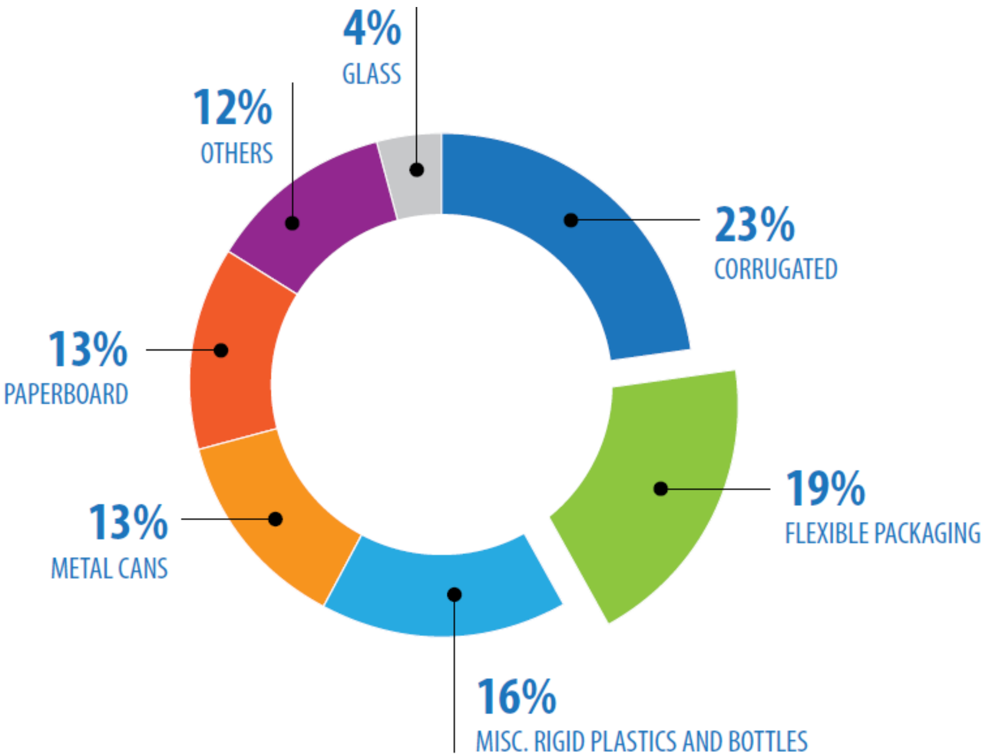
Challenges, Risks and Opportunities in Transition to Recyclable Multi-material Packaging

Plasticity 2017

Flexibles are dominating packaging



- $34 billion in annual sales in U.S. sales
- Boosts shelf visibility
- Lightweight
- Low GHG production profile…
- …But Not recyclable

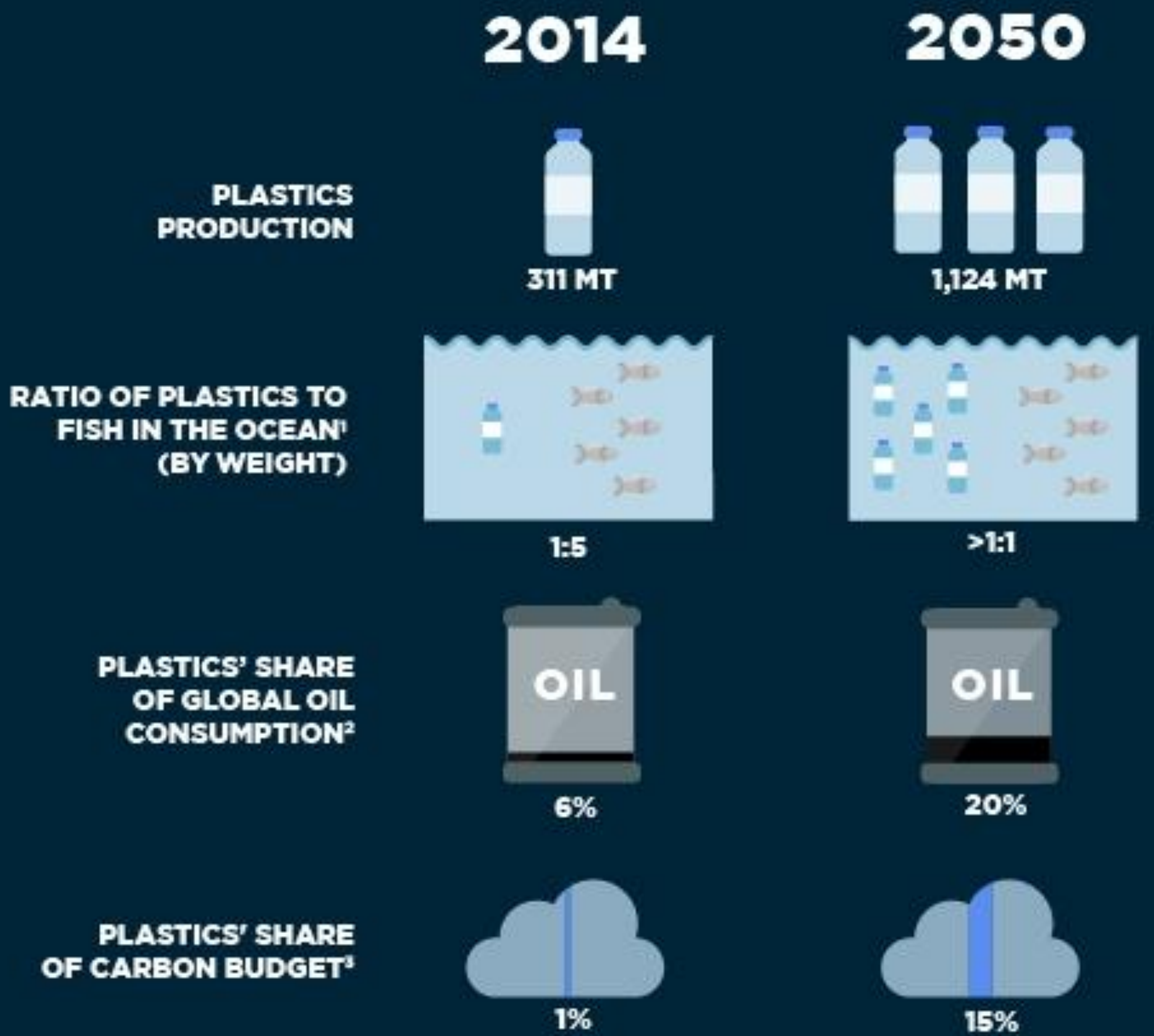
Trend towards non-recyclability

Lack of Pouch Recyclability Adds to Pollution Burden

- Growing threat to water quality, fish, birds
- 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 OCEAN[1] (BY WEIGHT)
1:5
>1:1
PLASTICS' SHARE OF GLOBAL OIL CONSUMPTION[2]
OIL
OIL
6%
20%
PLASTICS' SHARE OF CARBON BUDGET[3]
1%
15%

Global Solutions

- **Improved recycling systems globally – move U.S. from laggard to leader**
- 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

Challenge: Lagging U.S. Rates

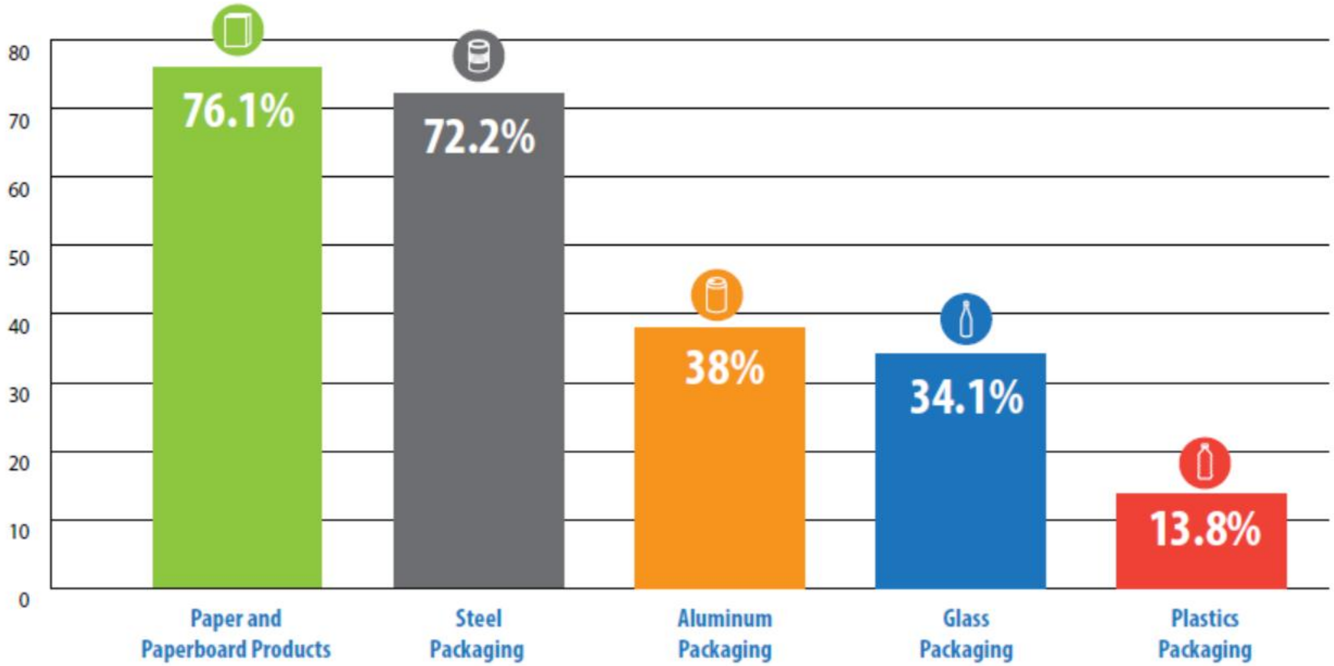
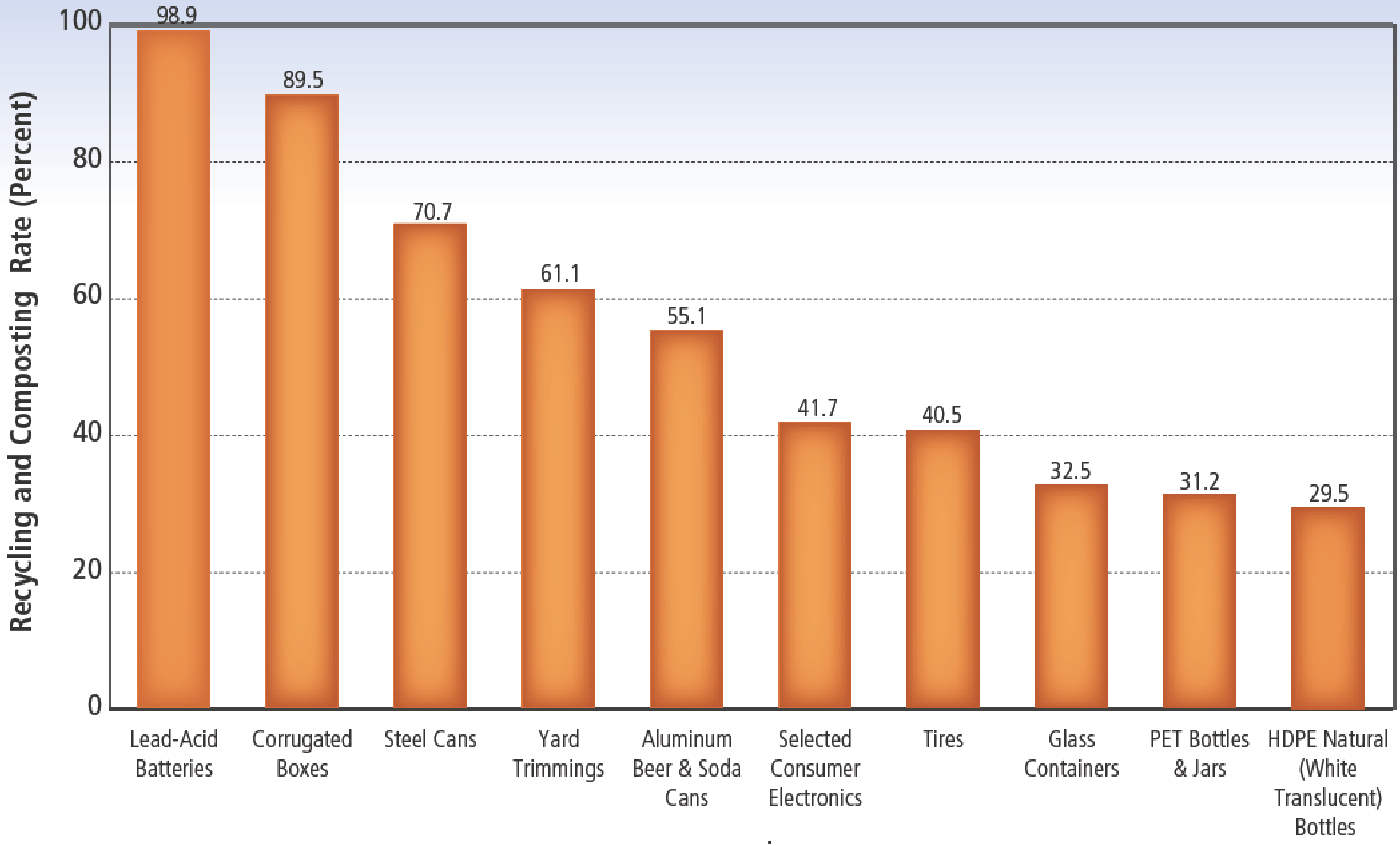
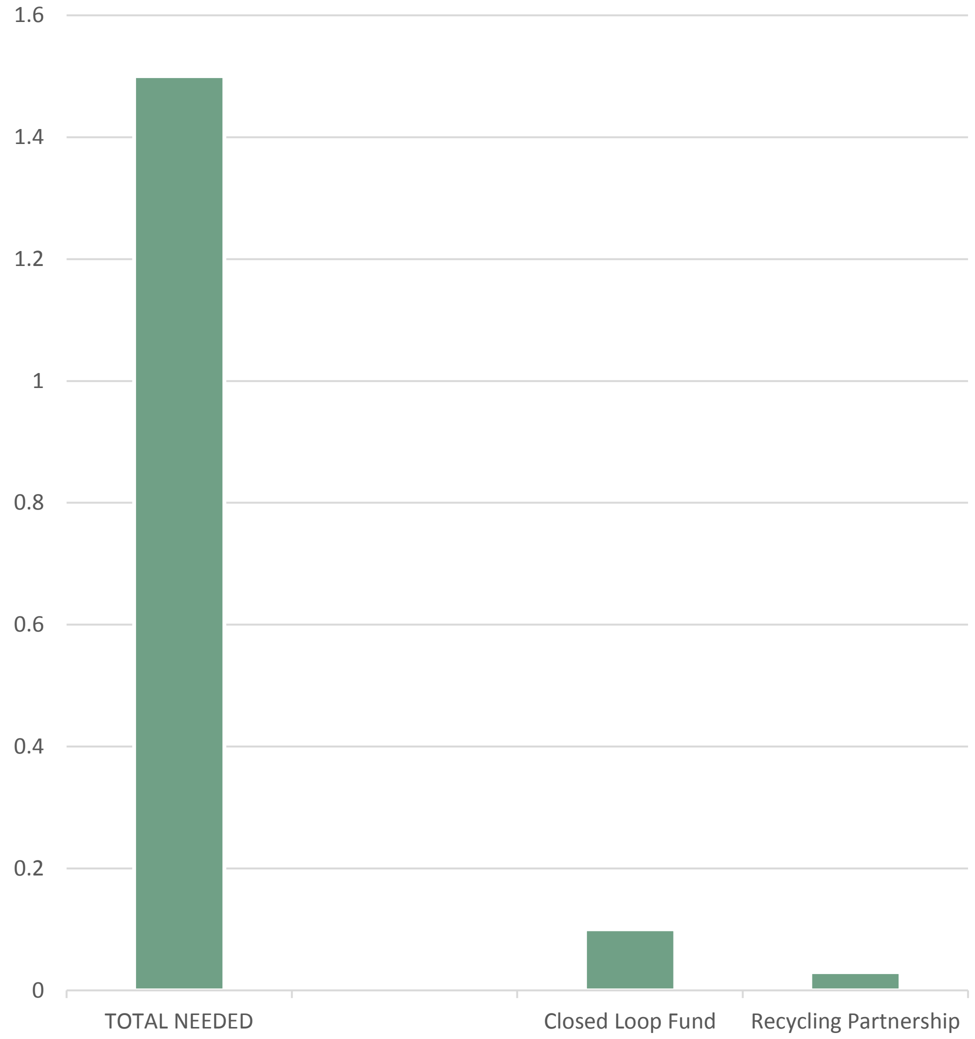


Figure 3. Recycling and Composting Rates of Selected Products, 2014*



AS YOU SOW

Challenge: $1.5 Billion Investment Needed to Optimize Curbside Collection



Challenge: Rising NGO Activity

- Break Free From Plastic campaigns will evolve in 2017-2018
- Rise of Zero Waste cities and pressure to not no burn waste

Challenges - 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?

Risk - Branded Pouches Become Ads for Lack of Corporate Responsibility

Opportunities

- More recyclable packaging
- Producer responsibility to fund recycling
- Priority on polystyrene foam phase out
- Redesign of non-recyclable pouches, sachets
- Transition to refillables, reusables
- Overall plastics use reduction

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

-

PS foam phase out focus

Phase Out Foam Packing Material

amazon

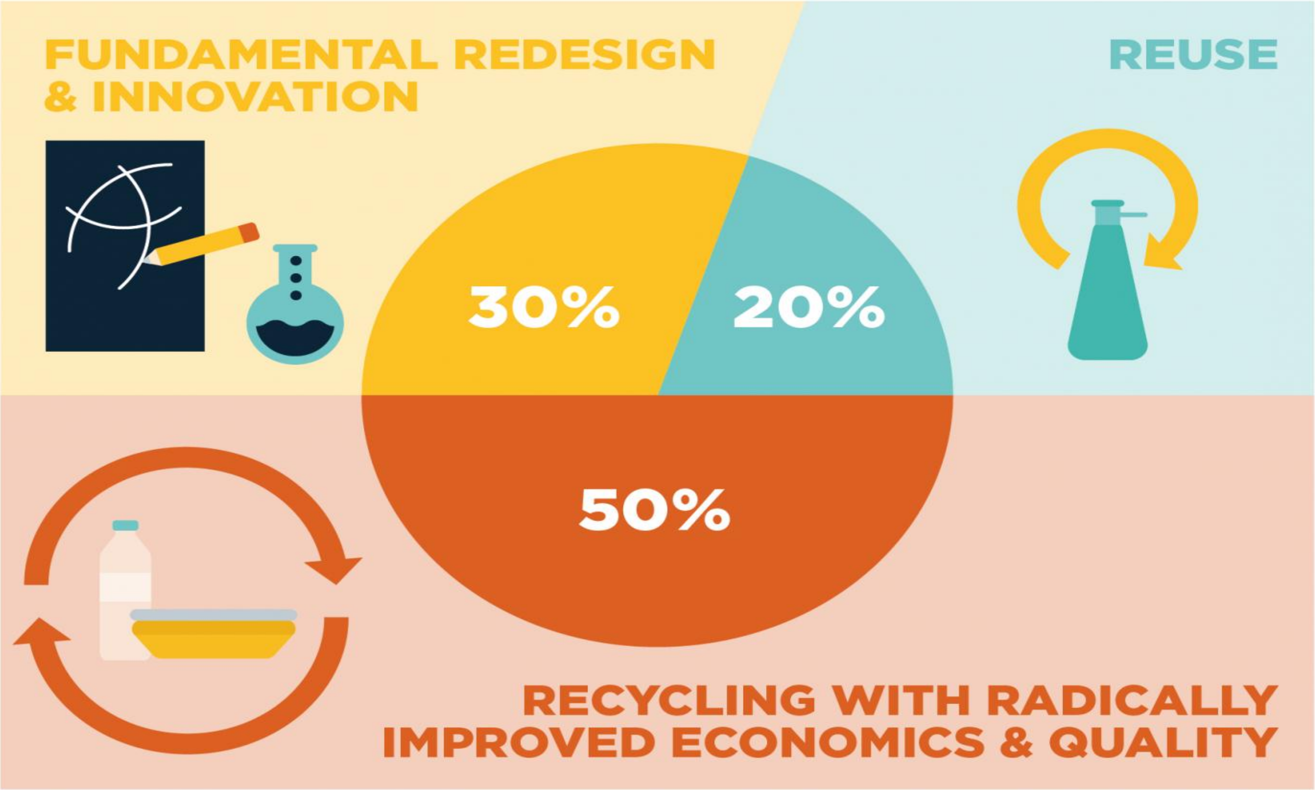
Walmart

Save money. Live better.

Walmart Leadership

- 100% recyclable packaging for private brands by 2025
- Sustainable Packaging playbook monitors recyclability, recycled content in supplier products
- Increase recycled plastic resin use 3 billion pounds by 2020

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).

NEW PLASTICS ECONOMY
ELLEN MACARTHUR FOUNDATION

Redesign of non-recyclables

Switch to reusables, refillables

Europe Moving Forward

- Recycling Goals Set in Packaging Directive
- Industry Cooperation Developed through Implementing EPR
- EU Circular Economy Proposal
- EU Plastics Strategy
- Ellen MacArthur – New Plastics Economy

U.S. Treading Water

- No Federal mandate or leadership
- Sporadic state efforts
- Rejection of EPR with no scalable alternative
- Inadequately funded municipal programs
- Disruptive packaging allowed without primary consideration of recyclability, impact on end markets

Opportunities for Solutions

- Companies willing to look beyond their own product impact
- Joint platform for solving waste issues
- Transparency on funding, commitments to meet goals
- Shared producer responsibility
- Culture change – sustainability vs. marketing

Upcoming Recycling Deadlines

pepsi

50% beverage industry bottle/can recycling rate by 2018

Nestlé Waters

60% PET plastic bottle recycling rate by 2018

Contact

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Thank you!