Let me react to some posts on the inefficiency of recycling.

Recycling is NOT part of the circular economy, recovering atoms and molecules of high purity for reuse is.

Recycling is the last phase of the linear industrial economy, which stops at the point of sale, where ownership and liability of objects are passed on to the buyer who passes them on to Municipalities who pass them on to recyclers who work on the least cost principle, not the maximum value retention one.
Resource-life Extension

Reclamation Costs

Reprocessing time and costs

Abandonment
Recycling
Remanufacturing
Repair
Reuse

Disposal costs
Cleanup costs
Externalized costs

Walter Stahel
The Performance Economy
Plastic recycling has been encouraged globally for 40+ years. Today about 9% is recycled. **We can’t wait for another 40 years.**

No wonder Walter Stahel states: ‘Recycling is NOT part of the circular economy.’

**Question:** Does recycling reinforce linear consumption?
Two main types of reuse systems

0.1 Centralized collection/reverse logistics/sanitization

0.2 Customer manages packaging
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Pro: 100’s of products, optimal quality control

Con: until correct economies of scale reached cost/impacts can be high, requires high-cost complex collection and reverse logistics systems—typically lacking in emerging economies.

0.2 Customer manages packaging

Pro: No costs/need for centralized collection/sanitization/reverse logistics (viable in emerging markets), reduces environmental and economic costs.

Con: major limits on product range
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Key Takeaways

- Reuse systems need scale to compete with entrenched linear legacy systems
- Product types need to consider reuse system types
- Consider geography when considering type one or two reuse system
Industry reuse commitments are likely to drive scale-up efforts, no commitments, no scale-ups
Focus on sectors with commitments—beverages.
Leverage reusable beverage success to showcase that investing billions in reuse makes sense.
EPR connected to Digitally Verified Refill Credits (DVRC)

Source: Coca Cola 2023
Set up financial incentives to reward first movers (remove first-mover disadvantage)

And position them to become leaders that motivate new sectors into reuse scale-ups.
EPR connected to Digitally Verified Refill Credits (DVRC)

Create EPR schemes that lower product costs for products sold in reusable packaging. This idea can work for any reuse model with smart packaging, including take away food or e-commerce.

EPR schemes are NOT circular if they don’t promote reuse.
Redesign plastic for reuse with **reduced human health/environmental impacts**.
Reduce chemical inputs and **only use well studied safe inputs.**

Plastic currently has 3,200+, of 13k +, chemical inputs of potential concern due to **hazardous properties.**

Develop a cross-brand certified best practice plastic for reuse, based on **science and Green Chemistry.**
Set a baseline externality cost of plastic based on full spectrum of costs.

Start with 50% of externalities and scale up annually until 100%.

Use this to incentivize reuse systems and optimized plastic production.

Price plastic externalities