

Vinyl 2010  
Executive  
Summary 2007



## EXECUTIVE SUMMARY

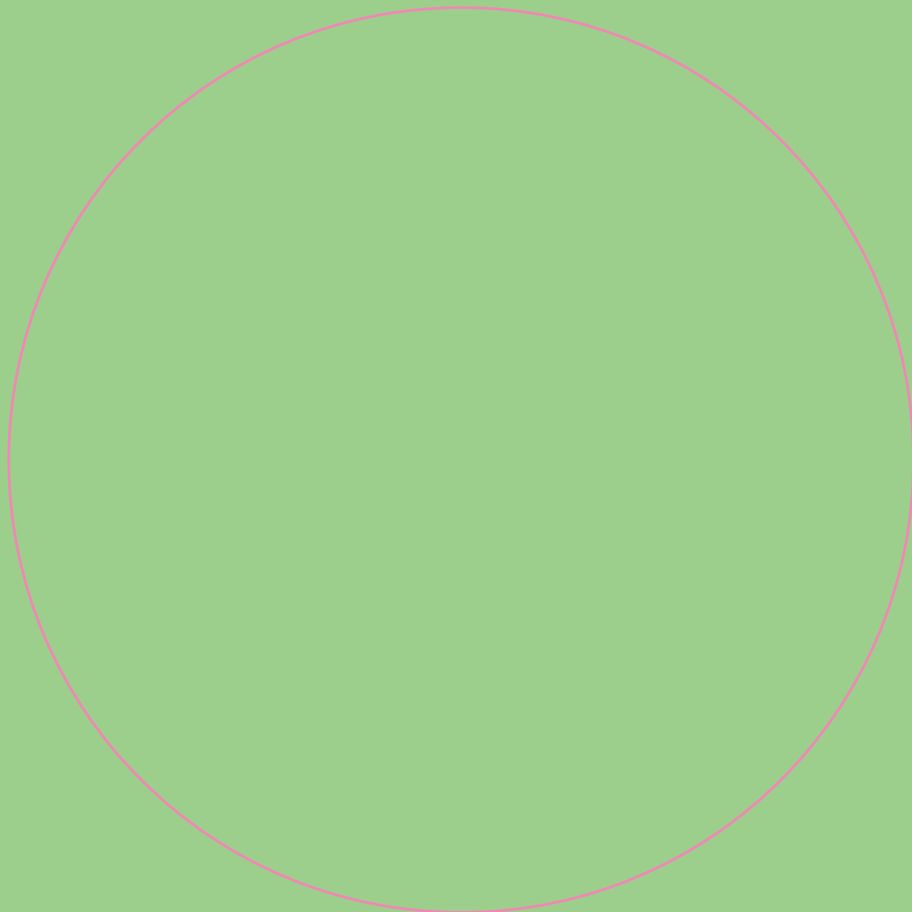
### The Progress Report, the Voluntary Commitment and Vinyl 2010

The Progress Report is Vinyl 2010's annual review of progress towards the targets set out in the Voluntary Commitment of the European PVC industry. The Voluntary Commitment was signed in 2000 and reviewed in the Midterm Review of 2005. It is a 10-year Sustainable Development Initiative involving the whole life-cycle of PVC, from production to disposal. Vinyl 2010 is the structure which organises and implements this Commitment.

### Developments in 2006

Vinyl 2010 continued on the road of strong progress towards meeting its targets. After doubling PVC waste collection in 2005, the 2006 collection figures through all of the Vinyl 2010 projects exceeded expectations with a further doubling.

Now in its seventh year, Vinyl 2010 has gained a wealth of experience of the self-regulatory approach and in promoting involvement throughout the value chain of PVC. Committed as ever to Sustainable Development, the PVC industry has continued to support innovative ways to produce, collect and recycle PVC, dedicating time and resources to reducing the environmental impact of PVC as well as supporting the life-cycle approach and stakeholder dialogue.





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### **Resin Manufacturing**

The European Union's Integrated Pollution Prevention and Control (IPPC) Directive 96/61/EC lays down a legal framework requiring Member States to issue operating permits for certain installations carrying on industrial activities, based among others on EU guidance documents called BREFs. The PVC industry contributed significantly to the final version of the Polymers BREF (Reference Document on Best Available Techniques in the Production of Polymers) that was published in October 2006.

### **Eco-Profile and Environmental Declaration (ED)**

Vinyl 2010 practices the life-cycle approach, a cradle-to-grave analysis of environmental impact. An updated Eco-Profile for PVC was developed with the assistance of Vinyl 2010. The next step in 2007 is to develop an Environmental Declaration or ED for suspension PVC (S-PVC) and emulsion PVC (E-PVC). Environmental Declarations will provide a useful and verified resource for studies and research.

### **Plasticisers**

The EU risk assessments on the most commonly-used phthalate plasticisers were officially published in the EU Official Journal in April 2006. The review of diisononyl phthalate (DINP) and diisodecyl phthalate (DIDP) showed that they do not pose any risk to human health or the environment in any of their current applications. The risk assessment for dibutyl phthalate (DBP) showed some risk to plants in the vicinity of processing sites and to workers through inhalation and simple measures can be implemented to counter this. A further risk assessment of di(2-ethylhexyl) phthalate (DEHP) is expected to be published in 2007.

### **Stabilisers**

Vinyl 2010 member ESPA (the European Stabiliser Producers Association) continued with their commitment to phase out lead stabilisers, achieving their interim targets for lead replacement. This phase-out will be extended to the EU-25. Increasingly, calcium-based stabilisers are replacing the use of lead stabilisers.

### **Waste Management Projects**

The sector projects of EuPC (European Plastics Converters) advanced well in 2006. Some highlights from the waste management projects were:

- Recovinyl collected 44,690 tonnes in Belgium, France, Germany, Ireland, Italy, the Netherlands, Spain, Sweden and the UK, expanding its network of collection points. This very good result also reflected integration of sector projects of TEPPFA and EPPA in the Recovinyl model, which works through the collection and recycling of PVC waste using existing facilities.
- TEPPFA (the European Plastic Pipes and Fittings Association) phased out lead stabilisers in drinking water pipes, except in Greece, Portugal and Spain.
- TEPPFA increased post-consumer pipes and fittings recycling by 23% to 10,841 tonnes.
- EPPA (the European PVC Window and Related Building Products Association) achieved its 2006 targets by recycling 37,066 tonnes of post-consumer PVC window frames in Austria, Belgium, Denmark, France, Germany, Ireland, Italy, the Netherlands and the UK.



- Roofcollect increased significantly its recycling by extending its activities to non-roofing flexible PVC sheets. Recycling reached 10,504 tonnes.
- EPCOAT (EuPC's PVC Coated Fabrics) saw a recycled tonnage increase from 1,346 tonnes in 2005 to 2,804 tonnes in 2006.

### **Recycling Technologies and Trial Plants**

Vinyloop® is a mechanical recycling technology based on separation by the use of solvents, operating in a plant at Ferrara, Italy. In 2006, technological improvements were made to improve the quality of the recycled PVC, including the installation of a new decanter centrifuge.

The trial phase of the Halosep® project to make use of flue gas residues was concluded in the third quarter of 2006.

The Redop project, a feedstock recycling treatment for mixed plastics/cellulose fractions from municipal solid waste (MSW), was discontinued for economic and market reasons.

### **Other Projects**

The Light Concrete project looked at using PVC for a filler for 'light concrete' – used for low weight and high thermal and sound insulation. It was put on hold in 2006 due to limited waste availability but may start again in the future.

Another innovative technology was explored in 2006. German company Sustec Schwarze Pumpe GmbH (SVZ) operates a gasification plant for fluid and solid kinds of waste which can treat waste with a chlorine content of up to 10%. This technology was trialed but costs currently exceed market expectations.

CIFRA is a French producer of calendered PVC films which with financial support from Vinyl 2010 invested in recycling facilities to recycle the rigid films used in the cooling towers of electrical power plants. In 2007, the company plans to participate in Recovinyl.

The APPRICOD project was concluded in 2006 with seminars and a best practice guide on sustainable resource management from the construction, renovation and demolition sector.

## **Monitoring, Access to Information and Stakeholder Relations**

### **Guidance from the Monitoring Committee**

Under the chairmanship of Professor Alfons Buekens of the Free University of Brussels (VUB), the Monitoring Committee monitors and guides the various Vinyl 2010 activities and furthers dialogue with stakeholders. The Committee met twice in 2006. Dr. Jorgo Chatzimarkakis, Member of the European Parliament (MEP) was welcomed onto the Monitoring Committee.



### **Finance**

Expenditure by Vinyl 2010, including EuPC and its members amounted to €7.09 million in 2006 up from €4.44 million in 2005.

### **Independent Auditors**

Vinyl 2010 is committed to transparency and has engaged independent auditors and verifiers.

- The financial accounts of Vinyl 2010 were audited and approved by KPMG.
- KPMG also audited the statement of tonnages of products recycled.
- The Progress Report 2007 was reviewed by DNV and verified as giving a true and honest representation of Vinyl 2010's performance and achievements.
- DNV also verified the phase-out of lead in drinking water pipes.

### **Encouraging Dialogue with Stakeholders**

The PVC industry works actively on communications and dialogue with stakeholders through Vinyl 2010. As a member of the United Nations Partnership for Sustainable Development, Vinyl 2010 attended the 14<sup>th</sup> Session of the UN Commission on Sustainable Development in New York. Vinyl 2010 also participated in the 2<sup>nd</sup> International Conference on Quantified Eco-Efficiency Analysis for Sustainability in Egmond aan Zee, the 13<sup>th</sup> LCA Case Study Symposium in Stuttgart and Green Week in Brussels.

Vinyl 2010 Progress Reports and Executive Summaries, published since 2001, can be downloaded from [www.vinyl2010.org](http://www.vinyl2010.org).

### **Key Achievements 2000-2006**

- Cadmium stabilisers phased-out in EU-15 (2001)
- Bisphenol A phased out of PVC production in all ECVM member companies (2001)
- 25% recycling of pipes, windows and waterproofing membranes (2003)
- Recognition of Vinyl 2010 as a partner by UN Commission for Sustainable Development (2004)
- Risk assessment on lead stabilisers published (2005)
- 15% reduction in lead stabiliser use achieved ahead of time (2005)
- External verification of ECVM S-PVC and E-PVC production charters (2002 and 2005 respectively)
- Phthalate risk assessments completed (2005) and published (2006)
- Lead stabiliser phase-out in 2015 extended to EU-25 (2006)
- Cadmium stabiliser phase-out extended to EU-25 (2006)
- Recycled tonnages increasing exponentially: 18,077 tonnes in 2004, 38,793 tonnes in 2005 and 82,812 tonnes in 2006

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