



10 YEARS

# VINYLPLUS AT A GLANCE

**2020** highlights and key achievements  
of the past 10 years

# About VinylPlus

Launched in 2011, VinylPlus® was the second 10-year Voluntary Commitment to sustainable development of the European PVC industry. Developed through open dialogue with stakeholders – including industry, NGOs, regulators, civil society representatives and PVC users, the VinylPlus programme addressed five key sustainability challenges identified on the basis of **The Natural Step** System Conditions for a Sustainable Society. The regional scope of the programme covered the EU-27 plus Norway, Switzerland and the UK.

Through the VinylPlus initiative, the European PVC industry aimed to:

- recycle 800,000 tonnes of PVC per year by 2020, 900,000 tonnes by 2025 and at least one million tonnes by 2030
- promote a sustainable use of additives
- improve PVC products sustainability and their contribution to sustainable development
- reduce progressively GHG (greenhouse gas) emissions as well as energy and resource consumption along the entire production chain
- move towards a low-carbon circular economy
- build sustainability awareness along the value chain and among stakeholders.



Involvement of the entire value chain, 200 partners across Europe



Concrete and measurable targets and deadlines



Research and innovation

Strong governance and accountability



Stakeholder engagement, transparency and dialogue



Around €120 million industry investment in sustainability in Europe since 2000



## FOUNDING MEMBERS AND PARTNERS

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



**3 national**  
associate members



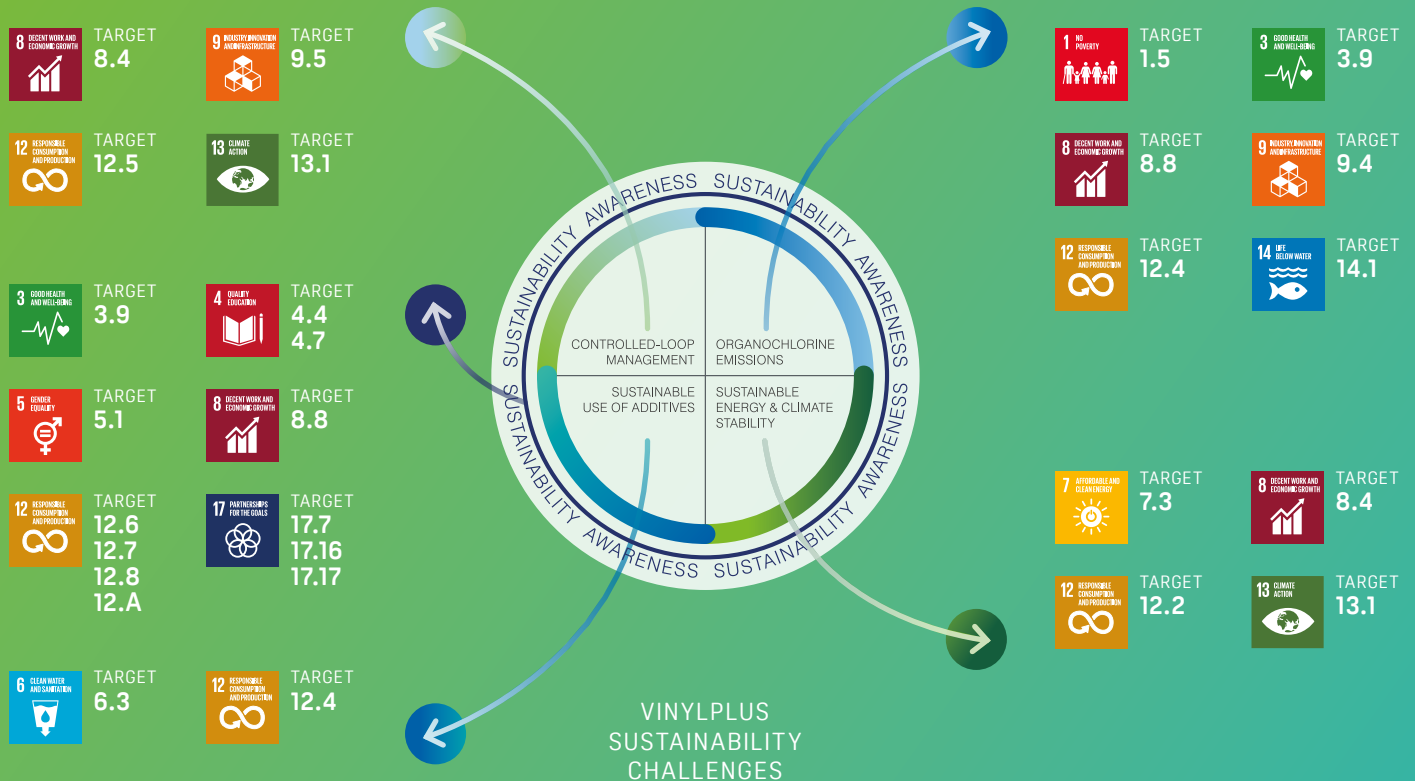
**recovinyl** plus  
150 recycler partners



The Natural Step

# VinylPlus Contribution to the SDGs

VinylPlus contribution to the Sustainable Development Goals (SDGs) has been assessed on the basis of the **SDG Compass** approach.



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*The role of VinylPlus aligns very well with the Sustainable Development Goals. VinylPlus allows industry to come together and discuss the main characteristics of sustainability and how they can contribute.*

*VinylPlus can make that visible for Governments, for civil society...*

**Stephan Sicars** | Director, Department of Environment, UNIDO



**PARTNERSHIPS FOR THE SDGs**  
GLOBAL REGISTRY OF VOLUNTARY COMMITMENTS & MULTI-STAKEHOLDER PARTNERSHIPS

VinylPlus is registered as a SMART partnership on the UN Partnerships for the SDGs Platform

# 10-Year Highlights

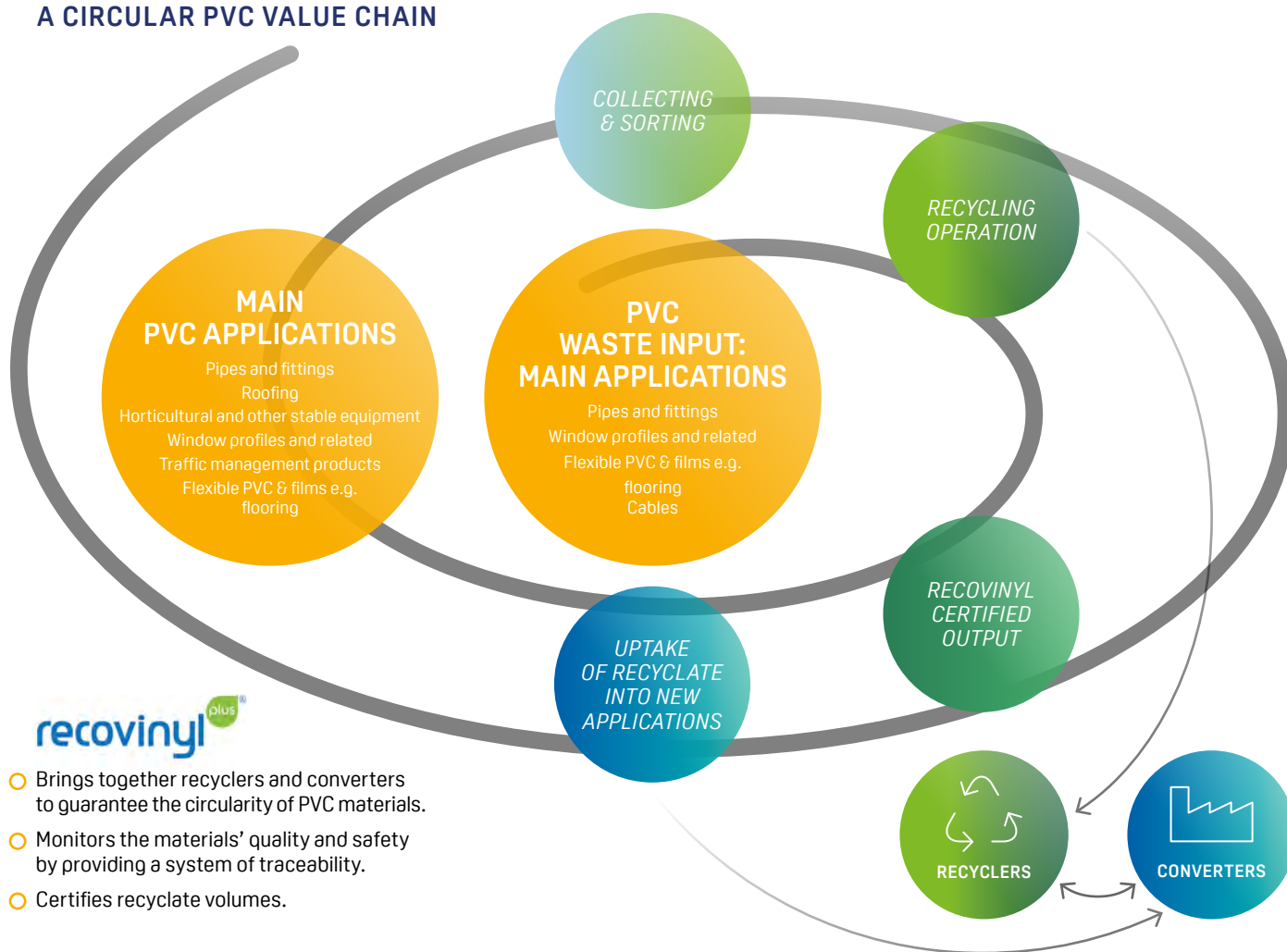
## CIRCULAR ECONOMY



*VinylPlus is a perfect example of how to make the Circular Economy a reality, being the first value chain in 2000 to take on the challenge of transforming a problem into an opportunity. In addressing the environmental concerns of PVC, VinylPlus and the industry came up with an ambitious and forward-looking approach: to organise, cooperate and communicate with the whole value chain, from the producer to the downstream user and the waste manager.*

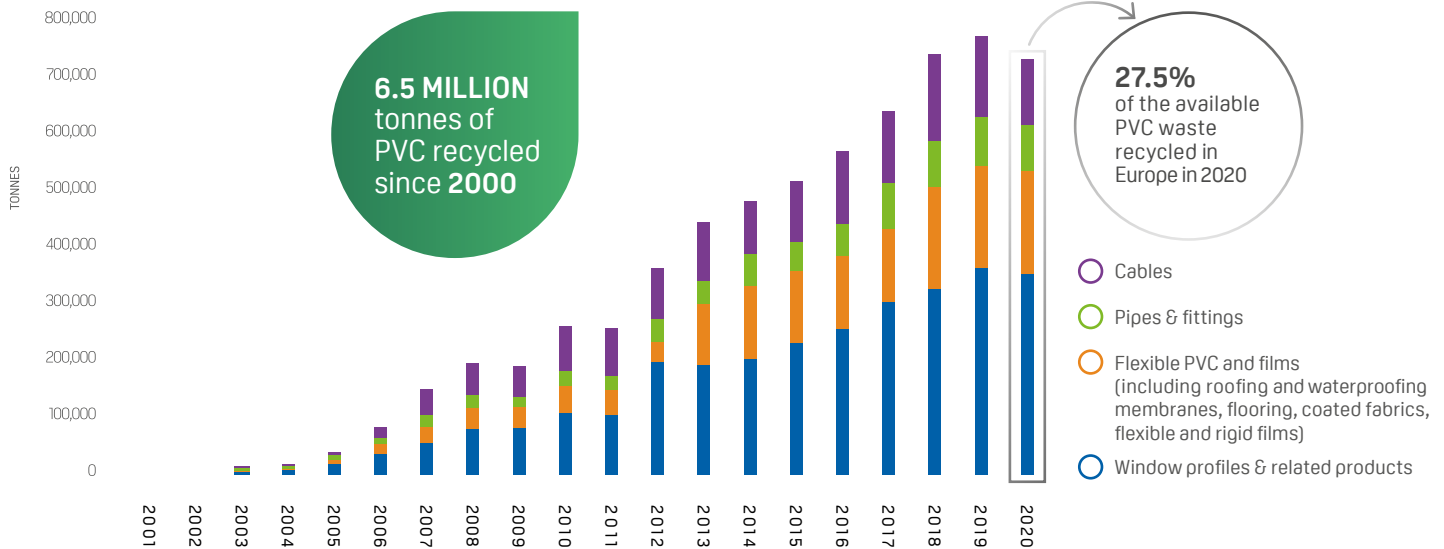
Kirsí Ekroth-Manssila | Head of Unit, DG GROW, European Commission

### A CIRCULAR PVC VALUE CHAIN





## PVC RECYCLED WITHIN THE VINYLPLUS FRAMEWORK



**6.5 MILLION** tonnes of PVC recycled since 2000



**13 MILLION** tonnes of CO<sub>2</sub> saved since 2000



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



**730,000** tonnes of PVC recycled in 2020 **+1.5 THOUSAND** direct jobs in recycling plants

### SUPPORTING INNOVATION

Looking at all the recovery options that might contribute to a circular economy



**29 DIFFERENT** recovery options investigated

### COMMITTED TO RECYCLING

**900,000 TONNES** of PVC recycled per year by 2025



**1 MILLION TONNES** of PVC recycled per year by 2030

# SUSTAINABLE CONSUMPTION AND PRODUCTION

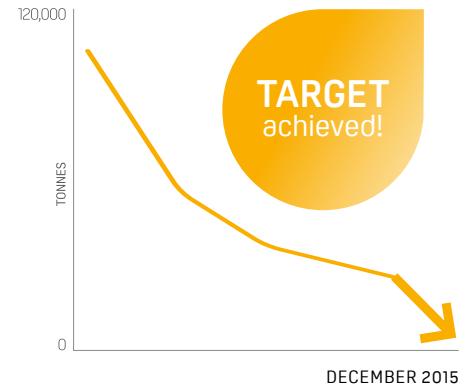
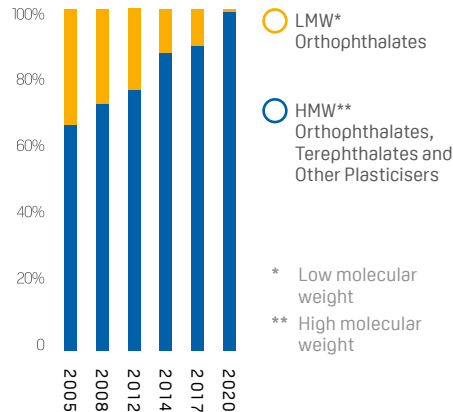
## EMISSIONS REDUCTION

### ECVM

Industry Charter for the Production of Vinyl Chloride Monomer and PVC:

- Emissions reduction.
- Participation in Operation Clean Sweep.®
- Workers' safety.
- Updated in 2019.
- Risk assessment for the transportation of major raw materials completed in 2015.
- Zero transport accidents in Europe with VCM release in the past 10 years.

## SUSTAINABLE USE OF ADDITIVES



- Methodology developed in collaboration with The Natural Step.
- Assesses the lifecycle sustainability of additives used in PVC products.
- Peer reviewed by LCA experts and validated.

### OVER €6 BILLION

invested by the European plasticiser industry for the transition from SVHC low molecular weight phthalates to innovative non-SVHC phthalates and other plasticisers.

- Lead-based stabilisers entirely replaced in the EU market by the end of 2015.
- Third-party certified LCAs for solid Ca-Zn stabilisers and for liquid mixed-metal Ba-Zn and Ca-Zn stabilisers.

## SUSTAINABLE USE OF ENERGY AND RAW MATERIALS

**-9.5% IN ENERGY** consumption and **-14.4% IN CO<sub>2</sub>** emissions in average production of PVC resins.

**BETWEEN -16% AND -26.5% IN ENERGY** consumption in main applications of PVC converting.

**NON-FOSSIL-BASED PVC** additives and compounds, as well as bio-attributed and circular-attributed certified PVC resins, are increasingly available on the market thanks to innovation by the industry.

## SUSTAINABILITY AWARENESS



### PARTNERING WITH SPORTS COMMUNITIES FOR SUSTAINABILITY

- She Runs – Active Girls' Lead 2019.
- European Week of Sport 2019.
- Brussels Yoga Day 2020.



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*I strongly believe that the Environmental Action we signed with VinylPlus for She Runs will pave the way for ISF and its members to start minimising the ecological footprint of our events.*

**Laurent Petrynka** | International School Sport (ISF) President, IOC Olympic Education Commission Member, and Ministerial Advisor in France



### SOCIAL DIALOGUE

Cooperation Agreement with the European Chemical Sectoral Social Dialogue Committee on concrete initiatives and action plans for workers' safety and education and for the digitalisation of SMEs.



### STAKEHOLDER ENGAGEMENT

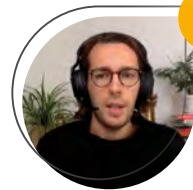
Continuous engagement with stakeholders and international institutions and organisations within technical, political and social communities for an open dialogue on the VinylPlus approach and progress towards sustainability.

- **8** VinylPlus Sustainability Forums organised
- **100+** active participations in major national and international conferences and scientific events
- **82** joint communications projects with European and national industry sector organisations and national PVC associations



### EMPOWERING CONSUMERS AND PUBLIC BUYERS THROUGH THE VINYLPLUS® PRODUCT LABEL

- The sustainability mark for PVC products developed by VinylPlus in cooperation with BRE and The Natural Step.
- Based on 20 sustainability criteria, including responsible sourcing and the VinylPlus challenges.
- By the end of 2020, **11** companies had been awarded the VinylPlus® Product Label for **128** products and product systems manufactured at **19** European sites.



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*The VinylPlus certification is an interesting initiative as it not only provides specific criteria for more sustainable PVC production and use, but also opens up discussion and stimulates producers to apply the principles through different approaches. It focuses on recycled content and upcycling potential but also contains aspects of demountability and even return policies.*

**Stijn Brancart** | Expert in Circular Construction, VIBE – the Flemish Institute for Bio-Ecological Building and Living



PHOTO: COURTESY OF BEER SINGNOI

1

## Challenge

CONTROLLED-LOOP  
MANAGEMENT



PHOTO: COURTESY OF BEER SINGNOI

2

## Challenge

ORGANOCHLORINE  
EMISSIONS

Made with PVC membranes, the Pylonesque project's space can be reconfigured as needed, into a canteen, classrooms, an event area, and an after-school hang-out spot. Furthermore, it responds architecturally and ecologically as a water harvesting system.

Pyramid modules made of PVC membranes characterise the Pylonesque project's multi-purpose space for a primary and middle school in Thailand. The structure provides functionality and aesthetics, as well as climatic sensitivity to monsoons and droughts.

# 2020 Highlights

- The COVID-19 pandemic provoked severe market disruption during the first half of 2020 and recycling operations decreased throughout Europe. In view of these circumstances, and against all odds, PVC waste recycling within the VinylPlus framework still reached an outstanding volume of 731,461 tonnes, only a 5% decrease from 2019.
  - Despite the difficult situation, VinylPlus activities remained focused throughout the year on ensuring progress on recycling targets and on R&D in new technical projects to expand collection and recycling schemes and to investigate other recycling technologies.
  - Since December 2019, VinylPlus has chaired the EU Circular Plastics Alliance (CPA) Construction Working Group. In 2020, this Working Group actively contributed to the Research and Development Agenda and the Design for Recycling Guidelines.
- 
- There were no transport accidents in Europe with VCM release in 2020, thus achieving the target of zero accidents over the 2011-2020 decade.
  - The PVC resin industry is committed to achieving full compliance with the updated ECVM Industry Charter for the Production of Vinyl Chloride Monomer and PVC by the end of 2021.







PHOTO: COURTESY OF VERSEIDAG

3

## Challenge

SUSTAINABLE USE  
OF ADDITIVES

Temporary structures for sports, events and exhibitions benefit of PVC's lightweight, easy installation, durability, re-usability and recyclability.

- The Additive Sustainability Footprint criteria (<https://vinylplus.eu/asf>) have been validated for the key additives used in generic rigid (window profile) and flexible (floor covering) PVC formulations.
- Estimates by European Plasticisers confirm a constant growth in the use of high molecular weight (HMW) orthophthalates, terephthalates and other plasticisers in Europe, together with a progressive decline (a 33% decrease compared to 2005) in the use of low molecular weight (LMW) orthophthalates.

- The energy needed to produce one tonne of PVC decreased by an average of 9.5% between 2007-2008 and 2015-2016. In the same period, CO<sub>2</sub> emissions were reduced by 14.4% for the average PVC production, including VCM.
- For converters, across main applications such as window profiles, pipes, flooring, films and sheets, energy consumption decreased between 16% and 26.5% in 2020 compared to 2010.
- The VinylPlus Status Report on Renewable Raw Materials was updated in October 2020.



PHOTO: COURTESY OF IVC

PVC is one of the most versatile and widely used polymers in the world. PVC continues to make life safer and more comfortable through its use in building and construction, water distribution, automotive, cabling, smart and credit cards, packaging, fashion and design, sports, agriculture, telecommunications, medical devices and a wide array of other areas and products.

PVC is an intrinsically low-carbon plastic, it is extremely durable and cost-efficient. PVC helps preserve resources and energy, and it can be recycled several times at the end of its life without losing its essential properties.



## Challenge

SUSTAINABLE USE  
OF ENERGY AND  
RAW MATERIALS



PHOTO: COURTESY OF STUDIO VELOCITY

PVC roofs allow flexible and creative solutions to designers. The twelve large white PVC roofs that float the upper part allow the entire site to be felt from inside, making it a liveable space.



A PVC coated polyester membrane was chosen to provide both acoustic insulation and an attractive textured finish for this eco-resort's organic architecture, fully integrated into the site.

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## Challenge

SUSTAINABILITY  
AWARENESS



- Due to the COVID-19 pandemic, the 8<sup>th</sup> VinylPlus Sustainability Forum (VSF2020) took place in Brussels, Belgium, in October 2020, in a new format, with few speakers and panellists in a TV studio and the others attending via livestreaming video conference. The virtual event attracted more than 180 participants.
- As part of its partnership with the sports community, VinylPlus was a main partner of the Brussels Yoga Day 2020 held on 21 June, the official International Day of Yoga established by the United Nations.
- In 2020, the VinylPlus® Product Label ([productlabel.vinylplus.eu](https://productlabel.vinylplus.eu)) was recognized as a Responsible Sourcing Certification Scheme within BREEAM, the world's most used green building standard. The Product Label has also been recognized in the new voluntary Sustainable Carpentry label launched by the Belgian Construction Certification Association, and it is now recommended to Belgian public purchasers in the Guide for Sustainable Purchases.

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*Thanks to our hard work and consistent commitments, VinylPlus has accomplished major achievements as a united value chain, recognized by many stakeholders, including the EU and national authorities.*

**Brigitte Dero** | Managing Director, VinylPlus



More information can be found in the VinylPlus Progress Report 2021, downloadable from [www.vinylplus.eu](http://www.vinylplus.eu).

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



## Beyond 2020

The European PVC industry journey started 20 years ago with Vinyl 2010 and continued with VinylPlus. The industry committed to collectively address challenges and opportunities, to increase the sustainability performance of PVC and to actively contribute to building the circular economy. As a united value chain, VinylPlus accomplished major achievements recognized by many stakeholders. As the industry approached the end of its second decade of Voluntary Commitments, consultations with stakeholders, inside and outside the industry, were carried out in 2020 to gather input, suggestions and advice on the priorities for the next 10-year Commitment running to 2030.

Focusing on accelerating the transition towards the circular economy, sustainable production and value-chain decarbonisation, as well as engagement with civil society and NGOs, the new Commitment is scheduled for official launch on 17 June 2021.

The programme will cover the EU-27 plus Norway, Switzerland, and the UK.

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*VinylPlus can be very proud of the fact that it recognized in 2000 that we would see an increasing international focus on the urgency of dealing with sustainability issues.*

*And when you look at the UN Sustainable Development Goals (SDGs), the Paris Climate Commitments in 2015, the European Green Deal and the European Commission communication related to Chemicals Sustainability, we are seeing an increased urgency. I think that VinylPlus anticipated that and has put the sector in a good position to move forward.*

**Paul Hohnen** | Founder, Sustainability Strategies



IN 2020, THE CONTRIBUTORS WERE:

## CONVERTERS:

**n. Kolckmann GmbH** (Germany)  
**Alfatherm SpA** (Italy)  
**alfer® Aluminium GmbH** (Germany)  
**Aliaxis Group** (Belgium)  
**Alkor Draka SAS** (France)  
**Altro** (UK)  
**Altro Debolon Dessauer Bodenbeläge GmbH & Co. KG** (Germany)  
**aluplast Austria GmbH** (Austria)  
**aluplast GmbH** (Germany)  
**alwitra GmbH & Co** (Germany)  
**AMS Kunststofftechnik GmbH & Co. KG** (Germany)  
**Amtico International** (UK)  
**APA SpA** (Italy)\*  
**Beaulieu International Group** (Belgium)  
**Berry Plastics** (Germany)  
**Bilcare Research** (Germany)  
**BM S.L.** (Spain)  
**BMI Group**, former Icopal Kunststoffverarbeitungs GmbH (Germany)  
**BT Bautechnik Impex GmbH & Co. KG** (Germany)  
**BTH Fitting Kft.** (Hungary)  
**CF Kunststoffprofilen** (Netherlands)  
**Chieftain Fabrics** (Ireland)  
**CIFRA** (France)  
**Danosa** (Spain)  
**Deceuninck Germany GmbH** (Germany)\*  
**Deceuninck Ltd** (UK)  
**Deceuninck NV** (Belgium)  
**Deceuninck SAS** (France)  
**Dekura GmbH** (Germany)  
**DHM** (UK)  
**Dickson Coating** (France)  
**Dow Europe GmbH** (Switzerland)\*  
**Dyka BV** (Netherlands)  
**Dyka Plastics NV** (Belgium)  
**Dyka Polska Sp. z o.o.** (Poland)  
**Dyka SAS** (France)  
**Elbtal Plastics GmbH & Co. KG** (Germany)  
**Epwin Poland Systems** (UK)  
**Ergis SA** (Poland)  
**Eurocompound Srl** (Italy)\*  
**Fatra a.s.** (Czech Republic)  
**FDT FlachdachTechnologie GmbH & Co. KG** (Germany)  
**Finstral AG** (Italy)  
**FIP** (Italy)  
**Forbo Flooring BV** (Netherlands)\*  
**Forbo Novilon BV** (Netherlands)\*  
**Forbo Sarlino SAS** (France)\*  
**Forbo-Giubiasco SA** (Switzerland)\*  
**Funzionano AS** (Norway)\*  
**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)  
**Holland Colours NV** (Netherlands)  
**Hundhausen Kunststofftechnik GmbH** (Germany)  
**IKA Innovative Kunststoffaufbereitung GmbH & Co. KG** (Germany)

Imerys Talc **Europe** (France)  
Imperbel NV (Belgium)  
Industrias REHAU SA (Spain)  
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)  
Low & Bonar GmbH (Germany)  
Lubrizol Advanced Materials **Europe BVBA** (Belgium)\*  
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)  
PACCOR Hungary Kft. (Hungary)  
Palram DPL Ltd (UK)\*  
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 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)  
PreZero Kunststoffrecycling GmbH & Co. KG (Germany)  
proline GmbH – International Profile Group (Germany)  
Protan AS (Norway)  
Redi (Italy)  
REHAU AG & Co (Germany)  
REHAU GmbH (Austria)  
REHAU Ltd (UK)  
REHAU SA (France)  
REHAU Sp. z o.o. (Poland)  
RENOLIT Belgium NV (Belgium)  
RENOLIT Cramlington Ltd (UK)  
RENOLIT Hispania SA (Spain)  
RENOLIT Ibérica SA (Spain)  
RENOLIT Milano Srl (Italy)  
RENOLIT Nederland BV (Netherlands)  
RENOLIT Ondex SAS (France)  
RENOLIT SE (Germany)  
Resysta International GmbH (Germany)  
Riflex Film (Sweden)  
Riuvret (Spain)  
Roehling Engineering Plastics KG (Germany)  
Salamander Industrie Produkte GmbH (Germany)  
Sattler PRO-TEX GmbH (Austria)  
Schüco Polymer Technologies KG (Germany)  
Serge Ferrari SAS (France)  
Sika Services AG (Switzerland)

**Sika Trocal GmbH** (Germany)  
**SIMONA AG** (Germany)  
**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)  
**Teraplast SA** (Romania)  
**Thomson Research Associates Inc.** (UK)  
**TMG Automotive** (Portugal)  
**Veka AG** (Germany)  
**Veka Ibérica** (Spain)  
**Veka Plc** (UK)  
**Veka Polska** (Poland)  
**Veka SAS** (France)  
**Verseldag-Indutex GmbH** (Germany)  
**Vescom BV** (Netherlands)  
**Vinilchimica Srl** (Italy)\*  
**Vulcaxflex SpA** (Italy)  
**Wavin Baltic** (Lithuania)  
**Wavin Belgium BV** (Belgium)  
**Wavin BV** (Netherlands)  
**Wavin France SAS** (France)  
**Wavin GmbH** (Germany)  
**Wavin Hungary** (Hungary)  
**Wavin Ireland Ltd** (Ireland)  
**Wavin Metalplast** (Poland)  
**Wavin Nederland BV** (Netherlands)  
**Wavin Plastics Ltd** (UK)

### PVC RESIN PRODUCERS:

**Ercros** (Spain)  
**INOVYN** (Belgium, 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)

## PVC STABILISER PRODUCERS:

Akdeniz Kimyon Kimya San. ve Tic. A.Ş.  
Asúa Products S.A.  
Baerlocher GmbH  
Galata Chemicals GmbH  
IKA GmbH & Co. KG  
PMC Group Inc.  
Reagens SpA  
Valtris Specialty Chemicals Ltd

## PVC PLASTICISER PRODUCERS:

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

**ASSOCIATE MEMBERS:**

British Plastics Federation (BPF) VinylPlus UK  
PVC Forum Italia (Italy)  
VinylPlus Deutschland e.V., former AGPU (Germany)