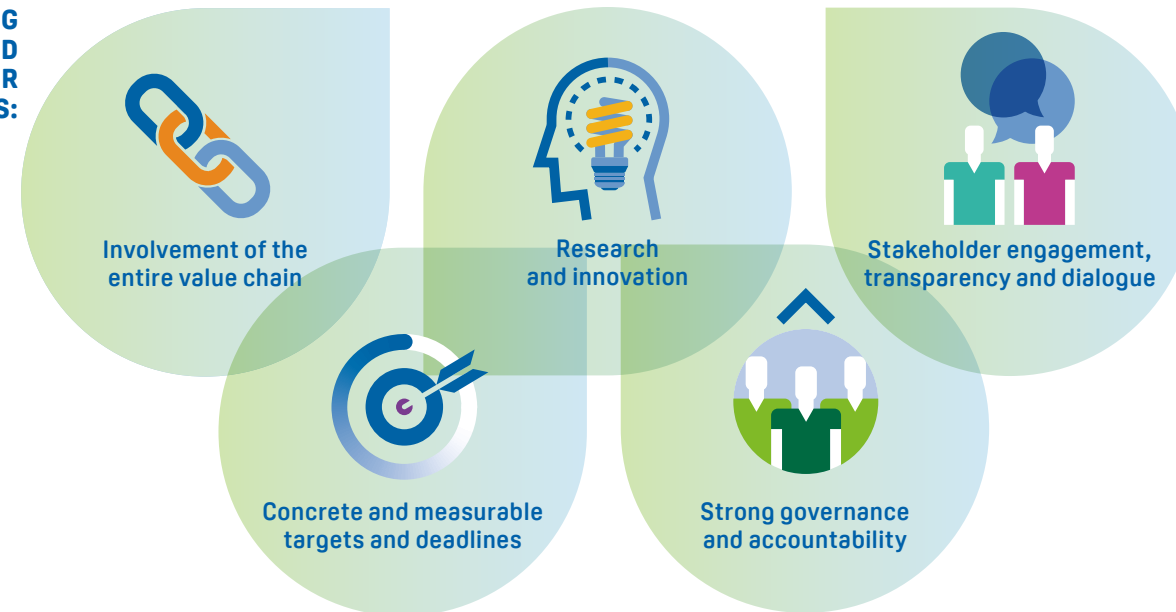


VINYLPLUS

VINYLPLUS FOUNDING MEMBERS ARE:

- the European Council of Vinyl Manufacturers – **ECVM**
- the European Plastics Converters – **EuPC**
- the European Stabiliser Producers Association – **ESPA**
- **European Plasticisers** (formerly ECPI)

VINYLPLUS' ENABLING CONDITIONS AND KEY ELEMENTS FOR SUCCESS:



VinylPlus is the 10-year Voluntary Commitment to sustainable development by the European PVC industry. The VinylPlus programme was developed through open dialogue with stakeholders, including industry, NGOs, regulators, civil society representatives and PVC users. Five key challenges have been identified for PVC on the basis of **The Natural Step** System Conditions for a Sustainable Society.

The regional scope of the programme is the EU-28 plus Norway and Switzerland.

Through the VinylPlus initiative, the European PVC industry is creating a long-term sustainability framework for the entire PVC value chain. It aims to:

- recycle 800,000 tonnes of PVC per year by 2020
- promote a sustainable use of additives
- improve PVC products sustainability and their contribution to sustainable development
- reduce progressively GHG (greenhouse gas) emissions as well as energy and resource consumption along the entire production chain
- move towards a low-carbon circular economy
- build sustainability awareness along the value chain and among stakeholders.

VinylPlus Partners

IN 2017, THE CONTRIBUTORS WERE:

CONVERTERS:

A. Kolckmann GmbH (Germany)
 Alfatherm SpA (Italy)
 Aliaxis Group (Belgium)
 Alkor Drake SAS (France)
 Altro (UK)
 Altro Debolon Dessauer Bodenbeläge GmbH & Co. KG (Germany)
 alfer* aluminium GmbH (Germany)*
 aluplast Austria GmbH (Austria)
 aluplast GmbH (Germany)
 alwitra GmbH & Co (Germany)
 AMS Kunststofftechnik GmbH & Co. KG (Germany)
 Amtico International (UK)
 Avery Dennison Materials Europe BV (Netherlands)*
 Beaulieu International Group (Belgium)
 Berry Plastics (Germany)
 Bilcare Research (Germany)
 B.M.S.L. (Spain)
 BT Bautechnik Impex GmbH & Co. KG (Germany)
 BTH Fitting Kft. (Hungary)
 CF Kunststoffsprofilen (Netherlands)
 Chiefrain Fabrics (Ireland)*
 CIFRA (France)
 Coveris Rigid Hungary Ltd (Hungary)
 Danosa (Spain)
 Deceuninck Ltd (UK)
 Deceuninck NV (Belgium)
 Deceuninck SAS (France)
 Dekura GmbH (Germany)
 DHM (UK)
 Dickson Saint Clair (France)
 Dörlken Kunststoffverarbeitung GmbH (Germany)
 Draka Polymer Films BV (Netherlands)
 Dyka BV (Netherlands)
 Dyka Plastics NV (Belgium)
 Dyka Polska Sp. z o.o. (Poland)
 Elbtal Plastics GmbH & Co. KG (Germany)
 Epwin Window Systems (UK)
 Ergis SA (Poland)
 FDT FlachdachTechnologie GmbH & Co. KG (Germany)
 Finstral AG (Italy)
 FIP (Italy)
 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)
 Griffine Enduction (France)
 Gruppo Fabbri (Svizzera) S.A. (Switzerland)
 Gruppo Fabbri Vignola SpA (Italy)
 H Producter AS (Norway)
 Heytex Bramsche GmbH (Germany)
 Heytex Neugersdorf GmbH (Germany)
 Holland Colours NV (Netherlands)
 Icopal Kunststoffverarbeitungs GmbH (Germany)
 IKA Innovative Kunststoffaufbereitung GmbH & Co. KG (Germany)
 Imerys (UK)
 Imperbel NV (Belgium)
 Industrial Sedó SL (Spain)

* Companies that joined VinylPlus in 2017

Inoutic/Deceuninck GmbH (Germany)
 Inoutic/Deceuninck Sp. z o.o. (Poland)
 Internorm Bauelemente GmbH (Austria)
 IVC BVBA (Belgium)*
 Jimten (Spain)
 Kalan (France)
 Klöckner Pentaplast GmbH & Co. KG (Germany)
 Konrad Hornschuch AG (Germany)
 LINPAC Packaging PONTIVY (France)
 Low & Bonar GmbH, former Mehler Technologies GmbH (Germany)
 Manufacturas JBA (Spain)
 Marley Deutschland (Germany)
 Marley Hungaria (Hungary)
 MKF-Ergis GmbH (Germany)
 MKF-Ergis Sp. z o.o. (Poland)
 Molecor (Spain)
 Mondoplastico SpA (Italy)
 Nicoll (France)
 Nicoll Italy (Italy)
 Nordisk Wavin A/S (Denmark)
 Norsk Wavin A/S (Norway)
 Novafloor (France)
 NYLOPLAST EUROPE BV (Netherlands)
 Omya International AG (Switzerland)
 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 France (France)
 Pipelife Hellas S.A. (Greece)
 Pipelife Hungaria 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)
 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)
 REHAU Industrias SA (Spain)
 RENOLIT Belgium NV (Belgium)
 RENOLIT Cramlington Ltd (UK)
 RENOLIT Hispania SA (Spain)
 RENOLIT Iberica SA (Spain)
 RENOLIT Milano Srl (Italy)
 RENOLIT Nederland BV (Netherlands)
 RENOLIT Ondex SAS (France)
 RENOLIT SE (Germany)
 Resysta International GmbH (Germany)
 Riuvert (Spain)
 Roehling Engineering Plastics KG (Germany)
 Salamander Industrie Produkte GmbH (Germany)
 Sattler PRO-TEX GmbH (Austria)
 Schüco Polymer Technologies KG (Germany)
 Serge Ferrari SAS (France)
 Sika Services AG (Switzerland)
 Sika Trocal GmbH (Germany)
 SIMONA AG (Germany)
 Siolen Industries (Belgium)
 SKZ-Testing GmbH (Germany)

Soprema Srl, former Flag SpA (Italy)
 SOTRA-SEPEREF SAS (France)
 Stöckel GmbH (Germany)
 Tarkett AB (Sweden)
 Tarkett France (France)
 Tarkett GDL SA (Luxembourg)
 Tarkett Holding GmbH (Germany)
 Tarkett Limited (UK)
 Thomson Research Associates Inc. (UK)*
 TMG Automotive (Portugal)
 Tönsmeier Kunststoffe GmbH & Co. KG (Germany)
 Uponor Infra Oy (Finland)
 Veka AG (Germany)
 Veka Ibérica (Spain)
 Veka Plc (UK)
 Veka Polska (Poland)
 Veka SAS (France)
 Verseidag-Indutex GmbH (Germany)
 Vescom BV (Netherlands)
 Vulcaflex 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)

PVC RESIN PRODUCERS:

Ercros (Spain)
 INOVYN (Belgium, Germany, Italy, Norway, Spain, Sweden, UK)
 Shin-Etsu PVC (Netherlands, Portugal)
 VESTOLIT GmbH (Germany)
 Vinnolit GmbH & Co. KG (Germany, UK)
 Vynova Group (Belgium, France, Germany, Netherlands, UK)

PVC STABILISER PRODUCERS:

Akdeniz Kimya A.S.
 Asua Products SA
 Baerlocher GmbH
 Chemson Polymer-Additive AG
 Galata Chemicals
 IKA GmbH & Co. KG
 LANXESS Deutschland GmbH
 PMC Group
 Reagens SpA
 Valtris Specialty Chemicals

PVC PLASTICISER PRODUCERS:

BASF SE
 DEZA a.s.
 Evonik Performance Materials GmbH
 ExxonMobil Chemical Europe Inc.
 Grupa Azoty ZAK SA
 LANXESS Deutschland GmbH
 Perstorp Oxo AB
 Proviron

ASSOCIATE MEMBERS:

AGPU – Arbeitsgemeinschaft PVC und Umwelt e.V. (Germany)
 British Plastics Federation (BPF) Vinyls Group (UK)
 PVC Forum Italia (Italy)

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VINYLPUS AT A GLANCE

THE EUROPEAN PVC INDUSTRY'S COMMITMENT TO SUSTAINABLE DEVELOPMENT



vinyl **plus**
 COMMITTED TO SUSTAINABLE DEVELOPMENT

2017 HIGHLIGHTS

VINYLPLUS' CHALLENGE 1 CONTRIBUTES TO SDGs:



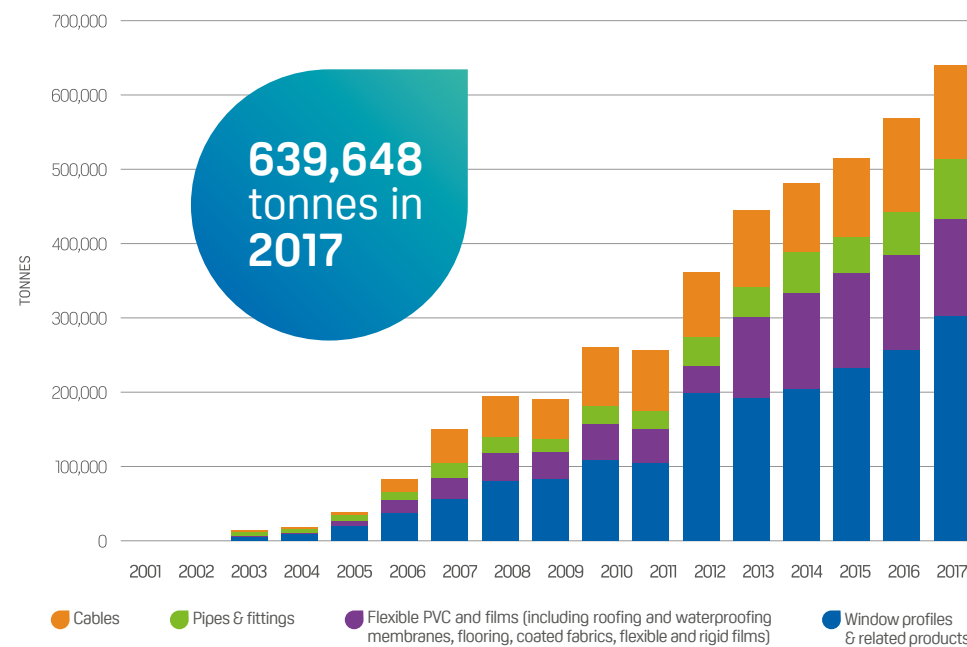
VINYLPLUS' CHALLENGE 2 CONTRIBUTES TO SDGs:



CONTROLLED-LOOP MANAGEMENT

- 639,648 tonnes of PVC recycled within the VinylPlus® framework.
- Strategic reorganisation of **Recovinyl**, both in its management structure and its data collection and reporting systems for recycled PVC waste to further improve its performance.
- Cooperation with EU authorities continued to address the issue of legacy additives (substances that are no longer used in new PVC products but that can be present in recycled PVC).
- Energy and material recovery trials for difficult-to-recycle PVC waste.

PVC RECYCLED WITHIN THE VINYL 2010 AND VINYLPLUS FRAMEWORKS



ORGANOCHLORINE EMISSIONS

- No transport accidents in Europe with VCM release.
- PVC resin producers committed to achieving full compliance with the ECVM Industry Charters by 2020.

VINYLPLUS' CHALLENGE 3 CONTRIBUTES TO SDGs:



VINYLPLUS' CHALLENGE 4 CONTRIBUTES TO SDGs:



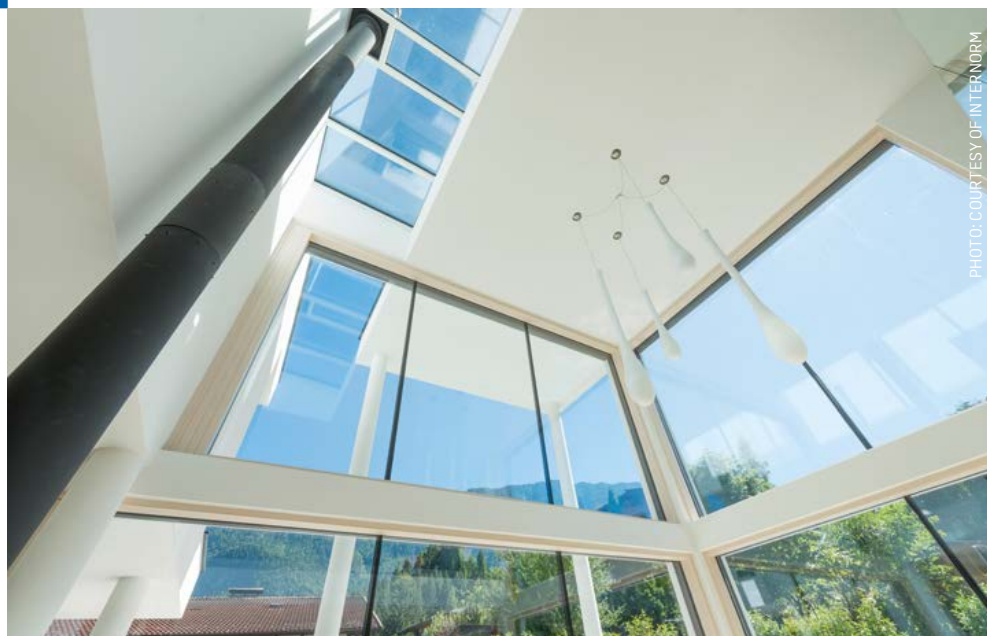
SUSTAINABLE USE OF ADDITIVES

- Average lead concentration in mixed streams of pre- and post-2015 recyclates is constantly decreasing, following cessation by ESPA members of lead-based stabilisers' sales in the EU-28 in December 2015.
- Through ongoing research and innovation, the plasticisers industry continues to adapt to market and regulatory demands, while keeping its commitment to safe products and their sustainable use.
- The first ASF (Additives Sustainability Footprint, a methodology to evaluate the use of additives in PVC products) was completed for window profiles.

SUSTAINABLE USE OF ENERGY AND RAW MATERIALS

- New verification ongoing on ECVM members' energy consumption data for 2016-2017 to check progress towards the 20% reduction target by 2020.
- Analysis of energy consumption data, covering about 20 production plants for flexible and rigid PVC films, showed an average saving of 20.3% per tonne of PVC product over the period 2010-2016.

PVC is one of the most widely used polymers in the world. PVC continues to make life safer and more comfortable through its use in construction, automobiles, cabling, smart & credit cards, packaging, fashion & design, agriculture, telecommunications, medical devices and a wide array of other areas and products. PVC is intrinsically a 'low carbon' plastic, it is extremely durable and cost-efficient. PVC helps preserve resources and energy, and, at the end of its life, it can be recycled without losing essential qualities.



VINYLPLUS' CHALLENGE 5 CONTRIBUTES TO SDGs:



SUSTAINABILITY AWARENESS

- With the theme *Towards Circular Economy*, the 5th VinylPlus Sustainability Forum, in Berlin, Germany, discussed Circular Economy policies and the PVC sector contribution to this key objective of the EU.
- The VinylPlus® Product Label (productlabel.vinylplus.eu) was implemented for the window profile sector, with six companies applying for it in 2017.
- Priority actions identified with the Social Partners of the European Chemical Sectoral Social Dialogue Committee in the framework of the new Cooperation Agreement signed.
- VinylPlus is registered as a SMART partnership on the UN Partnerships for the SDGs (Sustainable Development Goals) platform.



More information can be found in the VinylPlus Progress Report 2018, downloadable from www.vinylplus.eu.

All the information reported has been independently audited and verified by third parties.



Towards Circular Economy
& 11 May 2017
in, Germany



"I'm happy to see that in its Progress Report 2017 VinylPlus is already reporting and classifying its contribution to the SDGs, having identified for each of its five Challenges to which Goal they relate. I'd like to congratulate VinylPlus, we know how difficult it is to bring a whole value chain together to achieve more sustainability with clear objectives and targets, and you should continue the ambition, the effort. On our side we are ready to work more closely, maybe also to promote this model to other countries around the world. VinylPlus shows that there's a way industry can change, there's a way industry can contribute, and it is a good role model."

CHRISTOPHE YVETOT
UNIDO
Berlin, May 2017