PVC 3D: Design • Data • Dialogue

Educating the value chain for circular windows toward a circular future

Project Overview

PVC 3D is a 2026 European project led by EPPA in collaboration with VinylPlus. It aims to improve circularity of PVC window systems by addressing key structural challenges across the value chain: fragmented recycling practices, inconsistent data, and limited adoption of eco-design principles.

Key Challenges → Project Response

1. Fragmented dismantling and collection practices → Development of harmonised eco-design guidance
2. Inconsistent recyclate quality → Waste-stream mapping and design-for-recycling recommendations
3. Lack of product data → Development of Digital Product Passport (DPP) tools
4. Skills gaps across value chain → Training programmes and learning materials
5. Regulatory pressure → Alignment with EU circular economy and eco-design frameworks

Core Pillars

1. DESIGN: Eco-design principles, design-for-disassembly, recyclability guidelines
2. DATA: Digital Product Passport (material composition, traceability, end-of-life instructions)
3. DIALOGUE: Stakeholder engagement, training, awareness and collaboration

Concrete Deliverables (2026)

1. Eco-design & DPP Guidance (outline Q1 → draft Q2 → final Q4)
2. DPP starter toolkit (core data fields, templates, implementation guidance)
3. Waste-stream mapping (flows, contamination points, barriers, solutions)
4. Stakeholder exchange reports (industry + policymakers)
5. Training sessions + reusable learning materials
6. Case studies & success stories (minimum 3)
7. Civil society explainer (plain-language communication)

Key Project Activities

1. Development of eco-design guidelines including checklists and practical examples
2. Data collection via surveys and targeted interviews (recyclers, manufacturers, operators)

3. Stakeholder workshops (eco-design + DPP focus sessions)
4. Communication via website, LinkedIn campaign and newsletters
5. Collection of real industry case studies

Timeline (2026)

1. Q1: Project setup, guidance outline, baseline data collection
2. Q2: Draft guidance, stakeholder exchanges, training launch
3. Q3: Validation, feedback integration, waste mapping consolidation
4. Q4: Final outputs (guidance, DPP tools, case studies, dissemination)

Expected Impact

1. Improved recyclability of PVC windows through eco-design
2. Increased transparency and compliance via DPP
3. Higher quality and volume of recycled PVC
4. Reduced costs and improved market competitiveness
5. Stronger positioning of PVC in EU circular economy policy

Strategic Value

The project directly supports VinylPlus 2030 commitments, particularly improving recycling performance and strengthening collaboration across the PVC value chain. It contributes to EU policy discussions on eco-design, Digital Product Passport and circular economy implementation.

Call to Action

The success of PVC 3D depends on active stakeholder contribution. Members are invited to provide input, case studies and feedback to ensure practical and impactful results.