calculated by CEPI based on information received directly from CEPI member associations, directly from individual companies, or in specific circumstances based on estimates provided by paper industry consultants.

It is our responsibility to express an opinion on the accurate calculation of the paper recycling rate over 2007 as presented on page 3 of the Monitoring Report.

Limitations
The scope of our assurance engagement as described above does not include an assessment of the reliability of the underlying data provided to CEPI – by the CEPI member associations, individual companies and industry consultants – nor does it include an assessment of the calculation of the paper recycling rates for the years 1995-2005 as presented on page 3 of the Monitoring Report.

Criteria
The paper recycling rate in Europe is defined by CEPI on page 6 of the Monitoring Report 2007. We consider the reporting criteria for the European paper recycling rate to be relevant and sufficient for our engagement.

Procedures performed
We performed our procedures in accordance with Dutch Law and the International Standard on Assurance Engagements (ISAE 3000) ‘Assurance engagements other than audits or reviews of historical financial information’. These standards require that we plan and perform our procedures to obtain reasonable assurance about whether the European paper recycling rate over 2007 on page 3 of the Monitoring Report 2007 is accurately calculated.

Our procedures included:
• interviews with CEPI management to obtain an understanding of the procedures and methods applied for data collection, estimations and calculation of the paper recycling rate;
• reconciliation of the data used for the calculation with data provided by CEPI member associations, individual companies and estimates from paper industry consultants; and
• recalculation of the paper recycling rate over 2007.

We believe that the assurance information we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Conclusion
Based on the procedures we have performed, we conclude with a reasonable level of assurance that the European paper recycling rate over 2007 presented on page 3 of the Monitoring Report 2007 has, in all material aspects, been accurately calculated in accordance with the CEPI reporting definition for the European paper recycling rate.

Use of this assurance report
This report is addressed to the Managing Director of CEPI only and was prepared on CEPI’s instructions as set out in our terms of engagement with them. Notwithstanding our consent to the inclusion of this Report in the Monitoring Report 2007, our report remains addressed to the Managing Director of CEPI to whom we owe a duty of care under the terms of our engagement. Consequently, we do not accept or assume and deny any liability or duty of care to any third parties who may wish to rely on this report.

Amsterdam, August 22, 2008
PricewaterhouseCoopers Accountants N.V.
Originally signed by J. van der Hilst RA

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If you want to help us develop paper recycling in Europe why not include the following email tagline in your own email signature:

“When you print this email, please recycle it. Paper is renewable, recyclable and the natural support of ideas. www.paperonline.org”