

Reducing Food Waste: How Packaging Can Help

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HAVI Global Solutions

| Grow Smarter

PROMOTIONS MANAGEMENT
ANALYTICS & SUPPLY CHAIN SERVICES
PACKAGING TECHNOLOGY INTEGRATED SOLUTIONS
RECYCLING & WASTE SOLUTIONS



HAVI Global Solutions, LLC (HGS) is a consulting, design and execution company dedicated to helping our customers grow smarter by delivering strategic and operational competitive advantage.



Promotions Management



We move more than 1.5 billion premiums annually across the globe



Analytics & Supply Chain Services



Approaching \$1B in network savings via supply chain optimization



Packaging Technology Integrated Solutions



Design, source and deliver over \$3 billion of packaging annually



Recycling & Waste Solutions



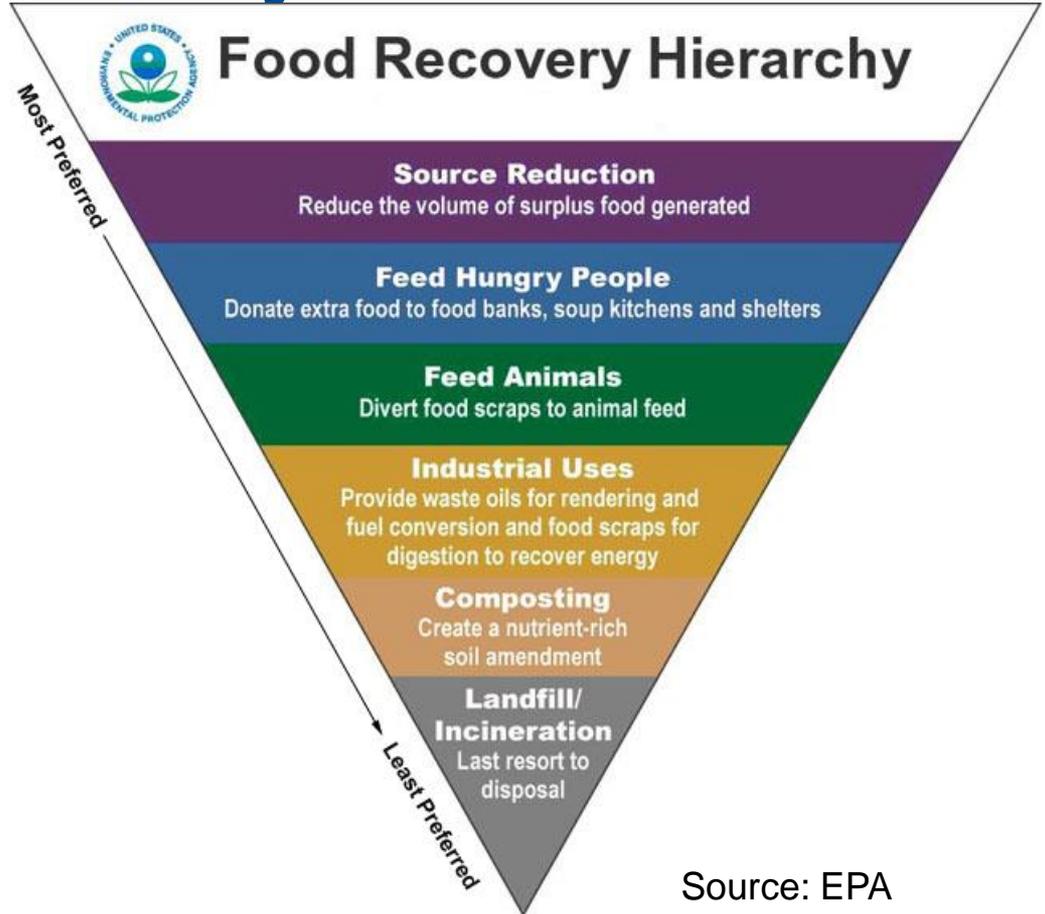
Decades of experience spanning multiple business models and invaluable relationships

EPA Food Recovery Hierarchy

Packaging's most important role is at the top of the Food Recovery Hierarchy – Source Reduction of food waste

Some ways packaging reduces food waste:

- Transportation/ Containment
- Shelf life extension
- Product protection
- Reclose features
- Portion control

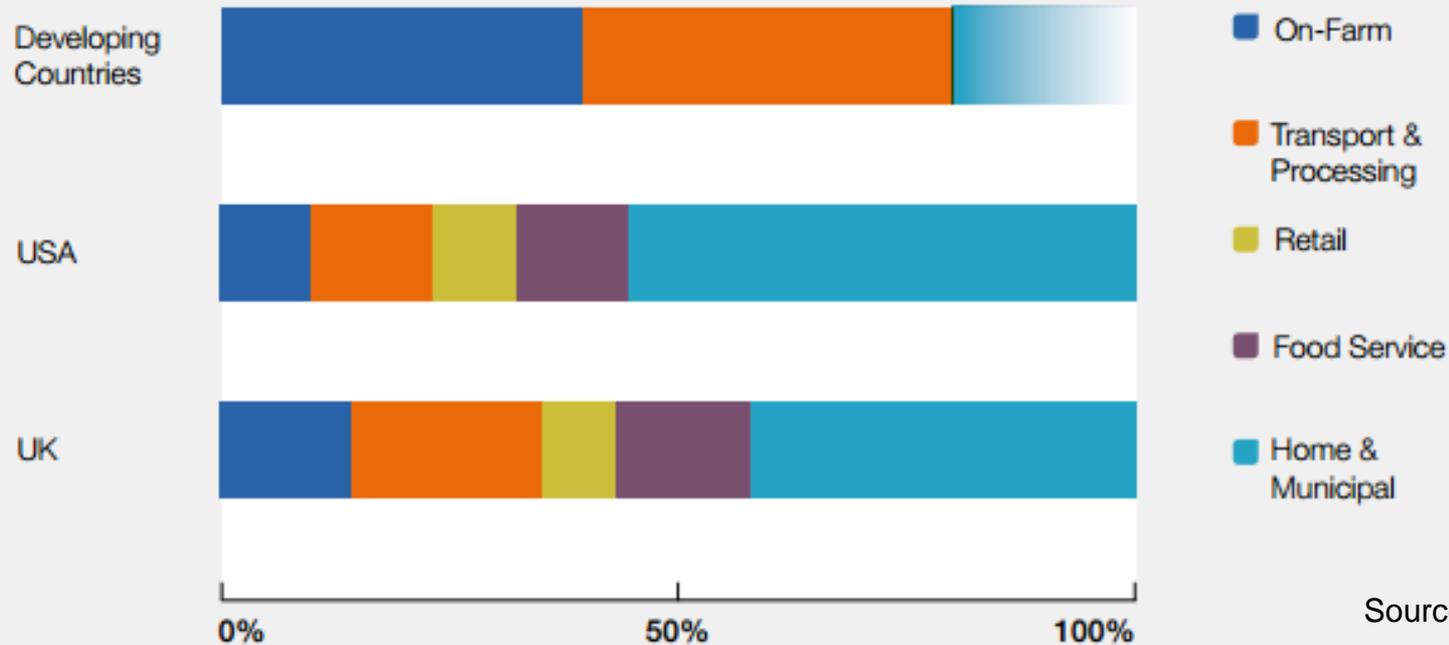


Source: EPA

Food Loss/ Waste – Where it occurs

Figure 2: The make-up of total food waste along the food supply chain

Science (2010), *Food Security: The Challenge of Feeding 9 Billion People* <http://www.sciencemag.org/content/327/5967/812.full#F3>

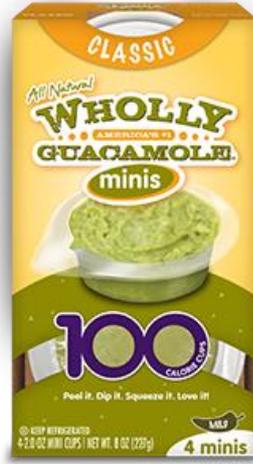


Source: FoodDrinkEurope



Consumer Trends

- Taste
- Convenience
- Nutrition/ Health
- Environment/ Sustainability
- Safety, Security, Authenticity
- Quality



Packaging designers balance consumer desires with regulatory, safety, branding, product protection, end of life options – and minimize waste across the entire value stream

Potential Food Waste/ Packaging Drivers

Legislation

Social

Economic

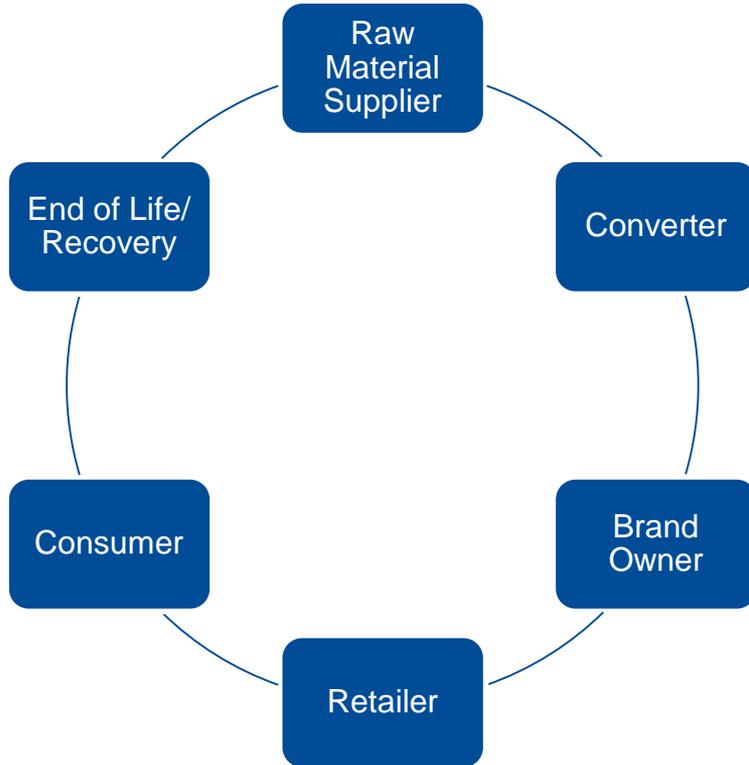
Environment

Freshness/ Health

Future Trends



Packaging Value Chain Perspective

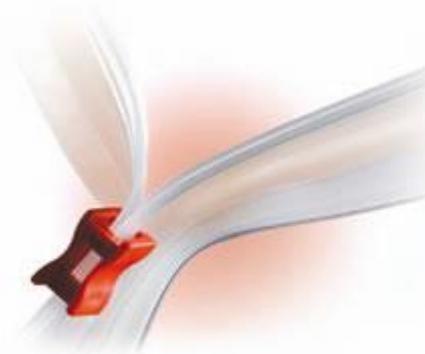


Need all critical pieces of the value chain working together through technology, collaboration, and education



A Look at Packaging & Food Waste

- Lightweighting
- Flexible packaging
- Biobased materials
- Process technologies
- Extended shelf life technologies
- Reclose features
- Portion Control
- Central processing



A Look to the Future of Packaging & Food Waste

- Packaging & equipment for developing world
- Help control/ monitor “in pack environment”
- Biobased packaging with barrier properties
- More e-commerce packaging for food
- More compostable packaging
- More optimized packaging + product
- Internet of things - packaging link through distribution
- Consumer link / information - NFC, 2D bar codes, etc.
- Stronger collaboration (ex. EPA Food Recovery Challenge)
- More end of life considerations



What's missing/ needs

- Education for consumer
- Explanation of packaging benefits
- Education on compostable packaging
- No home compostable standard in the US
- Stronger links between package designers and waste management/ recovery systems
- Impact of e-commerce / groceries on food waste
- Tools to improve product + packaging decisions

Come on,
come on,
lets stay
together



Examples of Packaging and Food Waste Reduction

Packaging / Food Waste Reduction Examples – Extended Shelf Life Technology

- Berries are one of the biggest areas of retailer food waste due to short shelf life
- Two recent technologies to extend shelf life of berries
 - Perforated lidding film
 - Ethylene absorbing pad



Packaging / Food Waste Reduction Examples – Education

- Most consumers do not understand the value of packaging and technology built in to reduce food waste
- WRAP (UK) Consumer survey showed
 - 13% of consumers understood that keeping food in original packaging keeps food fresher, longer
 - 61% thought fruit and vegetables “go off” quicker in packaging
- Started campaign called “Fresher for Longer” to educate on food waste & packaging



Source: WRAP – Love Food Hate Waste – Fresher for Longer

Packaging / Food Waste Reduction Examples – Collaboration

- Courtaulds Commitment – started 2007
 - Phase 1 – reduce packaging usage (by weight)
 - Phase 2 – reduce carbon impact of packaging
 - Phase 3 – food waste reduction
 - Target 5% consumer household reduction
 - Reduce grocery channel waste by 3%
 - Package optimization, no carbon impact



What does this mean for you?

Municipalities/ Educators/ Material Recovery Providers/ NGOs

- ❑ Educate consumers on food waste and packaging's value
- ❑ Educate/ explore linkages with packaging value chain
- ❑ Explore new waste recovery options – composting, compostable packaging, food banks, flexible packaging, polypropylene outlets

Packaging Value Chain

- ❑ Explore further shelf life extension technologies
- ❑ Understand packaging end of life early in development
- ❑ Educate consumers on packaging value and food waste prevention
- ❑ Develop low cost packaging equipment/ materials for developing markets

Packaging = Food waste prevention
Packaging ≠ Waste

