

# PROGRESS REPORT 2018

REPORTING  
ON 2017 ACTIVITIES



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Launched in 2011, VinylPlus® is the renewed 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.

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

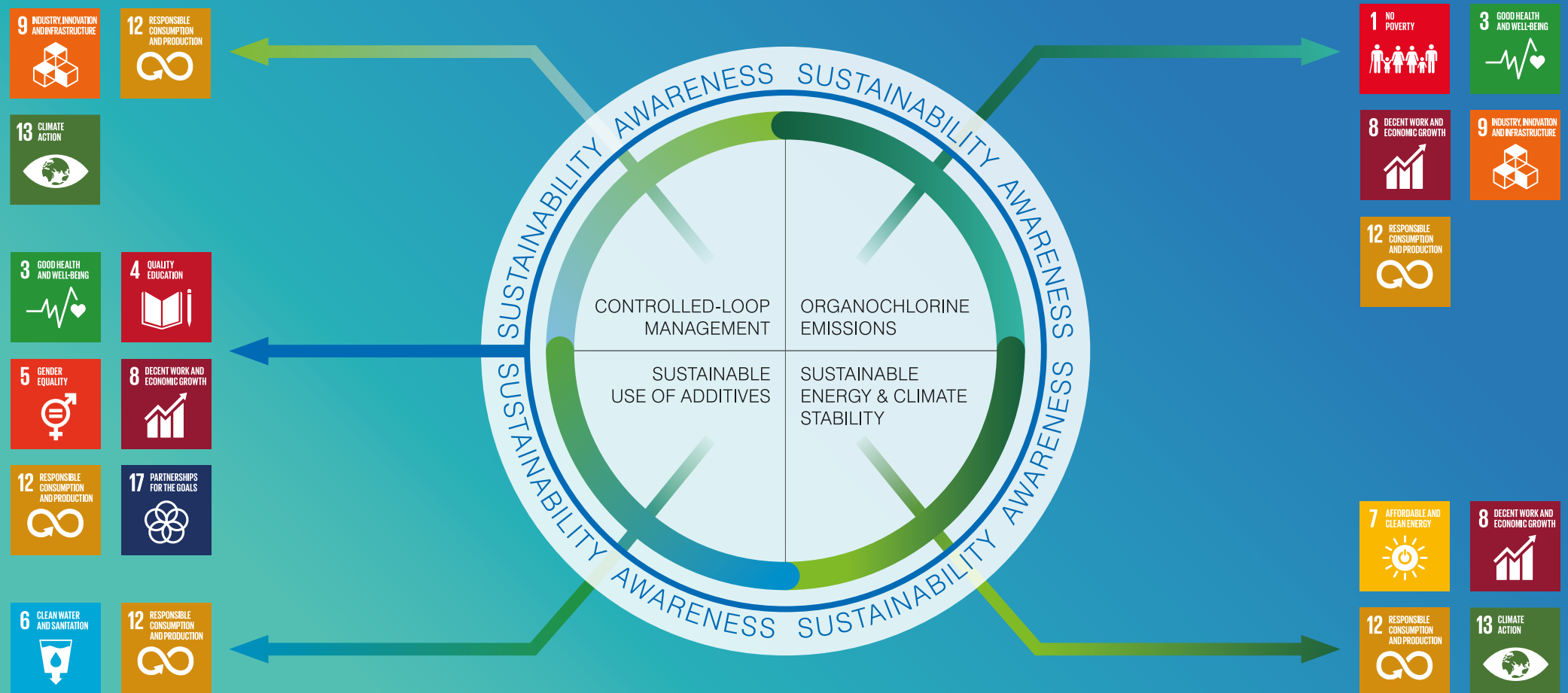
This report summarises VinylPlus' progress and achievements in 2017 in each of the five key sustainability challenges identified for PVC on the basis of **The Natural Step** System Conditions for a Sustainable Society.

# VinylPlus Contribution to the SDGs



The **Sustainable Development Goals (SDGs)** define global sustainable development priorities and aspirations for 2030 and seek to mobilise global efforts around a common set of goals and targets.

Following the adoption of the SDGs in September 2015, VinylPlus assessed its contribution on the basis on the **SDG Compass** approach and started to report it in its Progress Report last year.



# CHALLENGE 1

## CONTROLLED-LOOP MANAGEMENT:

*“We will work towards the more efficient use and control of PVC throughout its life cycle.”*

### VINYLPLUS' CHALLENGE 1 CONTRIBUTES TO SDGs:



TARGET 9.5



TARGET 12.5



TARGET 13.1



PHOTO: COURTESY OF MARCEL VAN DER BURG

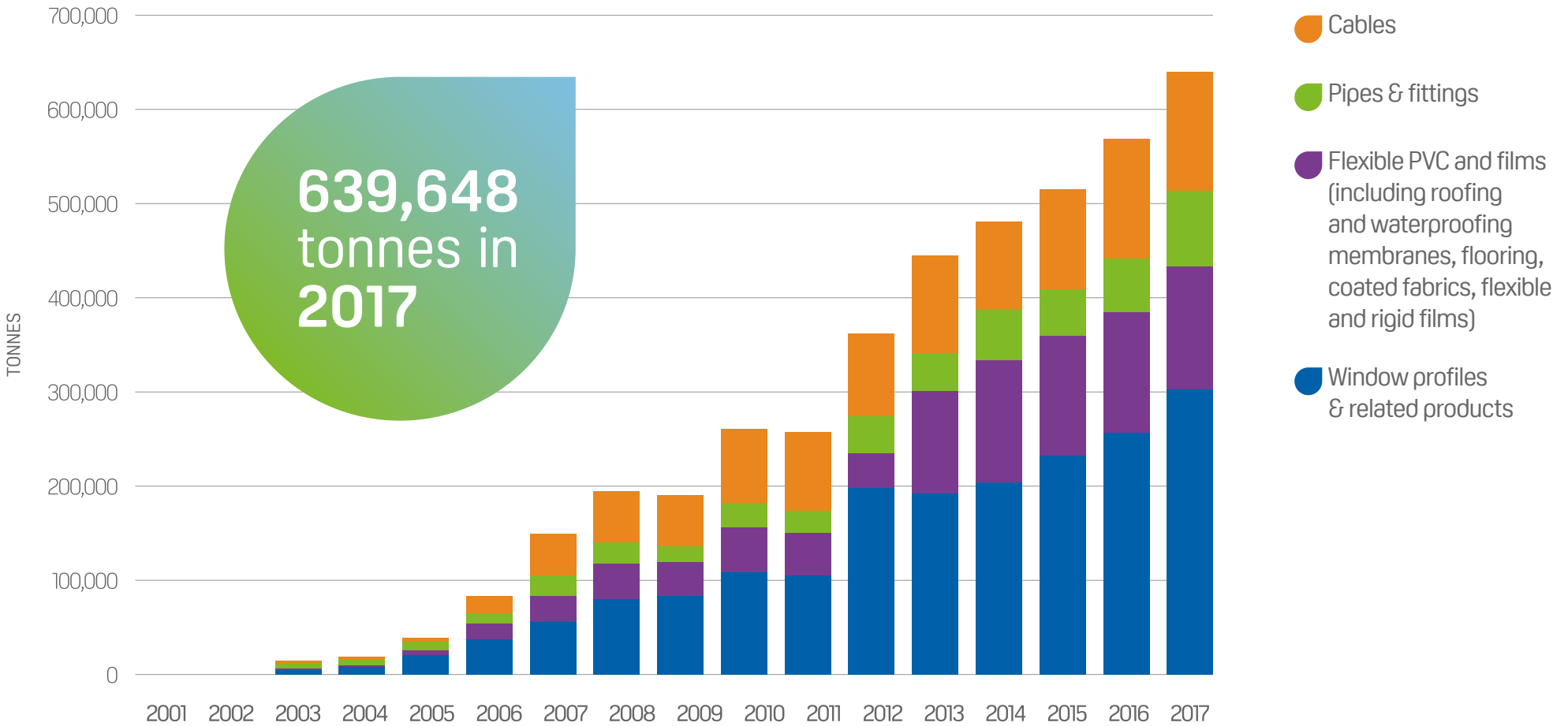


# RECYCLING ACHIEVEMENT



Thanks to a moderate but continuous increase in volumes in nearly all European countries, PVC waste recycling within the VinylPlus framework reached 639,648 tonnes in 2017.

## PVC RECYCLED WITHIN THE VINYL 2010 AND VINYLPLUS FRAMEWORKS



# RECYCLING ACHIEVEMENT

## RECYCLED PVC TONNAGES

PROJECT	TYPE OF PVC	TONNAGE RECYCLED IN 2016	TONNAGE RECYCLED IN 2017
<b>EPCOAT</b> (incl. Recovynyl)	Coated fabrics	8,187*	9,034*
Post-consumer Flooring Recycling initiative (formerly <b>EPFLOOR</b> )	Flooring	3,811*	3,051*
<b>EPPA</b> (incl. Recovynyl)	Window profiles & related profiles	256,607**	302,824**
<b>TEPPFA</b> (incl. Recovynyl)	Pipes & fittings	57,005**	80,925**
<b>ESWA – ROOFCOLLECT®</b> and Recovynyl	Flexible PVC and films (for 2017)	91,811 which consists of:	117,905 which consists of:
<b>ESWA – ROOFCOLLECT®</b> Recovynyl	Flexible PVC	5,082*	4,281*
	Flexible PVC applications	86,729**	
	<b>FLEXIBLE PVC AND FILMS (2017)</b>		113,625**
<b>ERPA</b> via Recovynyl (incl. CIFRA and Pack-Upgrade Project)	Rigid PVC films	24,061**	
<b>Recovynyl</b> (incl. VinyLoop Ferrara)	Cables	127,214	125,909
<b>TOTAL</b>		<b>568,696</b>	<b>639,648</b>

\* Tonnage including Norway and Switzerland

\*\* Tonnage including Switzerland



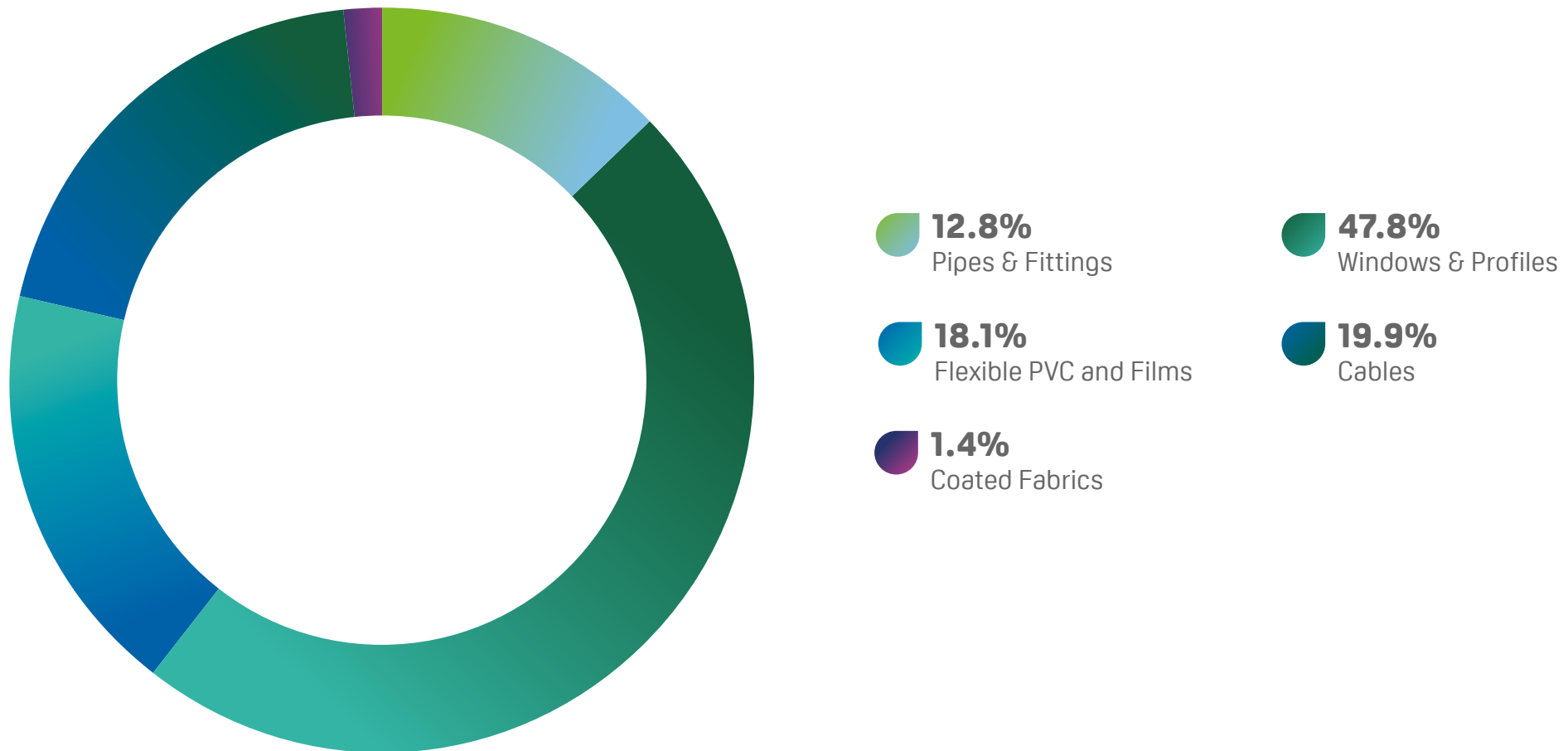


# RECYCLING ACHIEVEMENT

**Recovynyl** remained the main contributor, with a registered volume of 633,127 tonnes of recycled PVC waste.

In 2017, Recovynyl underwent a significant reorganisation, both in its management structure and its data collection and reporting systems. The systematisation, particularly of audit protocols, will continue in 2018.

## RECOVINYL REGISTERED RECYCLED VOLUMES PER APPLICATION IN 2017



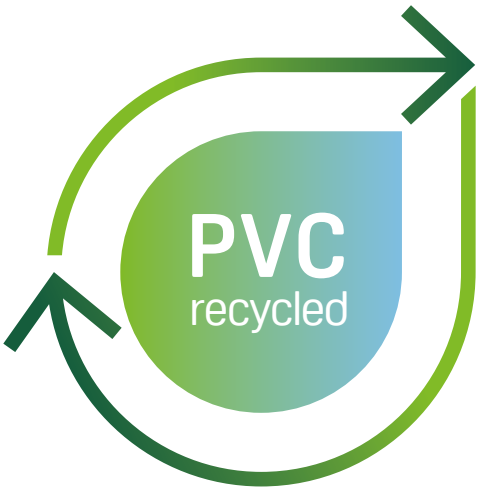




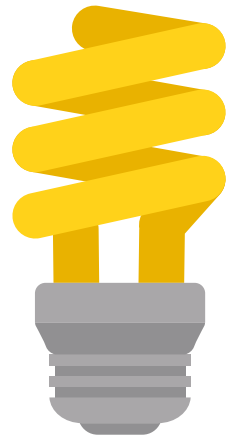
# RECYCLING ACHIEVEMENT

Using recycled PVC helps meet resource-efficiency targets and allows the preservation of natural resources.

Recycled PVC's primary energy demand is up to 90% lower than virgin PVC production



energy  
**-90%**



 ENERGY

 CO<sub>2</sub>

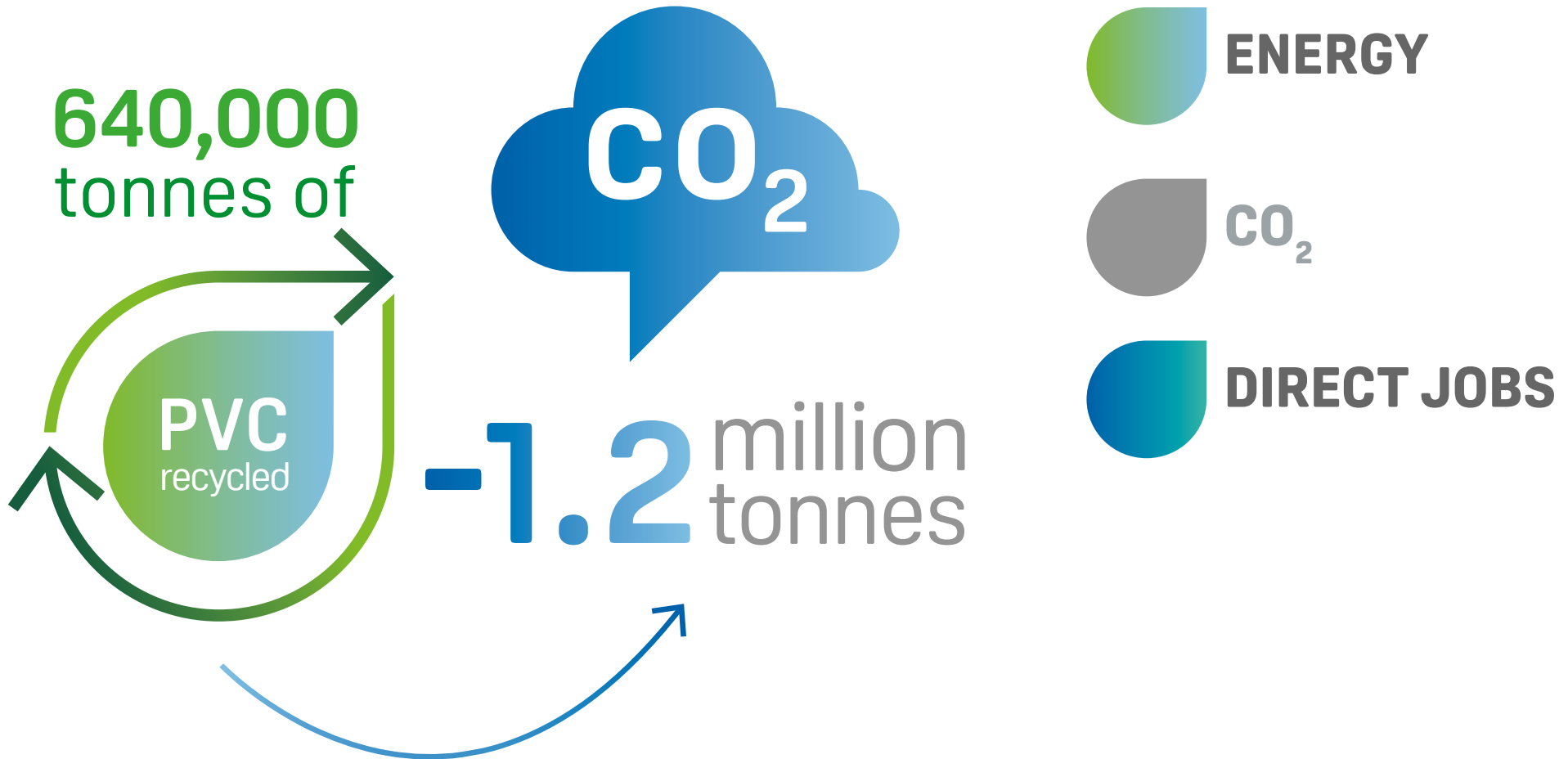
 DIRECT JOBS



# RECYCLING ACHIEVEMENT



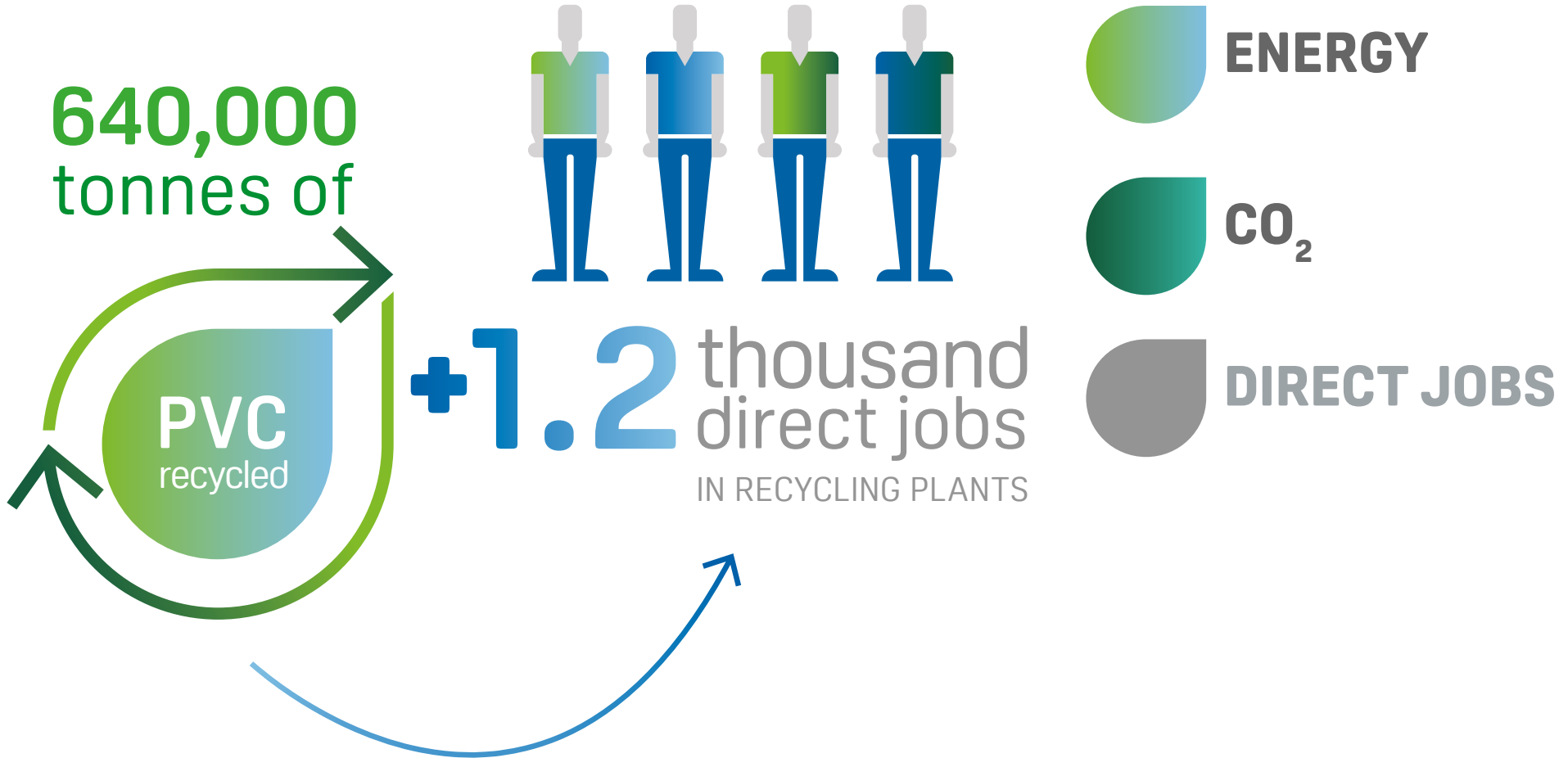
Using recycled PVC helps meet resource-efficiency targets and allows the preservation of natural resources.



# RECYCLING ACHIEVEMENT



Using recycled PVC helps meet resource-efficiency targets and allows the preservation of natural resources.



# INDUSTRY-SECTOR PROJECTS FOR PVC WASTE MANAGEMENT



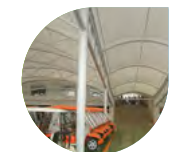
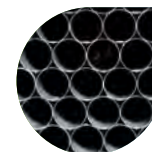
Converters' sectoral associations continued to develop and implement PVC waste collection and recycling schemes for building and construction applications.

A detailed description of the projects and initiatives undertaken by converters' sectoral associations can be found on the [VinylPlus' website](#).



PHOTO: COURTESY OF REHAU

With regard to **EPPA**, around 300,000 tonnes of window profiles and related building products were recycled in 2017. The Hybrid Project, launched by EPPA in 2016, assessed that while post-industrial hybrid waste is easily recognised, it is often quite complex to identify hybrid materials in post-consumer waste. EPPA's main activities in 2017 also included support to member companies applying for the **VinylPlus® Product Label**.

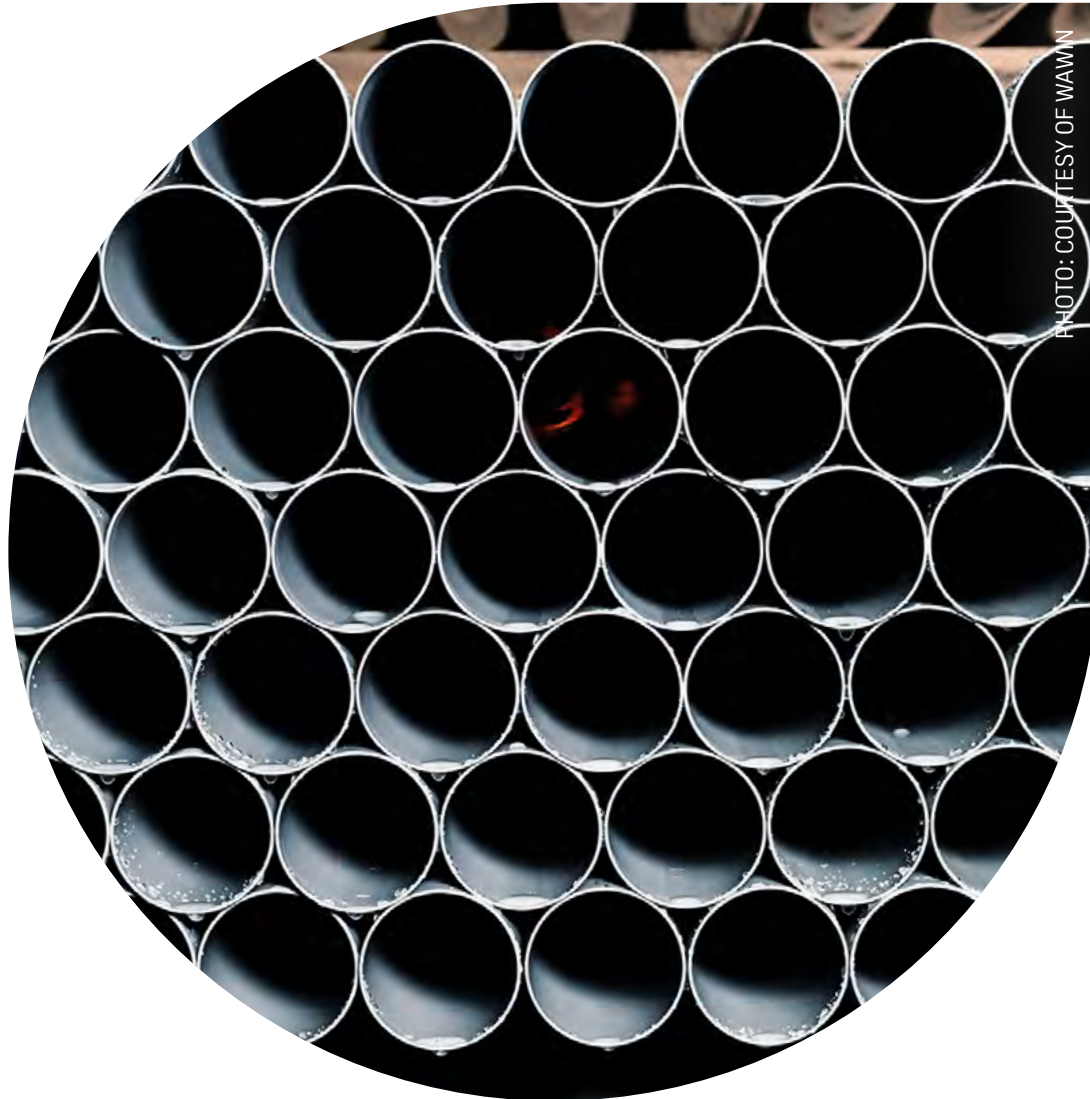


# INDUSTRY-SECTOR PROJECTS FOR PVC WASTE MANAGEMENT



Converters' sectoral associations continued to develop and implement PVC waste collection and recycling schemes for building and construction applications.

A detailed description of the projects and initiatives undertaken by converters' sectoral associations can be found on the [VinylPlus' website](#).



*In 2017, **TEPPFA** continued its advocacy and communication activities. These promoted the use of U-PVC recyclates, as well as cooperation with recycling companies and quality certification institutes, focusing on the quality and longevity of pipe systems. The first indications from the 2017 annual report by **VITO** showed an increase in consumption of recycled rigid PVC by TEPPFA's members over the previous year. Nevertheless, reaching the sector targets will depend on the regulatory environment for legacy additives.*



# INDUSTRY-SECTOR PROJECTS FOR PVC WASTE MANAGEMENT



Converters' sectoral associations continued to develop and implement PVC waste collection and recycling schemes for building and construction applications.

A detailed description of the projects and initiatives undertaken by converters' sectoral associations can be found on the [VinylPlus' website](#).



*ReVinylFloor is the new organisation set up to stimulate sustainable controlled-loop solutions for the recycling and recovery of post-consumer PVC flooring in Europe. It was established following the dissolution of **EPFLOOR**. ReVinylFloor collaborates with a network of partners active in fields including the production, collection, sorting, recycling, reprocessing and reuse of recycled materials in various applications. In 2017, 3,051 tonnes of post-consumer flooring were recycled.*



# INDUSTRY-SECTOR PROJECTS FOR PVC WASTE MANAGEMENT



Converters' sectoral associations continued to develop and implement PVC waste collection and recycling schemes for building and construction applications.

A detailed description of the projects and initiatives undertaken by converters' sectoral associations can be found on the [VinylPlus' website](#).



*ESWA recycled 4,281 tonnes of roofing and waterproofing membranes in 2017 through its project **Roofcollect**<sup>®</sup>, in line with its targets.*



# INDUSTRY-SECTOR PROJECTS FOR PVC WASTE MANAGEMENT



Converters' sectoral associations continued to develop and implement PVC waste collection and recycling schemes for building and construction applications.

A detailed description of the projects and initiatives undertaken by converters' sectoral associations can be found on the [VinylPlus' website](#).



*9,034 tonnes of coated fabrics were recycled in 2017 within the operation of EPCOAT, the coated fabrics recycling project of [IVK Europe](#), and Recovinyl.*





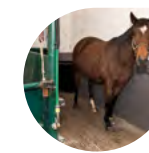
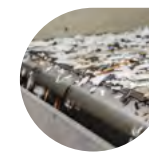
# OTHER RECYCLING PROJECTS



*In 2017, the recycling consortium **Resysta**<sup>®</sup> increased its number of members as well as its production volumes. The consortium produces a wood-like material based on rice husks and PVC, which is recyclable after use. Trials are now ongoing to test modified and new formulations (foamed materials).*



PHOTO: COURTESY OF RESYSTA<sup>®</sup>



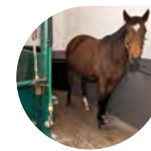
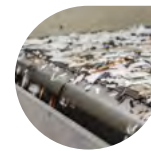
# OTHER RECYCLING PROJECTS



**RecoMed** aims to collect and recycle non-contaminated PVC medical products from UK hospitals, such as IV solution bags, oxygen masks, oxygen tubing and anaesthetic masks. In 2017 RecoMed collected and recycled 5,556 kg of PVC waste (including 3,000 kg just in 2017), equal to 177,910 sets of oxygen masks and tubing. Feasibility analysis is ongoing to expand the project to Germany and, potentially, Italy and Spain.



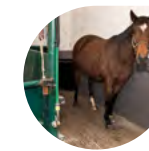
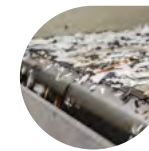
PHOTO: COURTESY OF RECOMED



# OTHER RECYCLING PROJECTS



*The energy and material recovery trials for PVC flooring waste undertaken by Oreade-Suez in France continued in 2017. Oreade uses the SOLVAir® treatment system for the control of air emissions. The NaCl (salt) recovered through Flue Gas Treatment (FGT) is purified by Resolest and used in a Solvay plant to produce soda ash, thus replacing virgin NaCl. The process of Purification and Recycling of FGT wastes is being recognised as a Best Available Technique (BAT) in the BAT Reference Document for Waste Treatment.*



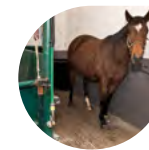
# OTHER RECYCLING PROJECTS



*After the completion of the analytical phase, in 2017 the WREP project led by **PVC Forum Italia** focused on identifying companies interested in taking part in pilot projects. Veritas, the major municipal multi-utility operating in the Venice area, and its subsidiary Eco-Ricicli confirmed their availability to start a pilot project with PVC Forum Italia in the Venice area in 2018. A pilot project for the recycling of PVC flooring was also initiated, involving a member of PVC Forum Italia that is active in recycling.*



PHOTO: COURTESY OF DECEUNINCK



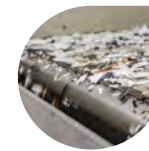
# OTHER RECYCLING PROJECTS



*In the framework of the Turquoise project, Novafloor and its exclusive distributor I.déel developed 100%-recycled PVC products for indoor, outdoor and agricultural applications.*



PHOTO: COURTESY OF SFECC



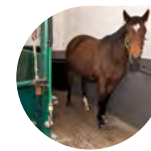
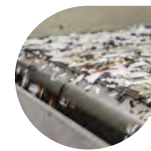
# OTHER RECYCLING PROJECTS



*In the framework of the VinylPlus joint technical projects, **AGPU** contributed to the project Plastic Recycling under REACH and End of Waste Regulations developed with the German consulting company Ökopol in collaboration with several industry partners and the German Environment Agency (UBA). The objective was to produce in 2018 guidelines and a position paper on the correct recycling of waste that contains legacy additives.*



PHOTO: COURTESY OF AGPU



# LEGACY ADDITIVES



Legacy additives are substances that are no longer used in new PVC products but that can be present in recycled PVC. Since the use of legacy additives may be restricted by legislation, VinylPlus is committed to addressing the issue in cooperation with regulatory authorities.

Over the years, VinylPlus has contributed to discussions on legacy additives by supporting research and a considerable number of studies. In 2017, studies commissioned by VinylPlus focused particularly on lead, in relation to **ECHA**'s proposal to restrict the use of recyclates containing it.

They covered modelling (by **FABES**) and risk assessments (by **ARCHE Consulting**) of lead migration, as well as a cost-benefit analysis of recycling PVC applications containing lead (by **RDC Environment**).

# CHALLENGE 2

## ORGANOCHLORINE EMISSIONS:

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

### VINYLPUS' CHALLENGE 2 CONTRIBUTES TO SDGs:



TARGET 1.5



TARGET 3.9



TARGET 8.8



TARGET 9.4



TARGET 12.4



PHOTO: COURTESY OF RENOLIT



# CHALLENGE 2

## ORGANOCHLORINE EMISSIONS:

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

- There were no transport accidents in Europe with VCM release in 2017.
- The Industry Charters for suspension (**VCM & S-PVC Charter**) and emulsion (**E-PVC Charter**) PVC are aimed at reducing their environmental impact in the production phase. The resin industry is continuing to work on achieving full compliance by the end of 2020.



# CHALLENGE 3

## SUSTAINABLE USE OF ADDITIVES:

*“We will review the use of PVC additives and move towards more sustainable additive systems.”*



PHOTO: COURTESY OF ALEXANDER RING



### VINYLPLUS' CHALLENGE 3 CONTRIBUTES TO SDGs:

6 CLEAN WATER AND SANITATION



TARGET 6.3

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



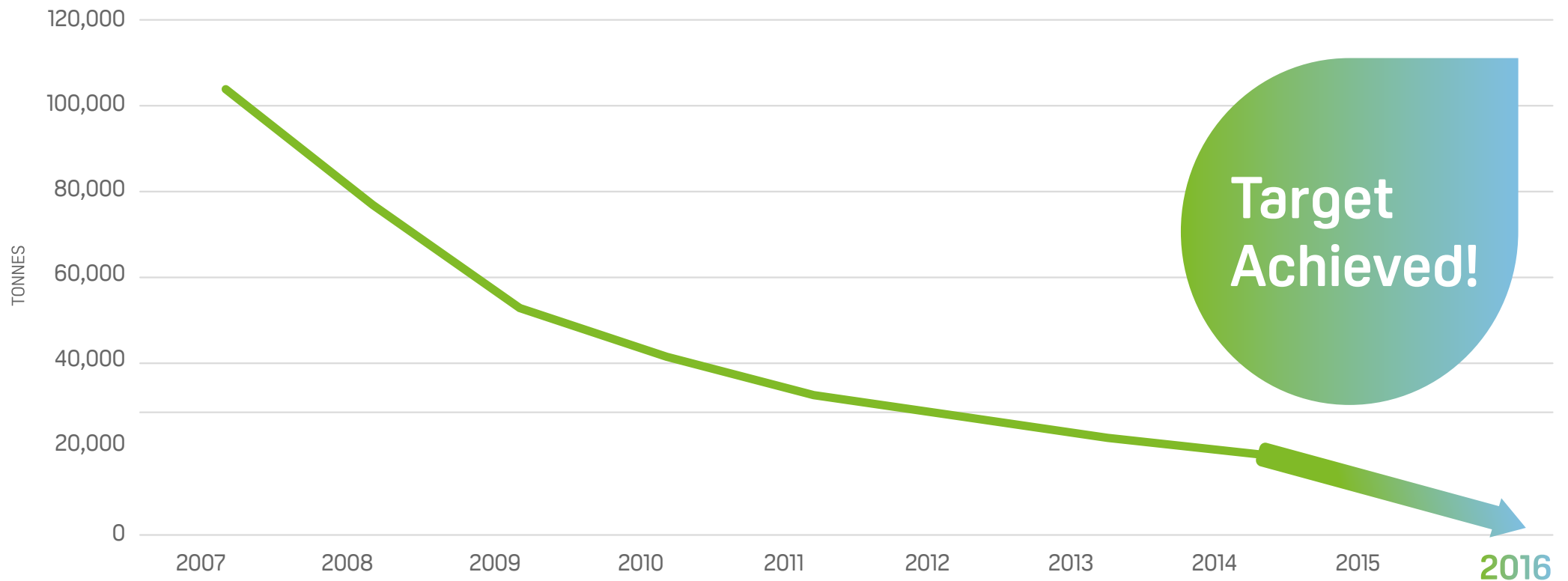
TARGET 12.4

# Pb (LEAD) REPLACEMENT



Sales by **ESPA** members of lead-based stabilisers in the EU-28 market ceased in December 2015. The recycling of rigid PVC articles produced after this date is thus no longer affected by lead legacy issues, and the average lead concentration in mixed streams of pre- and post-2015 recyclates is constantly decreasing.

## Pb STABILISERS CONSUMPTION IN THE EU-28



Source: ESPA

 Pb stabilisers

# PLASTICISERS



PHOTO: COURTESY OF COTTING-GRIFFINE

**European Plasticisers** estimates confirm a positive trend in Europe for High Molecular Weight (HMW) orthophthalates, cyclohexanoates, terephthalates and other plasticisers, accompanied by a progressive decline in the use of Low Molecular Weight (LMW) orthophthalates.



# CRITERIA FOR THE SUSTAINABLE USE OF ADDITIVES



PHOTO: COURTESY OF INTERNORM

A methodology named ASF (Additives Sustainability Footprint) has been worked out by the VinylPlus Additives Committee together with The Natural Step, to develop a systematic framework to evaluate the use of additives in PVC products from the perspective of sustainable development.

In 2017, the first ASF was completed for window profiles in joint work with EPPA, and it was included in the **VinylPlus® Product Label** scheme. ESPA continued working on a Life Cycle Assessment (LCA) for liquid mixed-metals stabilisers (used in flexible PVC applications), to be completed by mid-2018.

# CHALLENGE 4

## SUSTAINABLE USE OF ENERGY AND RAW MATERIALS:

*“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.”*

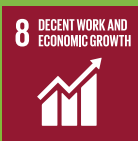
### VINYLPLUS' CHALLENGE 4 CONTRIBUTES TO SDGs:



TARGET 7.3



TARGET 12.2



TARGET 8.4



TARGET 13.1



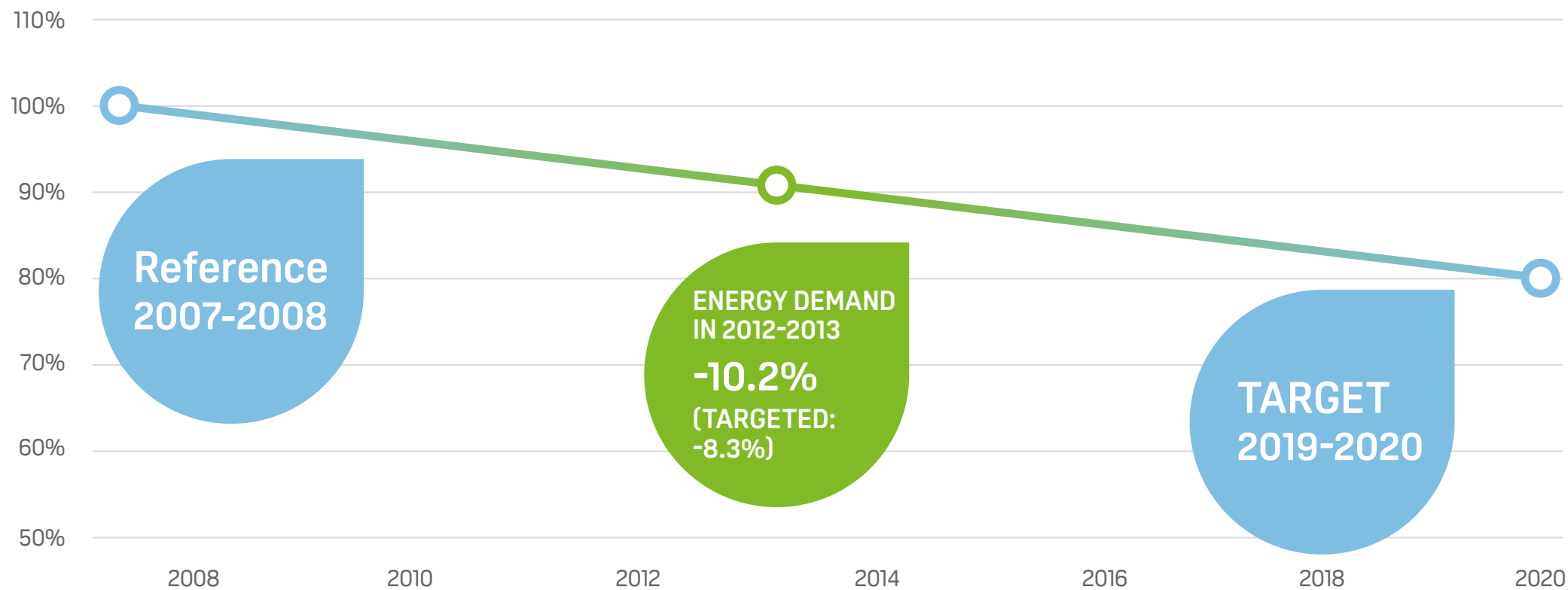
# ENERGY EFFICIENCY



PVC resin producers are committed to diminishing their energy consumption, targeting a 20% reduction by 2020.

A new verification is currently ongoing with **IFEU** on **ECVM** members' energy consumption data for 2016-2017, and a verification report is expected by mid-2018.

## ENERGY DEMAND OF PVC RESIN PRODUCTION



Source: *ECVM*

Data collection methodology validated by **IFEU**

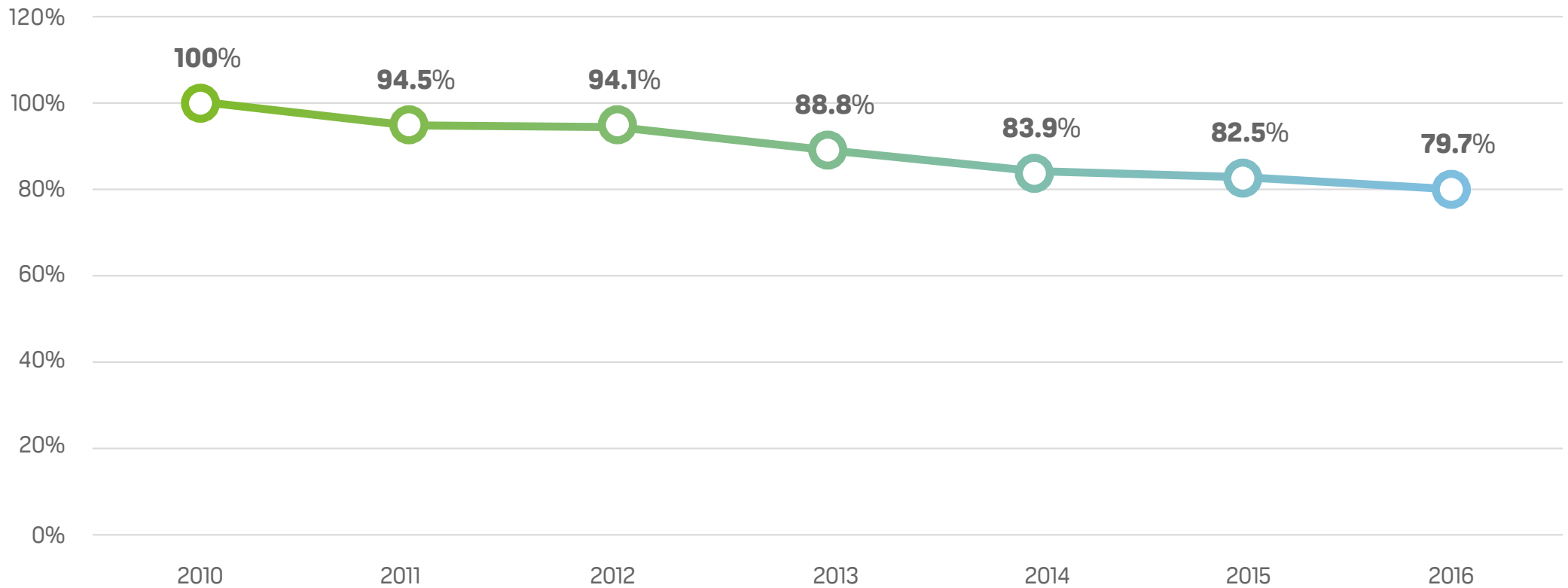
# ENERGY EFFICIENCY



The evaluation of the data available for each **EuPC** sector group to assess PVC converters' energy consumption continued in 2017.

The analysis of the energy consumption data provided by about one third of **IVK** and **ERPA** member companies showed an average saving of 20.3% per tonne of PVC product over the period 2010-2016.

## ERPA & IVK: ENERGY SAVING IN PVC FILMS PRODUCTION





# 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.”*

### VINYLPLUS' CHALLENGE 5 CONTRIBUTES TO SDGs:



TARGET 3.9



TARGET 4.4  
TARGET 4.7



TARGET 5.1



TARGET 8.8



TARGET 12.6  
TARGET 12.7  
TARGET 12.8  
TARGET 12.a



TARGET 17.7  
TARGET 17.16  
TARGET 17.17



PHOTO: COURTESY OF AZG



# STAKEHOLDER DIALOGUE AND COMMUNICATIONS



VinylPlus is committed to raising awareness of sustainability and to promote frank and open dialogue with all stakeholders, third parties, institutions and organisations in different communities.



In February, VinylPlus attended IdentiPlast 2017, the 13<sup>th</sup> International Conference on the Recycling and Recovery of Plastics. VinylPlus information materials, including brochures and an advertorial, were made available to participants. The conference was held in Vienna, Austria.

# STAKEHOLDER DIALOGUE AND COMMUNICATIONS



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In March, VinylPlus participated in the Circular Economy Stakeholder Conference 2017, co-organised by the European Commission and the European Economic and Social Committee, in Brussels, Belgium. At the conference, the European Commission introduced the EU Plastics Strategy and discussed key deliverables in the implementation of the EU Circular Economy Action Plan with stakeholders.

# STAKEHOLDER DIALOGUE AND COMMUNICATIONS



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VinylPlus also took part in the Plastics Recycling Show (PRS) Europe 2017, in Amsterdam, The Netherlands. PRS is the annual exhibition and conference for plastics recycling professionals organised by **PRE**.

# STAKEHOLDER DIALOGUE AND COMMUNICATIONS



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In April, more than 530 delegates from 43 countries gathered in Brighton, UK, at PVC 2017, the triennial conference of the global vinyl industry. Brigitte Dero, General Manager of VinylPlus, gave the opening keynote speech focused on how a united PVC industry, involving the entire value chain, is showing the way for the wider plastics industry. VinylPlus also contributed to the technical sessions with two presentations, one on difficult PVC waste and the other on PVC resins Eco-Profiles and EPDs.

# STAKEHOLDER DIALOGUE AND COMMUNICATIONS



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With the theme *Towards Circular Economy*, the 5<sup>th</sup> VinylPlus Sustainability Forum in Berlin, Germany, in May, brought together over 150 stakeholders from academia, government bodies, the UN, the European Commission, NGOs, retailers, architects, designers and all sectors of the PVC industry. Discussion focused on policies for the Circular Economy, both regional and Europe-wide, and their potential impact on the plastics industry. The many growing opportunities for the PVC sector to contribute to this key objective of EU policy were also explored.

# STAKEHOLDER DIALOGUE AND COMMUNICATIONS



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In September, VinylPlus contributed to the *PlasticsEurope Innovation Conference – Innovation for a Circular and Resource Efficient Europe with Plastics*, organised in Brussels, Belgium, with a presentation on PVC recycling.

# STAKEHOLDER DIALOGUE AND COMMUNICATIONS



VinylPlus is committed to raising awareness of sustainability and to promote frank and open dialogue with all stakeholders, third parties, institutions and organisations in different communities.

## Organizers



Driving towards Circularity  
International Conference  
on Circular Economy in Automotive Industries  
Sheraton Hotel | Bratislava | 6-7/11/2017



In November, VinylPlus participated in the International Conference on Circular Economy in Automotive Industries held in Bratislava, Slovakia, and contributed a presentation on *Cooperation through the Value Chain to enable the Circular Economy: The Case of PVC*. The conference was co-organised by the United Nations Industrial Development Organization (UNIDO) and the Ministries of Environment and Economy of the Slovak Republic, to promote the transition to a circular economy in the automotive industry.



# STAKEHOLDER DIALOGUE AND COMMUNICATIONS



VinylPlus is committed to raising awareness of sustainability and to promote frank and open dialogue with all stakeholders, third parties, institutions and organisations in different communities.



VinylPlus also participated in EUROCITIES 2017, the annual conference of the network of major European cities, which took place in Ljubljana, Slovenia, in November. It focused on Circular Cities and provided an opportunity for VinylPlus to network and explore possibilities for cooperation.

# STAKEHOLDER DIALOGUE AND COMMUNICATIONS



VinylPlus is committed to raising awareness of sustainability and to promote frank and open dialogue with all stakeholders, third parties, institutions and organisations in different communities.



Twitter was confirmed to be an effective tool to position VinylPlus on social media and to promote VinylPlus events, publications, press releases and achievements. It is also effective at driving traffic to the website.

By the end of 2017, the VinylPlus twitter account – [@VinylPlus\\_EU](https://twitter.com/VinylPlus_EU) reached 1,000 followers and the number continues to increase.

# COOPERATION AGREEMENT

## OF THE SOCIAL PARTNERS OF THE EUROPEAN CHEMICAL SDC AND VINYLPLUS ON THE EUROPEAN PVC INDUSTRY

Following the formal signature of the agreement on 24 February 2017 between VinylPlus and the European Chemical Sectoral Social Partners (SPs, made of **ECEG** and **industriAll Europe**) under the umbrella of the EU Commission Decision 98/500/EC promoting the dialogue between the SPs in the sectors at European level, the signatories developed a concept note identifying priority actions in the areas of health and safety, education and training, knowledge transfer and sector evolution.

The agreed concept was presented by Brigitte Dero, General Manager of VinylPlus, at the Social Partners' plenary meeting on 8 December 2017 which brought together representatives from ECEG, industriAll Europe, national associations in the chemical sector, DG EMPL, DG GROW and DG ENV.



# VINYLPUS PRODUCT LABEL



The VinylPlus® Product Label ([productlabel.vinylplus.eu](https://productlabel.vinylplus.eu)) is a sustainability labelling scheme for PVC products. It has been developed by VinylPlus in cooperation with two external stakeholders, **BRE Global** and **The Natural Step**. The Product Label focuses on PVC applications for the building and construction sector.

In 2017, EPPA supported and promoted the implementation of the VinylPlus® Product Label for the window profile sector, considering it an effective tool to assess the sustainability performance of PVC window profiles and to highlight their contribution to a circular economy.

Four EPPA member companies have already completed certification audits and received the VinylPlus® Product Label certificate at the FENSTERBAU FRONTALE exhibition in March 2018.

## ENGAGING GLOBALLY



VinylPlus actively shares experience, knowledge and best practices with the other regional PVC associations at a global level.

VinylPlus participated in Vinyl India 2017 in April, the 7<sup>th</sup> International PVC & Chlor-Alkali Conference in Mumbai. It also participated in the bi-annual meetings of the GVC (Global Vinyl Council), in Berlin, Germany, in May and in Florida, USA, in November.



# UNITED NATIONS



The European PVC industry's Voluntary Commitment was included in the Rio+20 Registry of Commitments in 2012 and VinylPlus is now registered as a **SMART partnership** on the UN Partnerships for Sustainable Development Goals Platform. Following the adoption of the SDGs in September 2015, VinylPlus assessed its contribution on the basis on the **SDG Compass** approach and started to report it in its Progress Report last year. In 2017, VinylPlus continued to engage in a proactive dialogue with UN bodies and organisations.



*“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 Representative to the European Union*

# VINYLPLUS JOINT COMMUNICATIONS PROJECTS

Every year VinylPlus co-funds a range of projects with the aim of expanding the scope of its communications activities.

**Ten projects** were implemented in 2017, by three European industry sector organisations and five national PVC associations.



## Media Field Trip: exploring the PVC value chain

The commitment of VinylPlus and European Plasticisers to sustainability was promoted through a media trip in Barcelona, Spain. Thirteen journalists from six European countries were shown production and recycling plants, and they had the opportunity to see the plants in operation and get to know people that work in the industry.

**PROJECT LED BY EUROPEAN PLASTICISERS**

*Geographic scope: EU*

# VINYLPLUS JOINT COMMUNICATIONS PROJECTS

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## Roadshow Plus: European Plasticisers meets the Polish chemical industry

With Roadshow Plus, dedicated to Polish regulators, industry associations and brand holders, European Plasticisers concluded its biennial programme aiming to promote a dialogue on PVC plasticisers' sustainability among industry and government stakeholders of European countries.

More than 25 representatives of the Polish chemical industry, PVC converters and competent authorities, as well as government representatives and academics, gathered in Warsaw for a workshop organised by European Plasticisers in collaboration with VinylPlus and PIPC, the Polish Chamber of Chemical Industry.

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**PROJECT LED BY EUROPEAN PLASTICISERS**

*Geographic scope: EU*



# VINYLPLUS JOINT COMMUNICATIONS PROJECTS

Every year VinylPlus co-funds a range of projects with the aim of expanding the scope of its communications activities.

**Ten projects** were implemented in 2017, by three European industry sector organisations and five national PVC associations.



## SMART Hospital

The SMART project – from the acronym of the Italian words for sanitation, maintenance, environment, recycling and TCO (total cost of ownership) – aims to promote a new design approach for hospital buildings using PVC applications. Rooms are designed with sustainable elements, including PVC flooring and wall coverings, window frames, pipes, cables and furniture. These facilitate cleaning and disinfection and increase patients' comfort and safety.

**PROJECT LED BY PVC FORUM ITALIA**

*Geographic scope: Italy*

# VINYLPLUS JOINT COMMUNICATIONS PROJECTS

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**Ten projects** were implemented in 2017, by three European industry sector organisations and five national PVC associations.



## Roadshows, e-magazine, outreach to national associations

VinylPlus and its achievements were actively promoted through social media, participation in conferences and exhibitions, and TEPPFA's e-magazine and roadshows. Regular presentations on the progress and achievements of VinylPlus were made to national associations. The targets were: pipe producers, the pipes sector, associated

stakeholders and European policy makers; stakeholders from the plastic pipes industry; and members of national associations that are not in TEPPFA.

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**PROJECT LED BY TEPPFA**

*Geographic scope: EU*

# VINYLPLUS JOINT COMMUNICATIONS PROJECTS

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## TURQUOISE

The TURQUOISE project is aimed at increasing the use of recycled soft PVC in France, both through the development of new markets and applications, and through communications and promotion. In November 2017, the I.deel's 100%-recycled PVC indoor product Carrelag.i® won the Innovation Awards of the *Maison&Travaux* magazine in the *Coup de Coeur* category.

PROJECT LED BY **SFEC**

*Geographic scope: France*

# VINYLPUS JOINT COMMUNICATIONS PROJECTS

Every year VinylPlus co-funds a range of projects with the aim of expanding the scope of its communications activities.

**Ten projects** were implemented in 2017, by three European industry sector organisations and five national PVC associations.



## Building a new European vinyl films & sheets organisation

**VFSE** is a new organisation representing European suppliers of plastics sheets, films and foils. It is concerned with European business and recycling activities in the packaging, automotive and decoration markets. The organisation was launched in 2017 with a media relations campaign, and a website was developed to promote its activities and its partnership with VinylPlus.

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**PROJECT LED BY VFSE**

*Geographic scope: EU*

# VINYLPLUS JOINT COMMUNICATIONS PROJECTS

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**Ten projects** were implemented in 2017, by three European industry sector organisations and five national PVC associations.



## RecoCard – Recycling PVC gift cards

In the UK, one million old PVC store gift cards were reprocessed and recycled in a pioneering trial. They provided material for use in new products such as irrigation pipes, thus saving 10 tonnes of plastics from being landfilled. Managed by **Axion Consulting** and **BPF**, the RecoCard trial involved **Jellyfish Livewire**, Recovinyl partner RPCS (Rubber Plastic Collection Service) and

the retailer B&Q which provided the old cards. In 2017, the RecoCard take-back and recycling scheme was promoted in the UK with a media relations campaign. The scheme could be extended to other types of cards, such as loyalty cards and hotel key cards. In the UK around two billion PVC gift and store cards, equivalent to 2,500 tonnes, are produced every year.

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**PROJECT LED BY BPF**

*Geographic scope: UK*

# VINYLPLUS JOINT COMMUNICATIONS PROJECTS

Every year VinylPlus co-funds a range of projects with the aim of expanding the scope of its communications activities.

**Ten projects** were implemented in 2017, by three European industry sector organisations and five national PVC associations.



## Operation PVC Recycling: PVC recyclers meet PVC converters

This project aimed to raise awareness of existing PVC recycling activities and to stimulate demand for recycling.

The recycling activities and achievements of VinylPlus and its national project partners – such as **AgPR**, Rewindo and Roofcollect® – were presented at the 22<sup>nd</sup> Demolition Conference (Fachtagung Abbruch) in Berlin.

Events were organised at the sites of two converters and one recycler to connect recycling companies with converters, so that they could learn about existing and new recycling processes and products.

**PROJECT LED BY AGPU**

*Geographic scope: Germany*

# VINYLPLUS JOINT COMMUNICATIONS PROJECTS

Every year VinylPlus co-funds a range of projects with the aim of expanding the scope of its communications activities.

**Ten projects** were implemented in 2017, by three European industry sector organisations and five national PVC associations.



## Acknowledgment for the environmental performance of recycled PVC

The project aimed to reduce resistance to the use of rigid PVC in building products for public procurement, raising awareness of PVC's environmental performance and of VinylPlus. An intense communications campaign focused on the **WUPPI** scheme, using an integrated mix of public relations, social media, sign-up campaigns and

newsletters. WUPPI handles 60-65% of the post-consumer rigid PVC waste available in Denmark.

**PROJECT LED BY WUPPI**

*Geographic scope: Denmark*

# VINYLPLUS JOINT COMMUNICATIONS PROJECTS

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## Energy- and resource-efficient building products for public procurement

This project focused on PVC products providing sustainable solutions in public procurement, thanks to their energy- and resource-efficiency, and their low whole-life cost. The magazine KBD was selected again in 2017 as the media for advertorials and technical articles, due to its special relevance for decision makers, local authorities and public procurement operators.

PROJECT LED BY AGPU

Geographic scope: Germany

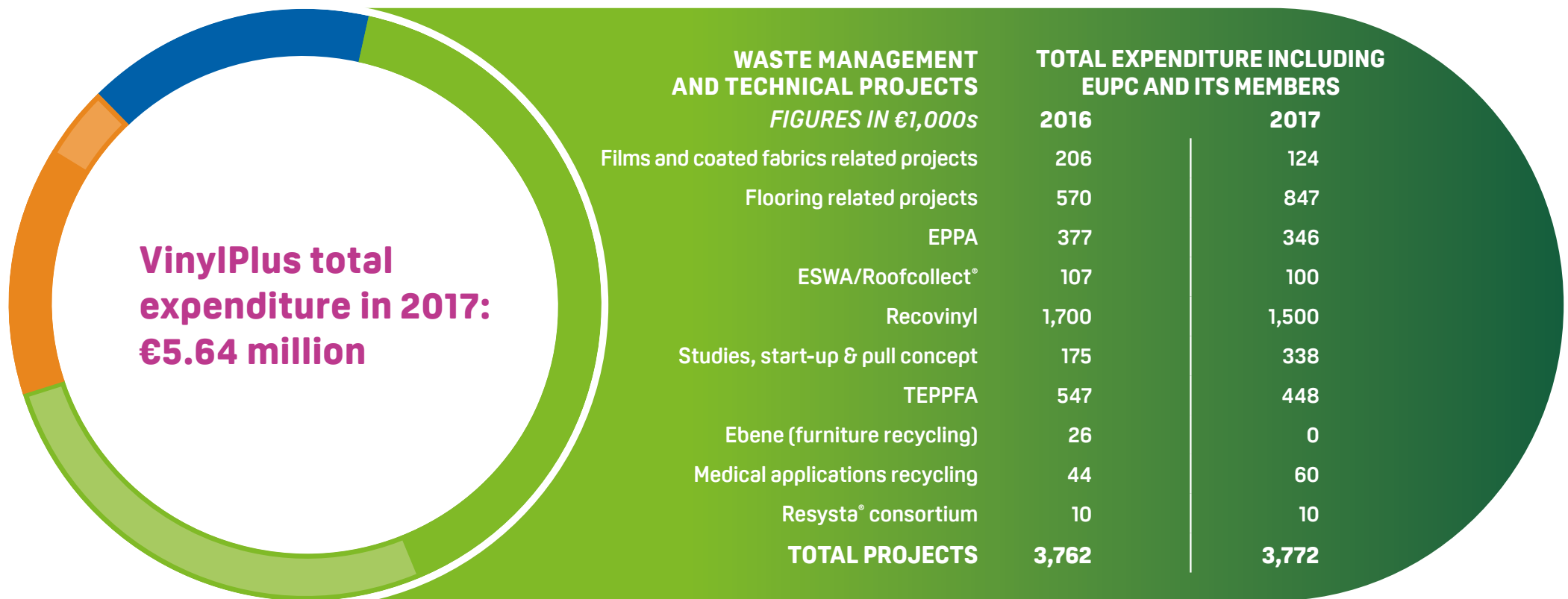


# Financial Report



Industry expenditure remained stable or only slightly increased in 2017. While the majority of technical projects slightly decreased their level of expenses or remained stable, cost for the flooring projects and for studies fostering scientific knowledge on safety of recycled PVC applications and regulatory compliance increased.

Expenditure by VinylPlus, including EuPC and its members, and national and sectoral co-funding, amounted to €5.64 million in 2017.



**66.9%** Waste management and technical projects, including national and sectoral co-funding amounting to **26.4%** of total industry funding

**17.5%** Communications, including national and sectoral co-funding amounting to **4%** of total industry funding

**15.7%** Overheads and Voluntary Commitment development

# Annual Reporting and Verification Statements



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## VERIFICATION STATEMENTS



## TNS COMMENTARY



# Annual Reporting and Verification Statements



## Verification Statements

### KPMG CERTIFICATION OF EXPENDITURE

Independent Accountants' Report on Applying Agreed-Upon Procedures

To the Management of VinylPlus

We have performed the procedures agreed with you and enumerated below with respect to the costs of the supported charges for the different projects of VinylPlus, as included in the VinylPlus Progress Report for the period from January 1, 2017 to December 31, 2017 prepared by the management of VinylPlus.

#### Scope of Work

Our engagement was carried out in accordance with:

- International Standard on Related Services ("ISRS") 4400 Engagements to perform Agreed-Upon Procedures regarding Financial Information as promulgated by the International Federation of Accountants ("IFAC");
- the Code of Ethics for Professional Accountants issued by the IFAC. Although ISRS 4400 provides that independence is not a requirement for agreed-upon procedures engagements, you have asked that we also comply with the independence requirements of the Code of Ethics for Professional Accountants.

We confirm that we belong to an internationally-recognized supervisory body for statutory auditing.

VinylPlus' management is responsible for the overview, analytical accounting and supporting documents. The scope of these agreed upon procedures has been determined solely by the management of VinylPlus.

We are not responsible for the suitability and appropriateness of these procedures.

Because the procedures performed do not constitute either an audit or a review made in accordance with International Standards on Auditing or International Standards on Review Engagements, we do not express any assurance on the cost statement.

Had we performed additional procedures or had we performed an audit or review of the financial statements in accordance with International Standards on Auditing or International Standards on Review Engagements other matters might have come to our attention that would have been reported to you.

#### Sources of Information

This report sets out information provided to us by the management of VinylPlus in response to specific questions or as obtained and extracted from VinylPlus information and accounting systems.

#### Procedures and Factual Findings

- a. Obtain the breakdown of costs declared in the table presenting the supported charges for the different projects of VinylPlus, as included in the VinylPlus Progress Report related to the activities of the year 2017 and verify the mathematical accuracy of this.

The total expenses amount to KEUR 5,640.

We found no exceptions as a result of applying this procedure.

- b. Verify that these costs are recorded in the financial statements 2017 of VinylPlus AISBL.

We found no exceptions as a result of applying this procedure.

- c. For project ESWA, for all individual expenses greater than EUR 100, agree these expenses to the supporting document and verify that they were incurred between January 1, 2017 and December 31, 2017.

We found no exceptions as a result of applying this procedure.

- d. For project ESWA, for all individual expenses greater than EUR 100, verify that these expenses are recorded in the accounts of the contractor no later than December 31, 2017.

We found no exceptions as a result of applying this procedure.

- e. For project Recovinyl, reconcile costs declared in the table presenting the supported charges for the different projects of VinylPlus with the income recognized in financial statements of Recovinyl AISBL.

We found no exceptions as a result of applying this procedure.

- f. For project not covered by the above procedures, obtain confirmation of costs from legal entity managing or contributing to the project.

We found no exceptions as a result of applying this procedure, which represents 29.67% of total expenses.

Note that financial statements of VinylPlus AISBL, TEPPFA AISBL and Recovinyl AISBL are certified by KPMG.

#### Use of this Report

This report is intended solely for the information and use of the management of VinylPlus board, and is not intended to be and should not be used by anyone other than these specified parties.

KPMG Réviseurs d'Entreprises/Bedrijfsrevisoren  
Statutory Auditor represented by

**DOMINIC ROUSSELLE,**  
Partner

Mont-Saint-Guibert, April 11, 2018

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## VERIFICATION STATEMENTS



## TNS COMMENTARY



# Annual Reporting and Verification Statements



PROGRESS REPORT 2018

## KPMG REPORT OF FACTUAL FINDINGS

REGARDING THE AGREED-UPON PROCEDURES ("AUP") ENGAGEMENT: TONNAGES OF PVC RECYCLED IN THE EU-28 (PLUS NORWAY AND/OR SWITZERLAND) IN 2017, WITHIN THE DIFFERENT PROJECTS OF VINYLPLUS

To the General Manager of VinylPlus AISBL (hereafter "VinylPlus")  
We have performed the procedures agreed with you and enumerated below with respect to the tonnages of recycled PVC (within the following projects of VinylPlus) in 2017:

- in the EU-28 by the sector association The European Plastic Pipes and Fittings Association (hereafter "TEPPFA");
- in the EU-28 (plus Norway and Switzerland) within the ROOFCOLLECT system by the members of the sector association European Single ply Waterproofing Association (hereafter "ESWA") and by the sector association European PVC window Profile and related building Products Association (hereafter "EPPA");
- in the EU-28 (plus Norway and Switzerland) by the (members of the) Arbeitsgemeinschaft PVC-Bodenbelag Recycling (hereafter "AgPR") and ReVinylFloor;
- in the EU-28 (plus Norway and Switzerland) within the EPCoat project; and
- in the EU-28 (plus Switzerland) within the operations of Recovinyl;

as at March 21, 2018, set forth in the accompanying engagement letter dated January 31, 2018. Our engagement was undertaken in accordance with the International Standard on Related Services (ISRS 4400) applicable to Agreed-Upon Procedures Engagements. The procedures were performed solely to assist you in evaluating the tonnages of recycled PVC within the above-mentioned projects of VinylPlus in 2017 and are summarised as follows:

With regard to the MS Excelspreadsheet "KPMG calculation\_consoRecycled\_VinylPlus (2017)" for the accounting period January 1, 2017 to December 31, 2017, prepared by management of VinylPlus, regarding the tonnages of recycled PVC (within the above-mentioned projects of VinylPlus) in 2017, we performed the following procedures:

1. Verify, in sheet "VinylPlus 2017" (which contains detailed calculations for the management of VinylPlus), whether the quantities mentioned in the columns H, L, M and N, regarding the quantities of PVC that have been recycled in 2017 by the different projects of VinylPlus, agree with quantities that are mentioned in the:
  - Reports of Factual Findings regarding the Agreed-Upon Procedures ("AUP") Engagements performed by KPMG Réviseurs d'Entreprises SCRL civile / KPMG Bedrijfsrevisoren burg, CVBA on request of the legal entities listed below, concerning:
    - tonnages of post-consumer PVC flooring recycled in the EU-28 plus Norway and Switzerland in 2017, by the (members of the) AgPR and ReVinylFloor;
    - tonnages of PVC recycled in the EU-28 plus Switzerland in 2017, within the operations of Recovinyl;
  - Recycling confirmations regarding PVC flooring;
  - Extracts of Recovinyl internal audit tracking system on audit status for relevant companies;
  - The report on the limited review of tonnages flexible recycled PVC in 2017 within the ROOFCOLLECT system by the members of ESWA drafted by the General Manager of the Roofcollect System; and

- Communication from the concerned projects of VinylPlus, obtained by management of VinylPlus and/or the Senior Project Controller, Mr Geoffrey Tillieux;

2. Verify, in sheet "VinylPlus 2017" the mathematical accuracy of the calculations (to avoid double counting), regarding the quantities recycled PVC in 2017;
3. Verify, in sheet "Table for progress report" (which contains the table for publication in the VinylPlus Progress Report 2018), the mathematical accuracy of the calculations in column F regarding the tonnages recycled in 2017, based on the concerned tonnages mentioned in sheet "VinylPlus 2017".

The table mentioned above is reproduced in the VinylPlus Progress Report 2018, at page 27 with a total recycled tonnage for 2017 of 639,648 tonnes.

We report our findings below:

- with respect to the procedures 1, 2 and 3, we found no exceptions.

Because the above procedures do not constitute either an audit or a review made in accordance with International Standards on Auditing or International Standards on Review Engagements, we do not express any assurance on the tonnages of recycled PVC within the above-mentioned projects of VinylPlus in 2017, as of April 10, 2018.

Had we performed additional procedures or had we performed an audit or review of the financial statements in accordance with International Standards on Auditing or International Standards on Review Engagements, other matters might have come to our attention that would have been reported to you.

Our report is solely for the purpose set forth in the first paragraph of this report and for your information and it not be used for any other purpose or to be distributed to any other parties, except for publication for informational purposes in the VinylPlus Progress Report 2018. Should any third party wish to rely on the report for any purpose they will do so entirely at their own risk. This report relates only to the tonnages of recycled PVC within the above-mentioned projects of VinylPlus in 2017 and items specified above and does not extend to any financial statements of VinylPlus, taken as a whole.

KPMG Réviseurs d'Entreprises/Bedrijfsrevisoren  
Statutory Auditor represented by

DOMINIC ROUSSELLE,  
Partner

Mont-Saint-Guibert, April 11, 2018

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## VERIFICATION STATEMENTS



## TNS COMMENTARY



# Annual Reporting and Verification Statements



## SGS INDEPENDENT VERIFICATION STATEMENT ABOUT THIS VINYLPLUS PROGRESS REPORT 2018

SGS is the world's leading inspection, verification, testing and certification company. We are recognized as the global benchmark for quality and integrity. With more than 95,000 employees, we operate a network of more than 2,400 offices and laboratories around the world.

SGS was commissioned by VinylPlus to provide an independent verification of the "Progress Report 2018". This report presents the commitments and achievements made by the VinylPlus project in 2017.

The purpose of the verification was to check the statements made in the report. SGS was not involved in the preparation of any part of this report or the collection of information on which it is based. This verification statement represents our independent opinion.

### Verification Process

The verification consisted of checking whether the statements in this report give a true and fair representation of VinylPlus' performance and achievements. This included a critical review of the scope of the Progress Report and the balance and the unambiguity of the statements presented.

### The verification process included the following activities:

- Desktop review of project-related material and documentation made available by VinylPlus such as plans, agreements, minutes of meetings, presentations, technical reports and more;
- Communication with VinylPlus personnel responsible for collecting data and writing various parts of the report, in order to discuss and substantiate selected statements;
- Communication with some members of the Monitoring Committee.

### The verification did not cover the following:

- The underlying data and information on which the desk-top review documentation is based;
- The tonnage of PVC waste recycled (verified by KPMG);
- The chapter Financial Report (verified by KPMG);
- The chapter KPMG Certification of Expenditure;
- The chapter KPMG Certification of Tonnages.

### Verification Results

Within the scope of our verification, VinylPlus has provided objective evidence of its performance in relation with its commitments in the VinylPlus programme.

It is our opinion that this "Progress Report 2018" represents VinylPlus' performance in 2017 in a reliable way; this report reflects the effort of VinylPlus to comply with its new Voluntary Commitments of June 2011.

**IR PIETER WETERINGS**  
SGS Belgium NV,  
division Certification and Business Enhancement  
Certification Manager

26 March 2018

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## VERIFICATION STATEMENTS



## TNS COMMENTARY



# Annual Reporting and Verification Statements



## The Natural Step's Commentary on VinylPlus Progress Report for 2017

The Natural Step acts as an external advisor, stakeholder intermediary and capacity builder to VinylPlus. Here we comment on some key themes that have emerged from our understanding of VinylPlus activities during 2017, our direct engagement supporting its roadmap, and our reflection on the increasingly *sustainability-driven* market context in which industry must operate.

### Plastics in the Spotlight

Society's (unsustainable) use of plastics was in the spotlight in 2017 – for example, plastics in the ocean, single-use plastic bags, calls for streamlining plastics in packaging and dialogue surrounding the forthcoming EU Strategy for Plastics in the Circular Economy. Even if PVC is mainly used in durable applications, this debate about getting plastics 'under control' is also relevant for VinylPlus as a successful programme of action from the plastics industry. For example, the VinylPlus recycling volumes in 2017 have now reached almost 80% of the 2020 target. This should be seen as serious steps toward the larger aspiration of a fully controlled-loop management regime for PVC. Overall, we think VinylPlus is engaging stakeholders constructively on the issues around PVC and taking up its responsibility via the voluntary commitment.

### Sharing Lessons on Roadmaps for Sustainably Managed Materials

VinylPlus gained further positive recognition for its achievements in 2017 and is increasingly seen as a model for other plastics and material value chains to learn from. If there is one area where we'd like to encourage VinylPlus to speak louder, it is on promoting its vision for sustainable chemical and material management. Year on year improvement and activity is positive but it is a clear understanding of what ultimately needs to be achieved for PVC to secure its place in a sustainable society that defines the focus of the roadmap. This point should not be lost when sharing lessons as this is one of the key strengths of VinylPlus' approach. All material value chains need to follow a similar journey to understand the scientific requirements for a sustainable society and then work together to overcome their own set of challenges.

### Tackling Trade-offs in the Circular Economy – Legacy Additives

VinylPlus has been affected by the policy debate about legacy additives where different goals are pitted against each other – circular economy and resource efficiency on one hand and management of chemical substances on the other. This uncertainty is a potential barrier to investment in recycling infrastructure and the uptake of recycled materials. Treating issues in isolation from each other misses the need to work toward a common vision of sustainability, taking all issues into account and working on multiple fronts simultaneously to make genuine improvements over time. Pragmatic solutions are needed, and we believe it is important for VinylPlus to continually advocate for the best outcomes to move toward its vision for a sustainably managed material flow for PVC. This 'back-casting' mindset is essential when dealing holistically with the trade-offs in the circular economy.

### Proposals for Recycling Rigid PVC Containing Legacy Additives

In light of the questions around this particular trade-off we were asked by the VinylPlus Controlled-Loop Committee to provide direct input on 'developing science-based proposals for managing legacy additives in rigid PVC' using The Natural Step Framework. We conducted an analysis using sustainability principles to evaluate the issue and to consider the best current waste management option for rigid PVC articles when 'back casting' from full alignment with sustainability principles in the longer term. We have since published our statement and recommendations to VinylPlus.

These are shared publicly as part of the wider discussion about PVC and sustainability (available at [www.thenaturalstep.org/PVC](http://www.thenaturalstep.org/PVC)).

### Walking and Talking the Talk

VinylPlus has become an important speaker for industry sustainability, even beyond Europe. The 2017 VinylPlus Sustainability Forum was a great success and a good example of how VinylPlus is bringing industry together, mainstreaming sustainability thinking and showing the impact of a joint commitment. With increased 'industry-level communication' there is greater onus on every actor to play their part in 'walking the talk' so there is always a consistent message regardless of who you talk to. We encourage all individual companies to continue integrating VinylPlus into company practices and communications.

### VinylPlus Product Label

Greater evidence of individual company commitments is in fact beginning to show. The Natural Step wishes to acknowledge the PVC Window Profile sector for being the first to take up the VinylPlus® Product Label, and especially the front-runners undergoing certification. It is designed specifically to cover the key challenges for PVC in Europe and to stimulate progress in line with the VinylPlus roadmap. Furthermore, labelling brings with it greater transparency via third party auditing and is a signal that sustainability due diligence is cascading into the individual decisions of companies. The Natural Step hopes this stimulates other segments to take up the challenge.

### Additive Sustainability Footprint

Coupled with the verification of product sustainability at company level is the assessment of additives via the work on the Additive Sustainability Footprint. The Natural Step provided guidance on methodology to ensure it is aligned with our experience with sustainability and life cycle assessment. Now the task is to proceed with assessments and clear action plans based on the results. Overall, we are pleased to see this common alignment of tools for innovation (product label + additives assessments) working toward the same reference criteria – the management of PVC products and their inputs in line with science-based principles of sustainability.

### Final Thoughts

VinylPlus has, over a number of years, initiated pilot projects and invested in new ways of collaborating and systems for organising activities such as recycling. These are bearing fruit and the VinylPlus 2018 Progress Report is a good reflection of that progress. We believe VinylPlus is on track to achieve what it set out to do. Looking ahead VinylPlus should begin to consider what will be needed to take the industry commitment to the next level and go further, faster, together.

**RICHARD BLUME**  
TNS Project Leader & Senior Advisor

**OUTI UGAS**  
Chair of The Natural Step International

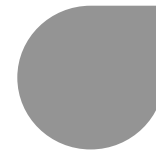
Stockholm, March 2018

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## VERIFICATION STATEMENTS



## TNS COMMENTARY





## MANAGEMENT BOARD

VinylPlus is managed by a board representing all European PVC industry sectors.

### VinylPlus Board

Mr Fabrice Barthélemy – **EuPC** (Flexible PVC sector)<sup>(a)</sup>  
Mr Dirk Breitbach – *EuPC* (Compounding sector)  
Mr Filipe Constant – **ECVM 2010**  
Mr Alexandre Dangis – *EuPC*  
Dr Brigitte Dero – *General Manager (ECVM 2010)*  
Mr Joachim Eckstein – *EuPC*  
Mr Stefan Eingärtner – *Technical Director (VinylPlus)*  
Dr Josef Ertl – *Chairman (ECVM 2010)*  
Mr Rainer Grasmück – *Treasurer*<sup>(b)</sup> (**ESPA**)  
Mr Andreas Hartleif – *Vice Chairman*<sup>(c)</sup> (*EuPC – Rigid PVC sector*)  
Dr Zdenek Hruska – *ECVM 2010*

Dr Ettore Nanni – *Treasurer*<sup>(d)</sup> (*ESPA*)  
Mr Hans-Christoph Porth – *ECVM 2010*  
Mr Maarten Roef – *EuPC* (Rigid PVC sector)  
Mr Nigel Sarginson – **European Plasticisers**  
Mr Arjen Sevenster – *Controller (ECVM 2010)*  
Dr Karl-Martin Schellerer – *ECVM 2010*<sup>(e)</sup>  
Mr Stefan Sommer – *ECVM 2010*  
Mr Remco Teulings – *EuPC* (Flexible PVC sector)<sup>(f)</sup>  
Mr Geoffroy Tillieux – *Controller (EuPC)*  
Mr Joachim Tremmel – *European Plasticisers*  
Mr Christian Vergeylen – *EuPC* (Flexible PVC sector)

<sup>(a)</sup> From 10 May 2017

<sup>(b)</sup> Until 5 October 2017

<sup>(c)</sup> From 1 May 2017

<sup>(d)</sup> From 5 October 2017

<sup>(e)</sup> From 10 May 2017

<sup>(f)</sup> Until 10 May 2017

# Governance



## MANAGEMENT BOARD

VinylPlus is managed by a board representing all European PVC industry sectors.

### VinylPlus Board

Mr Fabrice Barthélemy – *Chairman (a)*

Mr Dirk Breitbach – *EuPC (b)*

Mr Filipe Constant – *ECVM (c)*

Mr Alexandre Dangis – *EuPC (b)*

Dr Brigitte Dero – *General Secretariat*

Mr Joachim Eckstein – *EuPC (b)*

Mr Stefan Eingärtner – *Techem*

Dr Josef Ertl – *Chairman (a)*

Mr Rainer Grasmück – *Treos*

Mr Andreas Hartleif – *Vice Chairman (a)*

Dr Zdenek Hruska – *ECVM (c)*



*VinylPlus Board representatives*

(a) From 10 May 2017

(b) Until 5 October 2017

(c) From 1 May 2017

(r)  
ers  
(10)  
sector)<sup>(1)</sup>  
isers  
PVC sector)





## MONITORING COMMITTEE

The VinylPlus Monitoring Committee is the independent body supervising the implementation of the Voluntary Commitment. It thus plays a fundamental role in ensuring the transparency, participation and accountability of VinylPlus, as well as in providing guidance and advice. Open to all external stakeholders, it currently includes representatives of the European Commission, the European Parliament, trade unions and consumer organisations, as well as representatives of the European PVC industry. The Committee met formally twice in 2017, in April and in December.

To ensure maximum transparency, the minutes of each Monitoring Committee meeting are published on the VinylPlus website after formal approval.

### Members

**Mr Werner Bosmans** – Directorate-General Environment (DG ENV), European Commission

**Prof. Alfons Buekens** – Chairman of the Monitoring Committee

**Dr Alain Cavallero** – Secretary General of ESPA

**Mr Alexandre Dangis** – VinylPlus Board Member

**Mr Armand De Wasch** – Director General, **Euroconsumers Group**

**Dr Brigitte Dero** – General Manager of VinylPlus

**Ms Martina Dlabajová**<sup>(a)</sup> – Member of the European Parliament

**Mr Joachim Eckstein** – VinylPlus Board Member

**Mr Rainer Grasmück** – Treasurer of VinylPlus<sup>(b)</sup>

**Mr Sylvain Lefebvre** – Deputy General Secretary, **industriAll** European Trade Union

**Mr Eric Liégeois** – Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), European Commission

**Mr Nuno Melo**<sup>(c)</sup> – Member of the European Parliament

**Dr Ettore Nanni** – Treasurer of VinylPlus<sup>(d)</sup>

<sup>(a)</sup> From 11 April 2017

<sup>(b)</sup> Until 5 October 2017

<sup>(c)</sup> From 11 April 2017

<sup>(d)</sup> From 5 October 2017

# Our Partners



In 2017, the contributors were:

CONVERTERS	PVC RESIN PRODUCERS	PVC STABILISER PRODUCERS	PVC PLASTICISER PRODUCERS
<b>A. Kolckmann GmbH</b> (Germany)	<b>Beaulieu International Group</b> (Belgium)	<b>DHM</b> (UK)	<b>Georg Fischer Deka GmbH</b> (Germany)
<b>Alfatherm SpA</b> (Italy)	<b>Berry Plastics</b> (Germany)	<b>Dickson Saint Clair</b> (France)	<b>Gerflor Mipolam GmbH</b> (Germany)
<b>Aliaxis Group</b> (Belgium)	<b>Bilcare Research</b> (Germany)	<b>Döllken</b> <b>Kunststoffverarbeitung</b> <b>GmbH</b> (Germany)	<b>Gerflor SAS</b> (France)
<b>Alkor Draka SAS</b> (France)	<b>BM S.L.</b> (Spain)	<b>Draka Polymer Films BV</b> (Netherlands)	<b>Gerflor Tarare</b> (France)
<b>Altro</b> (UK)	<b>BT Bautechnik Impex GmbH</b> & <b>Co. KG</b> (Germany)	<b>Dyka BV</b> (Netherlands)	<b>Gernord Ltd</b> (Ireland)
<b>Altro Debolon Dessauer</b> <b>Bodenbeläge GmbH &amp; Co. KG</b> (Germany)	<b>BTH Fitting Kft.</b> (Hungary)	<b>Dyka Plastics NV</b> (Belgium)	<b>Girpi</b> (France)
<b>alfer® aluminium GmbH</b> (Germany)*	<b>CF Kunststoffprofilen</b> (Netherlands)	<b>Dyka Polska Sp. z o.o.</b> (Poland)	<b>Griffine Enduction</b> (France)
<b>aluplast Austria GmbH</b> (Austria)	<b>Chieftain Fabrics</b> (Ireland)*	<b>Elbtal Plastics GmbH &amp; Co. KG</b> (Germany)	<b>Gruppo Fabbri (Svizzera) S.A.</b> (Switzerland)
<b>aluplast GmbH</b> (Germany)	<b>CIFRA</b> (France)	<b>Epwin Window Systems</b> (UK)	<b>Gruppo Fabbri Vignola SpA</b> (Italy)
<b>alwitra GmbH &amp; Co</b> (Germany)	<b>Coveris Rigid Hungary Ltd</b> (Hungary)	<b>Ergis SA</b> (Poland)	<b>H Producter AS</b> (Norway)
<b>AMS Kunststofftechnik GmbH</b> & <b>Co. KG</b> (Germany)	<b>Danosa</b> (Spain)	<b>FDT FlachdachTechnologie</b> <b>GmbH &amp; Co. KG</b> (Germany)	<b>Heytex Bramsche GmbH</b> (Germany)
<b>Amtico International</b> (UK)	<b>Deceuninck Ltd</b> (UK)	<b>Finstral AG</b> (Italy)	<b>Heytex Neugersdorf GmbH</b> (Germany)
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	<b>Deceuninck SAS</b> (France)	<b>Gealan Fenster-Systeme</b> <b>GmbH</b> (Germany)	
	<b>Dekura GmbH</b> (Germany)		

\* Companies that joined VinylPlus in 2017

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Icopal Kunststoffverarbeitungs GmbH (Germany)	Konrad Hornschuch AG (Germany)	NYLOPLAST EUROPE BV (Netherlands)	Pipelife Sverige AB (Sweden)
IKA Innovative Kunststoffaufbereitung GmbH & Co. KG (Germany)	LINPAC Packaging PONTIVY (France)	Omya International AG (Switzerland)	Poliplast (Poland)
Imerys (UK)	Low & Bonar GmbH, former Mehler Technologies GmbH (Germany)	Perlen Packaging (Switzerland)	Poloplast GmbH & Co. KG (Austria)
Imperbel NV (Belgium)	Manufacturas JBA (Spain)	Pipelife Austria (Austria)	Polyflor (UK)
Industrial Sedó SL (Spain)	Marley Deutschland (Germany)	Pipelife Belgium NV (Belgium)	Polymer-Chemie GmbH (Germany)
Inoutic/Deceuninck GmbH (Germany)	Marley Hungária (Hungary)	Pipelife Czech s.r.o (Czech Republic)	Profine GmbH (Germany)
Inoutic/Deceuninck Sp. z o.o. (Poland)	MKF-Ergis GmbH (Germany)	Pipelife Deutschland GmbH (Germany)	Protan AS (Norway)
Internorm Bauelemente GmbH (Austria)	MKF-Ergis Sp. z o.o. (Poland)	Pipelife Eesti AS (Estonia)	Redi (Italy)
IVC BVBA (Belgium)*	Molecor (Spain)	Pipelife Finland Oy (Finland)	REHAU AG & Co (Germany)
Jimten (Spain)	Mondoplastico SpA (Italy)	Pipelife France (France)	REHAU GmbH (Austria)
Kalan (France)	Nicoll (France)	Pipelife Hellas S.A. (Greece)	REHAU Ltd (UK)
Klößner Pentaplast GmbH & Co. KG (Germany)	Nicoll Italy (Italy)	Pipelife Hungária Kft. (Hungary)	REHAU SA (France)
	Nordisk Wavin A/S (Denmark)	Pipelife Nederland BV (Netherlands)	REHAU Sp. z o.o. (Poland)
	Norsk Wavin A/S (Norway)	Pipelife Polska SA (Poland)	REHAU Industrias SA (Spain)
	Novafloor (France)		RENOLIT Belgium NV (Belgium)
			RENOLIT Cramlington Ltd (UK)
			RENOLIT Hispania SA (Spain)

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<b>RENOLIT Milano Srl</b> (Italy)	<b>SIMONA AG</b> (Germany)	<b>Uponor Infra Oy</b> (Finland)	<b>Wavin Nederland BV</b> (Netherlands)
<b>RENOLIT Nederland BV</b> (Netherlands)	<b>Sioen Industries</b> (Belgium)	<b>Veka AG</b> (Germany)	<b>Wavin Plastics Ltd</b> (UK)
<b>RENOLIT Ondex SAS</b> (France)	<b>SKZ-Testing GmbH</b> (Germany)	<b>Veka Ibérica</b> (Spain)	
<b>RENOLIT SE</b> (Germany)	<b>Soprema Srl, former Flag SpA</b> (Italy)	<b>Veka Plc</b> (UK)	
<b>Resysta International GmbH</b> (Germany)	<b>SOTRA-SEPEREF SAS</b> (France)	<b>Veka Polska</b> (Poland)	
<b>Riuvert</b> (Spain)	<b>Stöckel GmbH</b> (Germany)	<b>Veka SAS</b> (France)	
<b>Roehling Engineering Plastics KG</b> (Germany)	<b>Tarkett AB</b> (Sweden)	<b>Verseidag-Indutex GmbH</b> (Germany)	
<b>Salamander Industrie Produkte GmbH</b> (Germany)	<b>Tarkett France</b> (France)	<b>Vescom BV</b> (Netherlands)	
<b>Sattler PRO-TEX GmbH</b> (Austria)	<b>Tarkett GDL SA</b> (Luxembourg)	<b>Vulcaflex SpA</b> (Italy)	
<b>Schüco Polymer Technologies KG</b> (Germany)	<b>Tarkett Holding GmbH</b> (Germany)	<b>Wavin Baltic</b> (Lithuania)	
<b>Serge Ferrari SAS</b> (France)	<b>Tarkett Limited</b> (UK)	<b>Wavin Belgium BV</b> (Belgium)	
<b>Sika Services AG</b> (Switzerland)	<b>Thomson Research Associates Inc.</b> (UK)*	<b>Wavin BV</b> (Netherlands)	
	<b>TMG Automotive</b> (Portugal)	<b>Wavin France SAS</b> (France)	
		<b>Wavin GmbH</b> (Germany)	
		<b>Wavin Hungary</b> (Hungary)	
		<b>Wavin Ireland Ltd</b> (Ireland)	

\* Companies that joined VinylPlus in 2017

ASSOCIATE MEMBERS

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In 2017, the contributors were:

CONVERTERS	PVC RESIN PRODUCERS	PVC STABILISER PRODUCERS	PVC PLASTICISER PRODUCERS
	<p><b>Ercros</b> (Spain)</p> <p><b>NOVYN</b> (Belgium, Germany, Italy, Norway, Spain, Sweden, UK)</p> <p><b>Shin-Etsu PVC</b> (Netherlands, Portugal)</p> <p><b>VESTOLIT GmbH</b> (Germany)</p> <p><b>Vinnolit GmbH &amp; Co. KG</b> (Germany, UK)</p> <p><b>Vynova Group</b> (Belgium, France, Germany, Netherlands, UK)</p>		
<b>ASSOCIATE MEMBERS</b>			

# Our Partners



In 2017, the contributors were:

CONVERTERS	PVC RESIN PRODUCERS	PVC STABILISER PRODUCERS	PVC PLASTICISER PRODUCERS
		<p>Akdeniz Kimya A.S. Asua Products SA Baerlocher GmbH Chemson Polymer-Additive AG Galata Chemicals IKA GmbH &amp; Co. KG LANXESS Deutschland GmbH PMC Group Reagens SpA Valtris Specialty Chemicals</p>	
			ASSOCIATE MEMBERS

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In 2017, the contributors were:

CONVERTERS	PVC RESIN PRODUCERS	PVC STABILISER PRODUCERS	PVC PLASTICISER PRODUCERS
			<p>BASF SE DEZA a.s. Evonik Performance Materials GmbH ExxonMobil Chemical Europe Inc. Grupa Azoty ZAK SA LANXESS Deutschland GmbH Perstorp Oxo AB Proviron</p>
			ASSOCIATE MEMBERS

# Our Partners



In 2017, the contributors were:

CONVERTERS	PVC RESIN PRODUCERS	PVC STABILISER PRODUCERS	ASSOCIATE MEMBERS
			<p>AGPU – Arbeitsgemeinschaft PVC und Umwelt e.V. (Germany)</p> <p>British Plastics Federation (BPF) Vinyls Group (UK)</p> <p>PVC Forum Italia (Italy)</p>



# The European PVC Industry



Polyvinyl chloride, or PVC, is one of the most widely used polymers in the world. Because it is so versatile, PVC is used extensively in a broad range of industrial, technical and everyday applications.

PVC is an intrinsically low-carbon plastic: 57% of its molecular weight is accounted for by chlorine derived from common salt, 5% by hydrogen and 38% by carbon. It is recyclable and is increasingly being recycled. The European PVC industry has been working hard to boost collection and improve recycling technologies.

Several recent eco-efficiency and LCA studies of major PVC applications have shown that in terms of energy use and GWP (global warming potential), the performance of PVC is comparable to that of alternative products. In many cases, PVC applications resulted in both lower total energy consumption and lower CO<sub>2</sub> emissions.

Due to its light weight, durability and stability, PVC can offer energy, cost and material efficiency gains for sectors such as building and construction, water distribution, health and transportation.

At the European level, the PVC value chain is represented by four associations:



# The European PVC Industry



Polyvinyl chloride, or PVC, is one of the most widely used polymers in the world. Because it is so versatile, PVC is used extensively in both technical and everyday applications.

## The European Council of Vinyl Manufacturers,

representing six leading European producers of PVC resin, which account for around 75% of EU-28 PVC resin production. These businesses operate around 40 different plants spread over 23 sites and employ approximately 7,000 people.

[www.pvc.org](http://www.pvc.org)

Carbon plastic: 57% of its molecular weight is accounted for by chlorine derived from common salt, 5% from fossil fuels. It is recyclable and is increasingly being recycled. The European PVC industry has been working to improve recycling technologies.

Life cycle analysis (LCA) studies of major PVC applications have shown that in terms of energy use and GWP (global warming potential) PVC is comparable to that of alternative products. In many cases, PVC applications offer lower energy consumption and lower CO<sub>2</sub> emissions.

Due to its durability and stability, PVC can offer energy, cost and material efficiency gains for sectors such as building construction, health and transportation.

The PVC value chain is represented by four associations:



# The European PVC Industry



Polyvinyl chloride, or PVC, is one of the most widely used polymers in the world. Because it is so versatile, PVC is used extensively in a broad range of industrial, technical and everyday applications.

PVC is an intrinsically low-carbon polymer, with 42% of its weight accounted for by hydrogen and 38% by carbon. The industry is working hard to boost collection and recycling rates.

Several recent eco-efficiency studies (including Life Cycle Assessments) have shown that in terms of energy use and GWP (global warming potential), the performance of PVC is comparable to that of alternative products. In many cases, PVC applications have resulted in both lower total energy consumption and lower greenhouse gas emissions.

Due to its light weight, durability and resistance to weathering, PVC is widely used in construction, water distribution and packaging.

At the European level, the PVC industry is represented by the European Plastics Converters (EUPC), an association representing more than 50,000 companies in Europe, which produce over 50 million tonnes of plastic products every year. They employ more than 1.6 million people, generating turnover in excess of €260 billion per year.

## European Plastics Converters,

an association representing more than 50,000 companies in Europe, which produce over 50 million tonnes of plastic products every year. They employ more than 1.6 million people, generating turnover in excess of €260 billion per year.

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

Light is accounted for by chlorine derived from common salt, 5% of which is recycled. The European PVC industry has been working hard to boost collection and recycling rates.

Several recent eco-efficiency studies (including Life Cycle Assessments) have shown that in terms of energy use and GWP (global warming potential), the performance of PVC is comparable to that of alternative products. In many cases, PVC applications have resulted in both lower total energy consumption and lower greenhouse gas emissions.

Due to its light weight, durability and resistance to weathering, PVC is widely used in construction, water distribution and packaging.

At the European level, the PVC industry is represented by the European Plastics Converters (EUPC), an association representing more than 50,000 companies in Europe, which produce over 50 million tonnes of plastic products every year. They employ more than 1.6 million people, generating turnover in excess of €260 billion per year.



# The European PVC Industry



Polyvinyl chloride, or PVC, is one of the most widely used polymers in the world. Because it is so versatile, PVC is used extensively in a broad range of industrial, technical and everyday applications.

PVC is an intrinsically low-carbon plastic: 57% of its molecular weight is accounted for by chlorine derived from common salt, 5% by hydrogen and 38% by carbon. It is recyclable and is increasingly being recycled. The European PVC industry has been working hard to boost collection and improve recycling technologies.

Several recent eco-efficiency and LCA studies of major PVC applications (including energy use and GWP (global warming potential)), the performance of PVC is comparable to that of other plastics. In fact, PVC applications have resulted in both lower total energy consumption and lower CO<sub>2</sub> emissions.

Due to its light weight, durability and stability, PVC can offer energy savings in many applications, such as building and construction, water distribution, health and transportation.

At the European level, the PVC value chain is represented by four associations:

## The European Stabiliser Producers Association,

representing 10 companies that produce more than 95% of the stabilisers sold in Europe. They provide direct employment to more than 2,000 people in the EU.

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



# The European PVC Industry



Polyvinyl chloride, or PVC, is one of the most widely used polymers in the world. Because it is so versatile, PVC is used extensively in a broad range of industrial, technical and everyday applications.

PVC is an intrinsically low-carbon plastic: 57% of its molecular weight is accounted for by chlorine derived by hydrogen and 38% by carbon. It is recyclable and is increasingly being recycled. The European PVC industry is working hard to boost collection and improve recycling technologies.

Several recent eco-efficiency and LCA studies of major PVC applications have shown that in terms of environmental impact (in terms of global warming potential), the performance of PVC is comparable to that of alternative products. In many cases, this has resulted in both lower total energy consumption and lower CO<sub>2</sub> emissions.

Due to its light weight, durability and stability, PVC can offer energy, cost and material efficiency gains in a wide range of applications, including construction, water distribution, health and transportation.

At the European level, the PVC value chain is represented by four associations:

## European Plasticisers,

formerly ECPI, representing the eight major European producers of plasticisers, which produce around 90% of the plasticisers manufactured in Europe. They employ approximately 1,200 people in plasticiser production.

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



# VinylPlus Voluntary Commitment Targets



## CHALLENGE

## TARGETS



### CONTROLLED-LOOP MANAGEMENT:

*“We will work towards the more efficient use and control of PVC throughout its life cycle.”*

1. Recycle 800,000 tonnes/year of PVC by 2020.  
> **ongoing**
2. Exact definitions and reporting concept to be available by end 2011. > **achieved**
3. Develop and exploit innovative technology to recycle 100,000 tonnes/year of difficult-to-recycle PVC material (within the overall 800,000 tonnes/year recycling target) by 2020. > **withdrawn\***
4. Address the issue of ‘legacy additives’ and deliver a status report within each annual VinylPlus Progress Report.  
> **ongoing**



\* Even if the target had to be withdrawn (see p. 11 of [VinylPlus Progress Report 2017](#)), VinylPlus will continue to pursue efforts to find technically and economically viable solutions for difficult-to-recycle PVC waste

# VinylPlus Voluntary Commitment Targets



## CHALLENGE

## TARGETS



### ORGANOCHLORINE EMISSIONS:

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

1. Engage with external stakeholders in the discussion on organochlorine emissions during 2012. > **achieved**
2. Develop a plan to deal with stakeholder concerns on organochlorine emissions by end 2012. > **achieved**
3. Compliance with the PVC resin Industry Charters by first Quarter 2012. > **partially achieved**
  - 3.a. Achieve full compliance by 2020.
4. Risk assessment for the transportation of major raw materials, in particular VCM, by end 2013. > **achieved in 2015**
5. Target zero-accident rate with VCM release during transportation in the next 10 years. > **ongoing**



# VinylPlus Voluntary Commitment Targets



## CHALLENGE

## TARGETS



### SUSTAINABLE USE OF ADDITIVES:

*“We will review the use of PVC additives and move towards more sustainable additive systems.”*

1. Lead (Pb) replacement in the EU-27 by end 2015 (extended to the EU-28 in 2014). > **achieved**
2. Robust criteria for the ‘sustainable use of additives’ to be developed, with status report by end 2012. > **achieved in 2014**
3. Validation of the robust criteria for the ‘sustainable use of additives’ in conjunction with the downstream value chain, with status report by end 2014. > **partially achieved**
  - 3.a. Develop a methodology for the sustainable choice of additives for profiles. > **achieved**
  - 3.b. Develop a methodology for the sustainable choice of additives for flexible applications. > **ongoing**
  - 3.c. Develop a systematic framework methodology, taking into account the EU PEF concept. > **achieved**
4. Other PVC additive producers and the downstream value chain will be invited to participate in the ‘sustainable additives’ initiative. > **ongoing**





# VinylPlus Voluntary Commitment Targets



## CHALLENGE

## TARGETS



### SUSTAINABLE USE OF ENERGY AND RAW MATERIALS:

*“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.”*

1. Establish Energy Efficiency Task Force by end 2011.  
> **achieved**
2. PVC resin producers to reduce their specific energy consumption, targeting 20% by 2020. > **ongoing**
3. Define targets for specific energy reduction for converters by end 2012. > **partially achieved**
  - 3.a. PVC converters will report their gains in energy efficiency year on year.> **ongoing**
4. Energy Efficiency Task Force to recommend suitable environmental footprint measurement by end 2014.  
> **delayed (waiting for the EU PEF pilot phase results)**
5. Establish Renewable Materials Task Force by end first Quarter 2012. > **achieved**
6. Renewable Materials Task Force’s status report by end 2012.  
> **achieved + extended**
  - 6.a. Updated status report by the end of 2020.



# VinylPlus Voluntary Commitment Targets



## CHALLENGE

## TARGETS



## 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.”*

1. VinylPlus web portal to go online in summer 2011. > **achieved**
2. VinylPlus Monitoring Committee, which will meet a minimum of twice a year, will be established by end 2011.  
> **achieved + ongoing**
3. A VinylPlus Membership Certificate will be launched end 2011.  
> **achieved**
4. A public, and independently audited, VinylPlus Progress Report will be published annually and proactively promoted to key stakeholders. With the first edition being published in 2012. > **achieved + ongoing**
5. Annual external stakeholder meetings will be organised, commencing in 2012. > **achieved + ongoing**
6. A VinylPlus product label will be launched by end 2012.  
> **launch achieved in 2014; implementation ongoing**



# VinylPlus Voluntary Commitment Targets



## CHALLENGE

## TARGETS



## 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.”*



7. ECVM will take an active role in promoting VinylPlus within international PVC industry organisations worldwide. **> ongoing**
8. ESPA stabiliser producers will actively promote VinylPlus outside the EU-28. **> ongoing**
9. VinylPlus will increase the number of programme participants by 20% compared to 2010 by end 2013. **> not achieved\***
10. VinylPlus will engage with five global brand holders by end 2013. **> partially achieved + ongoing**
11. A review of progress towards the globalisation of the approach will be undertaken by end 2015. **> achieved**
12. A Social dialogue commitment endorsed by the EU Sectoral Social Dialogue Committee for the Chemical Industry will be included in the VinylPlus programme by the end of 2016. **> achieved + ongoing**

\* Even if the target was not achieved in 2013, VinylPlus continued and will continue to work on increasing the number of programme participants

# Cooperation Agreement

of the European Chemical Sectoral Social Dialogue Committee and VinylPlus on the European PVC Industry










The industry associations ECVM, ECPI and ESPA on the one hand and **EMCEF** on the other hand agreed in 2000 to a social dialogue on important issues for all involved partners, as part of the Vinyl 2010 programme.

As part of the 2015 VinylPlus revision and following the formal enlargement of the scope of the European Chemical Sectoral Social Dialogue Committee (SSDC) in 2015 to include, among others the plastics sector as well, VinylPlus, in charge of implementing the voluntary programme of the European PVC industry, and ECEG / IndustriAll Europe, together representing the European Chemical SSDC, have agreed to intensify their cooperation.

This cooperation agreement on the European PVC Industry defines areas and subjects of joint activities of all three parties within this intensified cooperation for the period of 2017-2020 (3 years) (with an annual evaluation of the cooperation at the Plenary of the SSDC).

These areas and subjects will be fully linked to the European Chemical Industry Sectoral Social Partners' 2015-2020 Roadmap and will focus on the following priorities:

-  Health & Safety
-  Education / training
-  Knowledge transfer
-  Sector evolution
-  Objectives
-  Agenda
-  Expected results

The European Chemical Social Partners will actively engage with key stakeholders in order to pave the way towards a sustainable future as mentioned above and based on efficient use of resources and sound waste management.



# Cooperation Agreement

of the European Chemical Sectoral Social Dialogue Committee and VinylPlus on the European PVC Industry



## DEVELOPMENT OF THE PVC INDUSTRY IN EUROPE

The regular meetings of the European SSDC of the Chemical, Pharmaceutical, Rubber and Plastics Industries cover views on the EU legislative developments affecting the sectors concerned, including the PVC industry in Europe.

Together with experts from VinylPlus, ECEG and IndustriAll Europe will intensify their exchange on the issues at stake and the progress on decided actions and subsequent decisions to be taken in the SSDC with regard to the European PVC industry.

## HEALTH AND SAFETY AND ENVIRONMENTAL STANDARDS

In the EU, the production, use and recycling of PVC applications and their raw materials are governed by the respect of high safety and environmental standards. These high standards guarantee a safe production and use of PVC applications. Such high standards require continuous research

and implementation of new scientific findings and a clear focus on health and safety as well as environmental issues.

At company level, appropriate and comprehensive information and training of the workforce are an important precondition for handling PVC and its raw materials safely.

The SSDC will together with VinylPlus discuss PVC R&D programmes and findings, with the objective to improve dissemination of information and training programmes in order to manage risk exposures safely.

One envisaged action is to discuss with the Consultative Commission on Industrial Change (**CCMI**) the possibility of launching a study on industrial changes in the converting sector and/or in the recycling sector, which could deal with sectoral policies developments, evolution of R&D, innovation, digitalisation in the sector and the evolution of the requested competencies.



# Cooperation Agreement

of the European Chemical Sectoral Social Dialogue Committee and VinylPlus on the European PVC Industry



## SPECIFIC FOCUS ON RECYCLING FACILITIES

One needs to take into account that most of recyclers are SMEs and only a small part of the recyclers (10-20%) use **SDS-R** today. EuPC/PRE have already taken some actions to substantially increase this figure. To support these activities in Europe the SSDC together with VinylPlus will work on implementing this project with the following objectives:

- preparation of a brochure providing a detailed overview of health and safety aspects in the plastics recycling sector, in order to make sure that the workers' protection is continuously ensured in the different steps of the recycling process. This brochure should be made available in several languages (minimum EN, FR, DE, ES and IT)
- organisation of workshops in several EU Member States with the objectives to cover large parts of the European plastics recycling sector to disseminate the findings and information.



# Cooperation Agreement

of the European Chemical Sectoral Social Dialogue Committee and VinylPlus on the European PVC Industry



## TRAINING AND LIFELONG LEARNING

High technological standards as well as a qualified, competent and motivated workforce are prerequisites for high environmental, health and safety standards in the PVC industry.

A high level of continuous training (throughout the working life) is essential for employment security within the PVC industry and also for the creation of employment opportunities in allied industries. The SSDC together with VinylPlus will discuss the need to develop further specific training geared to the needs of the PVC industry. A particular attention will be paid to digital transformation and the development of job content in this respect.

The objective will be to facilitate the implementation of high-level standards in all EU Member States, taking into account their specific situations and traditions.

*Bruxelles, 24 February 2017*



**EMMA ARGUTYA**  
*Director General*  
**ECEG**



**SYLVAIN LEFEBVRE**  
*Deputy Secretary General*  
**industriAll Europe**



**BRIGITTE DERO**  
*General Manager*  
**VinylPlus**



# Glossary



**AgPR** – Arbeitsgemeinschaft PVC-Bodenbelag Recycling  
(Association for the Recycling of PVC Floor-Coverings –  
[www.agpr.de](http://www.agpr.de))

**AGPU** – Arbeitsgemeinschaft PVC und Umwelt e.V., the German  
association of the PVC value chain ([www.agpu.com](http://www.agpu.com))

**ARCHE Consulting** – Expert in environmental and human  
toxicology, exposure modelling and risk assessments  
([www.arche-consulting.be](http://www.arche-consulting.be))

**ASF** – Additives Sustainability Footprint

**Axion Consulting** – resource recovery expert, a division of  
Axion Recycling Limited ([www.axionconsulting.co.uk](http://www.axionconsulting.co.uk))

**B&C** – Building and construction

**BPF** – British Plastics Federation, the leading trade association  
for the UK Plastic Industry ([www.bpf.co.uk](http://www.bpf.co.uk))

**BRE Global** – Building Research Establishment  
([www.bre.co.uk/breglobal](http://www.bre.co.uk/breglobal))

**CCMI** – Commission Consultative des Mutations Industrielles,  
Consultative Commission on Industrial Change  
(<http://www.eesc.europa.eu/?i=portal.fr.ccmi>)

**EC** – European Commission

**ECEG** – European Chemical Employers Group, the European  
employers' organisation representing the interests of the  
chemical, pharmaceutical, rubber and plastics industries at  
the European level ([www.eceg.org](http://www.eceg.org))

**ECHA** – European Chemicals Agency (<http://echa.europa.eu>)

**ECVM** – The European Council of Vinyl Manufacturers  
([www.pvc.org](http://www.pvc.org))

**ECVM 2010** – The ECVM's formal legal entity, registered in  
Belgium

**EDC** – Ethylene dichloride or 1,2-dichlorethane

**EMCEF** – European Mine Chemical and Energy Workers  
Federation, now IndustriAll European Trade Union

**EPD** – Environmental Product Declaration

**EPFLOOR** – European PVC Floor Manufacturers,  
an EuPC sector group ([www.epfloor.eu](http://www.epfloor.eu))

**EPPA** – European PVC Window Profile and Related Building  
Products Association ([www.eppa-profiles.eu](http://www.eppa-profiles.eu))

**E-PVC** – Emulsion polyvinyl chloride





# Glossary



**ERPA** – European Rigid PVC Film Association, an EuPC sectoral association ([www.pvc-films.org](http://www.pvc-films.org))

**ESPA** – The European Stabiliser Producers Association ([www.stabilisers.eu](http://www.stabilisers.eu))

**ESWA** – European Single Ply Waterproofing Association, an EuPC sectoral association ([www.eswa.be](http://www.eswa.be))

**EuPC** – European Plastics Converters ([www.plasticsconverters.eu](http://www.plasticsconverters.eu))

**Euroconsumers Group** – European consumer organisation ([www.euroconsumers.org](http://www.euroconsumers.org))

**European Plasticisers** – former ECPI ([www.europeanplasticisers.eu](http://www.europeanplasticisers.eu))

**FABES** – German research institute ([www.fabes-online.de](http://www.fabes-online.de))

**HMW phthalates** – High Molecular Weight phthalates

**Industry Charters** – ECVI Industry Charters for the Production of VCM and S-PVC (1995) and for the Production of E-PVC (1998)

**IFEU** – Institut für Energie- und Umweltforschung Heidelberg GmbH (German Institute for Energy and Environmental Research – [www.ifeu.de](http://www.ifeu.de))

**industriAll** – European Trade Union, it represents workers across supply chains in manufacturing, mining and energy sectors across Europe ([www.industriall-europe.eu](http://www.industriall-europe.eu))

**IVK Europe** – Industrieverband Kunststoffbahnen e.V. (Association of Coated Fabrics and Films – [www.ivk-europe.com](http://www.ivk-europe.com))

**Jellyfish Livewire** – A Hampshire-based digital marketing agency and gift card producer ([www.jellyfishlivewire.co.uk](http://www.jellyfishlivewire.co.uk))

**KPMG** – KPMG is a global network of professional firms providing audit, tax and advisory services ([www.kpmg.com](http://www.kpmg.com))

**LCA** – Life Cycle Assessment

**LMW phthalates** – Low Molecular Weight phthalates

**NaCl** – Sodium Chloride

**Pb** – Lead



# Glossary



**PlasticisersPlus** – European Plasticisers’ legal entity, based in Brussels, Belgium

**P-PVC** – Plasticised PVC

**PRE** – Plastics Recyclers Europe ([www.plasticsrecyclers.eu](http://www.plasticsrecyclers.eu))

**PVC** – Polyvinyl chloride

**PVC Forum Italia** – The Italian association of the PVC value chain ([www.pvcforum.it](http://www.pvcforum.it))

**RDC Environment** – Belgian consulting company ([www.rdcenvironment.be](http://www.rdcenvironment.be))

**REACH** – Registration, Evaluation, Authorisation and Restriction of Chemicals (<http://ec.europa.eu/growth/sectors/chemicals/reach/>)

**RecoMed** – A partnership project launched in 2014 between the British Plastics Federation (BPF) and Axion Consulting, the UK agent of Recovinyl

**Recovinyl** – Set up in 2003, Recovinyl is the organisation aimed at facilitating PVC waste collection and recycling in the framework of the European PVC industry’s Voluntary Commitments ([www.recovinyl.com](http://www.recovinyl.com))

**Resysta®** – Recycling consortium ([www.resysta.com/en/](http://www.resysta.com/en/))

**Roofcollect®** – Recycling System for Thermoplastic Membranes ([www.roofcollect.com](http://www.roofcollect.com))

**R-PVC** – Recycled PVC

**SDG Compass** – Developed by GRI ([www.globalreporting.org](http://www.globalreporting.org)), the UN Global Compact ([www.unglobalcompact.org](http://www.unglobalcompact.org)) and the World Business Council for Sustainable Development (WBCSD – [www.wbcsd.org](http://www.wbcsd.org)), the SDG Compass ([www.sdgcompass.org](http://www.sdgcompass.org)) provides guidance for companies on how they can align their strategies as well as measure and manage their contribution to the realisation of the SDGs

**SDGs** – Sustainable Development Goals

**SDS** – Safety Data Sheet

**SDS-R** – Safety Data Sheet for Recyclates

**SFEC** – Syndicat Français des Enducteurs Calandriers, the French Association of Calenderers ([www.sfec-services.org](http://www.sfec-services.org))

**SGS** – Société Générale de Surveillance, the world’s leading testing and verification organisation ([www.sgs.com](http://www.sgs.com))



# Glossary

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**S-PVC** – Suspension polyvinyl chloride

**SSDC** – Sectoral Social Dialogue Committee

**TEPPFA** – The European Plastic Pipes and Fittings Association  
([www.teppfa.eu](http://www.teppfa.eu))

**The Natural Step** – A sustainability NGO acting as critical friend and sustainability advisor to VinylPlus  
([www.thenaturalstep.org](http://www.thenaturalstep.org))

**UN** – United Nations

**UNIDO** – United Nations Industrial Development Organization

**U-PVC** – Unplasticised PVC

**VCM** – Vinyl chloride monomer

**Vinyl 2010** – The first 10-year Voluntary Commitment of the European PVC industry, signed in 2000

**VITO** – Vlaamse Instelling voor Technologisch Onderzoek  
(Flemish Institute for Technological Research – [www.vito.be](http://www.vito.be))

**VFSE** – Vinyl Films & Sheets Europe ([www.vfse.org](http://www.vfse.org))

**WUPPI** – Danish company set up to collect and recycle rigid PVC  
([www.wuppi.dk](http://www.wuppi.dk))



# More Information

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