

# VinylPlus Executive Summary 2013

Reporting on the activities of the year 2012



[www.vinylplus.eu](http://www.vinylplus.eu)

# Voluntary Commitment Challenges and Achievements

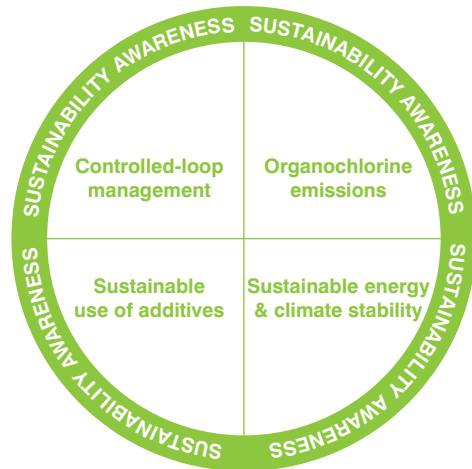
VinylPlus is the European PVC industry's ten-year Voluntary Commitment to Sustainable Development. It has been developed in an open process of stakeholder dialogue, including private companies, NGOs, regulators, civil society representatives, and PVC users. The scope of the programme extends to the EU-27 plus Norway and Switzerland.

Five key sustainability challenges have been identified as priorities according to The Natural Step's System Conditions for a Sustainable Society ([www.naturalstep.org](http://www.naturalstep.org)).

This Executive Summary summarises VinylPlus' progress and achievements in 2012 under each of the five challenges. All the information reported has been independently audited and verified by external third parties.

Expenditure by VinylPlus for 2012, including EuPC and its members, amounted to €6.95 million.

For detailed descriptions of the projects and activities please visit [www.vinylplus.eu](http://www.vinylplus.eu).



## Challenge 1

**Controlled-loop Management:** We will work towards the more efficient use and control of PVC throughout its life cycle.

### Recycling Target

In line with the wider scope of VinylPlus, an updated definition of 'recycled PVC' has been agreed where: "Recycled PVC is a discarded PVC product or semi-finished product that is diverted from waste for use within a new product. Processing waste is included, provided that it cannot be re-used in the same process that generated the waste." 362,076 tonnes of PVC were recycled in Europe within the framework of VinylPlus in 2012. The largest volume, 354,173 tonnes, was registered and certified by Recovinyl, the organisation set up in 2003 to facilitate PVC waste collection and recycling.

### Innovative Recycling

#### ■ VinylLoop®

VinylLoop® is a physical, solvent-based technology that recycles difficult-to-treat PVC waste. In 2012, VinylLoop® concentrated its efforts on improving the efficiency of its production process, which resulted in significant savings for steam, energy consumption and waste disposal.

### Legacy Additives

'Legacy additives' are substances which use in PVC products has been discontinued but which are contained in recycled PVC. Since the use of recyclates containing 'legacy additives' may be restricted by recent legislation proposals, VinylPlus is committed to addressing the issue in cooperation with the regulatory authorities.

### ■ Low Molecular Weight Phthalates

In summer 2011, Denmark proposed a restriction on the commercialisation of articles containing DEHP, BBP, DBP and DIBP in indoor and skin contact applications. In 2012, ECHA's Risk Assessment Committee (RAC) and the Socio-Economic Analysis Committee (SEAC) concluded that the proposed

restriction is not justified. Consequently, no restrictions are foreseen for recyclates. However these Low Molecular Weight phthalates will be subject to Authorisation as from 2015.

### ■ Lead

In March 2012, VinylPlus initiated a study on the impact of recycling waste streams containing lead. The completion of the study is expected by April 2013.

In April 2012, Sweden announced a proposal for lead restrictions in consumer products. VinylPlus sent comments, underlining the potential impact on recycling and the fact that the definition of 'consumer products' was not clarified. Further cooperation in order to find new solutions was offered.

### ■ SDS-R Project

To support recyclers in their compliance with the REACH Regulation requirements, EuPC and EuPR have developed an online database of polymers and applications where recyclers can obtain the specific required Safety Data Sheet for Recyclates (SDS-R). Following the request by recyclers, additional more specific SDS-Rs were developed in 2012.

### Controlled-loop Committee

In 2012, the Controlled-loop Committee worked on the specific interpretation of the new VinylPlus definition of recycling for sectoral applications and produced a guidance document in order to harmonise work and optimise synergies.

In relation to the target of exploiting innovative technology to recycle 100,000 tonnes/year of difficult-to-recycle PVC, the Committee selected a list of potential technologies to be further tested.

# Challenge 2

**Organochlorine Emissions:** We will help to ensure that persistent organic compounds do not accumulate in nature and that other emissions are reduced.

## Organochlorines

The first VinylPlus stakeholder event on organochlorines was held in Vienna, Austria, in November 2012. It involved national and local institutions as well as NGOs.

## PVC Resin Industry Production Charters

PVC resin manufacturers have signed Industry Charters for the production of PVC by the suspension (VCM & S-PVC Charter) and emulsion (E-PVC Charter) processes, aimed at reducing their environmental impact in the production phase.

A new verification took place at the beginning of 2012. The results showed a 96% full compliance, 1% partial compliance and 1% non-compliance; 2% of all applications of the standards could not be verified.

## Safe Transport

With reference to the target of zero-accident rate with VCM release during transportation, no such accidents occurred in 2012.



Photo: Courtesy of ERPA

Ultra lightweight water-bearing modules made from recycled rigid PVC films

# Challenge 3

**Sustainable Use of Additives:** We will review the use of PVC additives and move towards more sustainable additive systems.



Photo: Courtesy of Gerflor

PVC floor covering for sports: a safe and comfortable solution

## Lead Replacement

ESPA and EuPC are committed to replacing lead stabilisers across the EU-27 by the end of 2015. In the 2007-2012 period, lead stabiliser consumption decreased by 76,364 tonnes (-76.37%).

## Plasticisers

The replacement of DEHP by High Molecular Weight phthalates and/or other plasticisers is ongoing. A new German biomonitoring study shows that there is no accumulation of DPHP or Hexamol<sup>®</sup> DINCH<sup>®</sup> nor of their respective metabolites in the body due to rapid metabolism and elimination. These results are in line with ECPI's previous study on DEHP and DINP.

## 'Sustainable Use of Additives' Criteria

The Additives Task Force brings together representatives from ECPI and ESPA, related sectors such as pigments and fillers, NGOs and major PVC converting industries. In 2012, the Task Force agreed to focus its work on updating existing LCAs and EPDs as well as assessing substances consistently with the sustainability principles of The Natural Step.

# Challenge 4

**Sustainable Energy Use:** We will help to minimise climate impacts through reducing energy and raw material use, potentially endeavouring to switch to renewable sources and promoting sustainable innovation.



PVC window profiles provide excellent thermal insulation

## Energy Efficiency and Sustainable Footprint

The Energy Efficiency Task Force proposal to adopt as baseline the data collected by IFEU (German Institute for Energy and Environmental Research – [www.ifeu.de](http://www.ifeu.de)) was validated by the ECVM Production Committee. Initial verification of the data collected by ECVM member companies based on the IFEU methodology is expected by Q1 2014.

Converters will also strive to increase their efficient use of energy. Due to the complexity and variety of situations found in the converting sectors, setting an overall target, even by subsector, would be meaningless. It was therefore decided to proceed in a step by step approach.

Individual PVC converting companies will be invited to input their data in the EuPlastVoltage benchmarking system as of June 2013. This system was set up to measure the progress of plastics converting companies as a whole towards increased energy efficiency.

An ad hoc Task Force on Sustainability Footprinting was set up in 2012. It will initially focus on developing a Product Environmental Footprint (PEF) to be extended into a Sustainable Product Footprint at a second stage.

## Renewable Raw Materials

Established in December 2011, the Renewable Materials Task Force is focusing its work on investigating on renewable alternative resources to oil for the production of PVC. PVC is made from salt (57% – salt availability is largely unlimited) and oil (43%).

In 2012, the Task Force screened potential alternative renewable resources, including plant-based sugars and starches, sugar beets and CO<sub>2</sub>. At a second stage, the resources will be evaluated and technically tested specifically for PVC.

# Challenge 5

**Sustainability Awareness:** We will continue to build sustainability awareness across the value chain – including stakeholders inside and outside the industry – to accelerate resolving our sustainability challenges.

## Independent Monitoring

VinylPlus continues the best practice established by Vinyl 2010 and maintains an independent and critical Monitoring Committee, with the majority of members being external stakeholders.

## Annual Reporting

For 2012, the content of the Progress Report has been independently verified by SGS, whilst tonnages of PVC waste recycled and expenditure have been audited and certified by KPMG. The Natural Step has made a commentary on the overall work progress of VinylPlus.

## External Stakeholder Dialogue and Communication

With the objective of reinforcing the Voluntary Commitment messages along the value chain, joint communication projects with the European industry sector and national PVC associations were promoted and supported by VinylPlus in 2012.

In June 2012, VinylPlus participated in Rio+20, the United Nations Conference on Sustainable Development. In addition, the VinylPlus Voluntary Commitment has been included in the Rio+20 Registry of Commitments.

In 2012, VinylPlus Voluntary Commitment, progress and achievements were presented through active participation in high-level conferences, events and exhibitions at the European and the global level.

## VinylPlus Partner Certificate

A Label and Certification Task Force was set up in January 2011, and since July 2011 the 'Official Partner Certificate' that companies can use in their internal and external communication is in place.

The Certificate is released on a yearly basis to the companies which support the VinylPlus Voluntary Commitment.

## Product Label

After a Europe-wide screening of the existing label schemes, at the beginning of 2012 BRE Global (UK-based certification experts on responsible sourcing for building and construction products – [www.bre.co.uk](http://www.bre.co.uk)) was asked to develop a label criteria scheme together with VinylPlus and in collaboration with TNS. The criteria scheme combines elements from BRE's 'Responsible Sourcing' (BES 6001) with the VinylPlus five challenges.



UN Photo/Eskinder Debebe

# VinylPlus Partners

## In 2012, contributors were:

A. Kolckmann GmbH (Germany)  
Alfathern SpA (Italy)  
Aliaxis Group (Belgium)  
Alkor Folien GmbH (Germany)  
Alkor Kunststoffe GmbH (Germany)  
Altro (UK)  
Aluplast Austria GmbH (Austria)  
Aluplast GmbH (Germany)  
AMS Kunststofftechnik GmbH (Germany)  
Amtic International (UK)  
Armstrong DLW AG (Germany)  
Bilcare Research GmbH (Germany)  
BM SLU (Spain)  
BT Bautechnik Impex GmbH & Co. KG (Germany)  
BTH Fitting Kft. (Hungary)  
CIFRA (France)  
CTS-Cousin-Tessier SAS (France)  
CTS-TCT Polska Sp. z o.o. (Poland)  
Debolon dessauer bodenbeläge GmbH & Co. KG (Germany)  
Deceuninck Ltd (UK)  
Deceuninck NV (Belgium)  
Deceuninck Polska Sp. z o.o. (Poland)  
Deceuninck SAS (France)  
Dervisis Andreas (Greece)\*  
DHM (UK)\*  
Dietzel GmbH (Austria)  
Döllken Kunststoffverarbeitung GmbH (Germany)\*  
Dyka BV (Netherlands)  
Dyka Plastics NV (Belgium)  
Dyka Polska Sp. z o.o. (Poland)  
ELBTAL PLASTICS GmbH & Co. KG (Germany)\*  
Ergis-Eurofilms SA (Poland)  
Eurocell Profiles Ltd (UK)  
FDT FlachdachTechnologie GmbH & Co. KG (Germany)  
Finstral AG (Italy)  
FIP (Italy)  
Flag SpA (Italy)  
Floridienne Chimie SA (Belgium)  
Forbo Coral NV (Netherlands)  
Forbo Flooring UK Ltd (UK)  
Forbo Sarlino SAS (France)  
Forbo-Giubiasco SA (Switzerland)  
Forbo-Novilon BV (Netherlands)  
Gealan Fenster-Systeme GmbH (Germany)  
Georg Fischer Deka GmbH (Germany)  
Gerflor Mipolam GmbH (Germany)  
Gerflor SAS (France)  
Gerflor Tarare (France)  
Gernord Ltd (Ireland)

Girpi (France)  
H Producter AS (Norway)\*  
Heubach GmbH (Germany)  
Heytex Bramsche GmbH (Germany)  
Heytex Neugersdorf GmbH (Germany)  
IKA Innovative Kunststoffaufbereitung GmbH & Co. KG (Germany)  
Industrias Rehav SA (Spain)  
Inoutic/Deceuninck GmbH (Germany)  
IVC NV (Belgium)\*  
Jimten (Spain)\*  
Juteks d.d. (Slovenia)  
Karl Schoengen KG (Germany)  
Klöckner Pentaplast GmbH Co. KG (Germany)  
Konrad Hornschuch AG (Germany)  
KWH Pipe Oy AB (Finland)  
Manufacturas JBA (Spain)\*  
Marley Deutschland (Germany)  
Marley Hungária (Hungary)  
Mehler Technologies GmbH (Germany)  
MKF-Ergis Sp. z o.o. (Poland)  
MKF-Folien GmbH (Germany)  
Mondoplastico SpA (Italy)  
MWK Kunststoffverarbeitungs GmbH (Germany)  
Nicoll (France)  
Nicoll Italy (Italy)\*  
Nordisk Wavin A/S (Denmark)  
Norsk Wavin A/S (Norway)  
NYLOPLAST EUROPE BV (Netherlands)  
Paccor Hungary (Hungary)  
Perlen Packaging (Switzerland)  
Pipelife Austria (Austria)  
Pipelife Belgium NV (Belgium)  
Pipelife Czech s.r.o. (Czech Republic)  
Pipelife Deutschland GmbH (Germany)  
Pipelife Eesti AS (Estonia)  
Pipelife Finland Oy (Finland)  
Pipelife Hellas SA (Greece)  
Pipelife Hungária Kft. (Hungary)  
Pipelife Nederland BV (Netherlands)  
Pipelife Polska SA (Poland)  
Pipelife Sverige AB (Sweden)  
Poliplast (Poland)  
Poloplast GmbH & Co. KG (Austria)  
Polyflor (UK)  
Polymer-Chemie GmbH (Germany)  
Primo Danmark A/S (Denmark)  
Profialis NV (Belgium)  
Profialis SAS (France)  
Profine GmbH (Germany)  
Protan AS (Norway)  
Redi (Italy)  
REHAU AG & Co. (Germany)

REHAU GmbH (Austria)  
REHAU Ltd (UK)  
REHAU SA (France)  
REHAU Sp. z o.o. (Poland)  
RENOLIT Belgium NV (Belgium)  
RENOLIT Cramlington Ltd (UK)  
RENOLIT Hispania SA (Spain)  
RENOLIT Ibérica SA (Spain)  
RENOLIT Milano Sri (Italy)  
RENOLIT Nederland BV (Netherlands)  
RENOLIT Ondex SAS (France)  
RENOLIT SE (Germany)  
Riuvvert (Spain)  
Roehling Engineering Plastics KG (Germany)  
Rollepac (Netherlands)\*  
S.I.D.I.A.C. (France)  
Salamander Industrie Produkte GmbH (Germany)  
Sattler (Austria)  
Schüco International KG (Germany)  
Serge Ferrari SAS (France)\*  
Sika Manufacturing AG (Switzerland)  
Sika-Trocac GmbH (Germany)  
Solvay Benvic Italia SpA (Italy)  
SOTRA-SEPEREF SAS (France)  
Stockel GmbH (Germany)  
Tarkett AB (Sweden)  
Tarkett France (France)  
Tarkett GDL SA (Luxembourg)  
Tarkett Holding GmbH (Germany)  
Tarkett Limited (UK)  
Tessenderlo Chemie NV (Belgium)  
Tönsmeier Kunststoffe GmbH & Co. KG (Germany)  
Upofloor Oy (Finland)  
Uponor Suomi Oy (Finland)  
Veka AG (Germany)  
Veka Ibérica (Spain)  
Veka Plc (UK)  
Veka Polska (Poland)  
Veka SAS (France)  
Verseidag-Indutex GmbH (Germany)  
Vescom BV (Netherlands)  
Vulcatlex SpA (Italy)  
Wavin Baltic (Lithuania)  
Wavin Belgium BV (Belgium)  
Wavin BV (Netherlands)  
Wavin France SAS (France)  
Wavin GmbH (Germany)  
Wavin Hungary (Hungary)  
Wavin Ireland Ltd (Ireland)  
Wavin Metalplast (Poland)  
Wavin Nederland BV (Netherlands)  
Wavin Plastics Ltd (UK)  
WR Grace (France)

## PVC producers supporting the Voluntary Commitment in 2012

Arkema (France and Spain)\*\*  
Borsodchem (Hungary)  
Ineos Vinyls (Belgium, France, Germany, UK, Netherlands, Norway, Sweden)  
Shin-Etsu PVC (Netherlands, Portugal)  
SolVin (Belgium, France, Germany, Spain)  
Vestolit GmbH & Co. KG (Germany)  
Vinnolit GmbH & Co. KG (Germany, UK)

## Stabilisers producers supporting the Voluntary Commitment in 2012

Akros Chemicals  
Akeniz Kimya A.S.  
Arkema  
Asua Products SA  
Baerlocher GmbH  
Chemson Polymer-Additive AG  
Floridienne Chimie  
Galata Chemicals  
IKA GmbH & Co. KG  
Lamberti SpA  
PMC Group  
Reagens SpA  
The Dow Chemical Company

## Plasticisers producers supporting the Voluntary Commitment in 2012

BASF SE  
Evonik Industries AG (Germany)  
ExxonMobil Chemical Europe Inc.  
Perstorp Oxo AB (Sweden)

\*Companies that joined VinylPlus in 2012

\*\*1<sup>st</sup> half 2012