



Transition to Safe and Sustainable Chemicals

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Bio Base Europe Pilot Plant



"Enable the transition to a sustainable bio-based economy"

Scale-up

Economic Viability Robustness Efficiency & Sustainability Demonstration

Industrial Equipment Validation Sample Production Product Quality / Specs

Custom Manufacturing

Demonstration **Market Introduction Gain Production Experience** Prepare for Industrial Production **Production with** pre-industrial, state-of-the-art equipment

Open acces pilot plant

Independent non-profit SME

Service provider



Process Development

WHY

Cost Efficiency Scalability Sustainability

HOW

Technology Transfer Development & Optimisation **Proof of Concept**







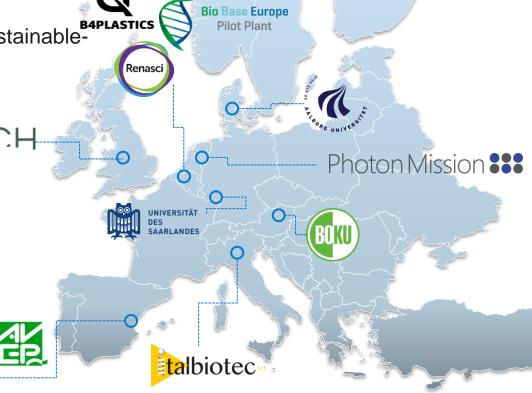
REPurpose

Repurposing post-consumer waste into recyclable rubbery plastics

HORIZON-CL4-2021-RESILIENCE-01-11 - Safe- and sustainable by-design polymeric materials (RIA)

- 6.06 M€ EU contribution
- Coordinated by Bio Base Europe Pilot Plant
- 9 partners and 1 associated partner









REPurpose concept

Recyclable Elastomeric Plastics safely and sUstainably designed and produced via enzymatic Recycling of Post-cOnsumer waSte strEams



Local post-consumer waste



Project scope

Develop and **validate** the production of a platform of **safe- and sustainable-by-design**, additive-free thermoplastic elastomer prototypes from local post-consumer waste with intrinsic biodegradability and recyclability properties



Recyclability, biodegradability & safety by Design



Enhance SSBD processes in the plastics sector



Demonstrate sustainable conversion for elastomeric plastics



Strengthen public awareness and support for sustainable plastics standards





End User Group (EUG)

- Focus on 3 sectors: building & construction, automotive & transport, and consumer goods
- Role: Application testing, feedback and advice on material requirements
- Outcome: co-development of new plastics and end products, techno-economic validation of the project











YOU?

Advisory Board (AB)

Role: Advice, feedback, and support on REPurpose methodology and solutions













Challenges in SSBD



Interdisciplinary research



Public awareness & education



Chemistry vs Biotechnology



How to incentivize industry?





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