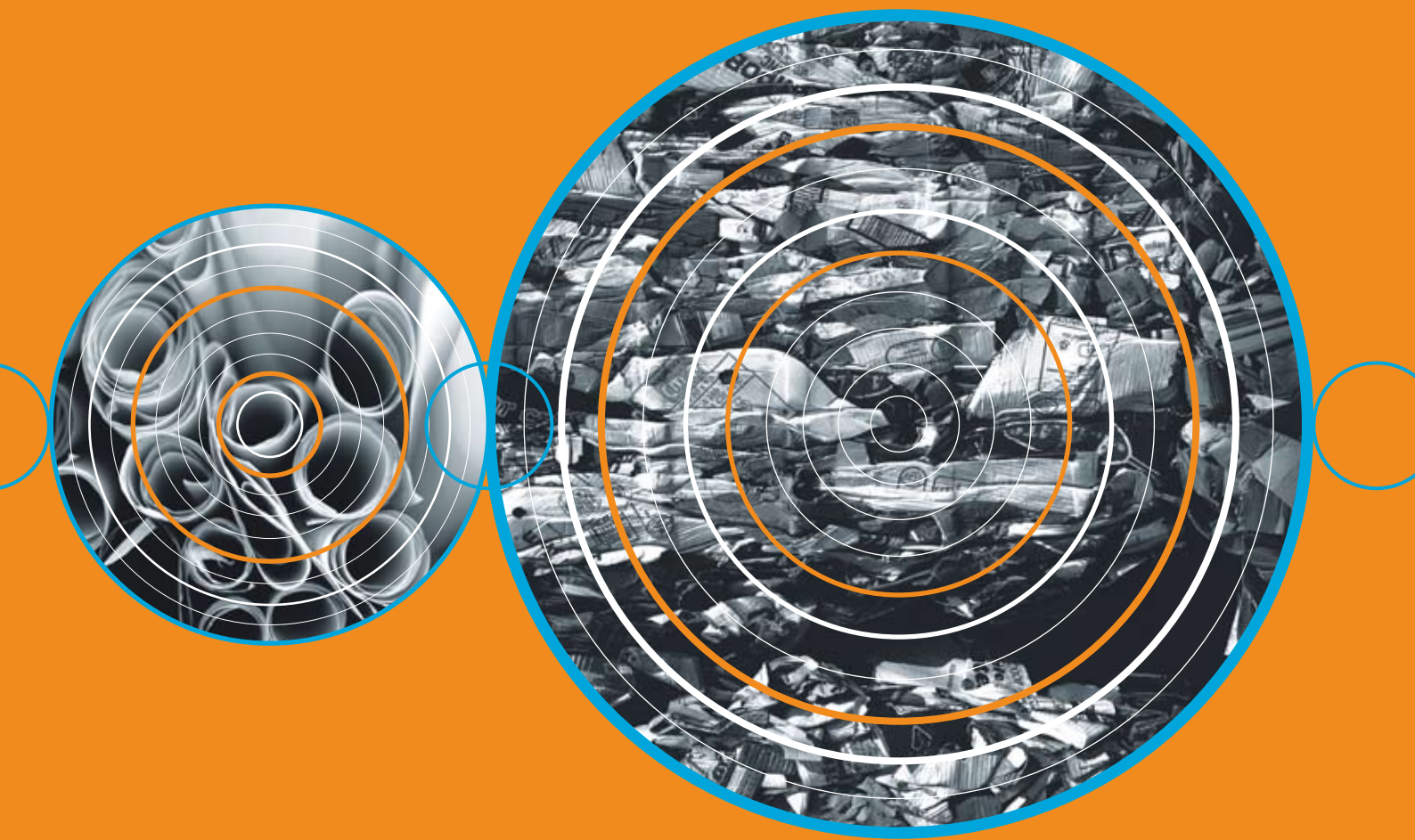


European Declaration on Paper Recycling

2006 – 2010

Monitoring Report 2009



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"It's the economy, stupid..."

The economic recession continued in 2009 and, for the second year in a row, made the recycling rate jump up due to the drop in paper consumption to the level of 1998. As the recycling rate is the ratio between the recycling and the consumption of paper, the sudden fall in consumption – whereas the recycling continued a steady growth – resulted in a record high 72.2% recycling rate after having reached 66.7% the year before. The industry has followed the commitment it made in 2000 to increase paper recycling in Europe but it cannot control unpredictable external factors such as economic recession and related reduction in paper consumption. "It's the economy," as Bill Clinton famously coined it.

A swing in the opposite direction may occur when the economy recovers as recycling may not be able to immediately match up to the reviving paper consumption; the recycling rate is likely to drop, temporarily. In 2010 the recycling rate is estimated to be under 70%, closer to the original target of 66% ($\pm 1.5\%$ -points). Recycling is intrinsically a self-adjusting mechanism which, with a lag of three to six months, will adapt to any volume of consumption. In the trend, the industry will continue on its

path to meeting ambitious targets of recycling paper at a steadily increasing rate in Europe.

$$\text{Recycling rate} = \frac{\text{Volume of paper recycling}}{\text{Volume of paper consumption}}$$

The recycling rate does not, however, take into account any recycling or recovery operations that take place in other sectors than the paper industry.

For the commitment period of 2006 to 2010, PricewaterhouseCoopers has independently verified the recycling rate calculations using the International Standard on Assurance Engagements ISAE 3000; see report on page 7.

In addition to the quantitative progress, a lot of qualitative work was done to establish an eco-design towards improved recyclability and in the area of waste prevention. You can see more on that on pages 4 and 5.

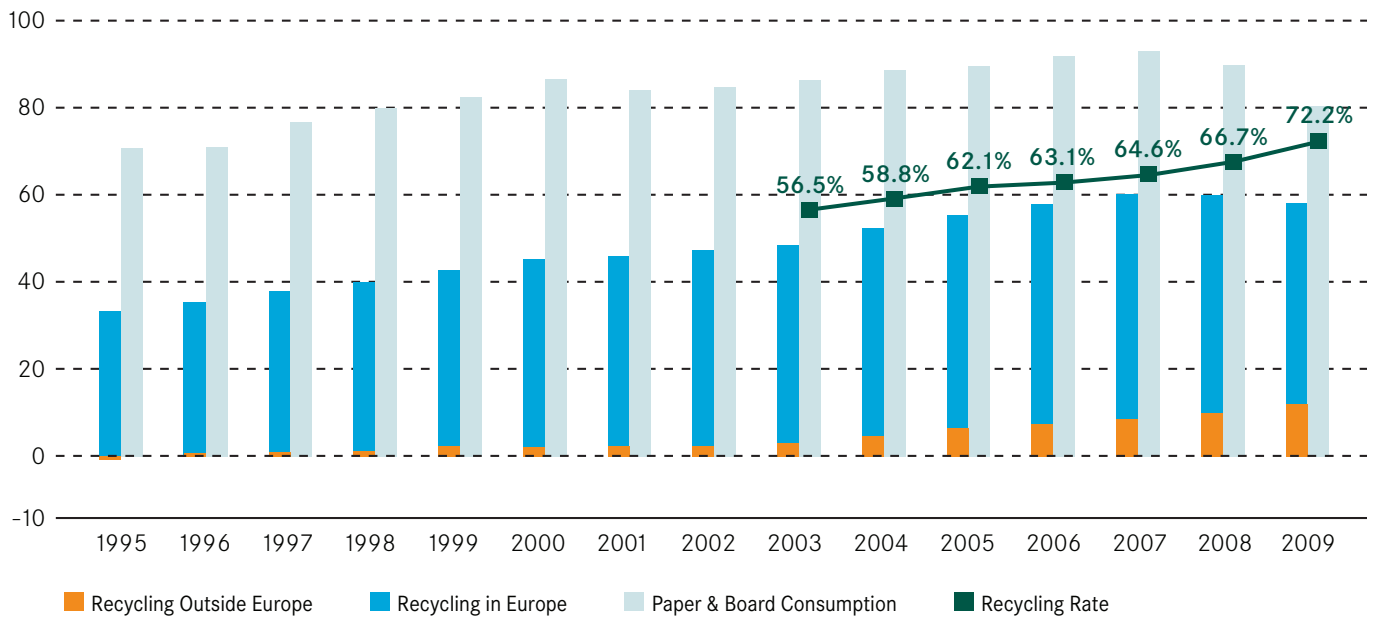
Recycling Rate 2009

The recycling rate in Europe reached 72.2%¹ in 2009. The total amount of paper collected and sent to be recycled in paper mills came to 58 million tonnes, a decrease of 1.9 million tonnes (or -3.2%) compared to the previous year, but an increase of 2.9 million tonnes since 2004, the base year for the current target the industry has set itself for increasing recycling in Europe.

A net volume of 12.1 million tonnes (or 20.8%) of the total 58 million tonnes were exported for recycling in third countries outside the commitment region of EU-27 plus Norway and Switzerland.

European Paper Recycling 1995-2009

Million Tonnes



Data Quality

2010 (2009 Data)

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, the Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Spain, Sweden, Switzerland and the United Kingdom). 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, Luxembourg, Malta and Slovenia) is obtained from Pöyry Consulting. After being submitted to CEPI, the data may be adjusted, in particular the trade data obtained from customs. The figures will be considered final as published in the subsequent report (e.g. 2008 figures in this report).

For certain countries², where the calculation of the mass of recycled paper and board based on recovered paper utilisation and net trade has not produced a result which is considered to be an adequate reflection of reality, recycling has been based on actual paper and board collection for the specific purpose of recycling. This alternative methodology is mainly called for by the relatively high trade volumes in the Netherlands, which complicates the exercise of distinguishing domestic utilisation from trade of recovered paper. It should be noted that this change has a reductive impact on the overall recycling rate as the usual calculation method would over estimate actual recycling in the Netherlands.

All historical annual recycling rates have been recomputed based on the revised calculation methodology.

¹ See Assurance Report 2009 by PwC on page 7

² France, the Netherlands and Sweden

Progress in Qualitative Targets

By joining the European Declaration on Paper Recycling, European Recovered Paper Council (ERPC) members committed themselves to carrying out qualitative actions, in particular by using the eco-design of paper products, to improve the recycling rate by 2010. The members represent 14 sectors along the paper value chain. In 2009, like the previous year, ERPC members dedicated a substantial amount of their time to several initiatives that will facilitate the recycling process and increase recycling activity.

Research and Development

INGEDE finished five research projects on recyclability issues in 2009 and started a new one "Preparation of an adhesive application data base – recyclability scoring system" which is in progress. Various associations support this project, in particular FINAT and FEICA, both financially and with expert knowledge. FINAT is currently reviewing its FTM 19; a method to be possibly replaced by a test developed with INGEDE to better define the recyclability of adhesives. FINAT and FEICA members have contributed to the project by sending bonded samples and labelstock that will be investigated as regards their influence on paper recycling. The technical working party on paper & packaging adhesives of the German association is actively supporting this project with input and samples.

FEICA's national associations, i.e. in Belgium and Sweden, are constantly monitoring the paper chain to enhance recyclability by removing unwanted substances.

FINAT carried out an Internet survey among its members to identify the reach of environmental labelling schemes in the sector, and investigate possible interest in setting up a label industry specific scheme based on a North American experience¹, in combination with a benchmarking initiative to measure progress. Plans are currently on hold.

In 2009, RadTech Europe, in collaboration with INGEDE and Fogra (Graphics Technology Research Association), completed a study on the deinkability of UV inks. The project investigated the effect of the key components within the formulation of UV curable inks on the propensity of the print to de-ink. In essence the conclusion is that by careful selection of an oligomer type in an ink formulation, deinkability of UV curable inks is possible. A final report will be available for members of RadTech Europe in mid-2010.

INGEDE revised some of its methods². Members of EuPIA continue to serve as technical experts in the technical committees of INGEDE research projects relating to printing inks.

INGEDE had frequent and intensive contacts with the DPDA (Digital Print Deinking Alliance) and organised two meetings of the Digital Round Table. The increasing number of participants shows that there is a great deal of interest in such a discussion.

INGEDE launched a round table meeting in Italy to improve the deinkability of flexographic newspapers.

Eco-design

The ERPC adopted a revised version of the Deinkability Scores at its meeting in March 2009 after INGEDE had improved the Deinkability Scores. The document is published on the ERPC website together with a calculator. EuPIA informs its members about ink related deinking topics and makes leaflets about deinking topics available on the web sites of EuPIA and national associations. Members of EuPIA continue to inform print shops and their customers about printing ink and deinking topics and a favourable choice of printing materials upon request.

CEPI has actively continued its project on ensuring the safety of recycled packaging for food contact. EuPIA assisted CEPI in identifying potential printing ink related risks associated with the use of recycled paper and board. To this end, EuPIA provided a compilation³ of substances used during the manufacture of printing inks of any kind which may be present in recycled paper and board.

In 2008, FEICA recommended to its members to phase out DiBP from paper and packaging applications in order to prohibit the substance appearing again in recycled paper; this action was supported by relevant sectors in the paper value chain in many European countries.

FEICA monitors the progress of its members annually on the use of DiBP in the manufacture of all paper applications. The second survey (launched in 2010) has confirmed once again that DiBP has by and large been phased out by the adhesives and sealants industry for use in the manufacture of all paper applications.

¹ North American label association TLMF's "Label Initiative For the Environment" (L.I.F.E.)

² INGEDE methods 6, 7, 11p and 12 – and published INGEDE methods 13 and 14 as new methods

³ W. Baumann - T. Rothardt: Druckereischmiedstoffe: Daten und Fakten zum Umweltschutz, 2. erweiterte und überarbeitete Auflage, Springer-Verlag, Berlin Heidelberg 1999

In the corrugated industry, the voluntary agreement to stop using phthalates is proving to be successful: CITPA reports that after one year of phasing out the use of phthalates in adhesives, 60% of recycled fibres used for food packaging were below the required value of 0,3mg/DiBP/kg food (compared to only 20% a year earlier); progress appreciated by the competent authorities. The testing results show remarkable decreases that are expected to continue in the future at a lower rate which is normal in a phasing out process.

Awareness Raising

To ensure that fewer magazines end up in landfill, there needs to be greater consumer awareness about the possibilities of recycling. In many countries publishers have entered into voluntary agreements with governments (both national and local) to raise the profile of recycling and reduce the quantity of magazines reaching landfill. In the UK, for example, many magazines carry the 'recycle now'⁴ logo encouraging readers to recycle their magazines and the UK's national association, PPA, has targets for the rate of recovery which it reports to its government annually. In Germany the national association, VDZ, initiated a self-regulatory scheme, AGRAPA, to increase the national recycling rate for graphic paper to more than 80% in 2007.

With the premise that consumers need to know what happens to their magazines when they recycle them and need to be the 'hero' of the process, the French consumer magazine association, SPMI, developed an advertising campaign which began in June 2009 to

encourage consumers to recycle their magazines. The campaign was developed through a competition for students of design, art, and communications. The winning entry plays with the idea of a reader's relationship with his/her magazine being something of a love affair and is laid out like poetry written by one lover for another.

INGEDE held a "Paper Recycling – a necessity for today's paper loop" seminar on 7-8 October 2009 in San Lorenzo de El Escorial near Madrid.

Collection

FINAT has made continuous efforts to find partners for the collection, desiliconisation and recycling of paper release liners and to raise awareness within the market about the availability of recycling solutions. This has been supported by an electronic education module on sustainability and recycling related issues.

FINAT was in discussion with two partners during and after Labelexpo Europe 2009 to set up a European-based recycling solution as an alternative for an existing overseas solution. This would become operational in 2010.

FINAT has initiated a platform between the global label associations to stimulate knowledge exchange and collaboration in developing recycling solutions.

The Limits of Paper Recycling

The scientific four-year project "The Limits of Paper Recycling" was finalised with a closing conference in Munich in May 2009. ERPC members INGEDE and CEPI made presentations and actively contributed throughout the project.

In the course of the Action the group developed a number of strategic recommendations for the paper industry and the paper value chain, as well as for policy makers. The main objective of the Action was to develop scenarios describing the future use of recovered paper within the European paper industry.

The benefits of the Action are a sound basis for targeted research, provision of necessary arguments in the discussion with governmental organisations, guidelines for the design of recycle-friendly products, guidelines for more effective, tailor-made collection strategies for used paper and a background for investment decisions.

The final report of the Action has been published in a book entitled, "COST Action E48 – The Future of Paper Recycling in Europe: Opportunities and Limitations" (COST Office, 2010).

During the Action, INGEDE hosted a short-term scientific mission (STSM) for a PhD student to develop and reform an existing mill method to evaluate red discolouration and convert it to an INGEDE method.⁵

COST (European Cooperation in Science and Technology) is the oldest and widest European intergovernmental network for cooperation in research. Presently used by the scientific communities of 36 European countries to cooperate in common research projects supported by national funds.⁶

⁴ www.recyclenow.com

⁵ www.cost-e48.net

⁶ www.cost.esf.org

European Paper Recycling Awards 2009

In September 2009, the ERPC recognised the outstanding work being done to promote paper recycling. The idea of the European Paper Recycling Awards is to acknowledge best practices and produce a bank of good ideas that can be adapted to other relevant situations.

The event hosted by **Jorgo Chatzimarkarkis**, Member of the European Parliament, saw two winners receive their prize and those highly commended receive a certificate of recognition from the **Prince Laurent of Belgium** and the European Parliament’s Environment Committee President, **Jo Leinen**.

The winners:

GreenProject, Sabox, Italy

Sabox is a company of the Sada Group with 26 employees and has a specific know-how in designing and producing packaging in corrugated cardboard. The winning project uses FSC certified recovered paper, collected in the Campania area, to produce the GreenBoxX and the GreenTray, used to package pasta and tomatoes respectively.

The Best Use of Paper in Schools, Paper Chain Forum, Belgium

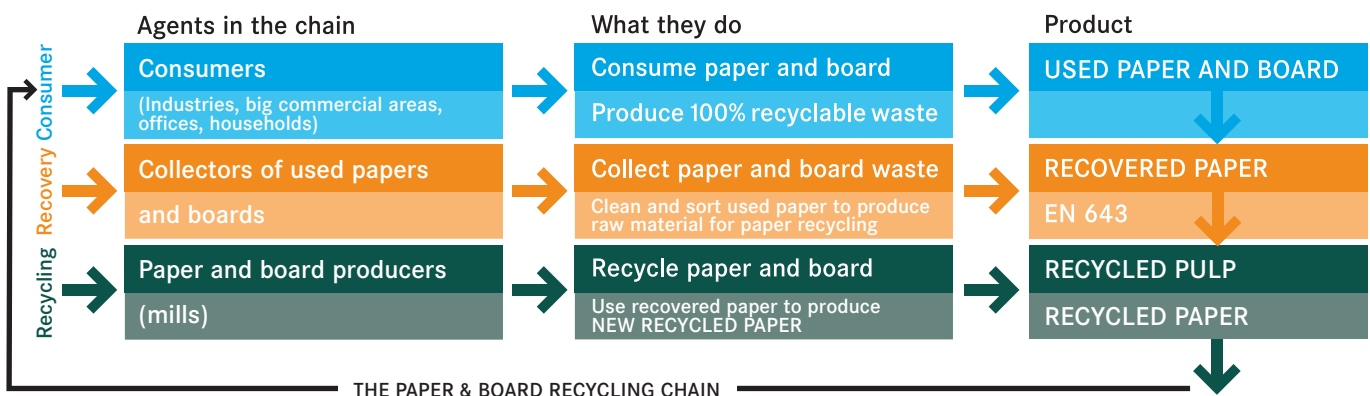
The Belgian Paper Chain Forum, an information platform grouping 12 professional associations, developed an education project with the NGO “Green Belgium”. The project aims to explain to children in primary schools how to use paper in a proper way, to inform them about the environmental impact of paper products and to work out with them a collection system in their schools, and at home, in order to ensure the recycling of used paper.

The highly commended projects:

- RCP Sorting Plant - Stora Enso Langerbrugge
- “Respire” - Johnson & Johnson
- RicicloAperto Impianti - Comieco/Assocarta
- Survival Kit for Responsible Communication - Arjowiggins Graphic
- Voluntary Agreement on Graphic Paper Recycling in Germany - AGRAPA

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:** the 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:** the use of recovered paper in a paper mill while producing recycled paper.



European Recovered Paper Council

Signatories



www.cepi.org
www.paperrecovery.eu



www.citpa-europe.org



www.erpa.info



www.europeantissue.com



www.ingede.org



www.intergraf.org



www.fepe.org

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www.eadp.org



www.eupia.org



www.enpa.be



www.feica.eu



www.faep.org



www.radtech-europe.com



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