



# **Plastic Pollution: Solutions and Corporate Engagement**



# Why is this a big deal?

- Current threat to water quality, fish, birds
- Projected 4x growth in plastic production
- High volume of plastics ocean dumping
- Potential transfer of toxics to fish tissue

Links to climate change -

- Plastic use of oil equivalent to aviation sector
- Plastic share of carbon budget 15% by 2050

**2014**

**2050**

**PLASTICS  
PRODUCTION**



**311 MT**



**1,124 MT**

**RATIO OF PLASTICS TO  
FISH IN THE OCEAN¹  
(BY WEIGHT)**



**1:5**



**>1:1**

**PLASTICS' SHARE  
OF GLOBAL OIL  
CONSUMPTION²**



**6%**



**20%**

**PLASTICS' SHARE  
OF CARBON BUDGET³**



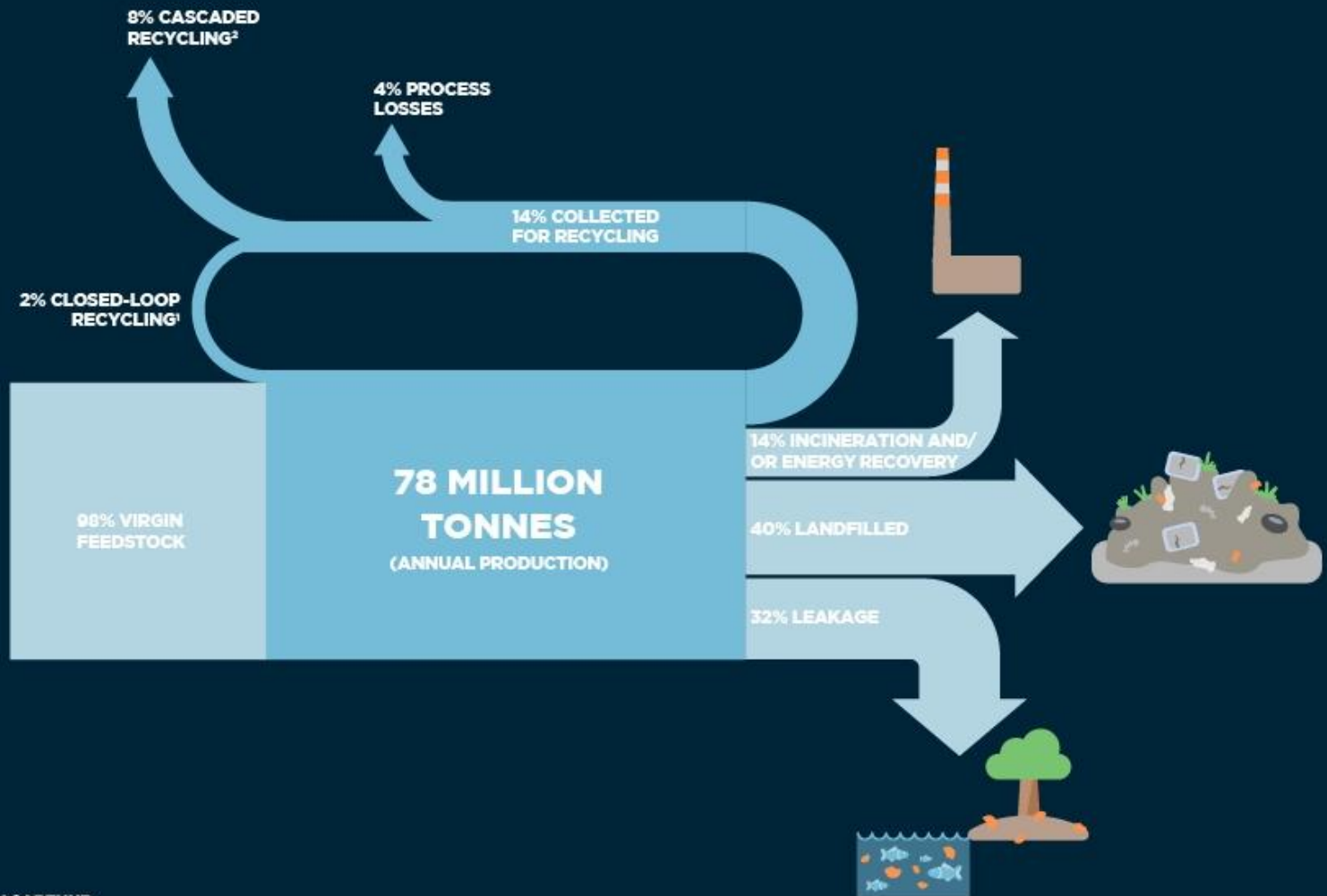
**1%**



**15%**

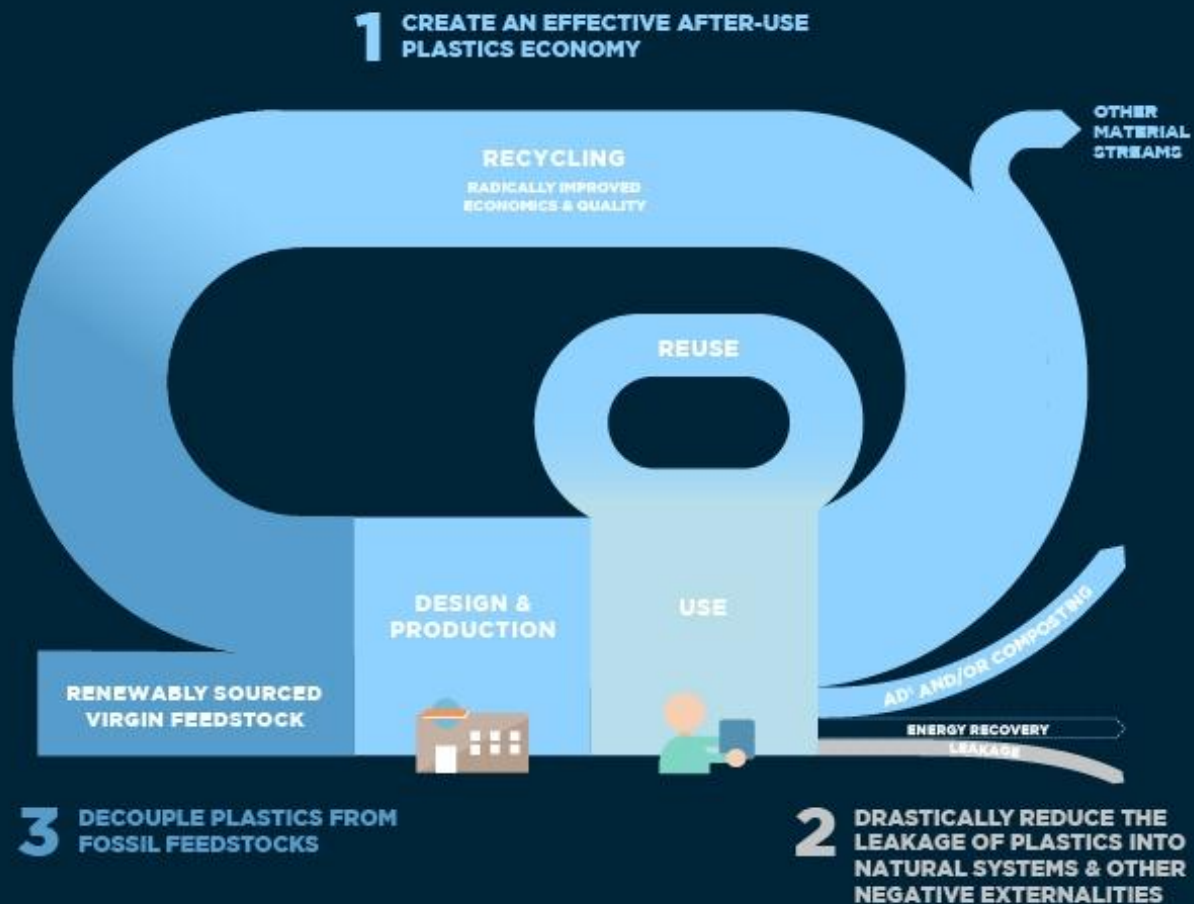


# Current Model: Take, Make, Waste





# Goal: Circular Model





# Fracking and Cracking



Cheap fracking has led to \$100 billion in new U.S. chemical facilities.

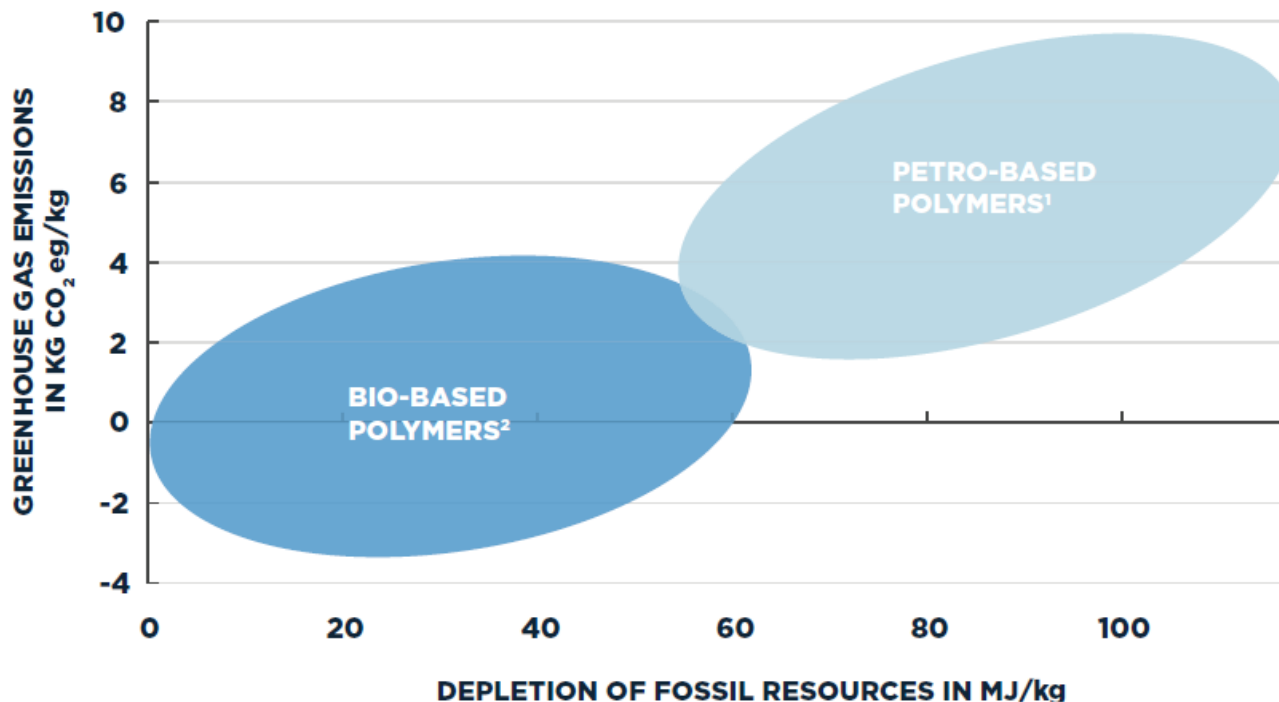






# Switch to bio-based sourcing

**FIGURE 20: ENVIRONMENTAL IMPACTS OF DIFFERENT POLYMERS IN TWO IMPACT CATEGORIES**



<sup>1</sup> PP = Polypropylene, HDPE = High density polyethylene, LDPE = Low density polyethylene, PET = Polyethylene terephthalate, PS Polystyrene, PC = Polycarbonate Bio-based polymers: PHA = Polyhydroxyalkanoate, PLA = Polylactic acid

<sup>2</sup> Bio-based PLA, bio-based PHA, bio-based PE

Source: nova-institut.



# Global Solutions

Stop leakage of plastics into oceans by:

- Improved recycling systems globally
- Develop solid waste systems in 5 key countries (60% of deposition): China, Indonesia, Philippines, Thailand, Vietnam
- Reduce plastic use, especially single use
- Decouple plastic from fossil feedstocks



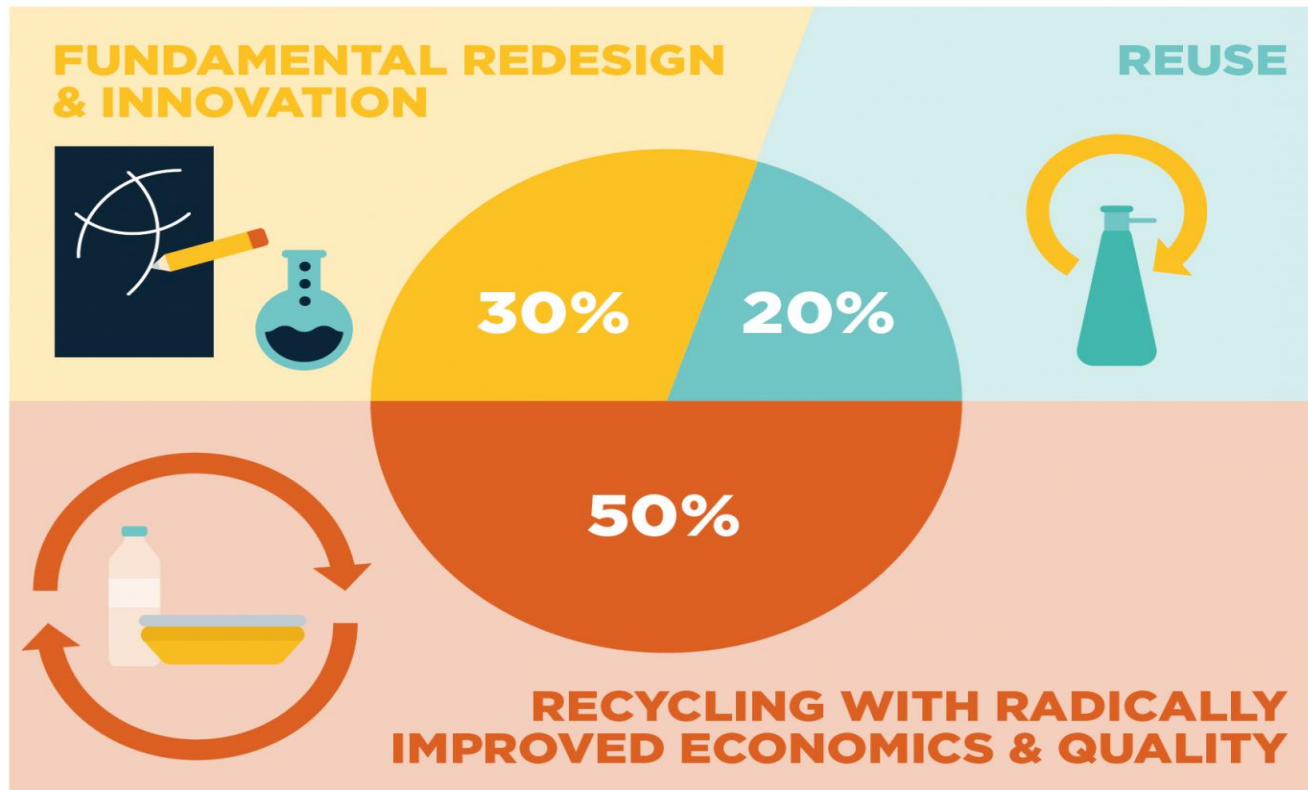


# As You Sow focus on solutions

- Packaging – 25% of plastics production
- Promote more recyclable packaging
- Producer responsibility to fund recycling (EPR)
- Priority on polystyrene foam phase out
- Redesign of non-recyclable pouches, sachets
- Transition to refillables, reusables
- Overall plastics use reduction



# Three strategies to transform the global plastic packaging market

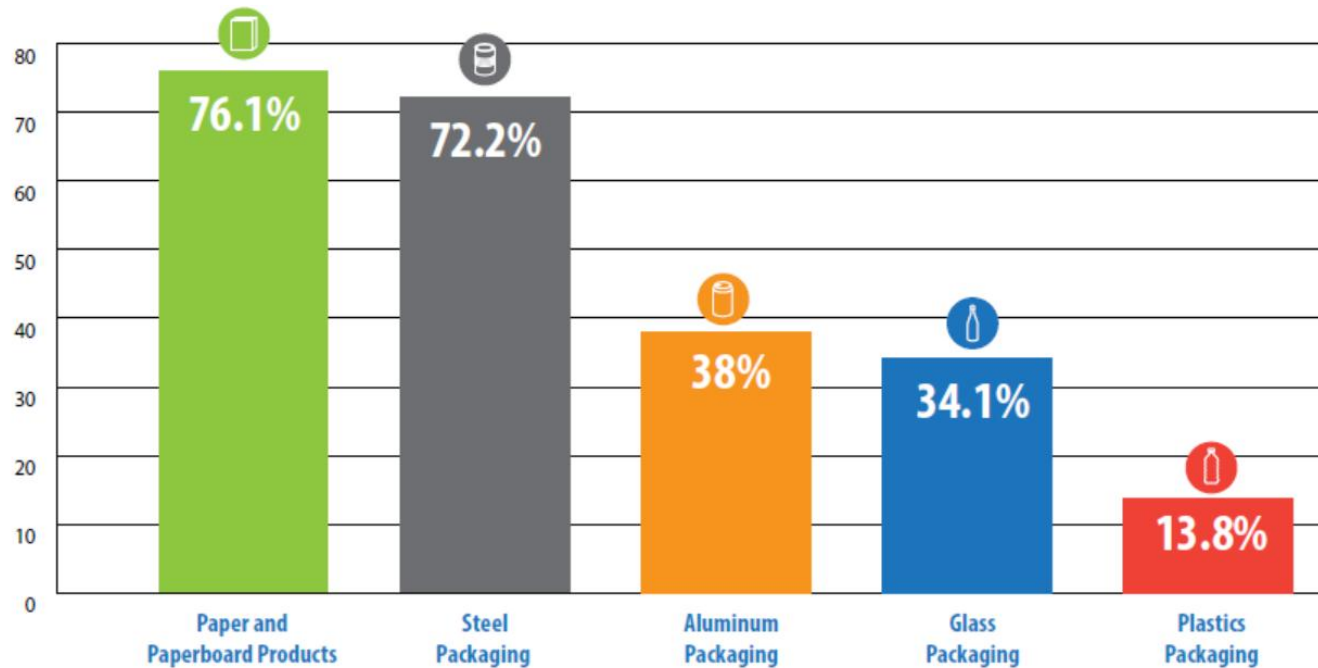


World Economic Forum and Ellen MacArthur Foundation  
*The New Plastics Economy – Catalysing action* (2017, [www.newplasticseconomy.org](http://www.newplasticseconomy.org)).





# The Recycling Challenge





# Challenges in building waste systems in developing countries

- Traditional highly centralized systems or decentralized zero waste models?
- Making low value plastics valuable
- Who will finance systems in poor countries – tied to producer responsibility debate
- Can millions of waste pickers be transitioned into more formal systems?

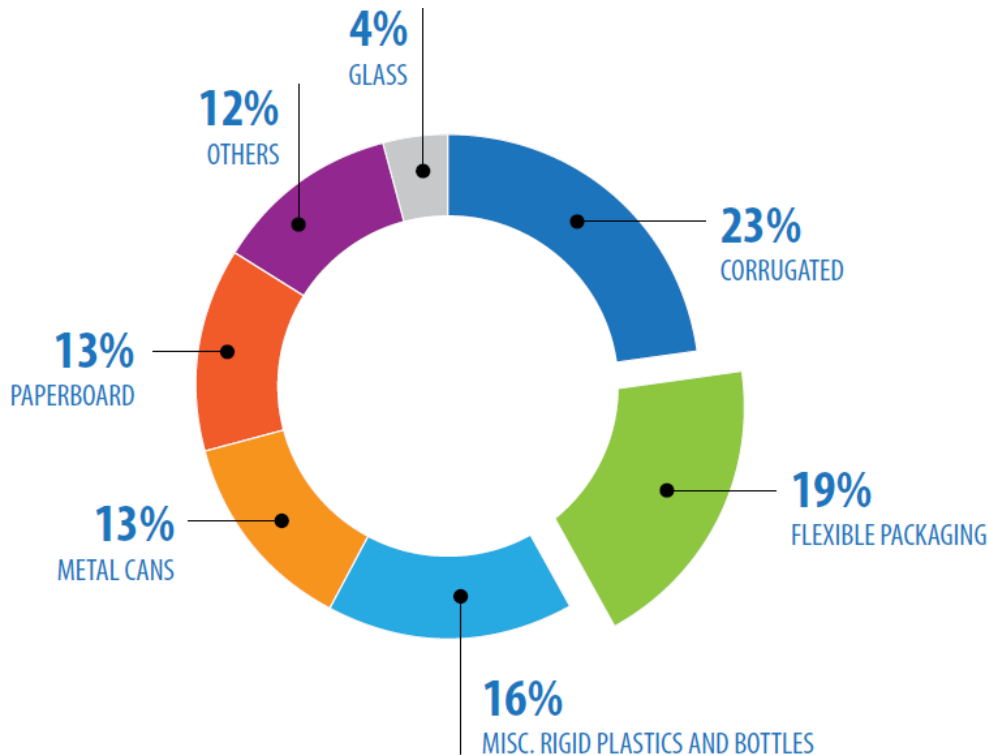


# Trend towards non-recyclability





# The pouch takes over packaging



- \$34 billion in annual sales in U.S. sales
- Applications - 60% food
- Lightweight
- Good GHG production profile
- Not recyclable!



# Colgate-Palmolive commitment



- Make packaging recyclable in 3 product categories by 2020
- Develop recyclable toothpaste tube





# Recyclable Packaging - P&G

## Commitment



By 2020, make 90% of packaging recyclable or programs in place to create ability to recycle them



# Honest Tea – Pouch to Aseptic



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# Recyclable Packaging Focus

**Mondelēz**  
International



**Kraft** *Heinz*





# PS foam phase out focus





# Phase Out Foam Packing Material



**amazon**



**Walmart**   
Save money. Live better.





# Redesign of non-recyclables





# Switch to reusables, refillables







# Plastics Initiatives

Ellen MacArthur Foundation

*New Plastics Economy* reports (2016, 2017)

Trash Free Seas Alliance – Ocean Conservancy  
*Stemming the Tide* report (2016)

ACC – Materials Recovery for the Future  
(test MRF sorting technologies for flexibles)



# NGO Activity

- Break Free From Plastic campaigns will evolve in 2017-2018
- Gaia, Zero Waste Cities - no burning of waste
- Plastic Pollution Coalition
- 5 Gyres
- Story of Stuff



# Opportunities for Concerned Investors

- Create Plastic Solutions Investor Alliance
- Coordinated engagement and proposal filing on the 4 R's - Recycling, Redesign, Reuse, Reduction at consumer goods cos.
- Special engagement of 4 big players: Nestle, P&G, PepsiCo, Unilever.



# Investor Opportunities

- Site visits to zero waste cities
- Impact Investor financing of solid waste collection in developing countries

(New OC Report *The Next Wave*)

- Emerging concern on microfibers could lead to engagement with apparel industry -Gap, H&M, VF, Macy's, etc.

(*Story of Microfibers* Video)



## Next Steps

Identify investors interested in being core participant in an investor plastic pollution alliance at various engagement levels:

High - Ongoing participation in company calls, file proposals, related issue research

Medium - Occasional participation in above

Low - Sign on to letters, statements



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*More information:*

*<http://www.asyousow.org/our-work/waste/ocean-plastics>*

*Thank you!*