

Flexible plastic packaging: Obstacle or opportunity for Europe?

March 2026

Collective action for a circular economy



Alliance Board Meeting (right to left) Jim Fitterling, Chair and CEO, Dow; Jon Moeller, Executive Chairman of the Board, Procter & Gamble

Industry-Led, Value Chain-Wide

A non-profit with strong business principles

Our purpose

Leading the creation of a circular economy for plastic

Our vision

Ending plastic waste and pollution

Focused on Action

- A “do tank” focused on impact
- Testing, demonstrating, and proving solutions at scale

Since 2019, 70+ projects:



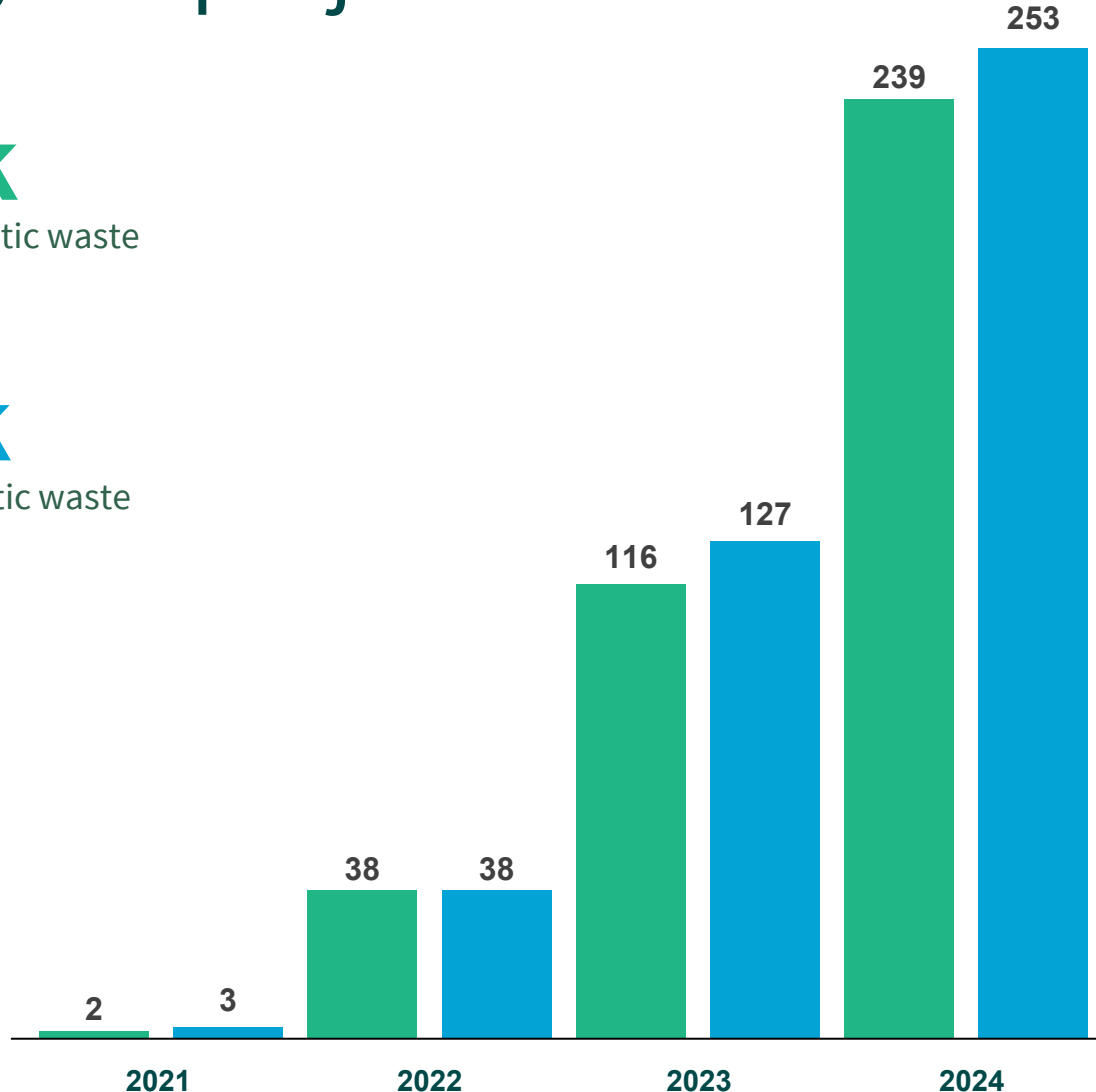
239k

tonnes of plastic waste collected



253k

tonnes of plastic waste recycled



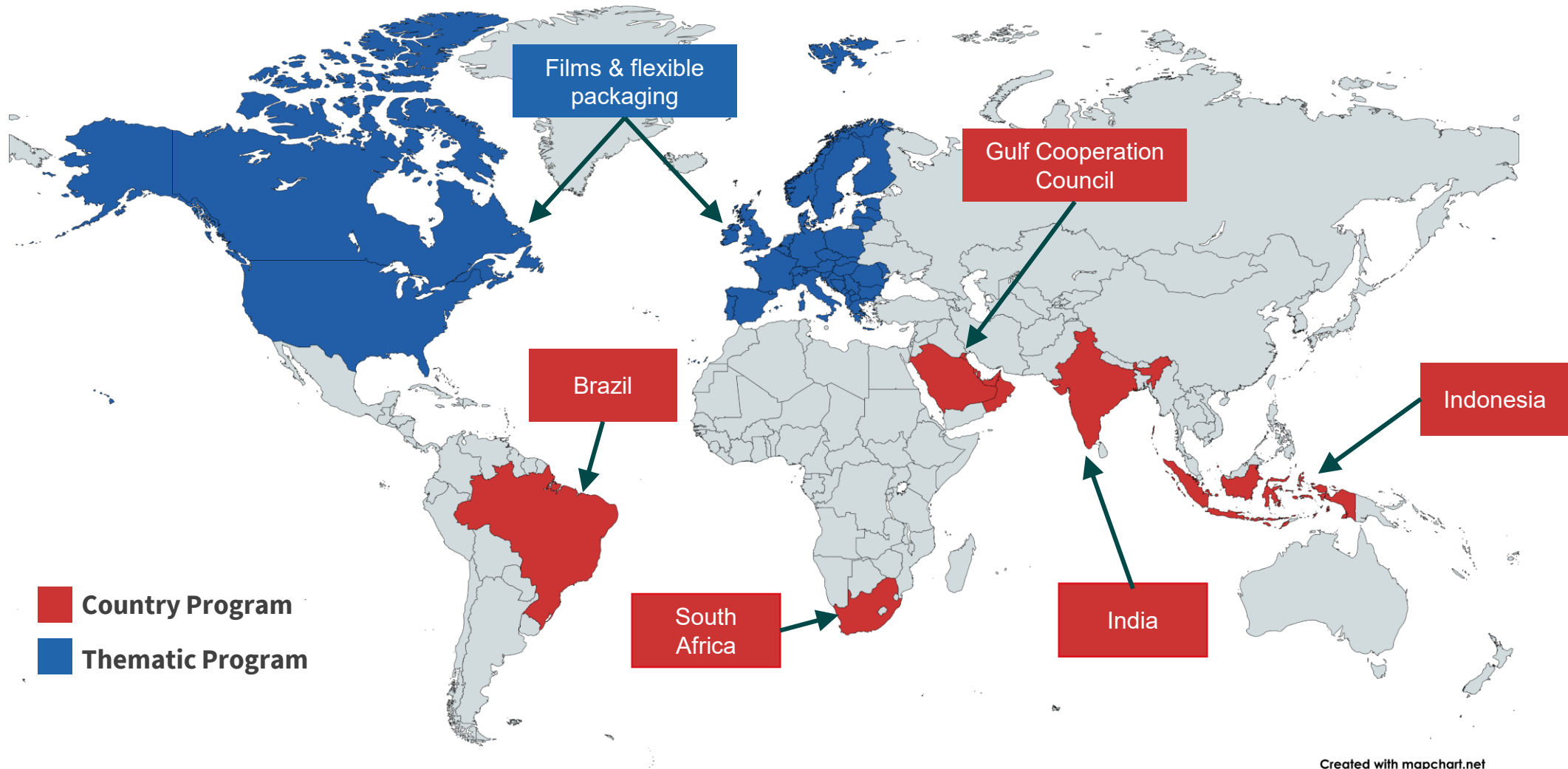
US\$570m

raised and pledged to the Alliance

US\$610m

of additional funding raised for Alliance work from other parties

We structure our work as large-scale programs



Flexibles: Rising demand, but limited recycling



Highly sophisticated products

- Central to modern life
- 50% of global plastic packaging market
- US\$200bn a year
- Market growing by around 5% a year



Key to sustainability in other industries

- Extends shelf life for food and medicine, reducing wastage
- Reduces packaging and product weight, lowering carbon emissions



But weak recycling rates

- 15% in the EU
- 5% in the US

Flexibles: The challenge



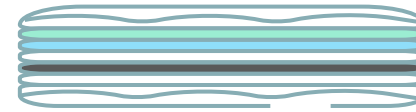
Lightweight nature

- Difficult to separate at source
- Difficult to collect
- Hard to separate with automated machinery
- Tends to stick to other materials, esp paper



Challenging quality requirements

- Film production needs very consistent and high-quality material
- Tiny defects in the polymer quality compromise strength and quality of films



Complexity of materials

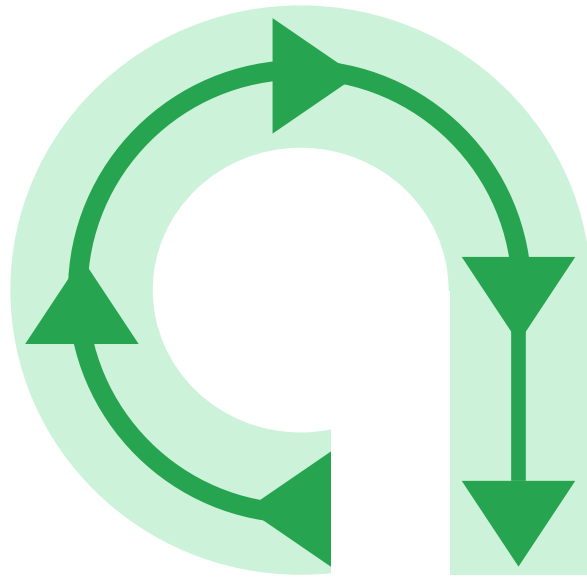
- “Flexibles” covers a vast range of different polymers, chemicals, additives, adhesives, inks etc
- Even a single film can include multiple layers of material



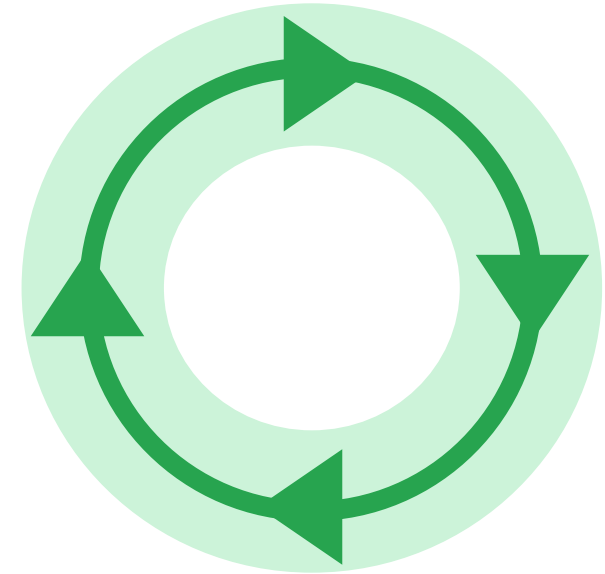
High-cost solutions

- The cost of collection, sorting and recycling for flexibles are high relative to the intrinsic end-market value
- Makes it hard to compete with virgin plastic on price

Pressure is rising to solve the challenge



• PPWR in the EU
• SB54 and EPR roll-out in USA



- Current recycling of flexibles tends to be open loop
- Materials are downcycled into products such as plastic lumber and bin bags

- But regulations are calling for closed loop systems
- Brands must incorporate PCR into their packaging

A dedicated program for flexible packaging



Launched in 2025

Focus: EU & North
America

US\$100m of funding

A set of projects to
deliver systems change

Goals: Test and validate different solutions that are needed in order for brands and retailers to meet their EPR and regulatory obligations

- Not about individual technologies, but joining together all the parts of a solution to test new pathways for waste materials
- Technical viability
- Economic viability
- Ability to deliver PCR at the required quality and consistency

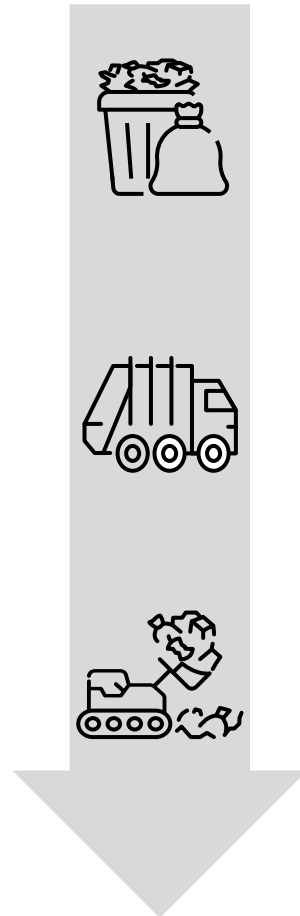
We start by mapping the end markets

The old way: Push

What do we do with the waste?



Ends up being downcycled, landfilled and incinerated



The new way: Pull

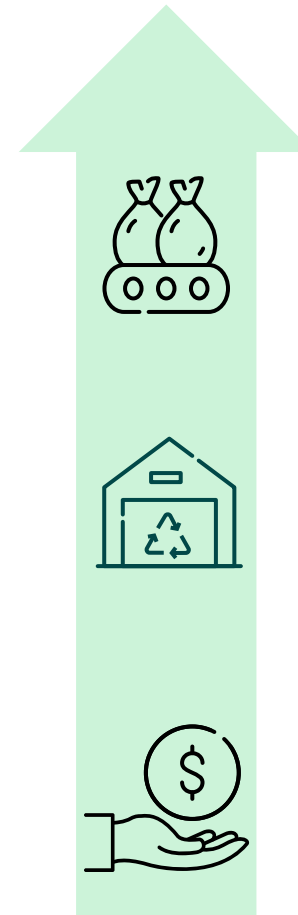
What infrastructure and technology is needed to deliver the quality? And where are the gaps?



What qualities of material are needed?



What does the market want?



Two workstreams: EU and North America



Europe

High maturity: quality gap

- EPR well established
- Plastic waste is well collected and sorted, but not to the quality needed for recycling
- Mapping of end markets and quality needs – done
- Strategic focus: Enabling quality by upgrading existing systems, and supporting build out of new fit-for-purpose infrastructure



USA

Low maturity: infrastructure gap

- EPR emerging (10 states so far)
- Curbside collection for flexibles is rare, and MRFs largely do not accept films
- Mapping of end markets and quality needs – underway
- Strategic focus: Building basic collection and recovery systems, and upgrading primary and secondary sorting infrastructure



Project: Quality of PP recyclates in Belgium



Phase I: Create a blueprint

- Understand the end market quality needs for recycled polypropylene films
- Quality for both food-contact and non-food grade
- Line up different sorting and recycling pathways for waste plastic that can meet these quality requirements
- Test and demonstrate that these pathways can deliver – infrastructure, technology, economics

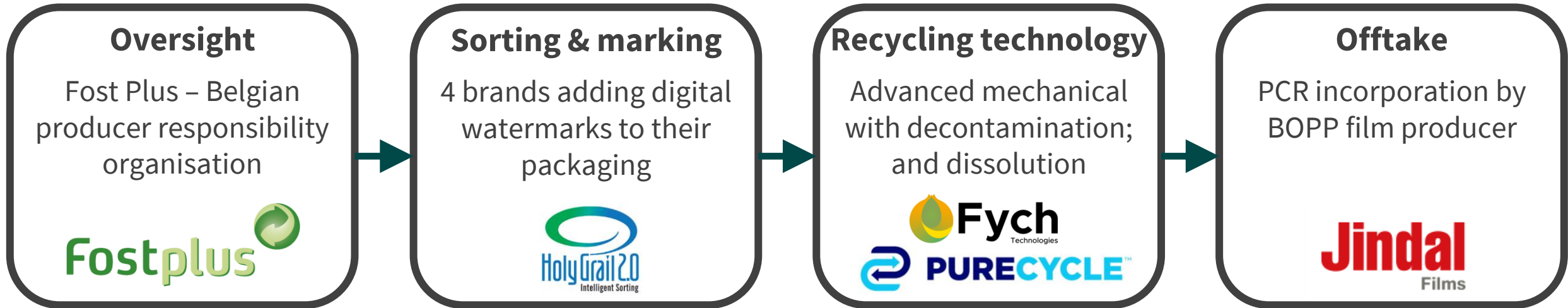
Phase II: Scale the blueprint

- Phase I is concentrated in Belgium
- Phase II will take the learnings from Belgium and scale up with PROs in other European countries





Project: Quality of PP recyclates in Belgium



Other examples from our Flexibles Program

Advanced decontamination



- We funded Nextec Engineering to develop a new decontamination technology for polyolefin waste
- The system uses super-critical CO₂ to clean flexible packaging back to food-grade quality
- The technology is now in industrial trials in the UK with Coveris, a Swiss converter

Microwave pyrolysis



- We funded Greenback to build a demonstration plant in Mexico for a small-scale modular pyrolysis unit next to a landfill, diverting plastic waste as it arrives
- Using Enval technology, it shows a recycling model of lots of small-scale plants co-located next to waste sources, rather than a large centralized plant to which waste must be transported

*Join us... We are **making your plastic circular***



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