



Use Reusables

Boost Freight Efficiency with Reusable Packaging

August 6, 2013

Arlington, TX



Made Possible by...



Alameda County Waste Management Authority and Recycling Board
www.stopwaste.org



EPA Climate Showcase Communities Grant

- Supports national expansion of Use Reusables workshops, free tools and online resources

www.epa.gov/statelocalclimate/local/showcase/

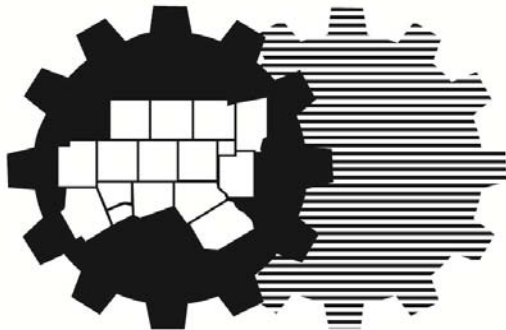


The RPA – Trade association

- Promotes the value and expansion of reusable packaging systems
- 52 member companies - Manufacturers, end users, technology providers and service providers

www.reusables.org

In Partnership with...



**North Central Texas
Council of Governments**



**Dallas-Fort Worth
CLEAN CITIES**



Top 5 Materials Landfilled from Commercial Sector



1. Food Waste

2. Other Paper

3. Uncoated Cardboard *Boxes*

4. Unpainted Wood *Pallets*

5. Film Plastics *Stretch Wrap*



The Use Reusables Campaign



- Helping businesses convert to more sustainable reusable alternatives.
- Reducing greenhouse gas (GHG) emissions and solid waste associated with one-time and limited-use transport packaging materials:
 - Production
 - Use
 - Disposal

How StopWaste can Help



- Training Opportunities – like today's workshop
- Facilitate Vendor/Supplier Conversation
- Logistics Assistance
- Become a model case study
- Funding Assistance
 - Grant applications due Sept. 10th
 - Requests up to \$30,000 for reusables

Our Workshop Goal Today



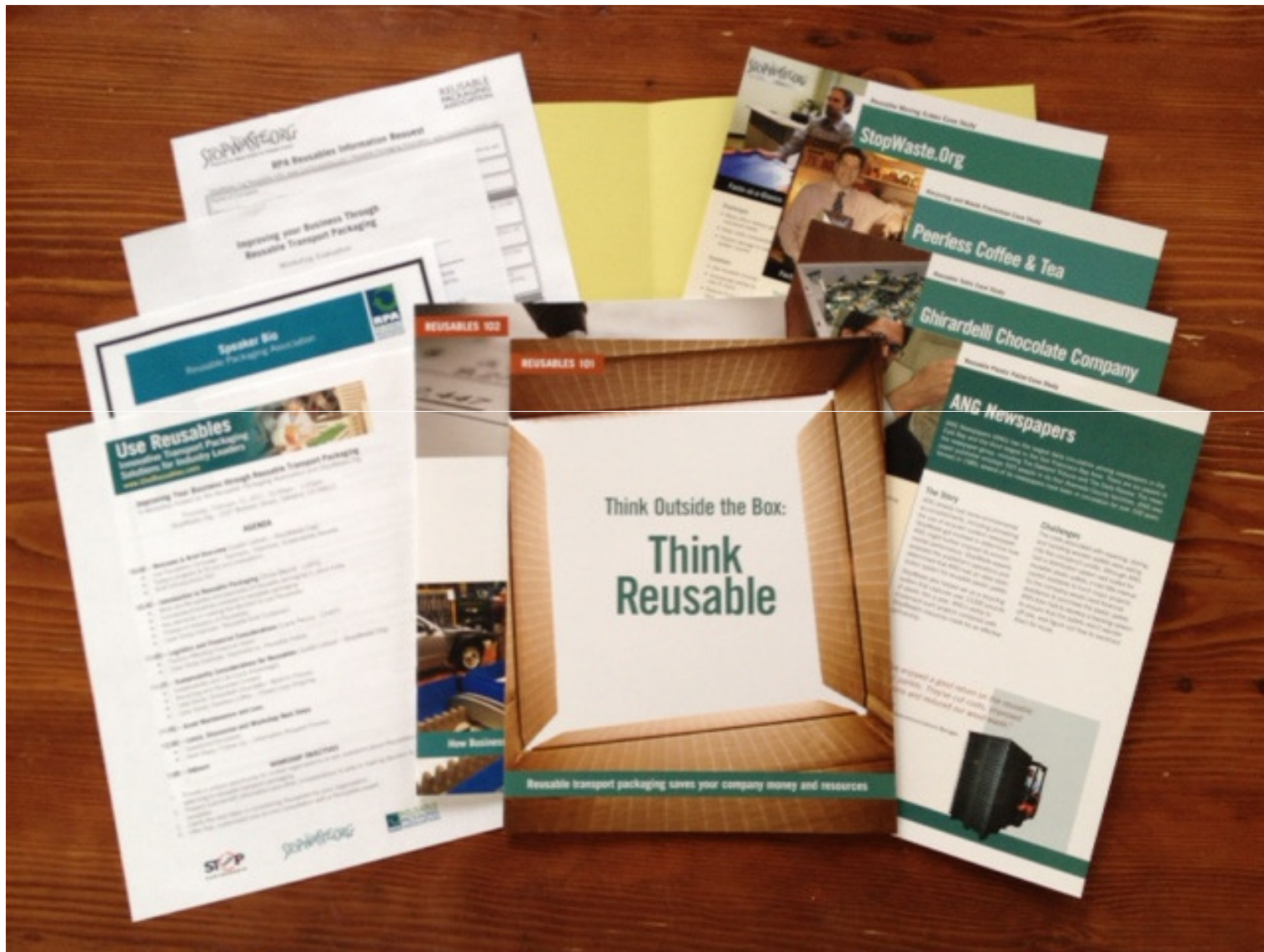
- Introduce reusable transport packaging
- Explore benefits of reuse in the supply chain
- Provide information and resources
- Review the next steps
- Offer free, one-on-one consultation with a Reusables expert
- Answer your questions

Workshop Agenda



- Intro to Reusables
- Benefits of Reusables
- Attributes of Good Reusable Opportunities
- 7 Steps to Implementation
- Resources & Next Steps

Workshop Materials



Today's Presenter



Eric Fredrickson

President, Thor Consulting

Email: Thorcrate@gmail.com

30 Years of experience in Reusable
Packaging across all industry sectors

Reusables are:



Merriam Webster defines Reusable as:

re-us-able *adj* \rē-`yü-zə-bəl\ : capable of being used again or repeatedly

Reusable Packaging is comprised of pallets, containers, wraps, bands and dunnage designed for reuse within a supply chain

RPA Definition of Reusable Packaging Product or System



- Typically never disposed of by the end user
- Used to move components, finished products or raw materials
- Durable construction such that it will function in its original condition:
 - for multiple trips,
 - in all weather conditions,
 - under maximum capacity load conditions,
 - without product failure;
- Lifetime is measured in years
- Qualifies as source reduction



Opportunistic vs. Planned Reuse



Everyday Reusables in Action



Milk Crates



Bread Trays



Plastic Pallets



Automotive Totes



Less Than Case Load Totes



Beverage Trays



Reusable Pallet Wraps



Reusables are Not:



- Single use
- Limited use

How companies benefit from reusables?



Many Benefits of Reusables



Financial



Environmental



Health & Safety

Financial Benefits



Revenue Enhancement

- Merchandising at Store Level
- Increase brand loyalty – a bond with customers
- Corporate Social Responsibility – Consumer Loyalty





Revenue Enhancement with Reusable Packaging



- Plitt Seafood increased brand loyalty with reusable crates for seafood delivery.



- Produce RPCs have been reported to increase same store produce sales.

Benefit: Increased revenue.

Financial Benefits

Revenue Enhancement



- Merchandising at Store Level
- Increase brand loyalty – a bond with customers
- Corporate Social Responsibility – Consumer Loyalty

Capital Utilization – Lower Materials Cost



- Excellent ROI on Reusables investment
- Pooling/Rental of Reusables – outsource CapEx





Reusables Benefits in Action



Non-Profit Healthcare Provider Reduces Costs with Reusable Tote Program.





Kaiser Permanente - Centralized Distribution



- The Livermore, CA Distribution Center
 - One of three operated by Kaiser Permanente in the USA
 - Distribution of medical supplies, documents and pharmaceuticals to facilities within Northern California
- Constant need for new cardboard
 - Cost of cardboard, tape and filler for box construction
 - Cost of labor to put boxes together and later flatten for recycling
 - Cost to the environment



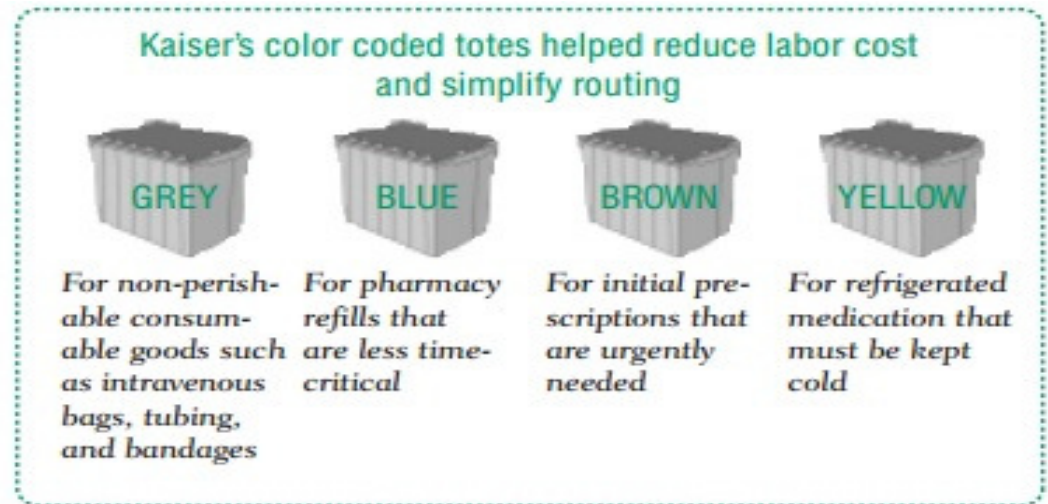
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•Kaiser Permanente - Centralized Distribution



- Pilot program in 1990 - Kaiser began using reusable totes in place of disposable cardboard boxes for distribution.
- By purchasing totes in four sizes - large, medium, small, and tiny, a tote could be selected based on volume to be distributed.
- Packaging material used to fill partially-full containers was almost eliminated.
- Large, medium and small totes have the same footprint so are “nestable”, requiring less storage space.
- Totes are durable and maintenance is insignificant.



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Savings (as of 2007)



- 🔥 96% Net cost savings totes vs. boxes
 - 🔥 Up to \$25,000 annual cost of replacement totes *verses*
 - 🔥 591,000 cardboard boxes at \$0.95 box = \$561,450 annually
- 🔥 500 hours/year labor savings
 - 🔥 no assembly required
 - 🔥 ease of distribution by color coding
- Increased productivity - no box assembly
 - Over \$12,000 in wages saved annually
 - 🔥 ≈ 591,000 boxes saved annually
- 🔥 Immeasurable environmental savings – trees, oil, water, pollution



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Benefit: Reduced operating costs – excellent ROI



Reusables Benefits in Action



Plastic Pallets for Beverage Distribution – Open Loop



PepsiCo's Gatorade Plant

- Replaced limited life wood pallets with reusable plastic pallets.
- Open loop pool - pallets owned and retrieved from retail by a 3rd party service provider.
- Eliminated product loss, ~100s of cases a day, from full pallets of product tipping over due to inconsistent dimensions or missing boards

Benefit: Reduced product damage – CapEx Outsourced



Reusables Benefits in Action



Plastic Pallets for Beverage Distribution – Open Loop



PepsiCo's Gatorade Plant

- Plastic pallet is 25 lbs lighter than wood pallets – 50 lbs. vs 75 lbs.
- High density beverages weigh out trucks.
- Outbound freight reduced by 1.7%.

Benefit: Reduced total freight cost

Financial Benefits

Revenue Enhancement



- Merchandising at Store Level
- Increase brand loyalty – a bond with customers
- Corporate Social Responsibility – Consumer Loyalty

Capital Utilization



- Excellent ROI on Reusables investment.
- Pooling/Rental of Reusables – outsource CapEx

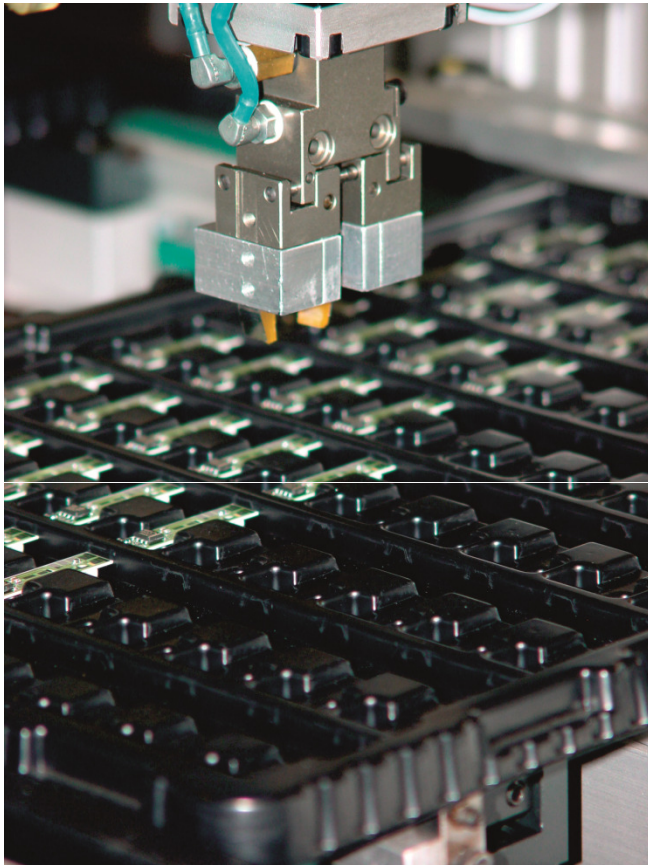
Operating Expense Reduction



- Eliminate expendable packaging expense
- Reduce waste costs
- Reduced product damage or spoilage
- Reduced labor and total freight cost.



Reusables Benefits In Action



Electro-Static Discharge (ESD)

Reusable Packaging for Electronics

- ESD reusables handle & transport sensitive electronics like circuit boards.
- Replace single use plastic trays in anti-stat bags and corrugated boxes.
 - Excess handling labor
 - High packaging cost
 - High packaging waste burden
 - Increased risk of component damage.
- ESD Reusable packaging can:
 - Generate ROI by eliminating packaging
 - Eliminate packaging waste
 - Reduce handling labor
 - Reduce damage to valuable components

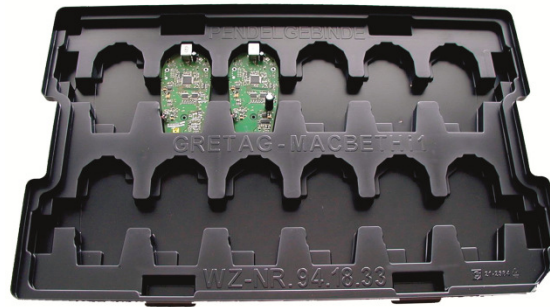


Reusables Benefits In Action



ESD Reusable Packaging for Electronics – Types of Containers

- Standard Footprint Injection Molded Containers
 - Automotive or Metric – RAKO pallet optimization
 - Can be used for multiple programs
- Standard Thermoformed Trays
- Custom Injection Molded Trays
 - Increase precision for greater pack density
- Custom Thermoformed Trays
 - Lower tooling cost
- Adjustable Printed Circuit Board Holders



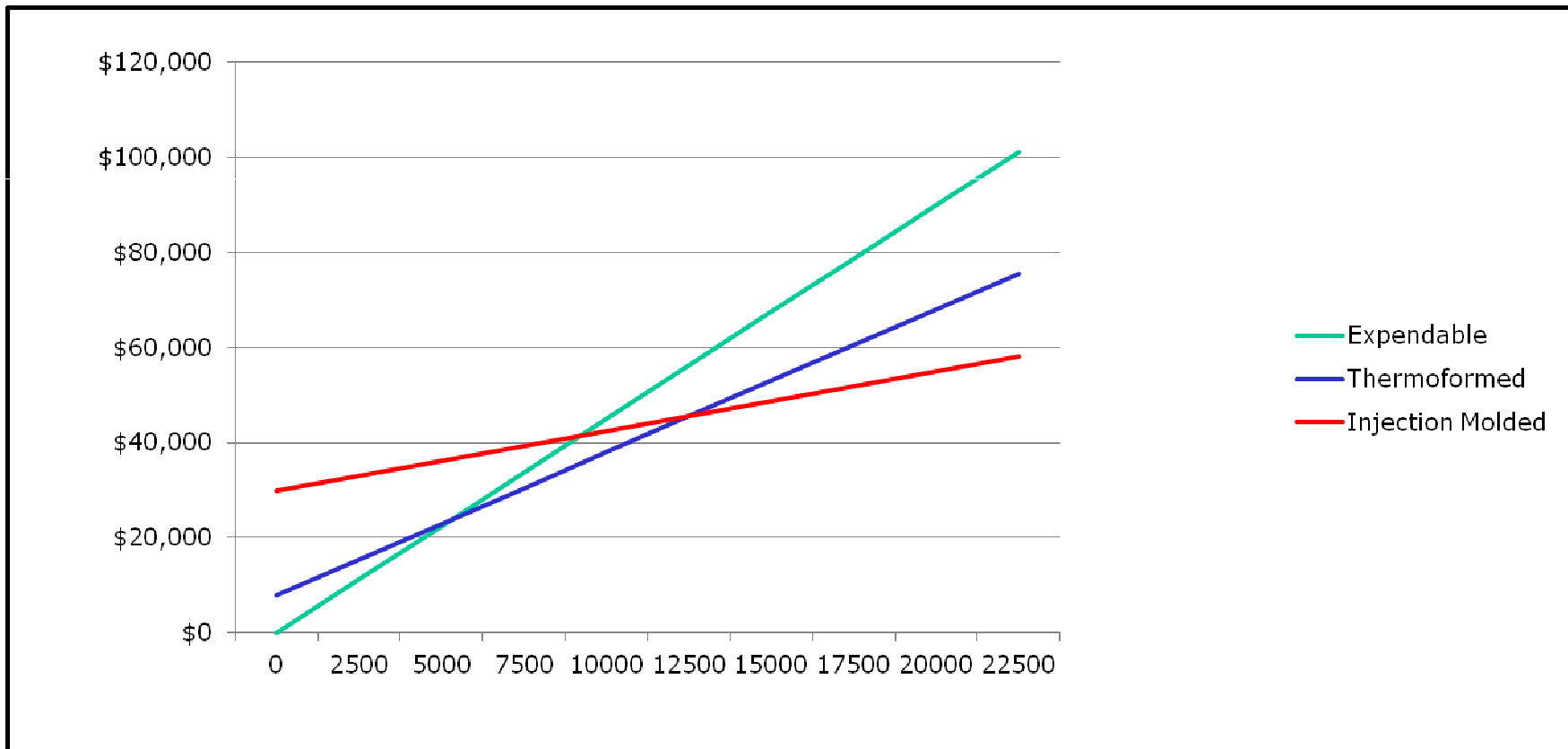


Reusables Benefits In Action



ESD Reusable Packaging for Electronics – Return on Investment

- Thermoformed trays – Lower tooling, higher unit cost 2,500 - 5,000 BE
- Injection molded trays – Higher tooling, lower unit cost 10,000 - 15,000 BE





Reusables Benefits In Action



ESD Reusable Packaging for Electronics – Added Value Opportunities

- Reusable ESD Systems can be integrated into automated load & unload stations – reducing labor and potential for handling damage.
- Trays can also be stacked, de-stacked and nested using automation.
- Trays can provide total product protection, eliminating outer containers.
- Significant increases in **packing density** and exact part counts can be achieved to reduce shipping and handling costs.

Benefits: Improved Quality. Reduced Labor & Lower Freight Cost



Courtesy of:
George UTZ, Inc.
www.utzgroup.com

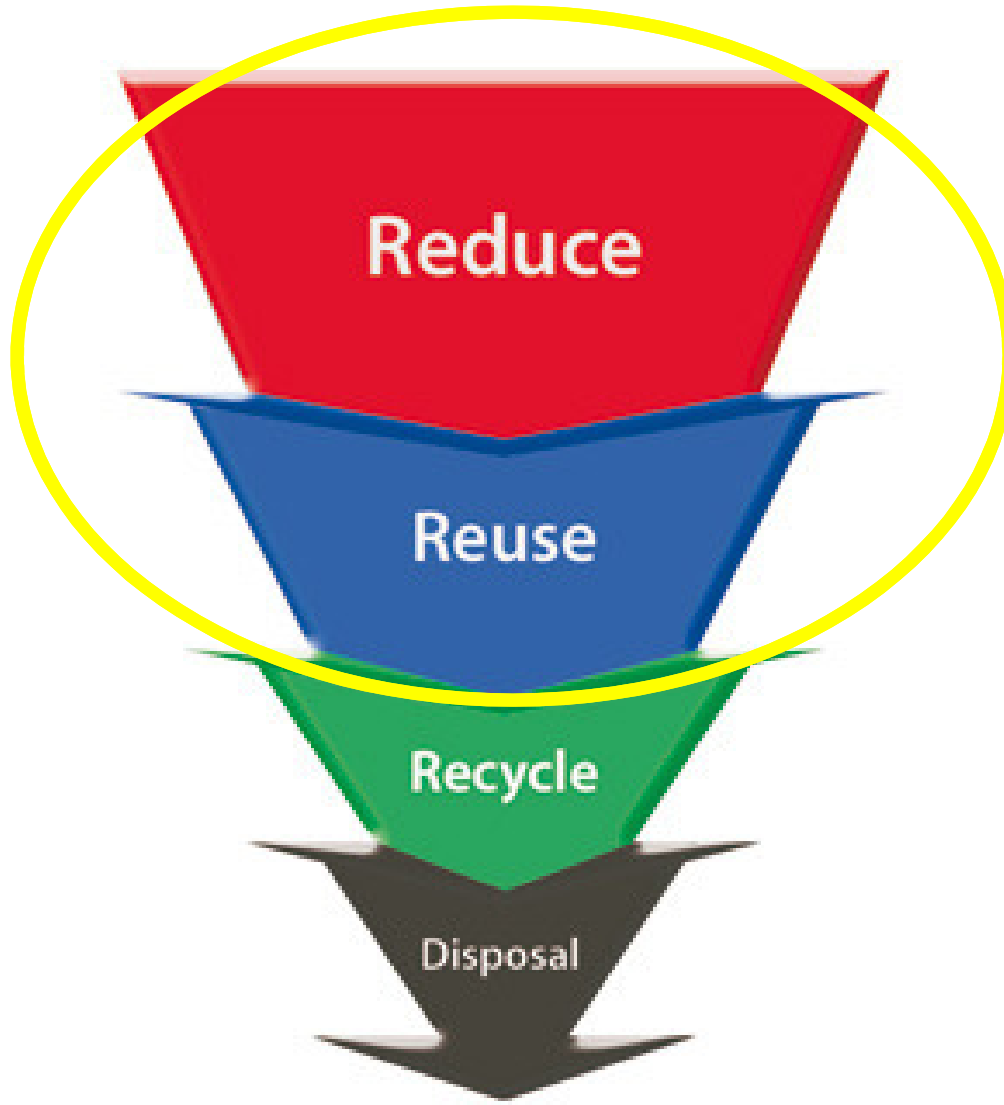


Environmental Benefits





“Reduce & Reuse” are the Most Sustainable

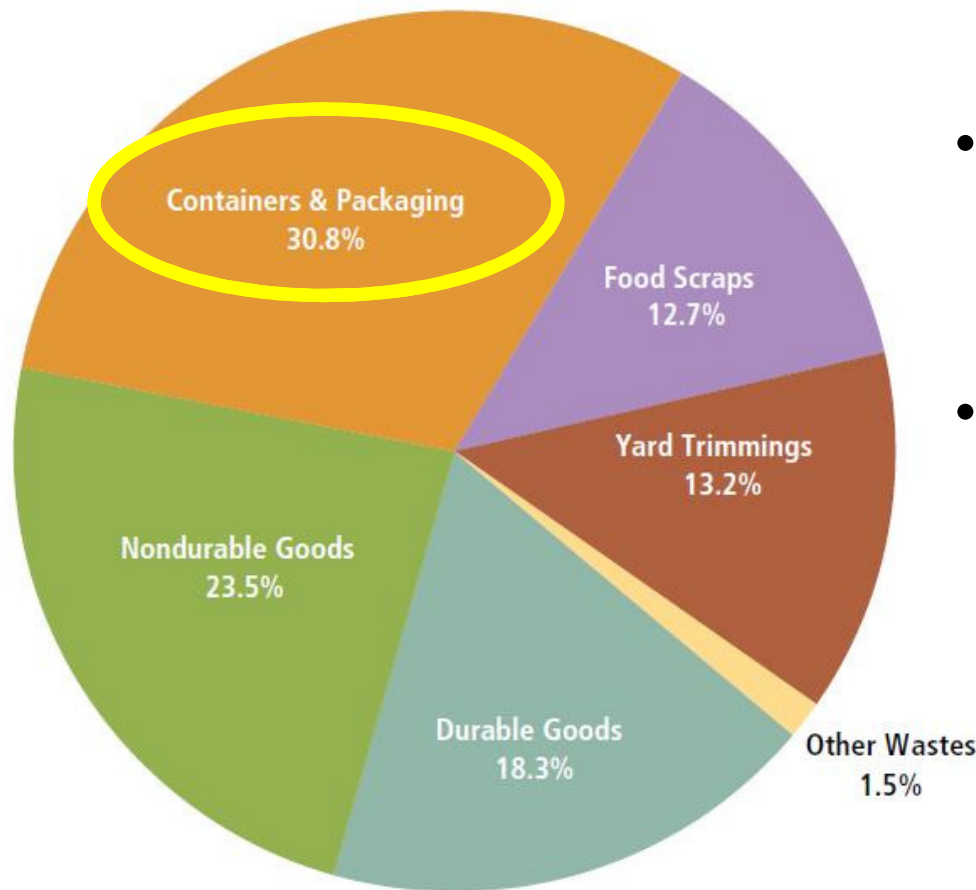




U.S. Solid Waste



Disposable Containers & Packaging are 30% of North America's Municipal Solid Waste



- 56% of these valuable resources are wasted in landfills.
- The remaining 44% are recycled; often downcycled into less valuable products.

Total MSW Generation (by category), 2008
250 million tons (before recycling)



U.S. Greenhouse Gas Emissions



Over 1/3 of U.S. Greenhouse Gas Emissions are Attributable to Producing & Transporting Goods

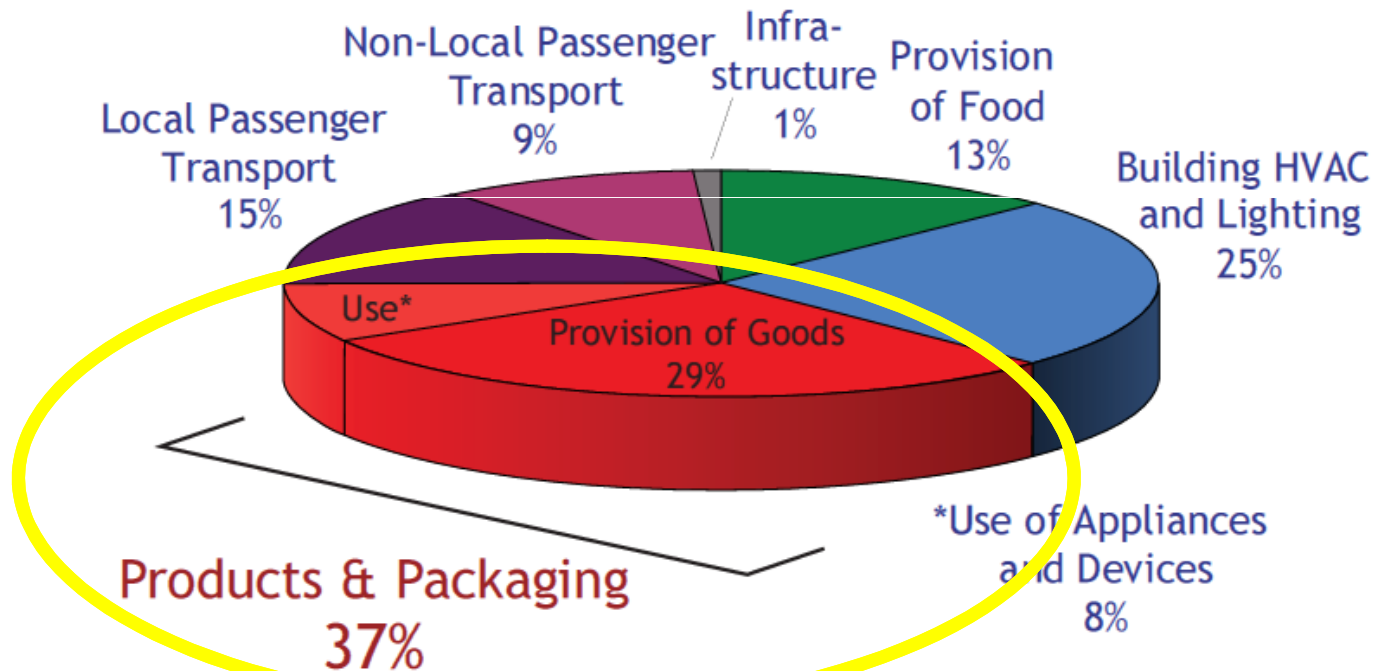


Figure 1: U.S. Greenhouse Gas Emissions: Systems-based view.
Source: U.S. EPA, 2009.

(Provision of Goods: all consumer goods including building components and vehicles.)



Environmental Impact of Disposable Packaging



One Ton of Corrugated Cardboard:

- Generates 5.3 MTCE of greenhouse gases – over 3 times as much as plastic
- Consumes 17 trees
- Consumes 7,000 gal. of fresh water
- Generates 3.3 cubic yards of landfill
- Consumes 4,000 KWH of energy



Wooden Pallets in the US:

- Consume 14 – 17 million trees a year
- Consume 30% of all hardwood used
- Represent 2-3% of all landfills



Reusables Benefits in Action

MAC9



Reusable Containers for Supplies – Closed Loop



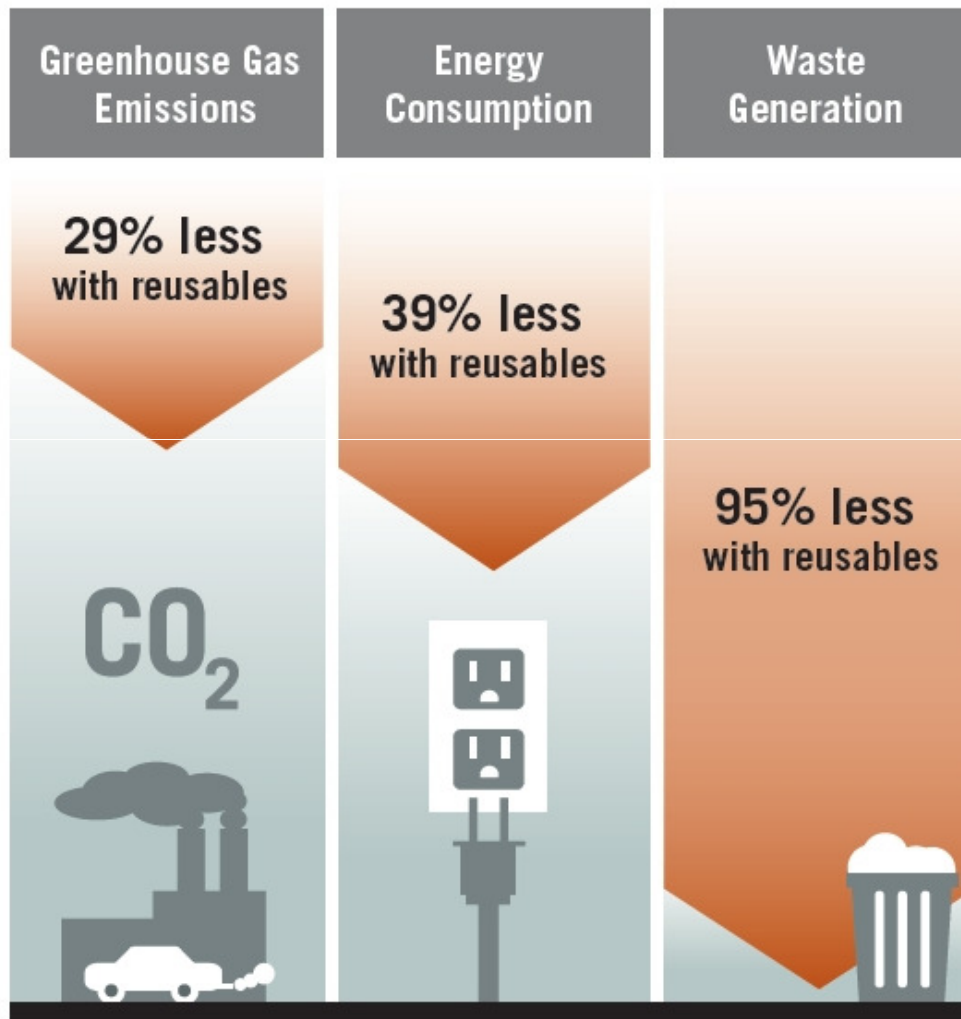
NUMMI

- NUMMI reduced cardboard consumption by 60% by purchasing, using and requiring suppliers to use reusable shipping containers.
- Prevented 11,000 tons of solid waste from being generated
- 58.3 MTCE greenhouse gas reduction
- Resulted in \$2.5 Million/yr savings

Benefit: Waste Prevention, GHG reduction



Environmental Benefits of Reusables



Reusable transport packaging containers

- generate 29% less total greenhouse gas emissions;
- require 39% less total energy; and
- produce 95% less total solid waste on average.

See Reusables 101 page 9

Health & Safety Benefits





Health & Safety Benefits



- **Reduce injury from overfilling non-uniform boxes.**





Reusables Benefits in Action



Reusable Totes



Closed Loop Distribution



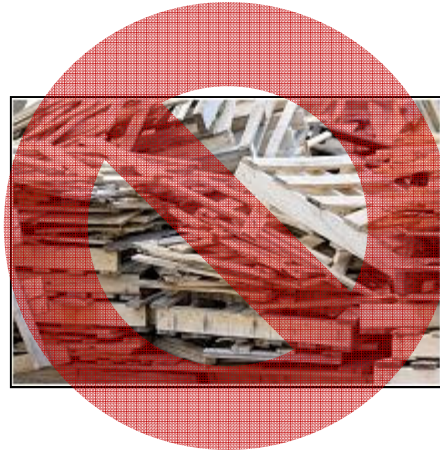
Peerless Coffee & Tea Company – Oakland, CA

- Replaced single use cardboard boxes with reusable totes for three of their Bay Area delivery routes
- Standardized reusable totes over-filling of oversized boxes and back injuries.

Benefit: Reduced Injury, Lower Material Costs over Time



Health & Safety Benefits



- Reduce injury from overfilling non-uniform boxes.
- **Reduce injury from broken pallet debris** hazards such as splinters, nails and wood on the floor.





Reusables Benefits in Action

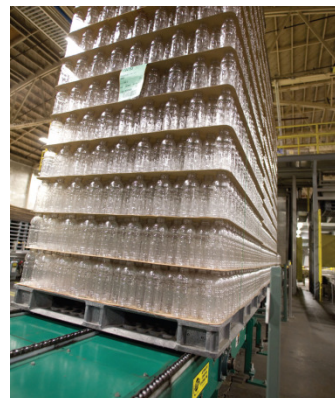


Plastic Pallets for Beverage Distribution – Open Loop



PepsiCo's Gatorade Plant

- Switched from wood pallets to leased reusable plastic pallets
- Significant savings by eliminating damage to product from pallets
- Reduced equipment jams
- Minimized labor needed to sort out bad pallets
- Cleaner warehouse with less **hazard-causing debris**



Benefit: Reduced product damage & improved safety



Health & Safety Benefits



- Reduce injury from overfilling non-uniform boxes.
- Reduce injury from broken pallet debris hazards such as splinters, nails and wood on the floor.
- Ergonomically designed reusable totes can reduce **bending, lifting and handling injuries.**





Reusables Benefits in Action



Reusable Totes for Office Relocation – Open Loop



StopWaste used totes to pack and transport items during their office move.

- Rigid totes offered better protection of contents.
- Dollies eliminated heavy lifting.



- Elimination of cardboard boxes and tape saved set-up and clean-up time.
- **Increased moving truck capacity by 40%-50%, cutting freight costs.**

Benefit: Improved efficiency, Safety & Ergonomics and freight costs



Health & Safety Benefits



- Reduce injury from overfilling non-uniform boxes.
- Reduce injury from broken pallet debris hazards such as splinters, nails and wood on the floor.
- Ergonomically designed reusable totes can reduce **bending, lifting and handling injuries**.
- Reduced risk of **food contamination** with sanitized totes.
- Reduce **injuries from rolling drums and chime removal**.





Reusables Benefits in Action



Bag-in-Box IBCs for Health & Beauty Products – Closed Loop



Marietta Corp –Hotel amenities

- Reusable bag-in-box, foldable IBCs to transport & store bulk liquid
- Eliminated the use of drums and single-use IBCs
- Single use liners eliminated effluent waste, bag wringing reduced residual waste
- Eliminated risk of batch to batch contamination.
- Fold for Increased storage space and **reduced return freight costs.**



Benefit: Reduced Contamination and Reduce injury from drums

Many Benefits of Reusables



Questions before we move on?



Attributes of Good Reusables Opportunities

- Within One Facility, Closed Loop, or Managed Open Loop
- Flow of Consistent Products in Large Volumes
- High Turn Rate
- Large and/or Bulky Products, or Easily Damaged Products
- Suppliers or Customers Grouped Near One Another
- High Waste Disposal or Recycling Costs
- Sustainability Goals or Mandates

Reusables Systems: 3 Types



- **Work-in-Process:** Used in-plant for storage and transport within a single facility.



- **Closed-Loop:** Reusables move through supply chain without 3rd party management; this approach is ideal for reusables.

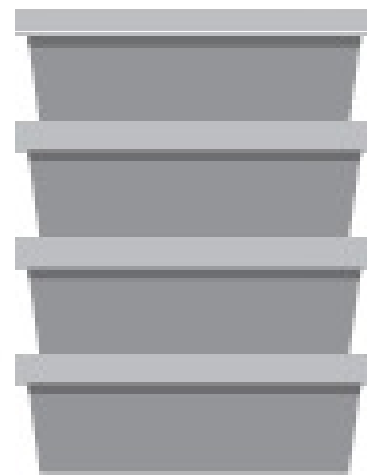
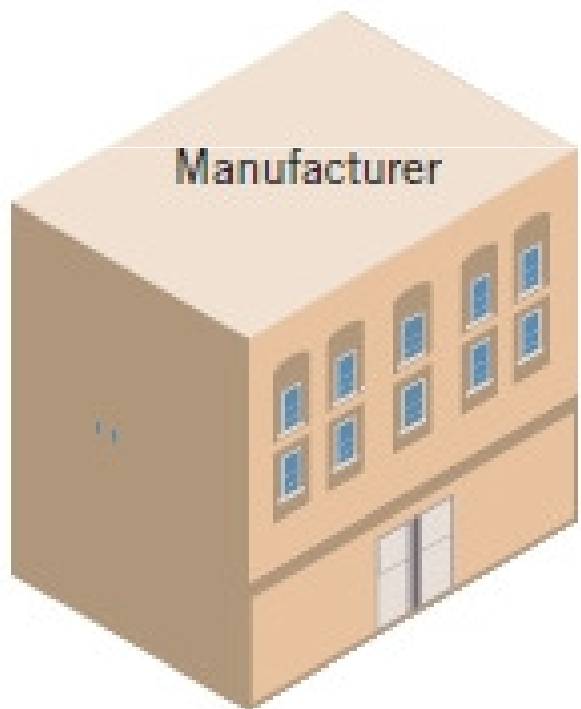


- **Open-Loop:** A 3rd party company manages the return of empty containers and distribution of containers back to the manufacturer; best for consistent flow with high volume.

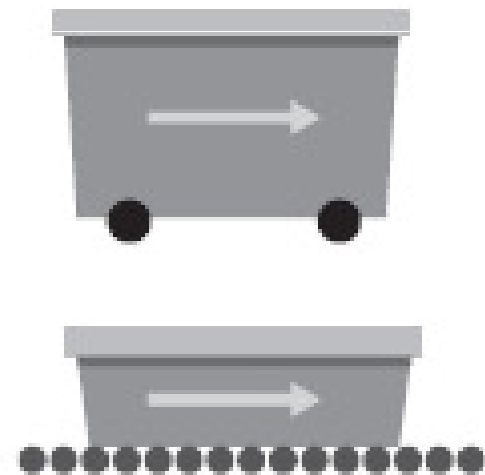
Attributes of Good Opportunities



Within a Single Facility



In-plant Storage



In-plant Transport

Ghirardelli: Work In Process



Limited Use



Work-In-Process

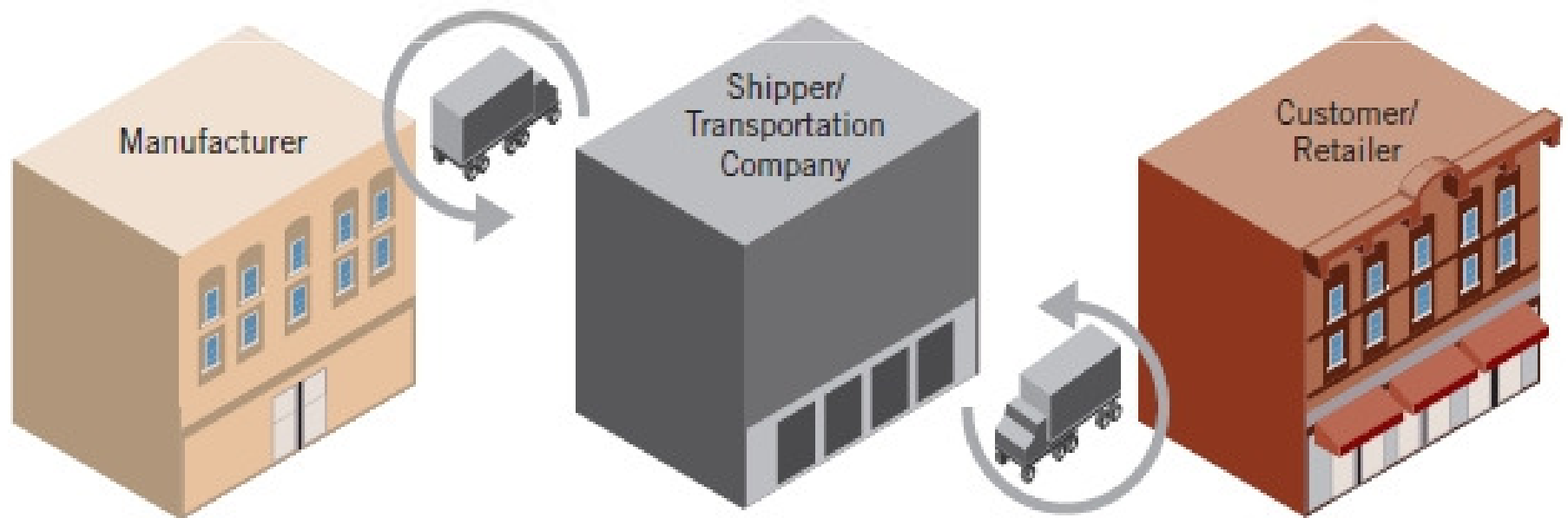


Ghirardelli Chocolate purchased reusable totes to move products in **“work-in-process”** for one of their production lines. This switch saves costs and environmental impacts of 228 tons/yr of cardboard boxes that were previously purchased, assembled, handled and recycled – 1,208 MTCE greenhouse gas emissions avoided.

Attributes of Good Opportunities



Closed-Loop System



CarQuest – Closed Loop



Distribution Totes



Less Than Case Load Retail

CarQuest Auto Parts uses to distribute less-than-case loads of auto parts from its DCs to its customers.

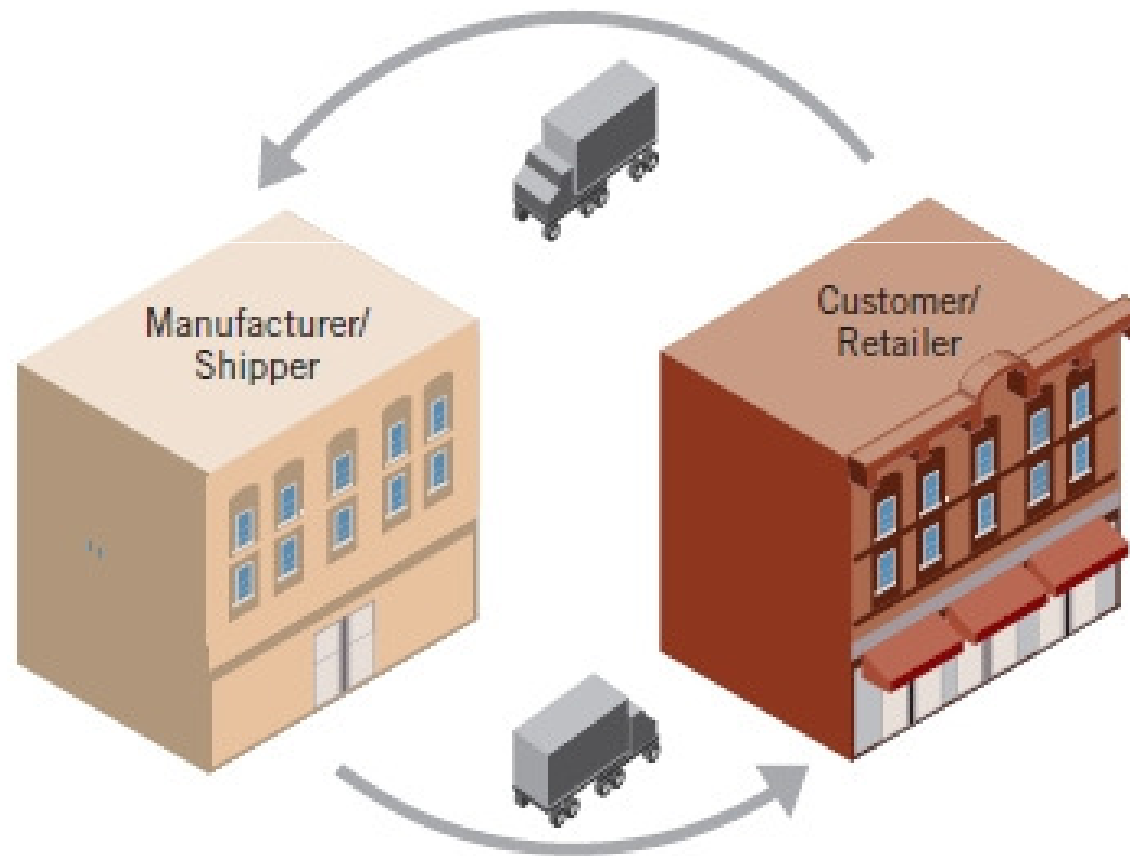
- Durable totes provide better protection to parts reducing damage.
- Ergonomic handles reduced back and wrist injuries.
- Increased stack height increased trailer capacity to reduce freight.
- First generation tote eliminated corrugated waste with rapid ROI.
- Second generation tote nearly eliminated tote damage and injuries associated with handling damaged totes.



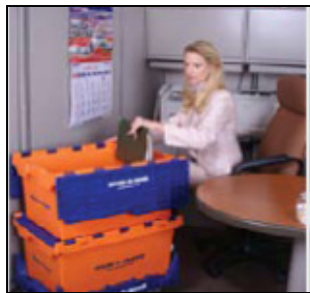
Attributes of Good Opportunities



Managed Open-Loop System

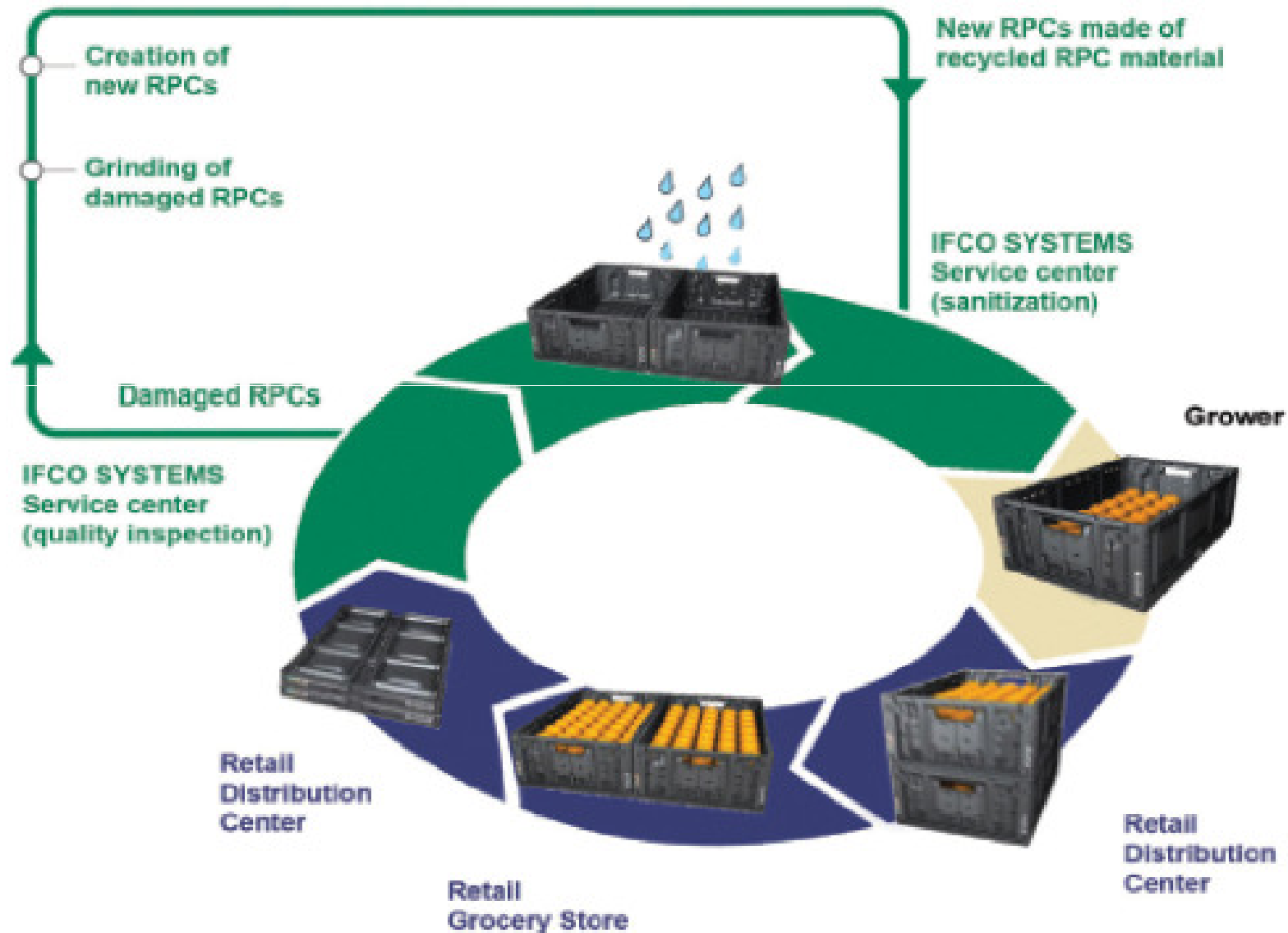


Open Loop Pools In North America



- RPCs for Produce, Meat and Eggs.
- GMA Pallet for retail distribution.
- IBCs and Bulk Bins for liquids, solids & parts.
- Office Moving Crates.
- Other specialty applications.

Example Open Loop Pooling Model



Value Points of RPCs and Fresh Produce



VS



- Reduced product damage and shrink
- Field heat removed quicker
- Higher produce quality at store level
- Better truck utilization to retail
- Possible use as “one touch merchandising”
- Cost efficient against traditional packaging
- Reduced disposal time at store level

Stability



Unitization and Cube Efficiencies



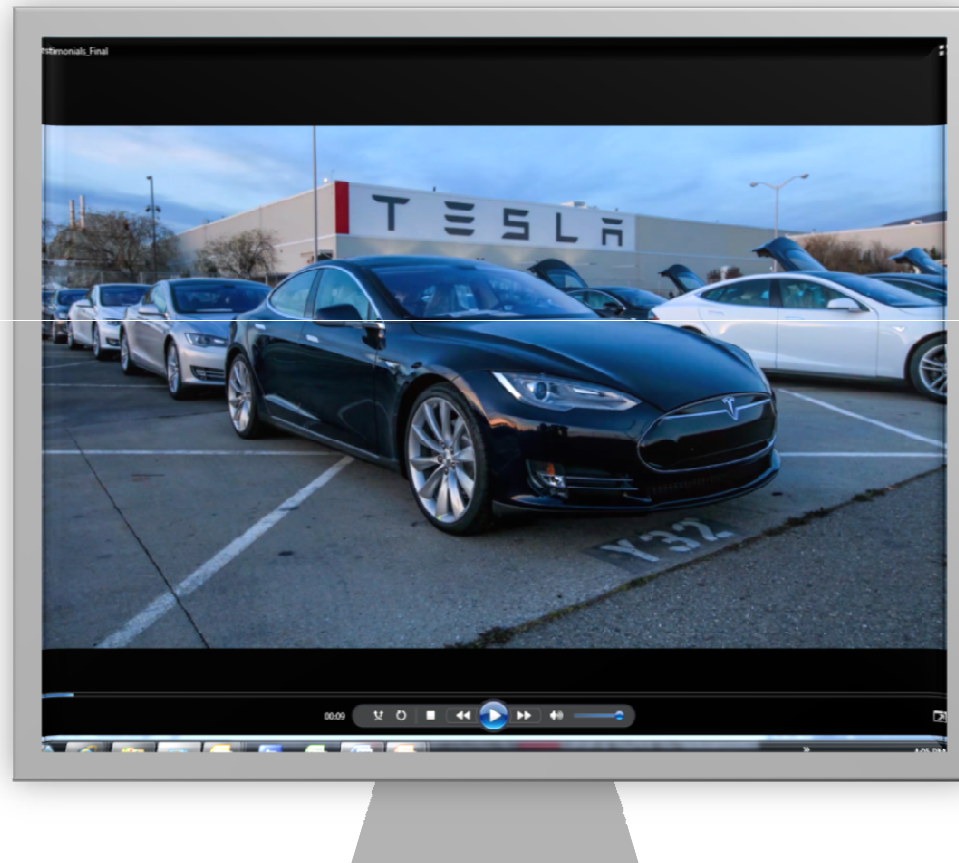
Disposal vs. Re-collection



Case Study Examples



Tesla, Inc. and Veritable Vegetable - Video

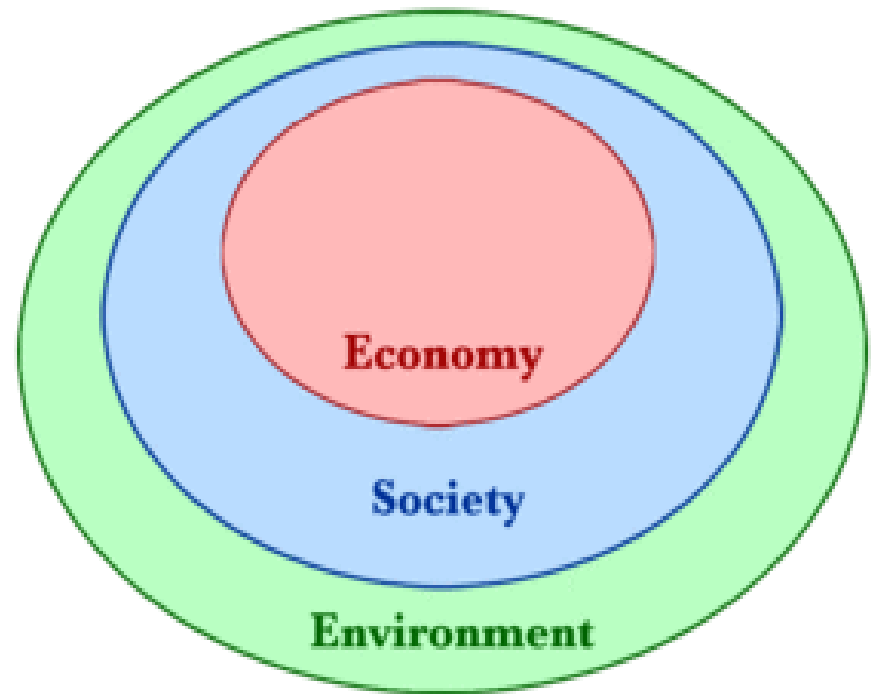


www.UseReusables.com

Attributes of Good Opportunities



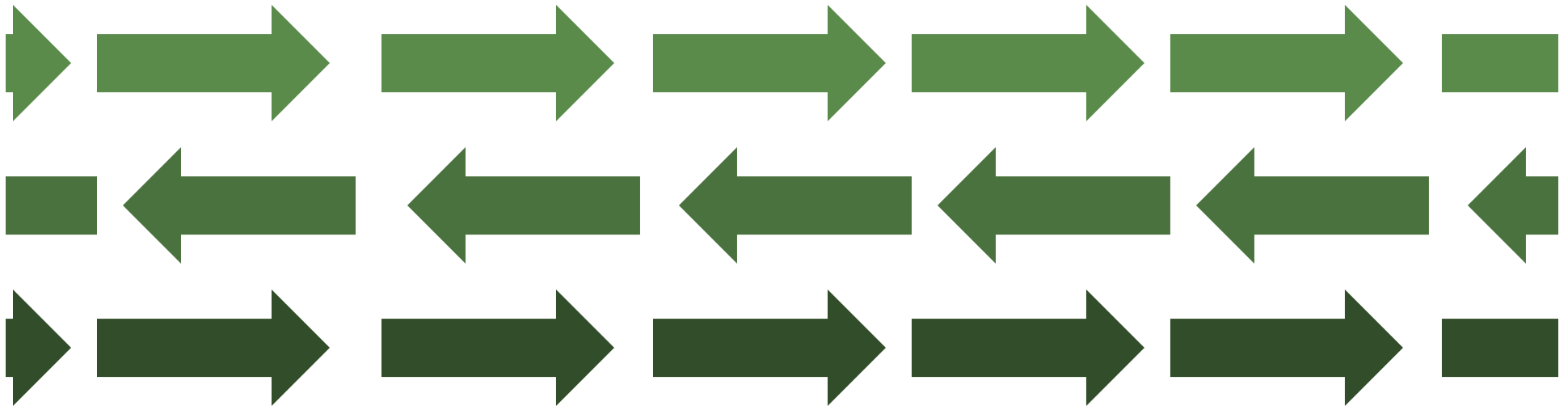
- High Waste Disposal or Recycling Costs
- Sustainability Goals or Mandates



Attributes of Good Opportunities



- Flow of Consistent Products in Large Volumes
- High Turn Rate



Attributes of Good Opportunities



Toyota Logistics Services

Solutions

Reduce waste and cut costs by switching to reusable shipping containers, through supply chain management, and by expanding recycling.

Reusable Shipping Containers

Carpet used to be shipped in one-time-use cardboard boxes on pallets. Now, at all six Toyota Logistics Services (TLS) vehicle delivery facilities, carpet is shipped in large reusable plastic containers that collapse, stack, and don't require a pallet. This switch prevents 3,000 tons of combined wood and cardboard waste and saves \$3.5 million for all six facilities every year.

"The key to our success was making sure all of the associates were aware of the recycling program, then giving regular updates to keep them engaged in the process. Having the right supplies in the correct areas is also important, which means that regular observations as to what is being placed where are essential."

KAREN MOORE
Environmental and Safety Engineer, TLS Fremont

Supply Chain Management

TLS Fremont has arranged to have multiple truck running boards shipped together in the same container. Previously, running boards were packaged individually in Styrofoam and cardboard boxes. Now compostable cornstarch-based foam is used, and the running boards are packed 14 to a box. The cornstarch packaging and cardboard are recycled after use. This project has cut packaging costs by \$15,000 a year.

In 2005 the truck bed of the Tacoma was changed—from metal with a liner to a composite bed. The new composite bed not only eliminates the need for a liner,

Expanded Recycling

TLS Fremont expanded recycling collection by placing additional bins throughout its office and on the factory floor, and by increasing the types of materials collected. StopWaste Partnership provided funding for the new bins plus signage, including bilingual posters; made presentations to staff; and helped with bin placement. They recycle cardboard, mixed paper, beverage containers, plastic film, car parts, food waste, and cornstarch packaging. The company has reduced its garbage bill by \$12,000 a year and is actually earning revenue by selling some materials to recycling vendors.

The bottom line:

For TLS Fremont facility:

- \$12,000 savings in disposal costs
- \$15,000 savings by eliminating running board packaging
- \$5,000 mini-grant for recycling bin purchase

Visit www.stopwaste.org/partnership or call 1-877-STOPWASTE.

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- Large or Bulky Products
- Easily Damaged Products
- Example: **Toyota Logistics Services** used to pack their heavy carpet and large truck bed liners in disposable packaging. They switched to reusables and **prevented 3,000 tons of combined wood and cardboard waste and saved \$3.5 million for all six facilities per year.**

Other Factors Affecting Financial Value



- Supply Chain Cycle Time
- Geography of Return Logistics
- Reverse Supply Chain Predictability
- Business Seasonality
- Customization
- Number and dispersion of end users
- Degree of sanitization required after each use
- and...



Other Factors Affecting Financial Value



Container Theft



Pallet Repair

Impact of Reusable Packaging on Freight Costs



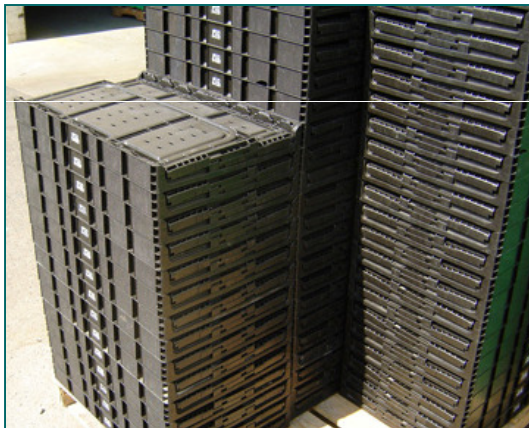
- Reusables can reduce packing weight and **reduce outbound freight on weighed-out loads.**
 - Plastic vs. wood pallets
 - Foldable bag-in-box IBCs vs. drums or tank style IBCs



- Reusables can increase stack heights and pack density to **increase cube utilization.**
 - Produce SKUs such as lettuce
 - Office relocation crates
 - ESD and other parts trays



Impact of Reusable Packaging on Freight Costs



- Some reusables weigh more than disposable packaging they replace.
 - Plastic RPCs vs. Corrugated
 - Potential freight cost increase on weighed-out loads.
- Reusables require backhaul which can add to freight cost
 - Milk runs and closed loop returns take advantage of unutilized trailer capacity.
 - Open loop poolers optimize reverse logistics.
 - Most reusable have high return ratio to reduce return freight.
- Upstream source reduction more than offset greenhouse gas emissions of backhails.
 - 5.3 MTCE per Ton of Corrugated Cardboard reduced.

Attributes of Good Reusables Opportunities



**Questions before
we move on?**



7 Steps to Implementing Reusable Transport Packaging at Your Business

Step 1 - Understanding



What are reusables?

Your decision-makers and other stakeholders need to learn what reusables are and how they help your business.



Step 2: Identify Potential for Reusables



Where are the “Low Hanging” Opportunities?

Internal Work in Process

1. What work in process is creating waste?

Supply Chain

1. What supply chain and/or Customer relationships....
 - Are Closed Loop?
 - Reuse with Other Suppliers/Customers?

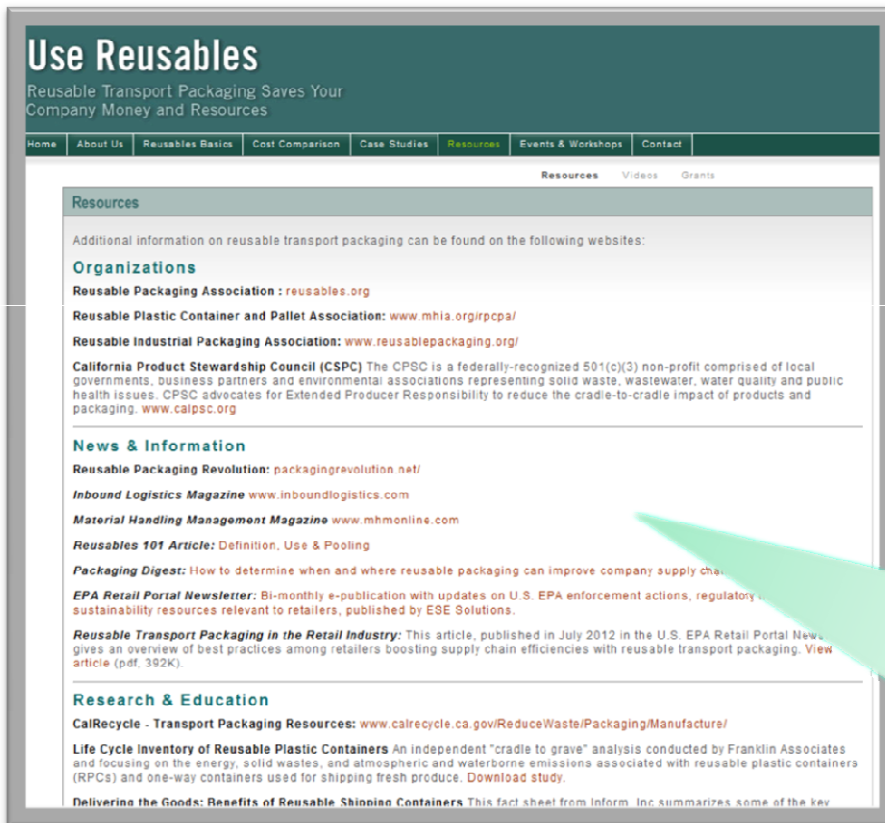
Logistics

1. What type(s) of reusables will work?
2. Will we Buy or Lease?
3. Where/how will we store them?
4. Do we need to clean them?
5. How will we track them and get them back?

Step 3: Gather Information



Get Cost Estimates for Equipment



Two Options:

- Directly from vendors
- Submit an Reusables Information Request Form

Go to the “Resources” tab for a list of vendors

Step 4: Assess the Costs



www.useresables.com/cost/cctool.html

Use Reusables

Reusable Transport Packaging Saves Your Company Money and Resources

Update
Reset
Home
Print

Input | [Charts](#)

Reusables Cost Comparison Tool

This model compares basic cost differences of one way corrugated packaging and reusable plastic packaging. The model uses basic assumptions and requires you to input various cost components. While the model uses factual inputs from prospective users it is intended to offer guidance and not an absolute indication of exact cost benefits. More specific models are available to determine specific cost benefits once an overall feel for expected costs are understood.

	Corrugated	Reusable Handheld Container	
Purchase Price		<i>* average values, your cost will vary</i>	
Enter your actual cost for a corrugated carton, and the cost of a comparably sized reusable container. Default values are provided.	Corrugated carton	Container price	1.00 / 7.50
Enter the cost of tape or other materials used to seal each carton.	Tape per carton		0.02
	Total purchase cost		\$1.02

1. Perform a cost & sustainability comparison using our free cost calculator
2. Review the ROI to determine if it fits within your company's threshold



Step 5: Buy In

Stakeholders	Priorities	Reusables Resources
Finance Department	Revenue	Cost Calculator to estimate ROI
Logistics Managers	Efficiency and Safety	Case Studies and examples of increased unitization and reduction of workplace hazards
Purchasing Department	Cost Savings	Cost Calculator to identify all costs
Suppliers/Customers	Product Protection	Case Studies and examples of product protection; Request samples

Step 6: Procure Equipment or Services



Identify Funding

- Capital Expense from which budget?
- StopWaste/EPA grant funding

Procure Equipment

- Order the equipment
- Accessory equipment: Labeling and Storing Items

Education

- Train staff
- Educate Logistics partners
 - Benefits
 - Procedure

Step 7: Implementation



Implementation

1. Use your Reusables
2. Track your Assets
3. Measure Results
4. System Cost Improvement & Redesign
5. Retraining & Reinforcement



More Details: Financing & Asset Tracking Options

Financing Options



OWNERSHIP

- Purchase (Cash)
- Financing/Capital Lease

or

THIRD PARTY

- Rental/Operating Lease
- Pooling (rental w/ services)

What Makes the Most Sense?



Ownership Options	Pros	Cons
➤ Purchase (cash)	<ul style="list-style-type: none"> • No financing cost • No long-term liability 	<ul style="list-style-type: none"> • Lost opportunity costs • Burdens of ownership
➤ Financing/Capital Lease	<ul style="list-style-type: none"> • Increased cash flow • Lower interest rates • Typically longer term financing 	<ul style="list-style-type: none"> • Long-term liability commitment • Utilizes available credit facilities • Burden of ownership

Third Party Options	Pros	Cons
<ul style="list-style-type: none"> ➤ Rental (<1 yr) ➤ Operating Lease 	<ul style="list-style-type: none"> • Variable costing • No burdens of ownership • Higher utilization • Off balance sheet financing • Greater flexibility 	<ul style="list-style-type: none"> • Higher costs • No asset ownership
➤ Pooling (rental w/ services)	<ul style="list-style-type: none"> • Pay for what you use • Off balance sheet • No capital up-front 	<ul style="list-style-type: none"> • Duplicates in-house capabilities • Potential ancillary charges



Asset Tracking Options

Tracking: If you can't measure it,
You can't manage it...



What Makes Dollars and Sense?



Aggregate Tracking



Individual Tracking

Barcode



RFID



Aggregate vs. Individual Tracking



SYSTEM TYPE	ASSET ID	ACCURACY	IMPLEMENTATION/ DIFFICULTY	SOLUTION COST	ADDITIONAL HARDWARE
Aggregate Asset Tracking	Visual label None	Medium	Shorter/Easy	Low - Medium	None
Individual Asset Tracking	Barcode Passive RFID Active RFID GPS	High	Longer/Interme- diate	Medium - High	Scanners (laser/RFID)





More Resources for You

More Information



A screenshot of the 'Use Reusables' website homepage. The header includes the title 'Use Reusables' and the tagline 'Reusable Transport Packaging Saves Your Company Money and Resources'. A navigation menu contains links for Home, About Us, Reusables Basics, Cost Comparison, Case Studies, Resources, Events & Workshops, and Contact. The 'Case Studies' link is circled in yellow. Below the menu, there are three case study entries: 'Savoy Spinach: Driving down costs with returnables', 'StopWaste.Org: Reusable Moving Crates', and 'ANG Newspapers: Efficiencies from plastic pallets'. A red arrow points from the 'Case Studies' link in the navigation menu to the 'Send Us Your Stories' section on the right side of the page.

UseReusables.com

- Download Free Case Studies
- Read Articles
- Watch Short Videos
- Use the Cost Comparison Calculator
- Download the grant application

Next Steps



- After the training consider Reusables
- Complete Information Request Form
- We work together to find solutions for your supply chain
- Apply for a grant by the Sept. 10th deadline
- Become a model case study



Thank You!



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