



Circular Production Program

Transforming Hard-to-Abate Plastic Waste
into Value

**PHDCCI GLOBAL SUMMIT ON
SUSTAINABILITY 2025**

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Why This Matters

- Plastics like PP, ABS, and HIPS are critical in automotive, packaging, and electronics.
- They are hard to abate due to their fossil origin, complex waste streams, and quality barriers.
- The Circular Production Program offers end-to-end solutions for B2B partners.



The Challenges faced by **Brands**

Challenge 1 – Lack of Waste Visibility

- Brands and manufacturers often don't know the scale or type of plastic waste across operations.
- Difficult to identify recyclable vs. non-recyclable streams.

Challenge 2 – Inefficient Recovery

- Scrap is often left unused or sold into unorganized channels.
- Companies lack structured systems for returning production waste.

Challenge 3 – Quality Loss in Recycling

- Conventional recycling reduces mechanical strength & aesthetics.
- Recycled resins often fail industry specifications.

Challenge 4 – Limited Usability of Recycled Plastics

- Manufacturers doubt recycled resins can meet technical performance.
- Concerns over durability, heat resistance, and reliability.

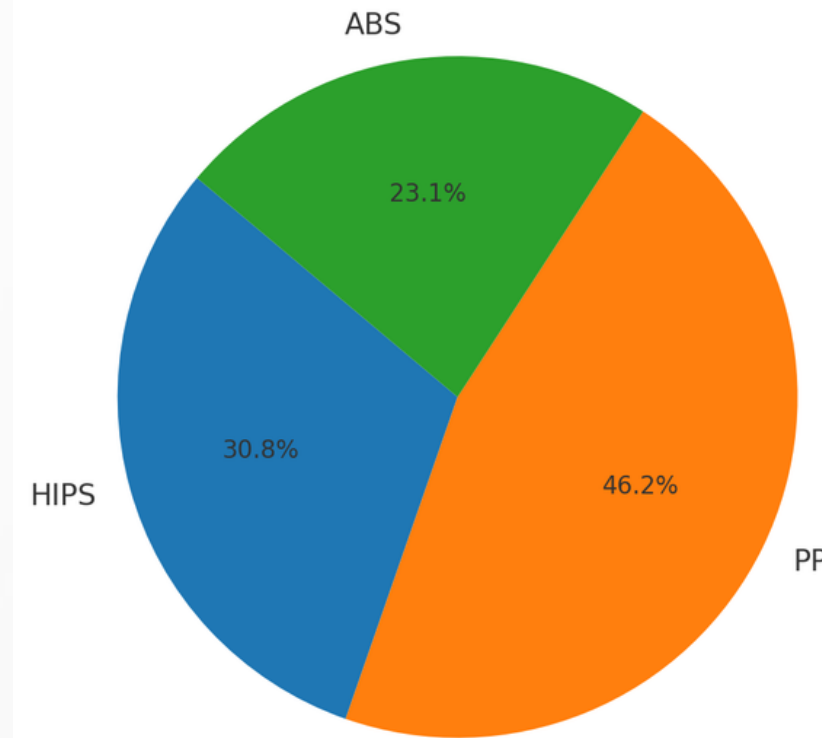
OUR SOLUTIONS FRAMEWORK



✓ Solution → Waste Audit

- On-site waste studies and material flow mapping.
- Quantifies PP, ABS, and HIPS waste streams.
- Provides a customized circularity roadmap for each company.

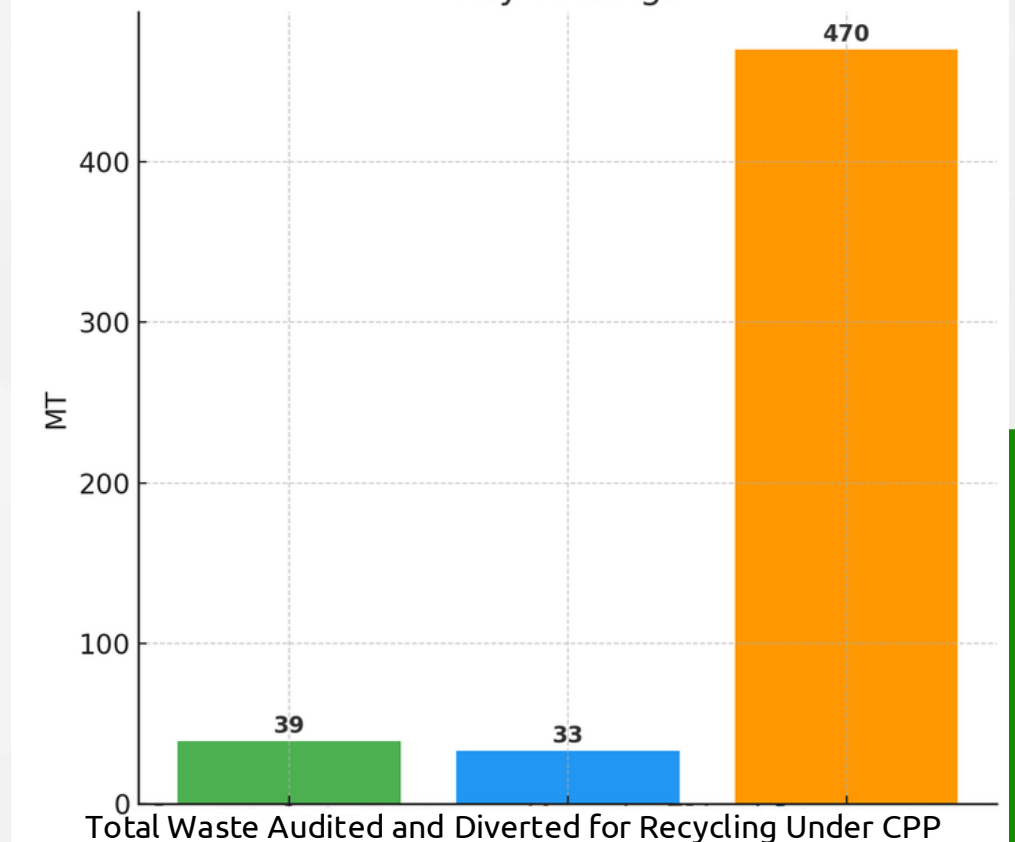
Material Breakdown (Monthly Waste MT)



✓ Solution → Reverse Logistics

- Direct partnerships with OEMs, manufacturers, and large enterprises.
- Formalized collection and take-back of post-industrial and end-of-life scrap.
- Ensures a steady, traceable supply of PP, ABS, and HIPS waste.

Key Findings



OUR SOLUTIONS FRAMEWORK



✓ Solution → Advanced Recycling

- Precision sorting, cleaning, extrusion & filtration.
- Maintains material integrity while removing contaminants.
- Produces consistent, high-grade recycled granules.

✓ Solution → Circular Compounding

- Tailor-made resin formulations.
- Incorporates stabilizers, impact modifiers, and UV additives.
- Enables virgin-equivalent performance for automotive, electronics & packaging.



Recycling Journey



Collection & Sorting

Noida Collection Hub

2024-06-15

Automated sorting of PS waste streams



Cleaning & Preparation

Pre-processing Unit

2024-06-16

Contaminant removal and washing



Shredding & Melting

Processing Line A

2024-06-17

Mechanical processing and thermal treatment



Compounding

Sperene Compounding Unit

2024-06-18

Blend formulation with additives



Quality Testing

In-house Laboratory

2024-06-19

SATRA UK Standard testing



Packaging & Dispatch

Warehouse

2024-06-20

Final packaging and QR code application

SOLUTION → DIGITAL TRACEABILITY



QR-enabled platform



End-to-end visibility: scrap → recycling → final compounded resin.



Provides auditable, report-ready data for EPR & sustainability reporting.

Integrated Outcome



Sperry Trace
by Sperry Group

Recycling Product Traceability & Documentation System

About Sperry Group

Leaders in recycling and compounding since 1983. We are the largest elastomer compounder in India with 40,000 tons annual capacity across multiple locations.

TPE/TPV/TPO

Upcycling

EPS Molding

Injection Molding

Locations

Chennai • Noida • Sri City

Capacity

40,000+ tons/year

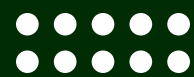
Experience

40+ years

Products

7+ Material Types

- PP, ABS, HIPS waste → audited, collected, recycled, compounded, and digitally tracked.
- Eliminates waste leakage, ensures high-quality output, and builds ESG credibility.
- Circularity becomes profitable, scalable, and compliance-driven for B2B partners.



THANK YOU

