

VINYLPUS AT A GLANCE

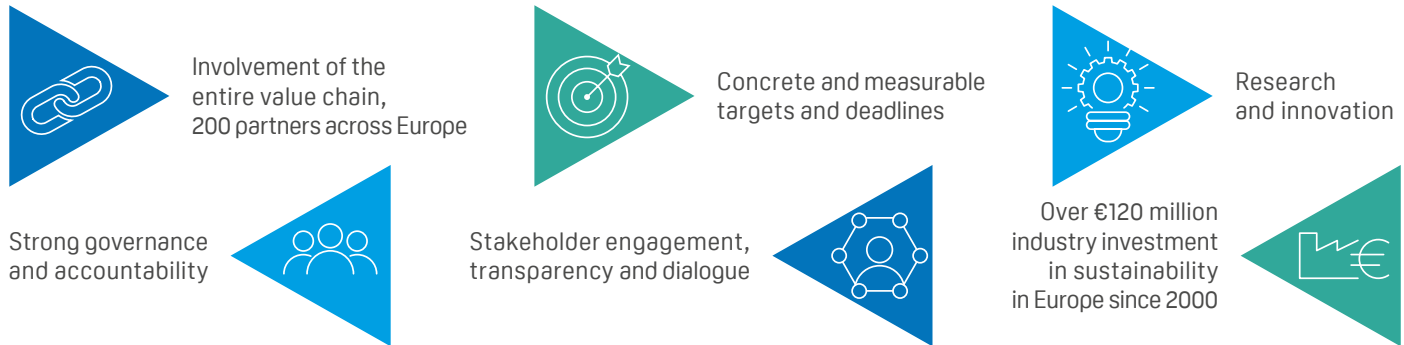
THE EUROPEAN PVC
INDUSTRY'S COMMITMENT
TO SUSTAINABLE DEVELOPMENT



vinyl **plus**[®]
COMMITTED TO
SUSTAINABLE DEVELOPMENT

ABOUT VINYLPLUS

VinylPlus® is the European PVC industry's commitment to sustainable development. Through VinylPlus, the European PVC industry is creating a long-term sustainability framework for the entire PVC value chain, improving PVC products' sustainability and circularity and their contribution to a sustainable society. It covers the EU-27, Norway, Switzerland and the UK.



FOUNDING MEMBERS AND PARTNERS

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



PVC: A SMART MATERIAL FOR A SUSTAINABLE SOCIETY

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.

Recyclable PVC membranes represent one of the most versatile solutions in modern architecture.



THE VINYLPLUS 2030 COMMITMENT

“Within the next 10 years, the resin and additives producers, converters and recyclers of the PVC industry will actively work together and share responsibility for accelerating the transition of the European PVC value chain to a circular economy. We will act as a pacesetter in innovation, collaboration and communication, adhering to science-based principles to demonstrate that PVC is a material of choice for a sustainable society, thereby acting at the forefront of the circular economy and sustainable development in the plastics sector both in Europe and worldwide”.

VinylPlus 2030 Commitment



Launched in June 2021, the **VinylPlus 2030 Commitment** has been developed bottom-up through industry workshops and with an outside-in approach to goal setting through an open process of stakeholder consultation.

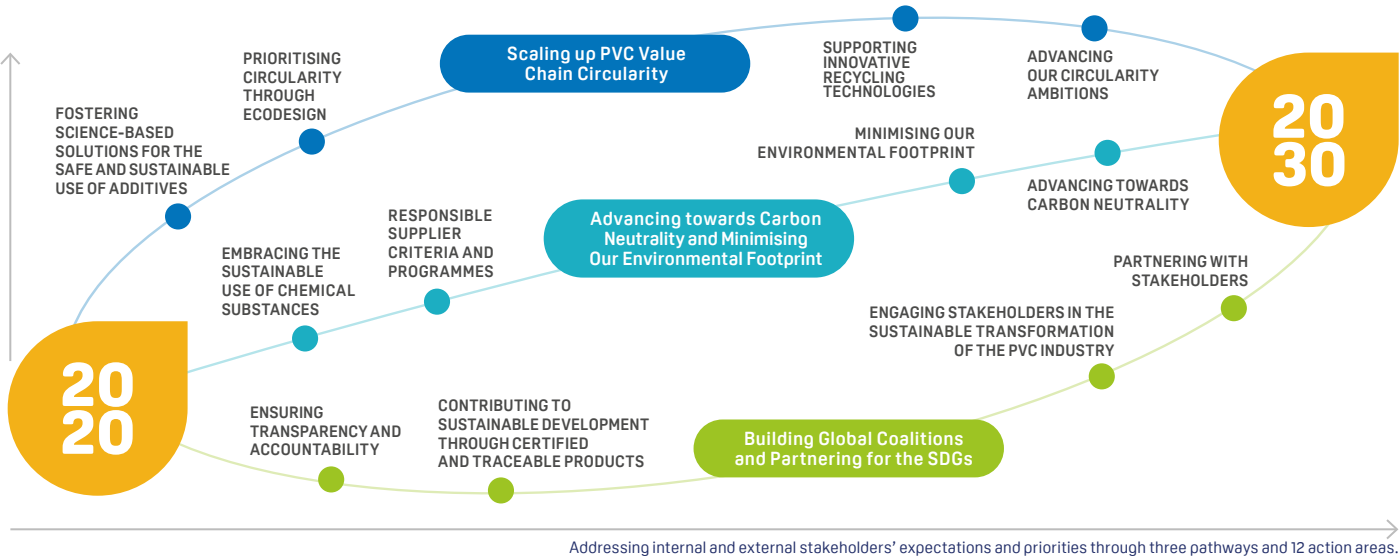
It addresses priorities at the European and global levels, aligning with the United Nations 2030 Agenda for Sustainable Development, with relevant EU policies under the European Green Deal, such as the EU Circular Economy Action Plan and the EU Chemicals Strategy for Sustainability, and embracing the EU Circular Plastics Alliance's (CPA) targets on the use of recycled plastics in new products.

With its next 10-year Commitment towards 2030, VinylPlus again confirms the united European PVC value chain's dedication to creating a sustainable future and to ensuring that PVC remains a safe and circular material, fit for the circular economy.

Brigitte Dero
Managing Director of VinylPlus

Three pathways have been identified for the next 10 years, encompassing 12 key action areas and 39 targets. All targets will be subject to a mid-term review in 2025 to take into account technological progress, as well as the evolution of socio-economic, regulatory and environmental trends at the European and global levels.

Through its Commitment, VinylPlus aims to contribute proactively to addressing the global sustainability challenges and priorities identified in the UN SDGs.



2021 ACTIVITIES

PATHWAY 1

CIRCULAR ECONOMY

SCALING UP PVC VALUE CHAIN CIRCULARITY



"The PVC industry embraces the circular economy. We commit to building upon the achievements made over the last 20 years to accelerate towards circularity. We aim to ensure controlled-loop management of PVC, from circular product design, the development of additional collection schemes and advanced recycling technologies, to ensuring the safe use of recyclate in new high-performance, durable products."



COMMITTED TO RECYCLING

900,000 TONNES
of PVC recycled
per year by 2025

1 MILLION TONNES
of PVC recycled
per year by 2030

Through Pathway 1, the European PVC industry has confirmed the recycling commitments made to the European Commission in the framework of the EU CPA and possibly to go beyond these. In addition, VinylPlus will support R&D and innovation in three areas:

- improve existing collection and recycling schemes and set up new ones for additional PVC streams
- support the development of chemical recycling and other recycling and sorting technologies
- investigate solutions to detect, sort, and remove legacy additives from end-of-life PVC products.

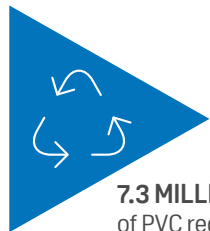
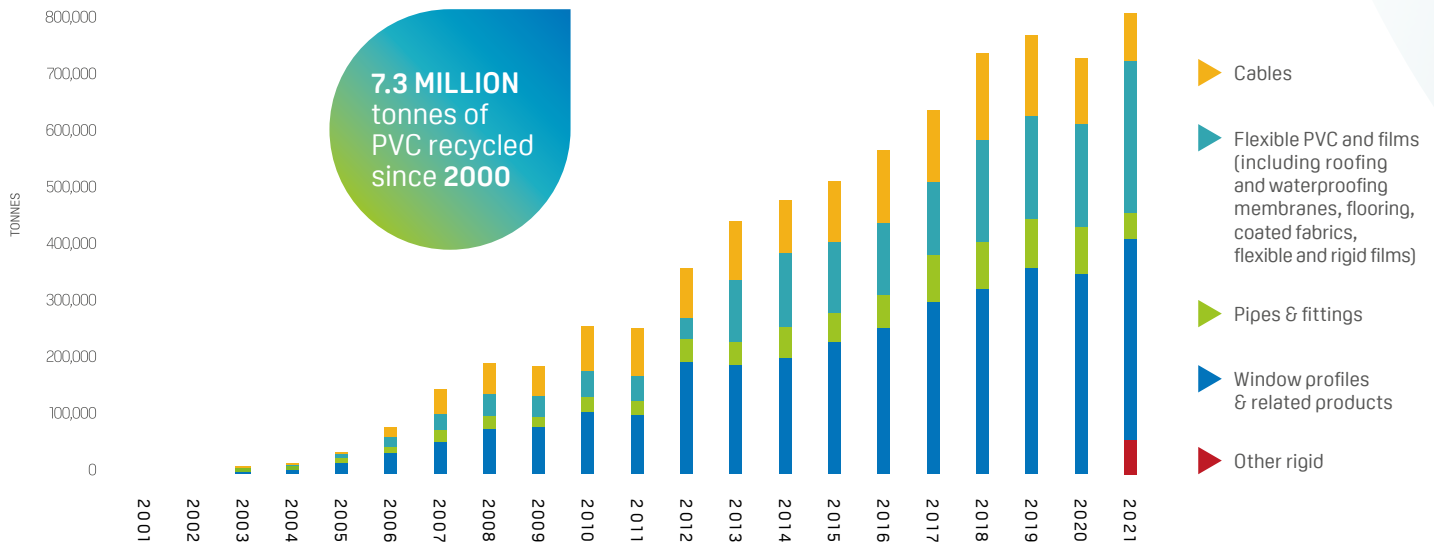
Circularity targets

- Despite the COVID-19 pandemic, 810,775 tonnes of PVC waste were recycled within the VinylPlus framework.
- The Circular Vinyls Committee (CVC) finalised revision of the **VinylPlus recycling definitions**, according to the new CPA terms and methodology.
- RecoTrace™ – the data collection system developed by Recovini® to monitor, verify, and report PVC recycling and uptake in Europe, is now integrated in the CPA's systems and extended to other plastics. RecoTrace™ is the first system to comply with the CPA Monitoring Requirements and Audit Protocol.



Single-use, PVC-based medical devices are fundamental in hospitals. Besides being hygienic, safe and affordable, PVC is easily recyclable.

PVC RECYCLED WITHIN THE VINYLPLUS FRAMEWORK



7.3 MILLION tonnes of PVC recycled since 2000



14.5 MILLION tonnes of CO₂ saved since 2000



+1.6 THOUSAND direct jobs in recycling plants

RecoTrace™

Recovinyl monitors, verifies, and reports European PVC recycling tonnages and the use of this material through its data collection system RecoTrace™



RECYCLING ACTIVITY

Recyclers and converters register how much PVC waste they have recycled

BRINGING TOGETHER
RECYCLERS AND CONVERTERS
TO GUARANTEE
THE CIRCULARITY OF PVC



CONVERTING ACTIVITY

Converters register how much recycled PVC material has been used in new products



Research, innovation and best practices

- › In 2021, VinylPlus supported 6 projects aimed at improving existing collection and recycling schemes, 3 of which – VinylPlus® Med, RecoMed and VinylPlus® PharmPack – dedicated to advancing circularity in the healthcare sector.
- › Revinylfloor and REMADYL projects continued their activities aimed at reducing and removing legacy additives in PVC waste streams.
- › RecoChlor® is the new VinylPlus programme dedicated to the PVC waste treatment methodology to recover and recycle chlorine from difficult-to-recycle end-of-life PVC products.
- › 3 technical projects are currently investigating and developing sorting and separation technologies for complex (e.g., composite) PVC products.

Recyclable resilient PVC flooring guarantees hygiene, safety and comfort in every environment.



PATHWAY 2

DECARBONISATION AND ENVIRONMENTAL FOOTPRINT MINIMISATION



ADVANCING TOWARDS CARBON NEUTRALITY AND MINIMISING OUR ENVIRONMENTAL FOOTPRINT

“Sustainable chemistry and carbon neutrality are at the heart of a sustainable economy. By applying a science-based approach, we commit to ensuring that all PVC products, including their supply chains and manufacturing processes, continue to reduce their impact on human health and the environment.”

Pathway 2 recognizes the need to take urgent action to combat climate change in line with the European Commission’s Green Deal targets; to minimise the environmental footprint of production processes and products in line with the EU Chemicals Strategy for Sustainability; and to increase resource efficiency in consumption and production.

Two dedicated VinylPlus Committees, the newly established Environmental Footprint Committee (EFC) and the Sustainable Use of Additives Committee (SAC), will coordinate VinylPlus efforts to achieving Pathway 2 targets.

- In 2021, VinylPlus continued to support the sustainable use of additives with one of its flagship initiatives, the **Additive Sustainability Footprint®** (ASF) methodology.
- The first target of VinylPlus 2030 was achieved in December 2021 with the organisation of the webinar focused on the ASF methodology.
- European VCM and PVC plants are being third-party verified in 2022 to assess that compliance with the updated ECVM Industry Charter had been achieved by the end of 2021.



Shifting towards renewable energy and material feedstocks to mitigate climate change impacts is a responsibility for all of us: producers and consumers. It is good to see that also the European PVC industry sets a clear commitment in this direction with VinylPlus 2030.

Prof. Dr Ir. Jo Dewulf

Faculty of Bioscience Engineering, Ghent University

**Additive
Sustainability
Footprint®**
Methodology

- 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.

PATHWAY 3

COALITIONS AND PARTNERSHIPS

BUILDING GLOBAL COALITIONS AND PARTNERING FOR THE SDGs

"Representing the united European PVC value chain as VinylPlus, we commit to ensuring transparency and accountability in its relationships with all stakeholders. Engaging with key stakeholders, including brand owners and specifiers, we will contribute to sustainable development through certified and traceable products. We will continue partnering with civil society, European and global organisations, as well as with the global PVC communities, to share our best sustainability practices and contribute to the UN SDGs."

Pathway 3 addresses broader societal needs guaranteeing transparent reporting, contributing to sustainable development through certified and traceable products, proactively engaging stakeholders in the sustainable transformation of the PVC industry and promoting partnerships and coalitions at the local, regional and global level.

Ensuring transparency and accountability

- As with the previous Commitments, an independently verified and audited report detailing the progress being made against each target will be published annually and proactively circulated to relevant stakeholders.
- To guarantee maximum transparency, participation and accountability, VinylPlus works with an independent Monitoring Committee including representative of:



PVC products save energy and are vital in renewable energy technologies.

What are some of the commendable actions on the ground from the private sector, particularly VinylPlus? You have created an excellent pre-competitive space for industry on circularity, which we usually point to when we talk with other stakeholders. The voluntary R&D supported by the value-chain actors and your Commitment for 2030 are very valuable, as are your efforts to exchange experiences and information globally.

Nilgün Tas | Deputy Director, Department of Environment, UNIDO





PVC window profiles can play an important role in reducing energy loss in buildings. 355,329 tonnes of PVC windows and related profiles were recycled in the framework of VinylPlus in 2021.



THE VINYLPLUS®
PRODUCT LABEL
CONTINUES TO EXPAND:

11 companies have been
awarded the Label for
130 products and product
systems manufactured at
22 European sites.

Promoting sustainable private and public procurement practices

- The **VinylPlus® Product Label** is a third-party-certified sustainability scheme for PVC products in the building and construction (B&C) sector, developed in cooperation with BRE and The Natural Step.
- In 2021, the VinylPlus® Product Label has been recognized as a label for sustainable products on circubuild.be, the Belgian website referencing best practices for circular buildings.
- Two new sustainability schemes, the **VinylPlus® Supplier Certificates** (VSC) for additive producers and compounders that are partners of VinylPlus, have been finalised and approved.



Sustainability is no longer a topic for Sunday speeches but offers competitive advantages.

As architects, we are increasingly being urged by developers to only install certified sustainable products, because their end customers are international investment funds that only include sustainable buildings in their funds based on their ESG criteria. The VinylPlus® Product Label, as the first sustainability label for plastics recognized by BREEAM, qualifies PVC windows for use in sustainable buildings, securing market opportunities.

Professor Bernhard Franken | Franken Generalplaner GmbH



Engaging stakeholders and building partnerships

- The 9th VinylPlus Sustainability Forum (VSF2021), #Towards2030, was the occasion of the official launch and signing ceremony of the VinylPlus 2030 Commitment. VSF2021 took place on 17 June 2021 as a hybrid event and brought together more than 500 stakeholders from 44 countries.
- In October 2021, VinylPlus main achievements of the last two decades and the next 10-year Commitment were presented at the World Resources Forum (WRF), the multi-stakeholder dialogue to put the Earth's resources at the heart of the global green transition.



The European PVC industry, through VinylPlus, has a role to play in the large-scale renovation efforts that were identified by the European Commission as key areas for investment thanks to their potential to improve the environmental footprint of buildings across the EU and to create jobs.

Ondřej Knotek | Member of the European Parliament

Through the **Green Community Growth in Reused PVC** project, the PVC Information Council Denmark promoted the reuse of end-of-life PVC pipes as a go-to material for community-building urban gardening in Denmark.



PHOTO: VINYLPLUS®

As part of its engagement with the sports community, VinylPlus renewed its partnership with **Belgium Yoga Day**, the 2021 edition of which was held on 20 June. VinylPlus provided PVC yoga mats for the event, which were donated afterwards to hospitals and youth associations.



DOWNLOAD
the VinylPlus Progress
Report 2022 from
www.vinylplus.eu



VINYLPUS PARTNERS

IN 2021, THE CONTRIBUTORS WERE:

CONVERTERS:

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 Altro Debolon Dessauer Bodenbeläge GmbH & Co. KG (Germany)
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 Shin-Etsu PVC (Netherlands, Portugal)
 VESTOLIT GmbH (Germany)
 Vinnolit GmbH & Co. KG (Germany, UK)
 Vynova Group (Belgium, France, Germany, Netherlands, UK)

PVC STABILISER PRODUCERS:

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 Baerlocher GmbH
 Galata Chemicals GmbH
 IKA GmbH & Co. KG
 PMC Group Inc.
 Reagens SpA
 Valtris Specialty Chemicals Ltd

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

ASSOCIATE MEMBERS:

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

* Companies that joined VinylPlus in 2021

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