

A CIRCULAR ECONOMY APPROACH:

# MAKING SUSTAINABILITY PROFITABLE

CASE STUDY

---



**SIMS**  
LIFECYCLE  
SERVICES

Demonstrating how  
a recycling partnership  
can deliver value and  
result in sustainable  
material reuse and  
remanufacturing.

---

# The Client

---

Hewlett-Packard (HP) is a multi-national information technology company, which markets printers, PCs, mobile devices and services to businesses and consumers across the world. Its mission is to make life better for everyone, everywhere.

HP recognizes the circular economy is driving a new approach to how we produce and consume products and services, and embraces this idea to create value for their business, customers and society.

Both HP and Sims Lifecycle Services (SLS) have long track records of reducing environmental impacts, and enabling a partnership approach to collaboration on resource recovery and reuse.



# The Challenge

---

HP is reinventing the way it designs, manufactures, uses and recovers its products as it actively moves toward a resource-efficient economy.

A key concept of the circular economy is the materials cycle – moving from an unsustainable linear model to a circular model. To achieve a healthy materials cycle (see diagram), and reduce its product-related environmental impact, HP wanted to work with SLS to create a sustainable plastics recovery strategy.



# The Result

HP and SLS embarked on years of collaboration and discussion. There was a significant experimentation period - trialing many approaches to materials recovery, analyzing impacts and costs, reviewing approaches and refining until we reached a solution.



**APPROACH ONE:**  
FULL DISASSEMBLY

- Teardown to individual components
- Separate out HIPS/ABS plastics
- Shred remainder



**APPROACH TWO:**  
SMART/OPTIMIZED DISASSEMBLY

- Remove case parts
- Shred remainder



**APPROACH THREE:**  
SEGREGATE & SHRED

- Separate IJ/LJ and shred
- Current approach shreds all WEEE together

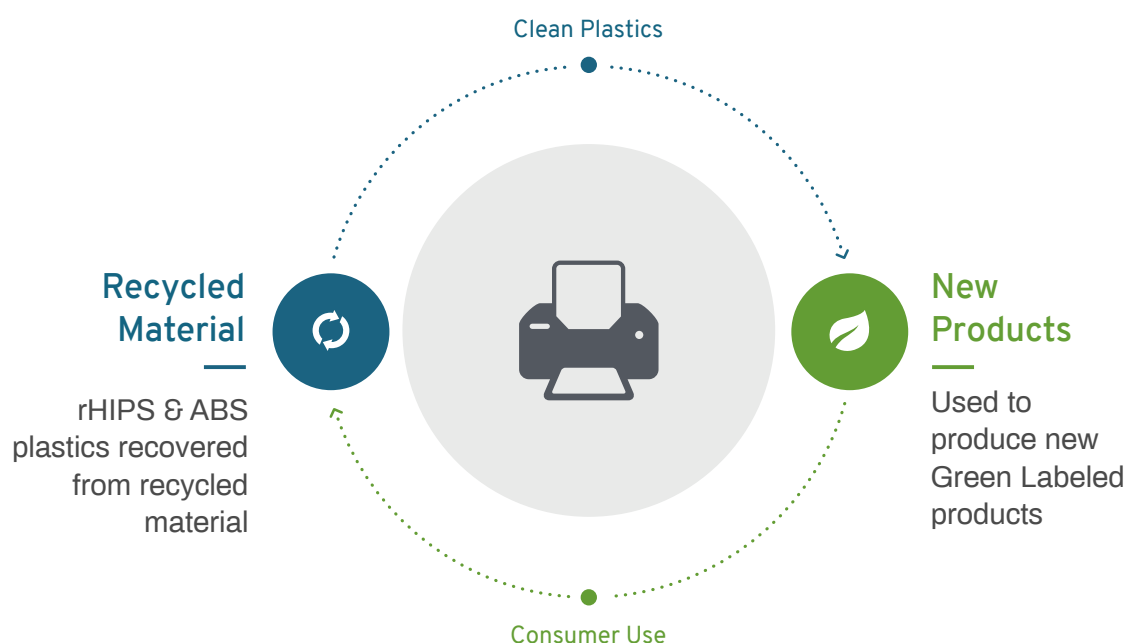
PROCESSING COST



The most economically-viable solution was to collate material from HP returns and other sources, and process via mechanical shredding and separation.



SLS was able to recover rHIPS and ABS plastics in two HP-specific colors-ramping up from 40 metric tonnes of material to 320 metric tonnes-in just four months after the process was implemented.



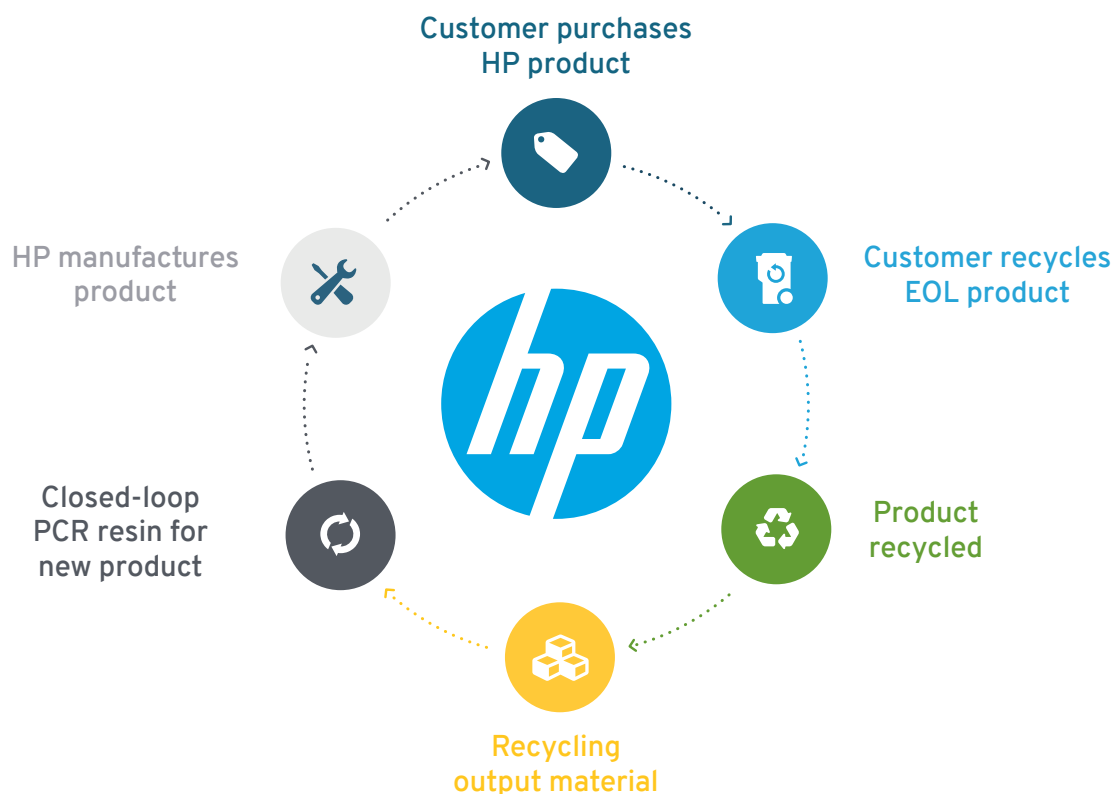
These high-quality, closed-loop plastics are being used to manufacture new products, which will have a Green Label to identify them as being manufactured with post-consumer, closed-loop recycled content.



## Benefits from advanced material recovery;

- Improved financial returns from recycled waste streams
- Reduced cost of material acquisition
- Reduced environmental impact of products
- Reduced need for raw material extraction
- Contribution to the circular economy
- Reduced suppliers and supplier management
- Certainty of resource supply
- Reduced logistics movements and transport miles for resources, by sourcing and recovering in a single location
- Product differentiation for HP
- Helped HP customers reduce their environmental impact
- Increased sales and strengthens channel relationships

The result is an industry-leading solution in circular design and practice, with HP taking responsibility for its products throughout the entire lifecycle.





**SIMS**  
LIFECYCLE  
SERVICES

---

Contact us:

[www.simslifecycle.com/contact](http://www.simslifecycle.com/contact)