Design for Sustainability

Mechanical Recycling in Plastics

What is mechanical recycling?

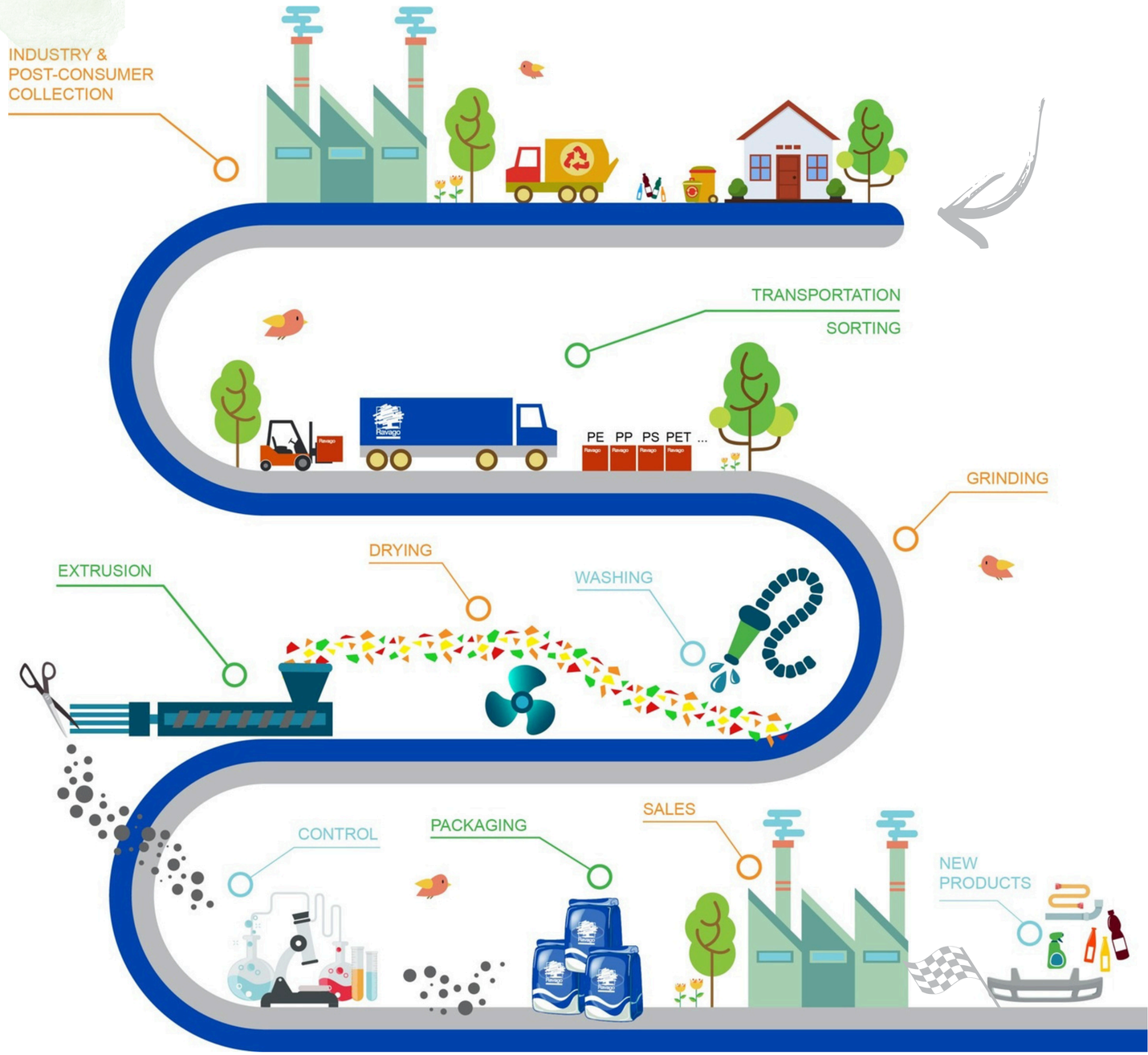
Mechanical recycling is turning waste into a valuable resource: plastic waste from post industrial (PIR) and post consumer (PCR) recycling streams is recovered and reused.
Instead of being discarded, the plastic waste is transported, sorted, shredded into flakes, cleaned and finally extruded back into pellet form for reuse.

Why it matters?

Mechanical recycling is a well-established process that supports the circular economy concept, reducing waste and our dependence on non-renewable resources. Compared to manufacturing bio-based polymers or chemical recycling, mechanical recycling has a relatively low energy consumption, helping to reduce the environmental impact of the final product.

Why should you use recycled polymers?

- **Lower carbon footprint:** reduced greenhouse gas emissions versus virgin material
- **Meet recycled-content targets:** a practical way to deliver PCR/PIR content in real products, not just pledges.
- **Traceability and compliance:** documentation and control to support regulatory and customer requirements.
- **Visible circularity:** a sustainability benefit your customers can recognise, especially on consumer goods and visible parts.
- **Greater supply resilience:** diversified feedstock can reduce exposure to virgin price volatility and supply shocks.
- **Engineered performance:** with compounding (additives, fillers, stabilisers), recycled polymers can be tuned for demanding applications.



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