



PROGRESS REPORT 2019

REPORTING ON 2018 ACTIVITIES



Because I am
made of PVC,
I will be reused
or recycled

Co-funded by the
Erasmus+ Programme
of the European Union

PVC
in Sports

plus

COMMITTED TO
SUSTAINABLE

vinyl plus

COMMITTED TO
SUSTAINABLE DEVELOPMENT

VINYLPLUS

VINYLPLUS CONTRIBUTION TO THE SDGs

CHALLENGE 1

CONTROLLED-LOOP MANAGEMENT

- Recycling Achievement
- Industry-Sector Projects for PVC Waste Management
- Other Recycling Projects
- Legacy Additives
- Controlled-Loop Committee

CHALLENGE 2

ORGANOCHLORINE EMISSIONS

- Safe Transport
- PVC Resin Industry Production Charters

CHALLENGE 3

SUSTAINABLE USE OF ADDITIVES

- Plasticisers
- Criteria for the Sustainable Use of Additives

CHALLENGE 4

SUSTAINABLE USE OF ENERGY AND RAW MATERIALS

- Energy Efficiency

CHALLENGE 5

SUSTAINABILITY AWARENESS

- Stakeholder Dialogue and Communications
- Cooperation Agreement
- VinylPlus® Product Label
- Engaging Globally
- United Nations
- VinylPlus Joint Communications Projects

FINANCIAL REPORT

VERIFICATION STATEMENTS

GOVERNANCE

- VinylPlus Management Board
- Monitoring Committee

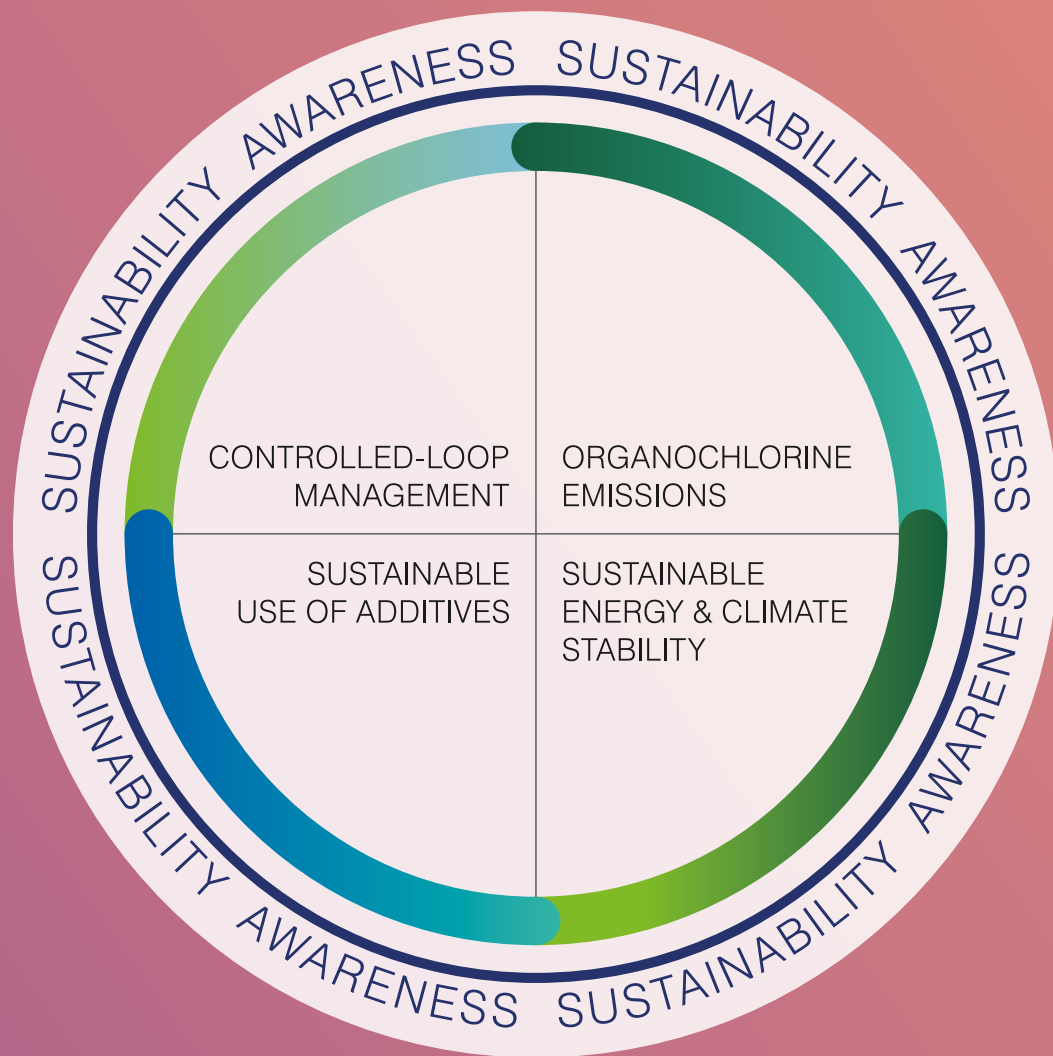
OUR PARTNERS

THE EUROPEAN PVC INDUSTRY

VINYLPLUS VOLUNTARY COMMITMENT TARGETS

GLOSSARY

MORE INFORMATION



VINYLPLUS

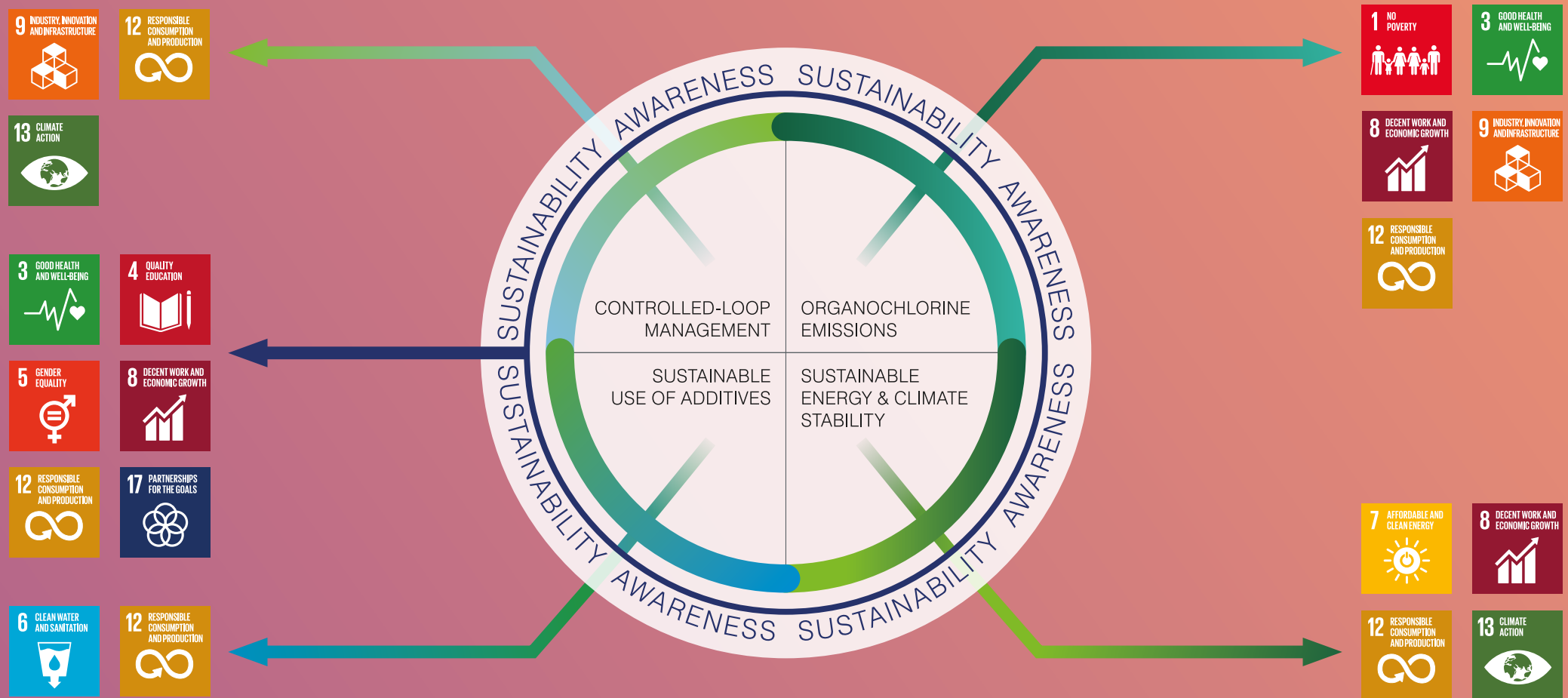
Launched in 2011, VinylPlus® is the renewed 10-year **Voluntary Commitment** to sustainable development of the European PVC industry. The VinylPlus programme was developed through open dialogue with stakeholders, including industry, NGOs, regulators, civil society representatives and PVC users.

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

This report summarises VinylPlus' progress and achievements in 2018 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

Following the adoption of the **Sustainable Development Goals (SDGs)** in September 2015, VinylPlus assessed its contribution on the basis on the **SDG Compass** approach and started to report it in its Progress Reports since 2017.





CHALLENGE



CONTROLLED-LOOP MANAGEMENT:

“

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

VINYLPLUS' CHALLENGE 1 CONTRIBUTES TO THE FOLLOWING SDGs:



TARGET 9.5



TARGET 12.5



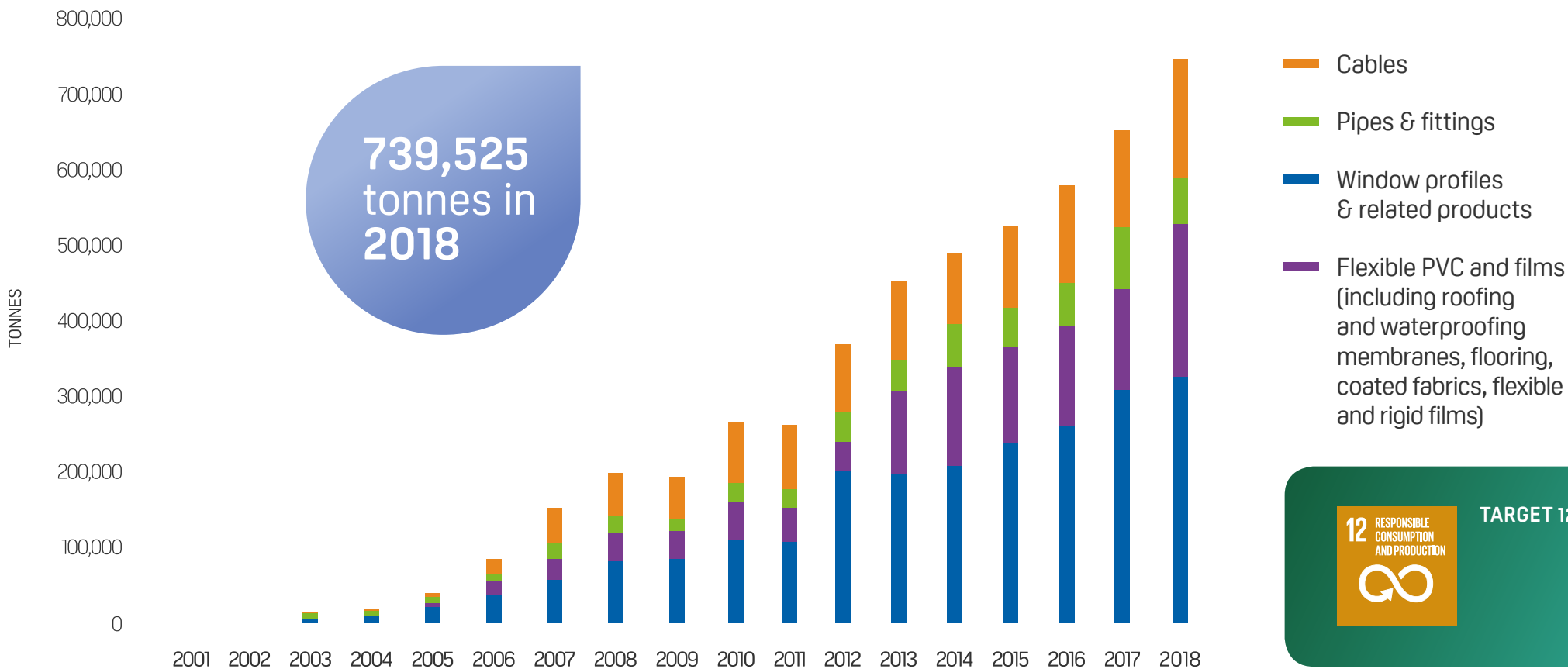
TARGET 13.1



RECYCLING ACHIEVEMENT

The volume of PVC waste recycled within the VinylPlus framework reached 739,525 tonnes in 2018, a 15.6% rise from the previous year. That was achieved in spite of increasing constrains at the regulatory level.

PVC RECYCLED WITHIN THE VINYL 2010 AND VINYLPLUS FRAMEWORKS





RECYCLING ACHIEVEMENT

RECYCLED PVC TONNAGES

PROJECT	TYPE OF PVC	TONNAGE RECYCLED IN 2017	TONNAGE RECYCLED IN 2018
Recovynyl (incl. IVK Europe)	Coated fabrics	9,034*	9,573*
Flooring recycling initiative (formerly EPFLOOR)	Flooring	3,051*	2,387*
EPPA (incl. Recovynyl)	Window profiles & related profiles	302,824**	326,276**
TEPPFA (incl. Recovynyl)	Pipes & fittings	80,925**	82,635**
Recovynyl and ESWA – ROOFCOLLECT®	Flexible PVC and films	117,905 which consist of:	167,148 which consist of:
ESWA – ROOFCOLLECT®	Flexible PVC	4,281*	3,531*
Recovynyl (excluding EPFLOOR)	Flexible PVC and films	113,624**	163,617**
Recovynyl	Cables	125,909	151,506
TOTAL		639,648	739,525

* Tonnage including Norway and Switzerland

** Tonnage including Switzerland



RECYCLING ACHIEVEMENT

Recovynyl® remained the main contributor, with a registered volume of 734,568 tonnes of PVC entirely recycled in Europe.

During the year, Recovynyl further sharpened its certification and audit schemes to ensure maximum reliability of collected data and of recyclates traceability, both from recyclers and converters.

RECOVINYL REGISTERED RECYCLED VOLUMES 2018 PER REGION



- 1.33%**
Austria & Switzerland
- 8.14%**
BeNeLux
- 3.88%**
Eastern Europe ⁽¹⁾
- 14.36%**
France
- 28.97%**
Germany



- 6.88%**
Iberica ⁽²⁾
- 8.67%**
Italy
- 8.45%**
Poland
- 0.53%**
Scandinavia ⁽³⁾
- 18.79%**
UK & Ireland

⁽¹⁾ Eastern Europe includes Bulgaria, Czech Republic, Estonia, Greece, Hungary, Latvia, Romania and Slovakia

⁽²⁾ Iberica includes Spain and Portugal

⁽³⁾ Scandinavia includes Denmark, Finland, Norway and Sweden



RECYCLING ACHIEVEMENT

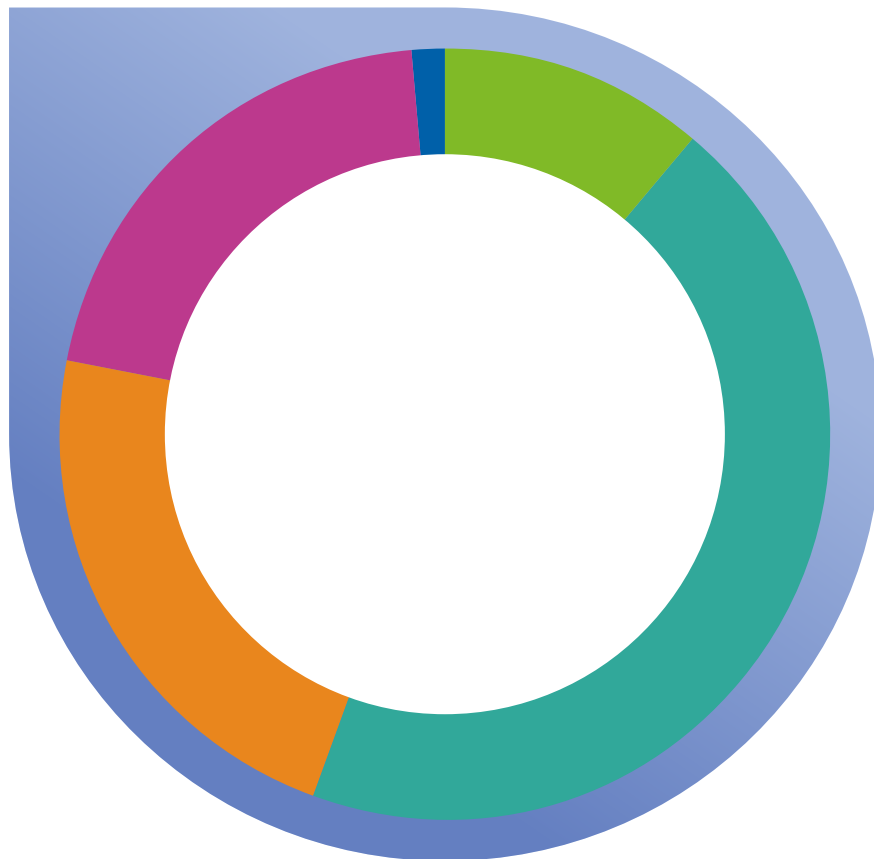
Recovynyl® remained the main contributor, with a registered volume of 734,568 tonnes of PVC entirely recycled in Europe.

During the year, Recovynyl further sharpened its certification and audit schemes to ensure maximum reliability of collected data and of recyclates traceability, both from recyclers and converters.

RECOVINYL REGISTERED RECYCLED VOLUMES 2018 PER APPLICATION

1

2



- 11.25%**
Pipes & Fittings
- 44.42%**
Windows & Profiles
- 22.40%**
Flexible PVC and Films
- 20.63%**
Cables
- 1.30%**
Coated Fabrics

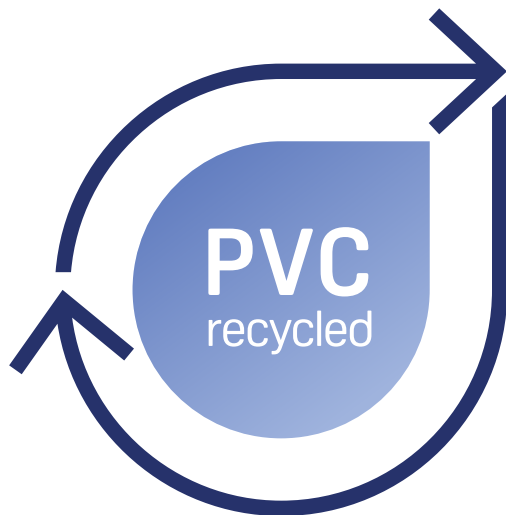


BENEFITS ASSOCIATED WITH PVC RECYCLING

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



CO₂



DIRECT JOBS

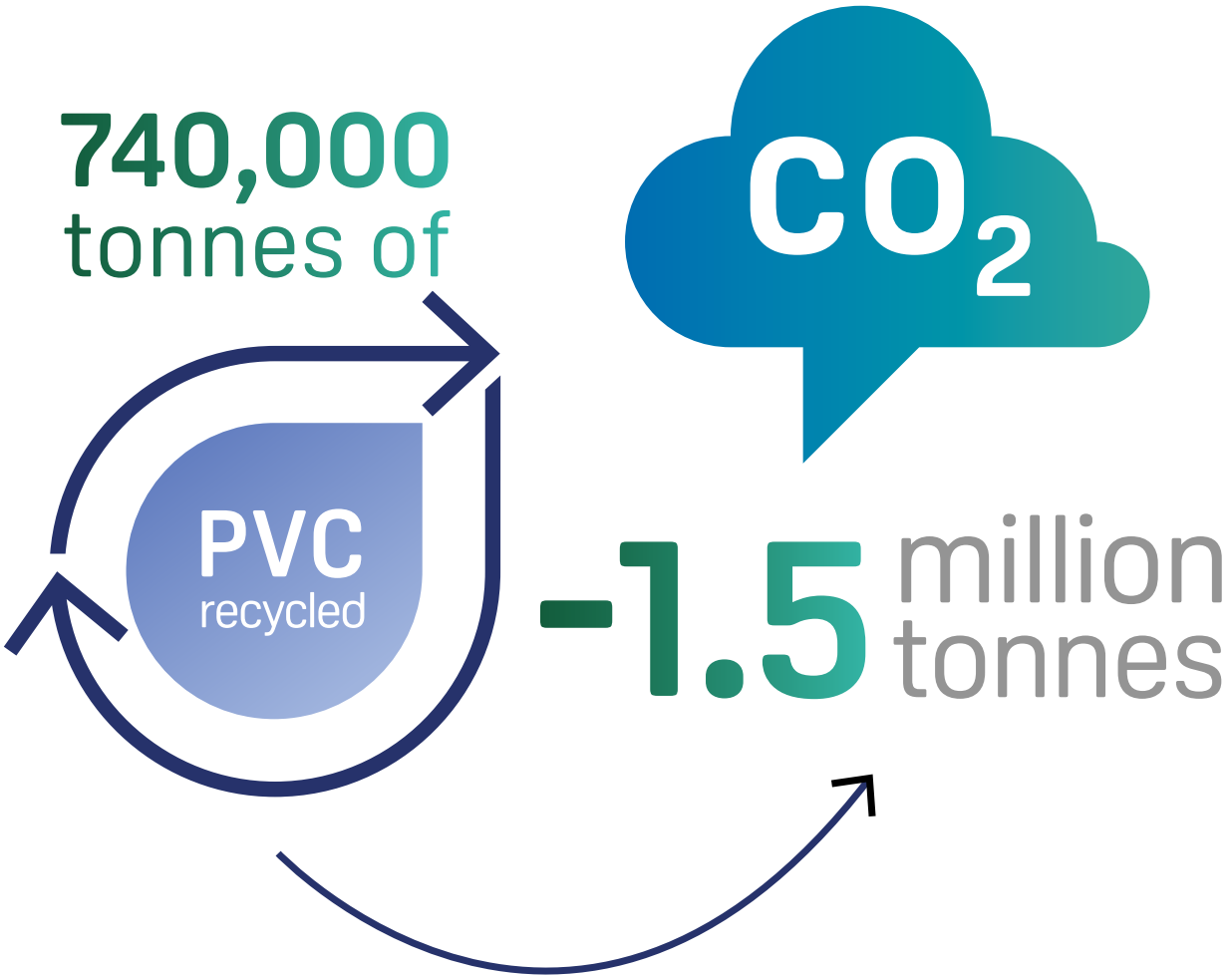


TARGET 7.3



BENEFITS ASSOCIATED WITH PVC RECYCLING

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



- 1 ENERGY
- 2 CO₂
- 3 DIRECT JOBS

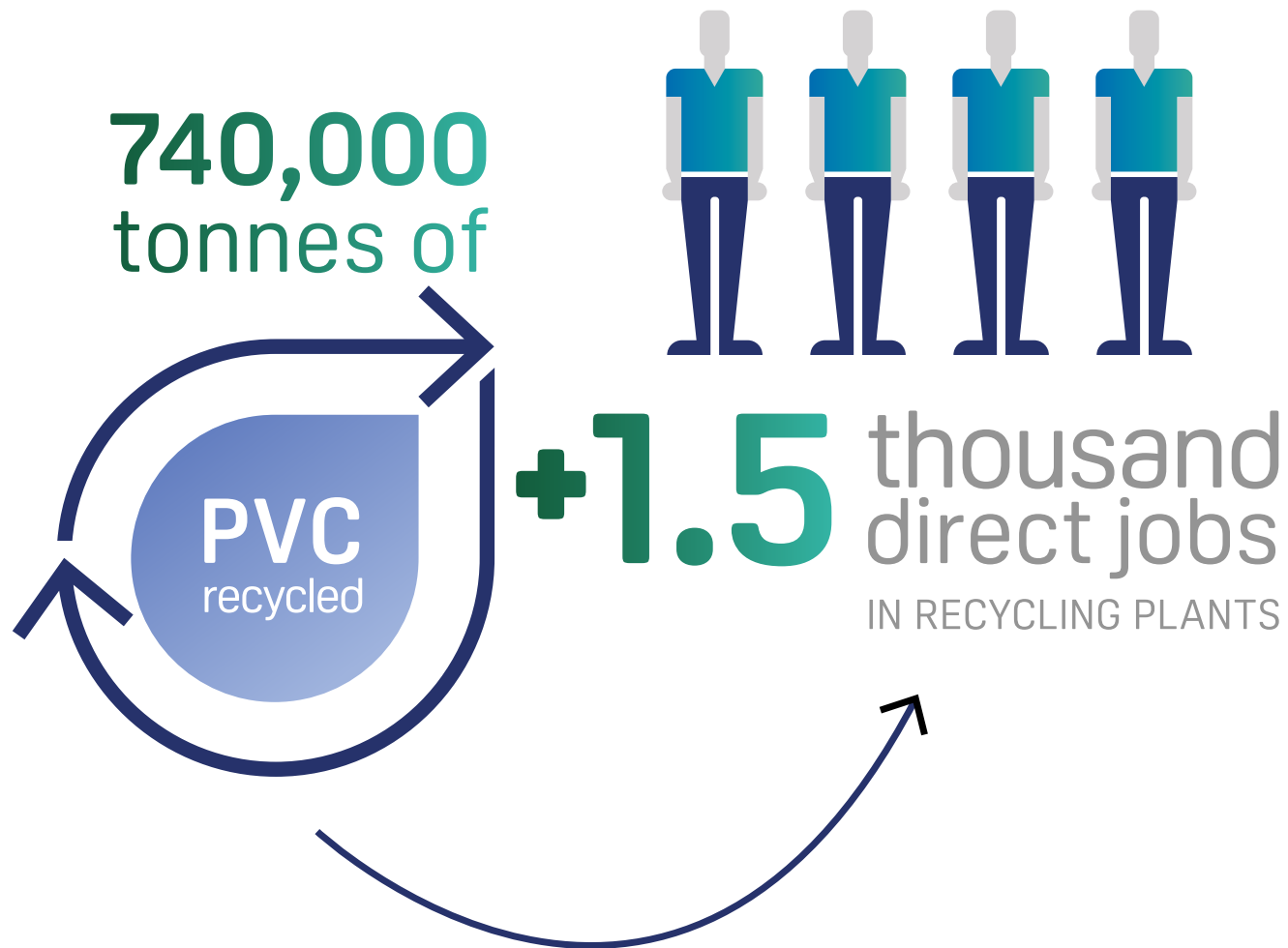
13 CLIMATE ACTION

TARGET 13.1



BENEFITS ASSOCIATED WITH PVC RECYCLING

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



ENERGY



CO₂



DIRECT JOBS



TARGET 8.4



RECYCLING ACHIEVEMENTS SINCE 2000



5 million tonnes
of PVC recycled



10 million tonnes
of CO₂ saved



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 the framework of the Hybrid Project, guidelines were developed on how to increase the recyclability of hybrid materials in window profiles.

*The results of the project will be integrated in the standard for Controlled-Loop PVC Window Recycling on which **EPPA** is currently working with the European standardisation organisation.*

*In 2018, EPPA actively supported the **VinylPlus® Product Label**'s implementation and promotion.*

1

2

3

4

5



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 2018, **TEPPFA** continued its active participation in the **NSRR** (North Sea Resources Roundabout) project.*

In February 2018, the Dutch Ministry of Infrastructure and Water Management issued a legal opinion which clearly defines when rigid PVC waste should still be considered waste, and when it has to be considered a resource for new products.

*In June 2018, TEPPFA announced its support for **Operation Clean Sweep®**, an international initiative from the plastics industry to reduce plastic pellet and powder loss to the environment.*

1

2

3

4

5



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 expanding and strengthening its existing networks as well as its cooperation with the value chain to stimulate the separate collection and high-quality sorting of floor covering waste. This includes support for the research and development of further commercial applications for recyclates in Europe, as well as the optimisation of mechanical recycling options and the testing of chemical recycling for some specific streams.*

*In 2018, **AgPR** collected around 1,800 tonnes of PVC flooring waste for recycling in Germany and continued its communication activities, including cooperation with other German PVC associations.*

1

2

3

4

5



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 PROTAN

*ESWA recycled 3,531 tonnes of roofing and waterproofing membranes in 2018 through its project **Roofcollect®**, in line with its targets.*

*In 2019, ESWA will take part in the pilot trials of the **Oreade project**, to test the treatment of roofing membranes.*

1

2

3

4

5



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](#).



*Through its recycling initiatives, **IVK Europe** continued in 2018 to support the collection and recycling of soft and rigid PVC films and coated fabrics. Currently, recyclates are used for the manufacture of sheets for different applications in building and construction, as with horse-riding sheets, and in horticulture and agriculture, one example being greenhouse floorings.*

1

2

3

4

5



OTHER RECYCLING PROJECTS



The **Oreade** chemical recycling project targets PVC waste streams that cannot be handled by mechanical recycling in an economical way. The process, which is being studied at the Oreade-Suez plant in France, combines energy recovery and chemical recycling. In 2019, large-scale trials with 2,000 tonnes of PVC will focus on waste streams with different chlorine concentrations.

1

2

3

4



OTHER RECYCLING PROJECTS



The **Resysta®** recycling consortium produces a recyclable wood-like material based on rice husks and PVC. In order to build controlled-loop materials, Resysta set up dedicated waste collection points across Europe.

1

2

3

4



OTHER RECYCLING PROJECTS



RecoMed aims at collecting and recycling non-contaminated used PVC medical devices from UK hospitals, including face masks and tubing. To date, 28 hospitals are involved in the scheme and another 27 are ready to join.

Since its launch, RecoMed has collected and recycled 12,037 kg of PVC waste (including 6,158 kg just in 2018), equal to 385,440 sets of oxygen masks and tubing.

1

2

3

4



OTHER RECYCLING PROJECTS



Launched in 2016 by **PVC Forum Italia**, **WREP** (Waste Recycling Project) focused in 2018 on preparing the operational phase of the PVC waste collection and recycling pilot scheme in cooperation with Veritas, the major municipal multi-utility operating in the Venice area, and DAE, the Recovinyl Regional Representative of Italy.

Operations started in the autumn and by the end of the year 11.5 tonnes of PVC had been collected and appropriately separated in the four selected collection centres. Based on these preliminary data, the availability of PVC waste that could potentially be collected and recycled in partnership with the municipal collection centres can be estimated at 15,000-20,000 tonnes/year at the national level.

The project, which is continuing in 2019, was officially presented at the RemTech Expo 2018 in Ferrara and to the Italian Ministry of the Environment.

1

2

3

4



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.

LEAD RESTRICTION

ECHA is currently working on the restrictions under consideration for PVC that contains lead compounds. ECHA's initial proposal considered a threshold of 0.1% lead content for articles not containing recycled PVC.

In their opinions, respectively adopted on 5 December 2017 and 15 March 2018, ECHA's **RAC** and **SEAC** proposed a revision of the lead content limits for articles containing recycled PVC, to 1% for soft PVC and up to 2% for rigid PVC.

A condition for these revised limits would be that, in soft applications and in specific rigid applications, the lead-containing recycled PVC be entirely encapsulated within a layer of virgin PVC.



CONTROLLED-LOOP COMMITTEE

Regulatory constraints on legacy additives, particularly lead and DEHP, are considered a major threat to the recycling of post-consumer waste by all sector groups.

The current restriction proposal on lead legacy additives could in fact jeopardise the recycling of around 130,000 tonnes of applications, mainly in soft PVC.

An example is the closure of the VinyLoop® PVC recycling business in Ferrara, Italy, announced in June 2018, due to the collapse in the demand for recycled PVC. The additional burdens that REACH created for downstream users were seen as unacceptable by VinyLoop® customers.

Based on the available scientific studies the Controlled-Loop Committee remains convinced that the recycling of PVC waste represents the best option in terms of resource- and energy-efficiency, as well as in terms of the waste treatment hierarchy.



CONTROLLED-LOOP COMMITTEE

Trusting that PVC recycling will be allowed to continue and develop, VinylPlus announced two new commitments in 2018.



**50% of all plastics
waste by 2040**

In January, VinylPlus and five other organisations from the European plastics value chain jointly **committed** to further expand existing plastics recycling activities in cooperation with the European Commission. They agreed to contribute to the recycling and reuse of 50% of all plastics waste by 2040, as well as of 70% of plastic packaging.



**1 million tonnes of
PVC waste by 2030**

In September 2018, VinylPlus backed the European Commission's call for industry pledges to increase the recycling of plastics by **committing** to recycle at least 900,000 tonnes of PVC per year into new products by 2025 and a minimum of one million tonnes per year by 2030.



CHALLENGE



ORGANOCHLORINE EMISSIONS:

“

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

VINYLPLUS' CHALLENGE 2 CONTRIBUTES TO THE FOLLOWING SDGs:



TARGET 1.5



TARGET 3.9



TARGET 8.8



TARGET 9.4



TARGET 12.4



CHALLENGE 2



SAFE TRANSPORT

There were no transport accidents in Europe with VCM release in 2018.

PVC RESIN INDUSTRY PRODUCTION CHARTERS

The Industry Charters for suspension (**VCM and S-PVC Charter**) and emulsion (**E-PVC Charter**) PVC are aimed at reducing environmental impact in the production phase. The PVC resin industry is continuing to work on achieving 100% compliance by the end of 2020.

The final compliance audit will include additional parameters in relation to the **Operation Clean Sweep®** programme that all ECVM member companies have adopted.



TARGET 9.4



TARGET 12.4



TARGET 14.1



CHALLENGE



SUSTAINABLE USE OF ADDITIVES:

“

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

VINYLPLUS' CHALLENGE 3 CONTRIBUTES TO THE FOLLOWING SDGs:



TARGET 6.3

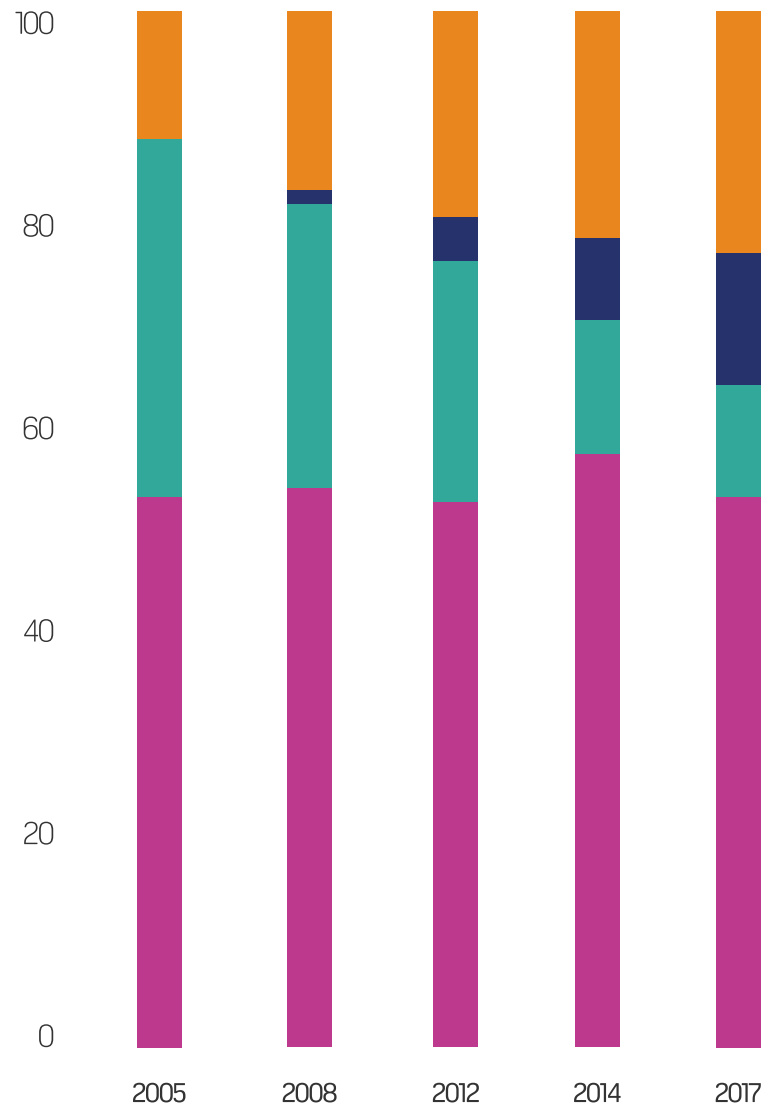


TARGET 12.4



PLASTICISERS

EUROPEAN MARKET TRENDS (2017)



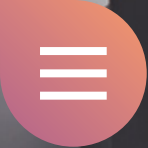
Updated estimates by **European Plasticisers** confirm a constant growth in the use of high molecular weight (HMW) orthophthalates, cyclohexanoates, terephthalates and other plasticisers in Europe, together with a progressive decline in the use of low molecular weight (LMW) orthophthalates.

- Other Plasticisers
 - 7% Aliphatics
 - 5% Cyclohexanoates
 - 3% Trimellitates
 - 3% Benzoates
 - 5% Other
- Terephthalates
- LMW Orthophthalates
- HMW Orthophthalates

Source:
2018 IHS and European
Plasticisers estimates



TARGET 12.4



CRITERIA FOR THE SUSTAINABLE USE OF ADDITIVES

The **Additives Sustainability Footprint (ASF)** methodology, developed by the VinylPlus Additives Committee and The Natural Step to evaluate the use of additives in PVC products, underwent a critical review in 2018 by the University of Manchester, UK. The main strengths of the method were identified as the life-cycle, multi-stakeholder, forward-looking and innovation-oriented approach and the alignment with the ISO 14040 standard.

In 2018, an ASF assessment on flooring was initiated with ReVinylFloor.

ESPA's Life Cycle Assessment (LCA) for liquid mixed-metals stabilisers (used in flexible PVC applications) is ongoing with two additional LCAs under development by **VITO**.



TARGET 12.4



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 THE FOLLOWING SDGs:



TARGET 7.3



TARGET 8.4



TARGET 12.2



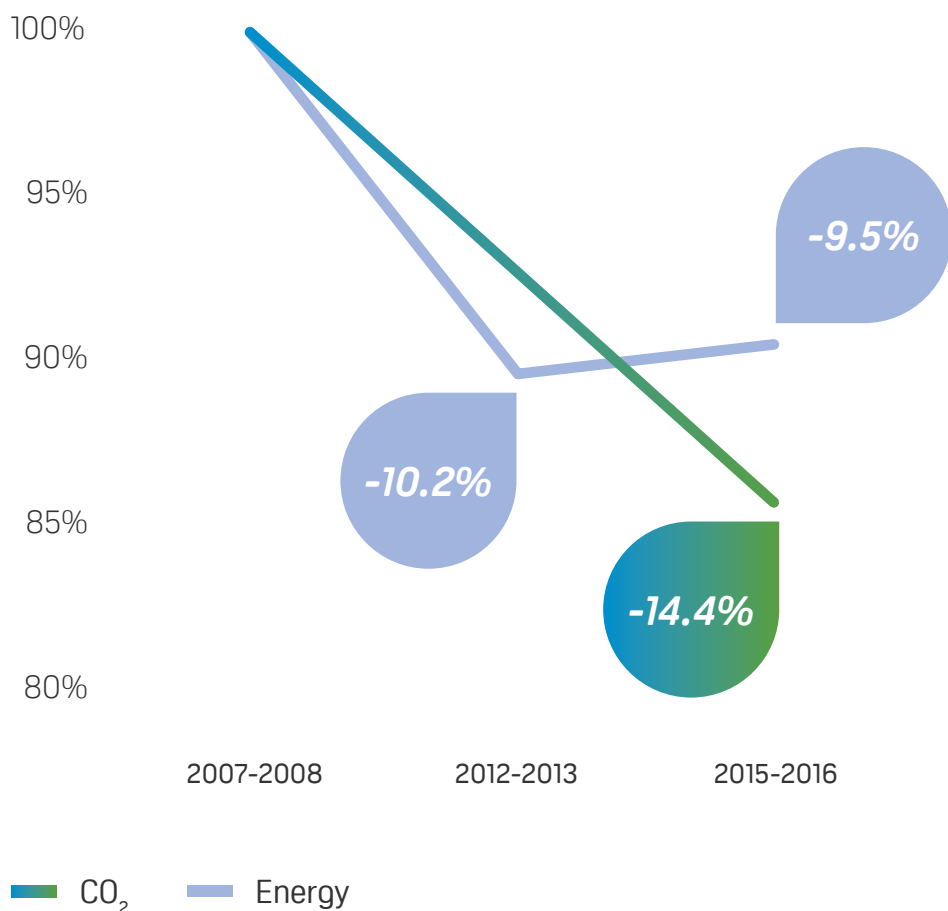
TARGET 13.1



ENERGY EFFICIENCY

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

ENERGY CONSUMPTION AND CO₂ EMISSIONS



A new verification of ECVM members' energy consumption data for 2015-2016 completed by **IFEU** in 2018 showed that the energy needed to produce one tonne of PVC decreased by an average of 9.5% compared to the baseline period 2007-2008.

The reduction of CO₂ emissions for the average PVC production over the same period was 14.4%

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



TARGET 7.3



TARGET 13.1



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.

VINYLPUS' CHALLENGE 5 CONTRIBUTES TO THE FOLLOWING 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



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.



Thanks to the credibility gained with institutions and in the markets over the years, and to VinylPlus' achievements in waste and resource management, the Danish Parliament in November 2018 approved a resolution lifting a tax on soft PVC that had been in place for 20 years.

In addition, VinylPlus was highlighted as a case study in the Resources and Waste Strategy for England policy published in December 2018.



STAKEHOLDER DIALOGUE AND COMMUNICATIONS

In 2018, VinylPlus continued to share its approach, achievements and best practices at major international conferences and events.



*In April, VinylPlus contributed two presentations to the Plastics Recycling Show (PRS) Europe 2018, in Amsterdam, The Netherlands: Circular solutions with PVC products and Recovinyl, more than just numbers. PRS is the annual exhibition and conference for plastics recycling professionals organised by **PRE**.*

1

2

3

4

5

6



STAKEHOLDER DIALOGUE AND COMMUNICATIONS

In 2018, VinylPlus continued to share its approach, achievements and best practices at major international conferences and events.



Representatives of the City of Madrid, the European Parliament, the European Commission and UNIDO discussing how public policy and industry can best work together to meet societal challenges at the VinylPlus Sustainability Forum 2018.

The 6th VinylPlus Sustainability Forum took place in Madrid, Spain, in May, with the theme Meeting Societal Needs. There were more than 140 participants from 30 countries, representing the European Commission, the European Parliament, the United Nations, political decision makers, consumer organisations, academia, specifiers, architects, recyclers and the PVC value chain. They explored how the vinyl sector and its products can provide concrete and sustainable solutions to help meet the wide-ranging challenges of providing essential services for a growing global population in areas such as healthcare, housing, and infrastructure.

1

2

3

4

5

6



STAKEHOLDER DIALOGUE AND COMMUNICATIONS

In 2018, VinylPlus continued to share its approach, achievements and best practices at major international conferences and events.



In May 2018, VinylPlus also took part in the workshop Circular Economy and Plastic Strategy organised by PVC Forum Italia at the Plast 2018 exhibition in Milan.

Representatives of the Italian Ministries of Environment, Economic Development and Health participated in the panel discussion on EU policies and the Italian regulatory framework, expressing their appreciation for VinylPlus' approach and achievements and for its leading example.

1

2

3

4

5

6



STAKEHOLDER DIALOGUE AND COMMUNICATIONS

In 2018, VinylPlus continued to share its approach, achievements and best practices at major international conferences and events.



The VinylPlus Voluntary Commitment and its achievements were presented at the 3rd OXO Conference – Plasticizers and Alcohols Market Outlook in Warsaw, Poland, in November.

1

2

3

4

5

6



STAKEHOLDER DIALOGUE AND COMMUNICATIONS

In 2018, VinylPlus continued to share its approach, achievements and best practices at major international conferences and events.



To present the statuses of their voluntary commitments and pledges to media, NGOs and representatives of the European Commission, 13 major organisations from the plastics value chain, including VinylPlus, hosted their first joint event in December: The European Plastics Industries – Towards Circularity.

1

2

3

4

5

6



STAKEHOLDER DIALOGUE AND COMMUNICATIONS

In 2018, VinylPlus continued to share its approach, achievements and best practices at major international conferences and events.



Laurent Petrynka, President of ISF, Member of the Olympic Education Commission and General Inspector of National Education in France, and Brigitte Dero, VinylPlus General Manager, signing the *Environmental Action* charter on 12 February 2019.

*In March 2019, VinylPlus championed the sustainable use of PVC at the running event **She Runs – Active Girls’ Lead 2019**, which gathered 2,500 young women aged 14-18 from 35 countries to race 3 km through the heart of Paris, France. Organised by the International School Sport Federation (ISF), the event aims to promote girls’ health, emancipation, and leadership through school sport.*

*VinylPlus’ partnership with She Runs – Active Girls’ Lead 2019 followed the signature in February of a joint **Environmental Action** charter with ISF, to ensure the sustainable use of PVC at She Runs with six commitments, from sourcing PVC in line with the VinylPlus sustainability programme to ensuring the re-use and recycling of PVC products after the event.*

1

2

3

4

5

6



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.

Social media have a growing importance for VinylPlus' communications and stakeholder engagement. In 2018, VinylPlus activated a new account on the LinkedIn platform.

By the end of 2018, the VinylPlus twitter account @VinylPlus_EU had attracted 1,400 followers.

The number continues to increase.

To expand the scope of VinylPlus' social media engagement, a new Twitter account @VinylPlus_IT in Italian has been operational since September 2018.





COOPERATION AGREEMENT

OF THE SOCIAL PARTNERS OF THE EUROPEAN CHEMICAL **SSDC** AND VINYLPLUS ON THE EUROPEAN PVC INDUSTRY

Concrete initiatives and action plans for workers' safety and education and for the digitalisation of SMEs were defined with the Social Partners of the European Chemical Sectoral Social Dialogue Committee in the framework of the Cooperation Agreement signed.



PHOTO: VINYLPLUS®



TARGET 3.9



TARGET 4.4



TARGET 5.1



TARGET 8.8



VINYLPLUS PRODUCT LABEL



The **VinylPlus® Product Label** is a sustainability labelling scheme for PVC products developed by VinylPlus in cooperation with **BRE** and **The Natural Step**.

Officially launched for window profiles in March 2018, the Label is now open to any construction product meeting the definition of the EU Construction Product Regulation. To date, eight profile manufacturers have been **awarded the label** for 43 profile systems manufactured at 13 European sites.

In March 2019, the VinylPlus® Product Label was validated for accreditation in Italy by **Accredia**. An evaluation by the other 35 NABs (National Accreditation Bodies) members of **EA**, the European Accreditation association, has been initiated for a Europe-wide validation.



ENGAGING GLOBALLY

As part of the commitment to promote its approach to the worldwide PVC industry, VinylPlus actively participated in several conferences and events at the global level in 2018.



In March 2018, VinylPlus took part in a two-day event in Sydney, PVC Australia 2018: Shaping the Future. VinylPlus' speech focused on the European PVC industry's progress towards sustainability and how its Voluntary Commitment is supporting circular economy objectives for PVC.



ENGAGING GLOBALLY

As part of the commitment to promote its approach to the worldwide PVC industry, VinylPlus actively participated in several conferences and events at the global level in 2018.



1

2

3

4

5

6

In April, in Mumbai, VinylPlus contributed a keynote speech to Vinyl India 2018, the 8th International PVC & Chlor-Alkali Conference. The conference attracted more than 850 participants from around the world.



ENGAGING GLOBALLY

As part of the commitment to promote its approach to the worldwide PVC industry, VinylPlus actively participated in several conferences and events at the global level in 2018.



1

2

3

4

5

6

In September, VinylPlus was invited to speak at the EU-Australia Leadership Forum, an innovative project funded by the European Union and supported by the Australian government.

Recognised as a leader and role model for the circular economy and the plastics industry in Europe, VinylPlus participated in a sectoral policy workshop, entitled Progressing the Circular Economy: European and Australian Perspectives on the Plastics Problem. The workshop focused on critical, analytical and innovative thinking for the future of the EU-Australia cooperation.



ENGAGING GLOBALLY

As part of the commitment to promote its approach to the worldwide PVC industry, VinylPlus actively participated in several conferences and events at the global level in 2018.



1

2

3

4

5

6

In October, VinylPlus' contribution to the 7th China International Chlor-Alkali Conference focused on The European PVC Industry: Challenges and Opportunities.

The conference gathered more than 300 delegates from 20 countries to discuss technological innovation and market trends.



ENGAGING GLOBALLY

As part of the commitment to promote its approach to the worldwide PVC industry, VinylPlus actively participated in several conferences and events at the global level in 2018.



In October 2018, VinylPlus also took part in a combined Circular Economy Mission of the EU Commission to Japan and Indonesia. This mission was organised to promote circular economy, sustainable and inclusive innovation and growth in the EU, Japan and Indonesia, as well as green business partnerships.

The EU Circular Economy Mission coincided with the second World Circular Economy Forum (WCEF2018), hosted by Japan, where the Mission co-organised a session dedicated to showcasing the potential of circular economy for plastics and exploring opportunities for and barrier to action in the Asia-Pacific region.



ENGAGING GLOBALLY

As part of the commitment to promote its approach to the worldwide PVC industry, VinylPlus actively participated in several conferences and events at the global level in 2018.



VinylPlus also continued to actively share experience, knowledge and best practices with the other regional PVC associations in the GVC (Global Vinyl Council).

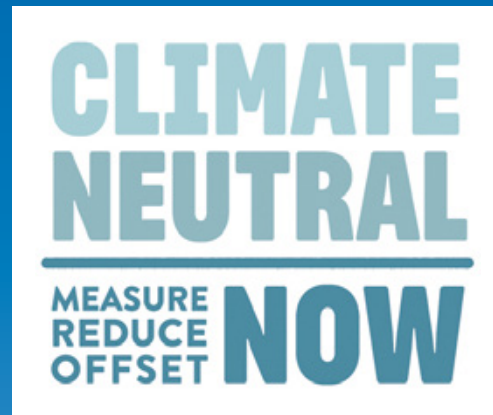
In 2018, the GVC's bi-annual meetings took place in May in Madrid, Spain, and in October in Kunming, Yunnan, China.



UNITED NATIONS



In May, Nilgün Tas, Deputy Director of the Department of Environment and Chief for the Industrial Resource Efficiency Division at UNIDO, participated as keynote speaker in the VinylPlus Sustainability Forum.



VinylPlus also joined the **UNFCCC's** Climate Neutral Now initiative in 2018, signing a pledge for the climate neutrality of its yearly event. Unavoidable emissions caused by holding the VinylPlus Sustainability Forum 2018 were compensated through the use of United Nations-certified offsets.



VinylPlus continued to share its progress and contributions to the Sustainable Development Goals (SDGs) through yearly reporting on the **UN Partnerships for the SDGs Platform**.



“We stand ready to help business in this endeavour and commend initiatives such as VinylPlus for its leadership in the areas of recycling and addressing sector challenges, in particular by working with partners along the value chain.”

NILGÜN TAS

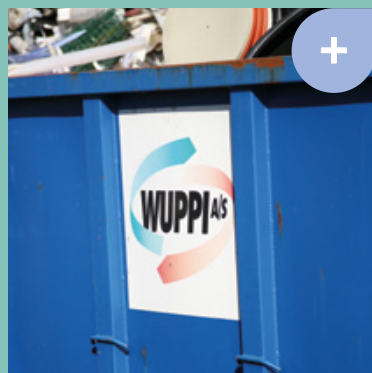
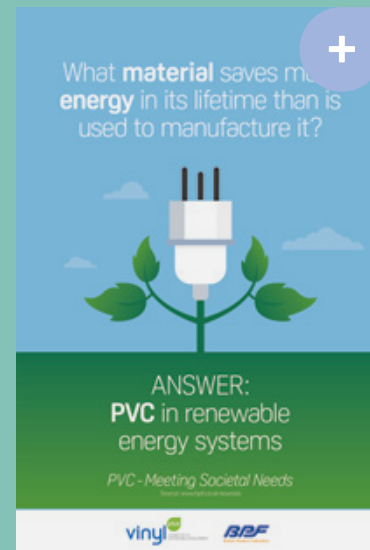
*UNIDO, Deputy Director of
the Department of Environment and
Chief for the Industrial Resource
Efficiency Division*



VINYLPLUS JOINT COMMUNICATIONS PROJECTS

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

Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.





VINYLPLUS JOINT COMMUNICATIONS PROJECTS

Every year VinylPlus co-funds a range of projects with the aim of expanding the scope of its communications activities. Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



VISUALISATION AND PROMOTION OF THE RECYCLING OF OLD PVC WINDOWS AND THE USE OF RECYCLATES FOR NEW PVC WINDOWS

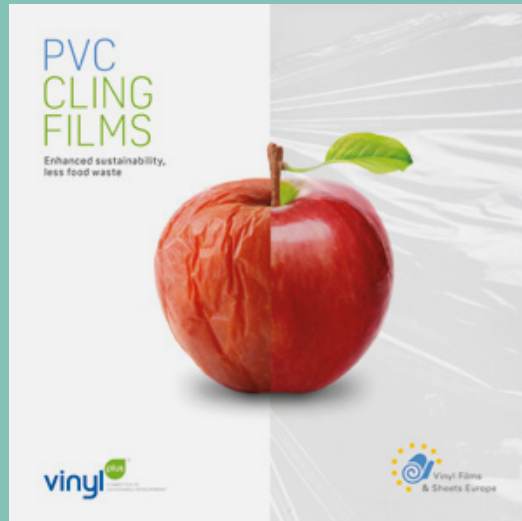
The general aim of this project was to promote the PVC recycling concept, specifically concerning window profiles, to demolition and waste disposal companies, manufacturers, and the housing and real estate industry. A best practice brochure was produced; on-site press conferences were held, generating media coverage; and key players in the controlled-loop management of PVC were involved, with the objective of expanding the network.

PROJECT LED BY REWINDO
Geographic scope: Germany



VINYLPUS JOINT COMMUNICATIONS PROJECTS

Every year VinylPlus co-funds a range of projects with the aim of expanding the scope of its communications activities. Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



KEY SUSTAINABILITY PERFORMANCE INDICATORS FOR PVC CLING FILMS FOR FOOD

The project aimed to promote the sustainability advantages of PVC cling films by taking into account the priorities and targets set by the UN SDGs. A major aim was to underline that benefits of PVC cling films are more relevant in terms of contribution to sustainability (e.g. food waste prevention) than the perceived weaknesses. A technical/scientific document was produced by a consulting company specialising in LCA studies to provide the factual basis for a promotional brochure.

PROJECT LED BY VFSE

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. Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



PVC BRANDING IN THE CIRCULAR ECONOMY



The project's objective was to achieve recognition from public and private decision makers within the building sector in Denmark for the WUPPI system and VinylPlus' achievements in recycling. Communications activities included newsletters, advertising on LinkedIn and AdWord, participation in exhibitions and seminars, and media relations and social media activities. A training package and marketing materials were also produced.

PROJECT LED BY WUPPI

Geographic scope: Denmark



VINYLPLUS JOINT COMMUNICATIONS PROJECTS

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

Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



PVC ON THE ROAD

This project aimed to raise awareness about the plasticiser and PVC industries among regulators and policymakers. A half-day event was organised in Brussels to provide up-to-date scientific and regulatory information and to present VinylPlus' achievements to Belgian authorities and members of the value chain. Speakers highlighted the benefits flexible PVC applications offer in everyday life and addressed the current regulatory challenges the industry is facing, from a societal, health and environmental standpoint.

**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.

Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



SHARING GOOD PRACTICES AND CHALLENGES IN THE RECYCLING AND RECOVERY OF PLASTICS INCLUDING PVC

The project aimed to share the plastics industry's best practices and know-how in recycling and recovery and to enhance cooperation with related associations. A one-day workshop was organised with recycling and recovery experts from associations of the plastics industry and the waste management and recovery industry.

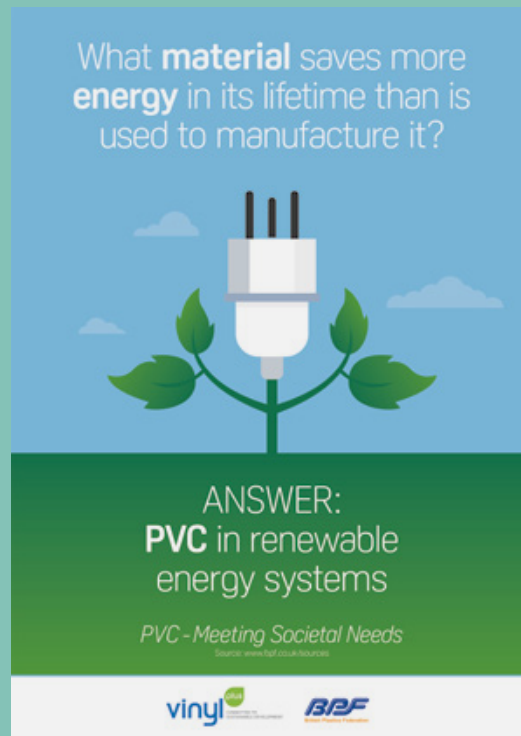
PROJECT LED BY AGPU

Geographic scope: Germany



VINYLPUS JOINT COMMUNICATIONS PROJECTS

Every year VinylPlus co-funds a range of projects with the aim of expanding the scope of its communications activities. Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



12 MONTHS – 12 REASONS TO CHOOSE PVC

The objective of the project was to engage with industry stakeholders in order to improve the image of PVC, using simple, emotional and fresh communications tools. Twelve infographics were produced depicting VinylPlus' work, including information on topics such as PVC recycling, the circular economy, energy efficiency, cost saving, safety, medical devices and other innovative solutions. The infographics were used for events, digital and online communications, pull-up banners and posters. Promotion of the infographics across various platforms will continue in 2019. They will also be used in promotional materials.

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.

Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



WINDOWS FOR LIFE



As part of its communications activities addressed to consumers, EPPA developed a brochure, *Windows for Life*. It gives a comprehensive view on what is important to know about U-PVC windows, from sustainable design and energy saving to smart homes and recycling. This helps the final consumer to make the right choices. One section is dedicated to the VinylPlus Voluntary Commitment and its Product Label.

PROJECT LED BY EPPA

Geographic scope: EU



VINYLPUS JOINT COMMUNICATIONS PROJECTS

Every year VinylPlus co-funds a range of projects with the aim of expanding the scope of its communications activities. Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



VINYLPUS DIALOGUE WITH DECISION MAKERS AND INFLUENCERS

This project aimed to raise awareness of VinylPlus and to open a positive dialogue with real estate management companies, demolition and recycling companies, local authorities and political influencers. AGPU was present with a booth at three main national events: the 21st Internationaler Altkunststofftag Bad Neuenahr, organised by BVSE (the German Federal Association for Secondary Raw Materials and Waste Management); the SPD Party Convention, in Bochum, in June 2018; and the DDIV (Real Estate Management) Conference, in September 2018. In the photo are Svenja Schulze, German Minister for Environmental Affairs, with Thomas Hülsmann, AGPU Director.

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.

Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



TURQUOISE



TURQUOISE aims to increase the use of recycled soft PVC in France, both through the development of new markets and applications (indoor, outdoor and agriculture), and through communications and promotion. In February 2018, I.déel (www.i-deel-in.com) won another award, this time for outdoor products from the magazine *Mon Jardin & Ma Maison*. In 2018, I-deel's 100%-recycled PVC applications were presented and promoted through press articles and meetings, by organising product displays in around 40 retail stores and through participation in the AGRIAL exhibition.

PROJECT LED BY KALEI

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. Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



ENERGY- AND RESOURCE-EFFICIENT PRODUCTS FOR GREEN PUBLIC PROCUREMENT

This project started in 2016 and focused on PVC products providing sustainable solutions in public procurement, thanks to their energy- and resource-efficiency, as well as their low whole-life cost. In addition to the magazine *KBD*, *UmweltMagazin* was selected in 2018 as a media partner 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



VINYLPLUS JOINT COMMUNICATIONS PROJECTS

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

Eleven **projects** were implemented in 2018, by three European industry sector organisations and six national PVC associations.



ACCREDITED VINYLPLUS® PRODUCT LABEL (AVPL): A BUILDING BLOCK OF THE CIRCULAR ECONOMY



The project aimed to present the VinylPlus® Product Label to relevant stakeholders in Italy. In 2018, informative materials and a special section of the PVC Forum website were developed. Several presentations were made to relevant Italian authorities and institutions, as well as to the PVC value chain (member and non-member companies of PVC Forum). Some presentations were also made at selected industry events (mainly for the window profile sector). The project will continue in 2019 after the accreditation procedure has been completed, with media relations activities and presentations to authorities.

PROJECT LED BY PVC FORUM ITALIA

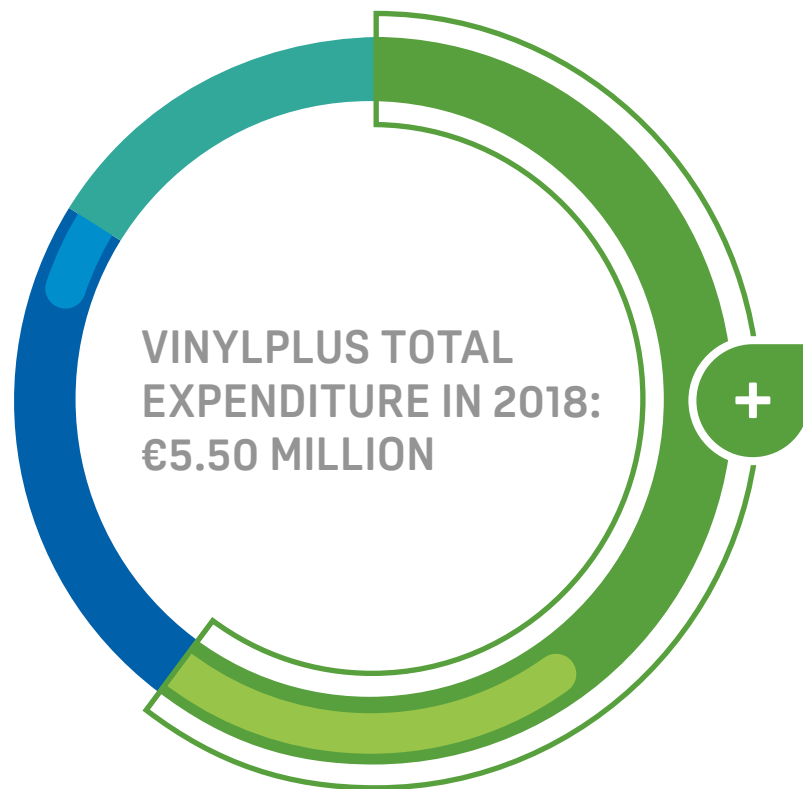
Geographic scope: Italy



FINANCIAL REPORT

In 2018, industry expense remained stable or slightly decreased. Funding of technical projects decreased by 10%, mainly due to a reduction in the flooring projects and Recovinyl. On the other hand, communications cost increased by 405 KEUR.

Expenditure by VinylPlus, including EuPC and its members, and national and sectoral co-funding, amounted to €5.50 million in 2018.



60.6%
Waste management and technical projects,
including national and sectoral co-funding amounting
to **17.8%** of total industry funding

23.6%
Communications, including national and sectoral co-funding
amounting to **2.4%** of total industry funding

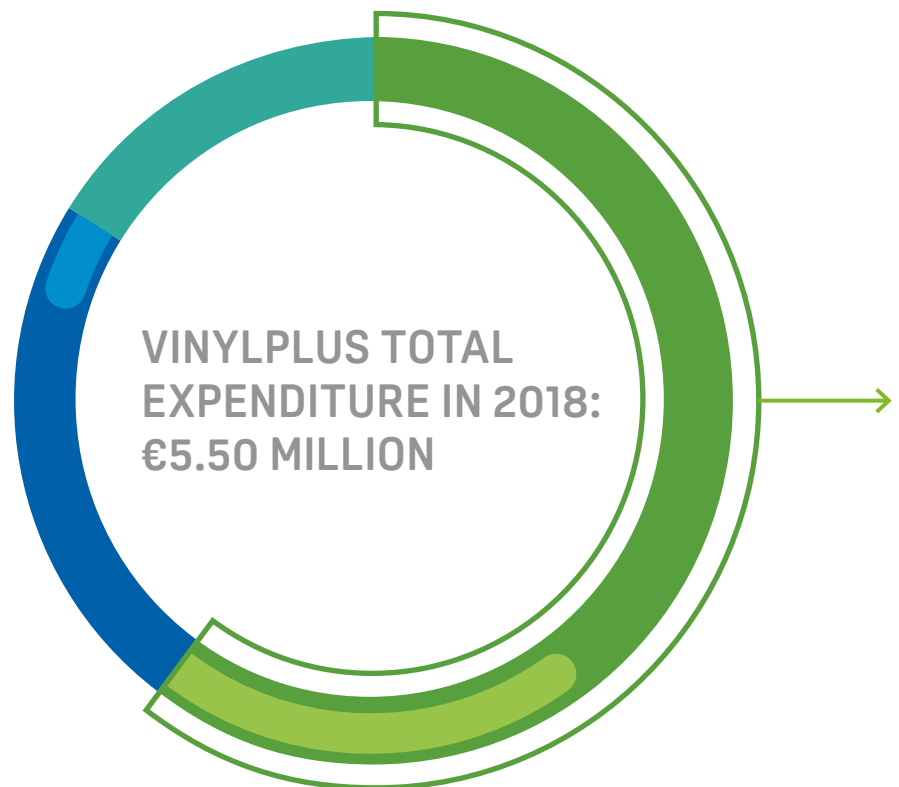
15.9%
Overheads and Voluntary Commitment development



FINANCIAL REPORT

In 2018, industry expense remained stable or slightly decreased. Funding of technical projects decreased by 10%, mainly due to a reduction in the flooring projects and Recovinyl. On the other hand, communications cost increased by 405 KEUR.

Expenditure by VinylPlus, including EuPC and its members, and national and sectoral co-funding, amounted to €5.50 million in 2018.



WASTE MANAGEMENT AND TECHNICAL PROJECTS

FIGURES IN €1,000s

Films and coated fabrics related projects	124
Flooring related projects	847
EPPA	346
ESWA/Roofcollect®	100
Recovinyl	1,500
Studies, start-up & pull concept	338
TEPPFA	448
Medical applications recycling	60
Resysta® consortium	10
Oreade chemical recycling	0

TOTAL PROJECTS

TOTAL EXPENDITURE INCLUDING EUPC AND ITS MEMBERS

2017

2018

124	38
847	472
346	356
100	88
1,500	1,300
338	198
448	459
60	52
10	2
0	365

3,772

3,331

60.6%

Waste management and technical projects, including national and sectoral co-funding amounting to **17.8%** of total industry funding

23.6%

Communications, including national and sectoral co-funding amounting to **2.4%** of total industry funding

15.9%

Overheads and Voluntary Commitment development



VERIFICATION STATEMENTS

The Progress Report 2019 has been independently verified by **SGS**, while tonnages of PVC waste recycled and expenditures have been audited and certified by **KPMG**. **The Natural Step** made a commentary on the overall work and progress of VinylPlus.

VERIFICATION STATEMENTS



TNS COMMENTARY





VERIFICATION STATEMENTS

The Progress Report 2019 has been independently verified by **SGS**, while tonnages of PVC waste recycled and expenditures have been audited and certified by **KPMG**. **The Natural Step** made a commentary on the overall work and progress of VinylPlus.

VERIFICATION STATEMENTS



TNS COMMENTARY



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, 2018 to December 31, 2018 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

- 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 2018 and verify the mathematical accuracy of this.

The total expenses amount to KEUR 5,500.

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

- Verify that these costs are recorded in the financial statements 2018 of VinylPlus AISBL.
We found no exceptions as a result of applying this procedure.

- 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.

- 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 17.57% 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 SCRL
Statutory Auditor represented by

DOMINIC ROUSSELE,
Réviseur d'Entreprises

Mont-Saint-Guibert, March 28, 2019



VERIFICATION STATEMENTS

The Progress Report 2019 has been independently verified by **SGS**, while tonnages of PVC waste recycled and expenditures have been audited and certified by **KPMG**. **The Natural Step** made a commentary on the overall work and progress of VinylPlus.

VERIFICATION STATEMENTS



TNS COMMENTARY



PROGRESS REPORT 2019

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 2018, 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 2018:

- 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 RDP COLLECT 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 "EPRA");
- 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 IVK Europe project; and
- in the EU-28 (plus Switzerland) within the operations of Recovinyt;

as set forth in the accompanying engagement letter dated February 25, 2019. 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 2018 and are summarised as follows:

With regard to the MS Excel spreadsheet "KPMG calculation... consollrecycled_VinylPlus (2018)" for the accounting period January 1, 2018 to December 31, 2018, prepared by management of VinylPlus, regarding the tonnages of recycled PVC (within the above-mentioned projects of VinylPlus) in 2018, we performed the following procedures:

- Verify, in sheet "VinylPlus 2018" (which contains detailed calculations for the management of VinylPlus), whether the quantities mentioned in the columns H, I, M and N, regarding the quantities of PVC that have been recycled in 2018 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 / KPMG Bedrijfsrevisoren CVBA on request of the legal entities listed below, concerning:
 - tonnages of PVC flooring recycled in the EU-28 plus Norway and Switzerland in 2018, by the (members of the) AgPR;
 - tonnages of PVC recycled in the EU-28 plus Switzerland in 2018, within the operations of Recovinyt;
- Recycling confirmations regarding PVC flooring;

- Extracts of Recovinyt internal audit tracking system on audit status for relevant companies;
- Communication from the concerned projects of VinylPlus obtained by management of VinylPlus and/or the Senior Project Controller, Mr. Geoffroy Tillieux.

2. Verify, in sheet "VinylPlus 2018" the mathematical accuracy of the calculations (to avoid double counting), regarding the quantities recycled PVC in 2018.

3. Verify, in sheet "Table for progress report" (which contains the table for publication in the VinylPlus Progress Report 2019), the mathematical accuracy of the calculations in column F regarding the tonnages recycled in 2018, based on the concerned tonnages mentioned in sheet "VinylPlus 2018".
The table mentioned above is reproduced in the VinylPlus Progress Report 2018, at page 27 with a total recycled tonnage for 2018 of 739,525 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 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 is not to be used for any other purpose or 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 2018 and items specified above and does not extend to any financial statements of VinylPlus, taken as a whole.

KPMG Réviseurs d'Entreprises SCRL
Statutory Auditor represented by

DOMINIC ROUSSELLE,
Réviseur d'Entreprises

Mont-Saint-Guibert, March 28, 2019



VERIFICATION STATEMENTS

The Progress Report 2019 has been independently verified by **SGS**, while tonnages of PVC waste recycled and expenditures have been audited and certified by **KPMG**. **The Natural Step** made a commentary on the overall work and progress of VinylPlus.

VERIFICATION STATEMENTS



TNS COMMENTARY



SGS INDEPENDENT VERIFICATION STATEMENT ABOUT THIS VINYLPLUS PROGRESS REPORT 2019

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 97,000 employees, we operate a network of more than 2,600 offices and laboratories around the world.

SGS was commissioned by VinylPlus to provide an independent verification of the "Progress Report 2019". This report presents the commitments and achievements made by the VinylPlus project in 2018.

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 2019" represents VinylPlus' performance in 2018 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

25 March 2019



VERIFICATION STATEMENTS

The Progress Report 2019 has been independently verified by **SGS**, while tonnages of PVC waste recycled and expenditures have been audited and certified by **KPMG**. **The Natural Step** made a commentary on the overall work and progress of VinylPlus.

VERIFICATION STATEMENTS



TNS COMMENTARY





GOVERNANCE

VINYLPLUS MANAGEMENT BOARD

MONITORING COMMITTEE



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

Members

Ms Karin Arz – **EuPC** (*Flexible PVC sector*)^(a)

Mr Fabrice Barthélemy – **EuPC** (*Flexible PVC sector*)^(b)

Mr Fausto Bejarano – **EuPC** (*Rigid PVC sector*)^(c)

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**^(b)

Mr Stefan Eingärtner – *Technical Director*

Dr Josef Ertl – *Chairman*^(d) (**ECVM 2010**)

Mr Rainer Grasmück – **ESPA**

Mr Andreas Hartleif – *Vice Chairman*^(b) (**EuPC** – *Rigid PVC sector*)

Dr Zdenek Hruska – **ECVM 2010**

Dr Ettore Nanni – *Treasurer (ESPA)*

Mr Hans-Christoph Porth – **ECVM 2010**

Mr Maarten Roef – **EuPC** (*Rigid PVC sector*)^(e)

Mr Nigel Sarginson – **European Plasticisers**

Dr Arjen Sevenster – *Controller (ECVM 2010)*

Dr Karl-Martin Schellerer – **ECVM 2010**

Mr Stefan Sommer – *Chairman*^(f) (**ECVM 2010**)

Mr Geoffroy Tillieux – *Controller (EuPC)*

Mr Joachim Tremmel – **European Plasticisers**

Ms Myriam Tryjefaczka – **EuPC** (*Flexible PVC sector*)^(a)

Mr Christian Vergeylen – *Vice Chairman*^(a) (**EuPC** – *Flexible PVC sector*)

(a) From 16 May 2018

(d) Until 5 October 2018

(b) Until 16 May 2018

(e) Until 6 December 2018

(c) From 6 December 2018

(f) From 5 October 2018



GOVERNANCE

VINYLPLUS MANAGEMENT BOARD



MONITORING COMMITTEE

The VinylPlus Monitoring Committee is an independent body that provides guidance and advice, and that supervises the implementation of the Voluntary Commitment. To ensure maximum transparency, participation and accountability, the Monitoring Committee is open to all external stakeholders. It currently includes representatives of the European Commission, the European Parliament, academia, trade unions and consumer organisations, as well as representatives of the European PVC industry.

The Committee met formally twice in 2018, in April and in November.

The minutes of each Monitoring Committee meeting are published on the VinylPlus website after formal approval at the following meeting.

Members

Ms Laure Baillargeon – *Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), European Commission*^(a)

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

Prof. Alfons Buekens – *Chairman of the Monitoring Committee*^(b)

Dr Alain Cavallero – *Secretary General of ESPA*

Mr Alexandre Dangis – *VinylPlus Board Member*

Mr Armand De Wasch – *Euroconsumers Group*

Dr Brigitte Dero – *General Manager of VinylPlus*

Prof. Dr Ir. Jo Dewulf – *Chairman of the Monitoring Committee*^(c)

Ms Martina Dlabajová – *Member of the European Parliament*

Mr Joachim Eckstein – *VinylPlus Board Member*^(d)

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*^(e)

Mr Nuno Melo – *Member of the European Parliament*

Dr Ettore Nanni – *Treasurer of VinylPlus*

Mr Stefan Sommer – *Chairman of VinylPlus*

(a) From April 2018

(c) From January 2019

(e) Until April 2018

(b) Until December 2018

(d) Until May 2018



OUR PARTNERS

IN 2018, THE CONTRIBUTORS WERE:



CONVERTERS

PVC RESIN PRODUCERS

PVC STABILISER PRODUCERS

PVC PLASTICISER PRODUCERS

ASSOCIATE MEMBERS

A. Kolckmann GmbH (Germany)

Alfatherm SpA (Italy)

Aliaxis Group (Belgium)

Alkor Draka SAS (France)

Altro (UK)

**Altro Debolon Dessauer
Bodenbeläge GmbH & Co. KG**
(Germany)

alfer® aluminium GmbH (Germany)

aluplast Austria GmbH (Austria)

aluplast GmbH (Germany)

alwitra GmbH & Co (Germany)

**AMS Kunststofftechnik GmbH
& Co. KG** (Germany)

Amtico International (UK)

**Avery Dennison Materials
Europe BV** (Netherlands)

Beaulieu International Group
(Belgium)

Berry Plastics (Germany)

Bilcare Research (Germany)

BM S.L. (Spain)

**BT Bautechnik Impex GmbH
& Co. KG** (Germany)

BTH Fitting Kft. (Hungary)

CF Kunststofprofielen (Netherlands)

Chieftain Fabrics (Ireland)

CIFRA (France)

Coveris Rigid Hungary Ltd
(Hungary)

Danosa (Spain)

Deceuninck Ltd (UK)

Deceuninck NV (Belgium)

Deceuninck SAS (France)

Dekura GmbH (Germany)

DHM (UK)

Dickson Saint Clair (France)

Draka Polymer Films BV
(Netherlands)

Dyka BV (Netherlands)

Dyka Plastics NV (Belgium)

Dyka Polska Sp. z o.o. (Poland)

Dyka SAS, former SOTRA-SEPEREF
SAS (France)

Elbtal Plastics GmbH & Co. KG
(Germany)

Epwin Window Systems (UK)

Ergis SA (Poland)

**FDT FlachdachTechnologie GmbH
& Co. KG** (Germany)

Finstral AG (Italy)

FIP (Italy)

Gealan Fenster-Systeme GmbH
(Germany)

Georg Fischer Deka GmbH
(Germany)

Gerflor Mipolam GmbH (Germany)

Gerflor SAS (France)

Gerflor Tarare (France)

Gernord Ltd (Ireland)

Girpi (France)

Griffine Enduction (France)

Gruppo Fabbri (Svizzera) S.A.
(Switzerland)

Gruppo Fabbri Vignola SpA (Italy)

H Producter AS (Norway)

* Companies that joined VinylPlus in 2018



OUR PARTNERS

IN 2018, THE CONTRIBUTORS WERE:



CONVERTERS

PVC RESIN PRODUCERS

PVC STABILISER PRODUCERS

PVC PLASTICISER PRODUCERS

ASSOCIATE MEMBERS

Heytex Bramsche GmbH (Germany)

Heytex Neugersdorf GmbH
(Germany)

Holland Colours NV (Netherlands)

**Icopal Kunststoffverarbeitungs
GmbH** (Germany)

**IKA Innovative
Kunststoffaufbereitung GmbH
& Co. KG** (Germany)

Imerys (UK)

Imperbel NV (Belgium)

Inoutic/Deceuninck GmbH
(Germany)

Inoutic/Deceuninck Sp. z o.o.
(Poland)

Internorm Bauelemente GmbH
(Austria)

IVC BVBA (Belgium)

Jimten (Spain)

Kalan (France)

Konrad Hornschuch AG (Germany)

LINPAC Packaging PONTIVY
(France)

Low & Bonar GmbH (Germany)

Manufacturas JBA (Spain)

Marley Deutschland (Germany)

Marley Hungária (Hungary)

MKF-Ergis GmbH (Germany)

MKF-Ergis Sp. z o.o. (Poland)

Molecor (Spain)

Mondoplastico SpA (Italy)

Nicoll (France)

Nicoll Italy (Italy)

Nordisk Wavin AS (Denmark)

Norsk Wavin AS (Norway)

Novafloor (France)

NYLOPLAST EUROPE BV
(Netherlands)

Omya International AG (Switzerland)

Perlen Packaging (Switzerland)

Pipelife Austria (Austria)

Pipelife Belgium NV (Belgium)

Pipelife Czech s.r.o (Czech Republic)

Pipelife Deutschland GmbH
(Germany)

Pipelife Eesti AS (Estonia)

Pipelife Finland Oy (Finland)

Pipelife France (France)

Pipelife Hellas S.A. (Greece)

Pipelife Hungária Kft. (Hungary)

Pipelife Nederland BV (Netherlands)

Pipelife Norge AS (Norway)*

Pipelife Polska SA (Poland)

Pipelife Sverige AB (Sweden)

Poliplast (Poland)

Poloplast GmbH & Co. KG (Austria)

Polyflor (UK)

Polymer-Chemie GmbH (Germany)

Protan AS (Norway)

Redi (Italy)

REHAU AG & Co (Germany)

REHAU GmbH (Austria)

REHAU Ltd (UK)

REHAU SA (France)

REHAU Sp. z o.o. (Poland)

REHAU Industrias SA (Spain)

* Companies that joined VinylPlus in 2018



OUR PARTNERS

IN 2018, THE CONTRIBUTORS WERE:



CONVERTERS

PVC RESIN PRODUCERS

PVC STABILISER PRODUCERS

PVC PLASTICISER PRODUCERS

ASSOCIATE MEMBERS

RENOLIT Belgium NV (Belgium)

RENOLIT Cramlington Ltd (UK)

RENOLIT Hispania SA (Spain)

RENOLIT Ibérica SA (Spain)

RENOLIT Milano Srl (Italy)

RENOLIT Nederland BV
(Netherlands)

RENOLIT Ondex SAS (France)

RENOLIT SE (Germany)

Resysta International GmbH
(Germany)

Riuvert (Spain)

Roechling Engineering Plastics KG
(Germany)

**Salamander Industrie Produkte
GmbH** (Germany)

Sattler PRO-TEX GmbH (Austria)

Schüco Polymer Technologies KG
(Germany)

Serge Ferrari SAS (France)

Sika Services AG (Switzerland)

Sika Trocal GmbH (Germany)

SIMONA AG (Germany)

Sioen Industries (Belgium)

SKZ-Testing GmbH (Germany)

Solvay SA – Foaming Solutions
(Belgium)*

Soprema Srl (Italy)

Stöckel GmbH (Germany)

Tarkett AB (Sweden)

Tarkett France (France)

Tarkett GDL SA (Luxembourg)

Tarkett Holding GmbH (Germany)

Tarkett Limited (UK)

Thomson Research Associates Inc.
(UK)

TMG Automotive (Portugal)

**Tönsmeier Kunststoffe GmbH
& Co. KG** (Germany)

Uponor Infra Oy (Finland)

Veka AG (Germany)

Veka Ibérica (Spain)

Veka Plc (UK)

Veka Polska (Poland)

Veka SAS (France)

Verseidag-Indutex GmbH
(Germany)

Vescom BV (Netherlands)

Vulcaflex SpA (Italy)

Wavin Baltic (Lithuania)

Wavin Belgium BV (Belgium)

Wavin BV (Netherlands)

Wavin France SAS (France)

Wavin GmbH (Germany)

Wavin Hungary (Hungary)

Wavin Ireland Ltd (Ireland)

Wavin Metalplast (Poland)

Wavin Nederland BV (Netherlands)

Wavin Plastics Ltd (UK)

* Companies that joined VinylPlus in 2018



OUR PARTNERS

IN 2018, THE CONTRIBUTORS WERE:

CONVERTERS

PVC RESIN PRODUCERS

PVC STABILISER PRODUCERS

PVC PLASTICISER PRODUCERS

ASSOCIATE MEMBERS

Ercros (Spain)

INOVYN (Belgium, France, Germany,
Italy, Norway, Spain, Sweden, UK)

Shin-Etsu PVC

(Netherlands, Portugal)

VESTOLIT GmbH (Germany)

Vinnolit GmbH & Co. KG

(Germany, UK)

Vynova Group (Belgium, France,
Germany, Netherlands, UK)



OUR PARTNERS

IN 2018, THE CONTRIBUTORS WERE:

CONVERTERS

PVC RESIN PRODUCERS

PVC STABILISER PRODUCERS

PVC PLASTICISER PRODUCERS

ASSOCIATE MEMBERS

Akdeniz Kimya A.S.

Asua Products SA

Baerlocher GmbH

Chemson Polymer-Additive AG

Galata Chemicals

IKA GmbH & Co. KG

LANXESS Deutschland GmbH

PMC Group

Reagens SpA

Valtris Specialty Chemicals



OUR PARTNERS

IN 2018, THE CONTRIBUTORS WERE:

CONVERTERS

PVC RESIN PRODUCERS

PVC STABILISER PRODUCERS

PVC PLASTICISER PRODUCERS

ASSOCIATE MEMBERS

BASF SE

DEZA a.s.

Evonik Performance Materials
GmbH

ExxonMobil Chemical Europe Inc.

Grupa Azoty ZAK SA

LANXESS Deutschland GmbH

Perstorp Oxo AB

Proviron



OUR PARTNERS

IN 2018, THE CONTRIBUTORS WERE:

CONVERTERS

PVC RESIN PRODUCERS

PVC STABILISER PRODUCERS

PVC PLASTICISER PRODUCERS

ASSOCIATE MEMBERS

AGPU – Arbeitsgemeinschaft
PVC und Umwelt e.V.
(Germany)

British Plastics Federation (BPF)
VinylPlus UK

PVC Forum Italia (Italy)



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 CO₂ 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:

1

2





THE EUROPEAN PVC INDUSTRY



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



EUROPEAN PLASTICS CONVERTERS,

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

www.plasticsconverters.eu



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



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



VINYLPLUS VOLUNTARY COMMITMENT TARGETS

CHALLENGES

1

CONTROLLED-LOOP MANAGEMENT:

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

2

ORGANOCHLORINE EMISSIONS:

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

3

SUSTAINABLE USE OF ADDITIVES:

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

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."

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."



1

CHALLENGE

CONTROLLED-LOOP MANAGEMENT:



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



VINYLPUS VOLUNTARY COMMITMENT TARGETS

TARGETS

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 though this target has had to be withdrawn (see p. 12 of VinylPlus Progress Report 2017), VinylPlus will continue to pursue efforts to find technically and economically viable solutions for difficult-to-recycle PVC waste





2

CHALLENGE

ORGANOCHLORINE EMISSIONS:



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



VINYLPUS VOLUNTARY COMMITMENT TARGETS

TARGETS

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**



SUSTAINABLE USE
OF ADDITIVES:

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

VINYLPLUS VOLUNTARY COMMITMENT TARGETS

TARGETS

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**

4

CHALLENGE

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.



VINYLPUS VOLUNTARY COMMITMENT TARGETS

TARGETS

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.

* Converters are striving to increase their energy efficiency. However, due to the complexity and variety of operations in the converting sectors, an overall target would be meaningless, as would targets for many of the subsectors



5

CHALLENGE

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 VOLUNTARY COMMITMENT TARGETS

TARGETS

1

2

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**



5

CHALLENGE

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 VOLUNTARY COMMITMENT TARGETS

TARGETS

1

2

7. ECVI 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 though this target was not achieved in 2013, VinylPlus continued to work on increasing the number of programme participants. It will continue to do so in the future too





GLOSSARY

Accredia – the Italian National Accreditation Body (NAB) responsible for the validation of labels (Conformity Assessment Scheme, CAS) and for the accreditation of Certification Assessment Bodies (CAB) (www.accredia.it/en)

AgPR – Arbeitsgemeinschaft PVC-Bodenbelag Recycling (Association for the Recycling of PVC Floor-Coverings – www.agpr.de)

AGPU – Arbeitsgemeinschaft PVC und Umwelt e.V., the German association of the PVC value chain (www.agpu.com)

ASF – Additives Sustainability Footprint

Axion – Circular economy specialists (www.axiongroup.co.uk)

B&C – Building and construction

BPF – British Plastics Federation, the leading trade association for the UK Plastic Industry (www.bpf.co.uk)

BRE – Building Research Establishment, UK-based certification experts on responsible sourcing for building and construction products (www.bregroup.com)

EA – European Accreditation association (www.european-accreditation.org)

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)

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

ECVM – The European Council of Vinyl Manufacturers (www.pvc.org)

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

EDC – Ethylene dichloride or 1,2-dichlorethane

EPD – Environmental Product Declaration

EPFLOOR – European PVC Floor Manufacturers, an EuPC sector group

1

2

3

4

5



GLOSSARY

EPPA – European PVC Window Profile and Related Building Products Association (www.eppa-profiles.eu)

E-PVC – Emulsion polyvinyl chloride

ESPA – The European Stabiliser Producers Association (www.stabilisers.eu)

ESWA – European Single Ply Waterproofing Association, an EuPC sectoral association (www.eswa.be)

EuPC – European Plastics Converters (www.plasticsconverters.eu)

Euroconsumers Group – European consumer organisation (www.euroconsumers.org)

European Plasticisers – former ECPI (www.europeanplasticisers.eu)

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)

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

IVK Europe – Industrieverband Kunststoffbahnen e.V. (Plastic Sheets and Films Association – www.ivk-europe.com)

KALEI – Entreprises de Revêtements Techniques et Décoratifs, the French Association of Technical and Decorative Covering Converters (www.kalei-services.org)

KPMG – KPMG is a global network of professional firms providing audit, tax and advisory services (www.kpmg.com)

LCA – Life Cycle Assessment

LMW phthalates – Low Molecular Weight phthalates

1

2

3

4

5



GLOSSARY

NSRR – North Sea Resources Roundabout project, an international voluntary agreement between Flanders (Belgium), the Netherlands and the UK, which aims to tackle the legal and practical barriers that hamper the trade, transportation and uptake of secondary resources (www.circular.eu/project/north-sea-resources-roundabout/)

Operation Clean Sweep® – an international initiative from the plastics industry to reduce plastic pellet and powder loss to the environment (www.opcleansweep.org)

Pb – Lead

PlasticisersPlus – European Plasticisers' legal entity, based in Brussels, Belgium

P-PVC – Plasticised PVC

PRE – Plastics Recyclers Europe (www.plasticsrecyclers.eu)

PVC – Polyvinyl chloride

PVC Forum Italia – The Italian association of the PVC value chain (www.pvcforum.it)

RAC – Committee for Risk Assessment

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, the Recovynyl Regional Representative of UK

Recovynyl – Set up in 2003, Recovynyl is the organization aimed at facilitating PVC waste collection and recycling in the framework of the European PVC industry's Voluntary Commitments (www.recovynyl.com)

Resysta® – Recycling consortium (www.resysta.com/en/)

Roofcollect® – Recycling System for Thermoplastic Membranes (www.roofcollect.com)



GLOSSARY

R-PVC – Recycled PVC

ReVinylFloor – the organisation set up to stimulate sustainable controlled-loop solutions for the recycling and recovery of post-consumer PVC flooring in Europe (www.revinylfloor.org)

Rewindo – the German recycling initiative for PVC windows, roller shutter and related product (www.rewindo.de)

SDG Compass – Developed by GRI (www.globalreporting.org), the UN Global Compact (www.unglobalcompact.org) and the World Business Council for Sustainable Development (WBCSD – www.wbcsd.org), the SDG Compass (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

SEAC – Committee for Socio-Economic Analysis

SGS – Société Générale de Surveillance, the world's leading testing and verification organisation (www.sgs.com)

S-PVC – Suspension polyvinyl chloride

SSDC – Sectoral Social Dialogue Committee

TEPPFA – The European Plastic Pipes and Fittings Association (www.teppfa.eu)

The Natural Step – A sustainability NGO acting as critical friend and sustainability advisor to VinylPlus (www.thenaturalstep.org)

UN – United Nations

UNFCCC – United Nations Framework Convention on Climate Change

UNIDO – United Nations Industrial Development Organization

1

2

3

4

5



GLOSSARY

U-PVC – Unplasticised PVC

VCM – Vinyl chloride monomer

VFSE – Vinyl Films & Sheets Europe (www.vfse.org)

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)

WUPPI – Danish company set up to collect and recycle rigid PVC
(www.wuppi.dk)

1

2

3

4

5



MORE INFORMATION



MORE INFORMATION

VinylPlus

Avenue de Cortenbergh 71
B-1000 Brussels, Belgium
Tel. +32 (0)2 329 51 05
info@vinylplus.eu

www.vinylplus.eu

 [@VinylPlus_EU](https://twitter.com/VinylPlus_EU)