

WAL★MART®



Wal-Mart Inc. and Packaging Sustainability

January 30, 2008

Robert Parvis

- Packaging Sustainable Value Network Team Member
- Sam's Club Packaging Manager House Brands

We aspire to be sustainable along 3 dimensions

Supplied 100% by renewable energy



- Existing stores 20% more efficient in 7 years
- New stores 30% more efficient in 4 years
- Fleet 25% more efficient in 3 years, double in 10 years

Create zero waste



- 25% reduction in solid waste in 3 years
- All private brand packaging improved in 2 years (right sized, reusable materials)

Sell products that sustain our resources & environment

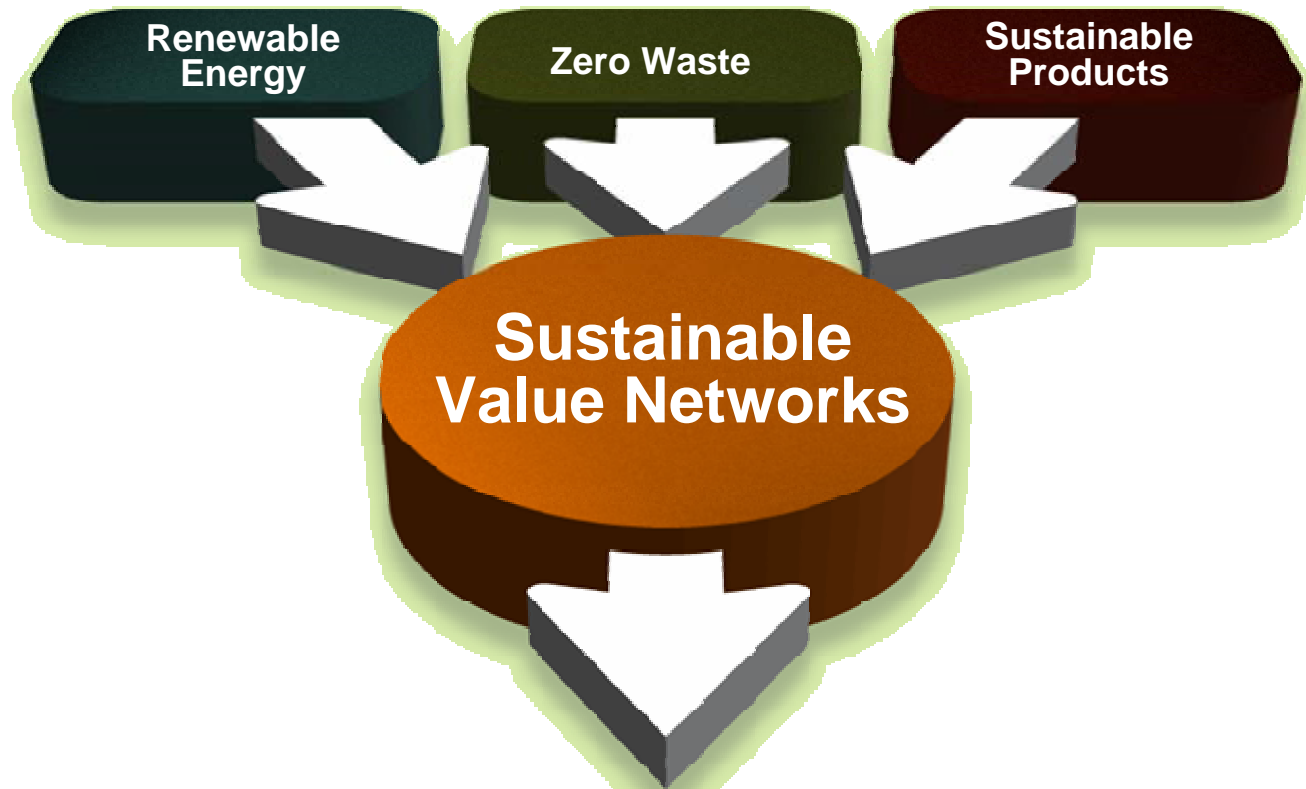


- 20% supply base aligned in 3 years
- Preference given to aligned suppliers in 2 years
- Design and support Green Company program in China

Why choose packaging?

- In line with our goal of Zero Waste
- Packaging is an integral part of our Retail Supply Chain
- Need to manage our all resources for future success

How We're Getting it Done – Successful Strategies



**Added Value for
Customers and Shareholders**

Sustainable Value Networks

- Preferred Products
 - Textiles
 - Seafood
 - Jewelry
 - Forest Products
 - China
 - Electronics
 - Food & Agriculture
 - Chemical Intensive Products
- Renewable Energy
 - Alternative Fuels
 - Global Logistics
 - Greenhouse Gas
 - Sustainable Buildings
- Waste
 - **Packaging**
 - Ops & Procurement

Wal-Mart Stores Inc. Packaging Sustainable Value Network

Scope

The scope of Wal-Mart Stores Inc. Packaging Sustainable Value Network is to provide a link between the packaging industry and our customers to achieve the company's sustainability goals. The Pkg SVN facilitates information flow, develops tools to help make purchasing decisions, tracks progress and communicates activities to our stakeholders.

Wal-Mart Stores Inc. Packaging Sustainable Value Network Leadership

Executive Sponsor
Greg Spragg
 Executive Vice-President
 Sam's Club
 Merchandising/Replenishment

Co-Captains

Michael Heintzman

Senior Vice President,
 Sam's Club
 Segment Lead

Joe Grady

Vice President,
 Wal-Mart Divisional
 Merchandise Manager

Co-Managers

Rob Eldridge

Sr. Director
 Wal-Mart
 Packaging

Amy Zettlemyer Lazar

Director
 Sam's Club
 Packaging

Team Members

Chet Rutledge

Sr. Manager
 Wal-Mart Pkg &
 Business Production

Diana Ramos

Sr. Manager
 Wal-Mart Pkg &
 Business Production

Josie Reed

Sr. Manager
 Wal-Mart Pkg &
 Business Production

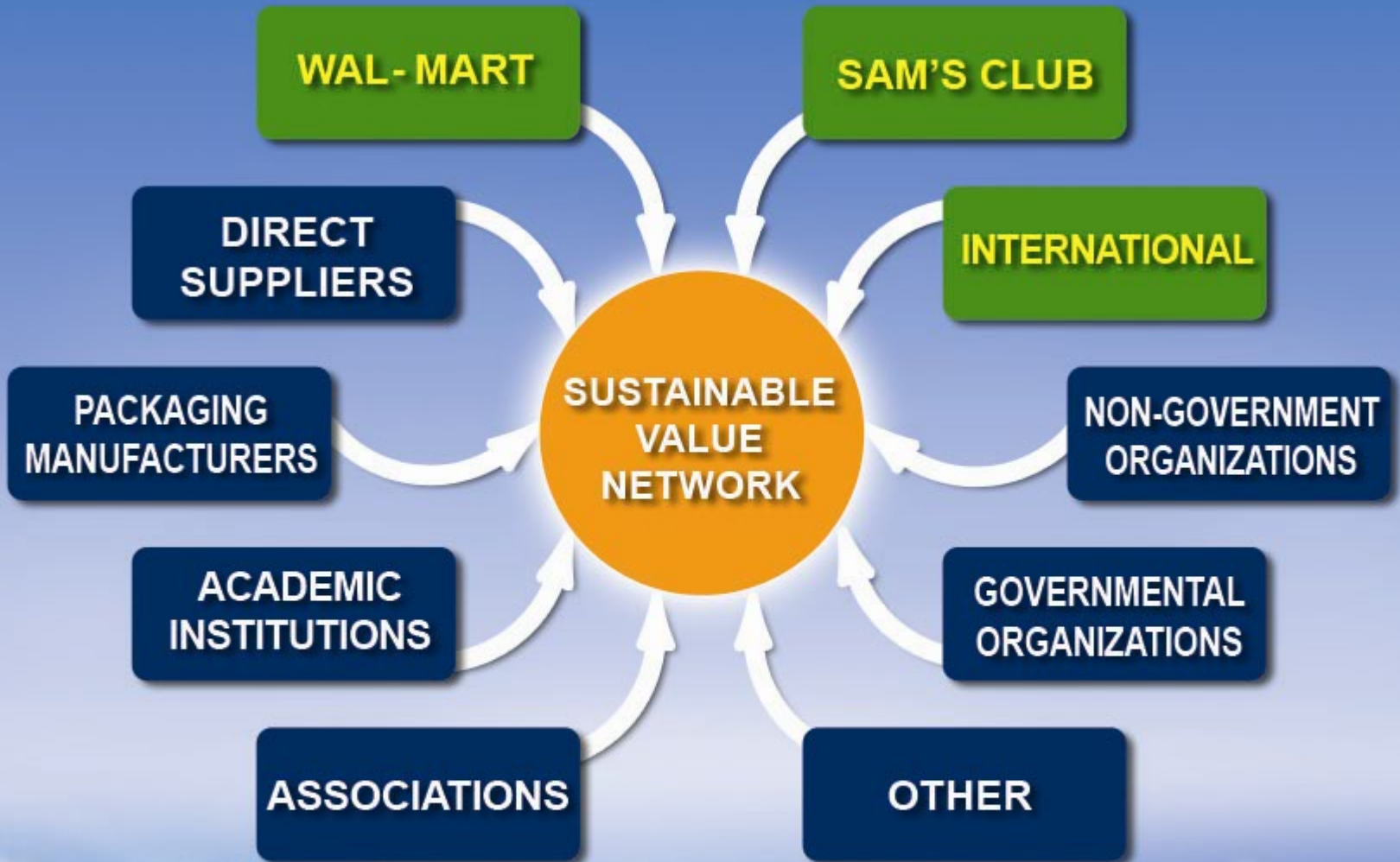
Rob Hildreth

Sr. Project Manager
 International

Robert Parvis

Manager
 Sam's Club
 Pkg House Brands

Packaging Sustainable Value Network Membership



Wal-Mart Stores Inc. Packaging Sustainable Value Network Steering Committee

Academics

University of Berkeley	Tony Kingsbury
Clemson University	Chip Tonkin
Michigan State University	Dr. Paul Singh
Rochester Institute of Technology	Deanna M. Jacobs
University of MO-Rolla	Stephen A. Raper

CPG Sub-Committee

Clorox	Tim Kennedy
Procter & Gamble	Tony Burns

Government Organizations

CA Integrated Waste Management Board	Robert Carlson
EPA – Office of Solid Waste	Sara Willis Hartwell
Oregon Department of Environmental Quality	David Allaway

Non-Governmental Organizations

Container Recycling Institute	Betty McLaughlin
Environmental Defense	Maria Harris
Green Blue	Anne Johnson
Green Peace	Rick Hind
IERE	Rita Schenck
Keep America Beautiful	Christine L. Flowers
National Recycling Coalition	Kate M. Krebs
Rocky Mountain Institute	Lionel Bony

Wal-Mart Stores Inc. Packaging Sustainable Value Network Steering Committee

Trade Associations

Adhesive & Sealent Council
Aluminum
American Forest and Paper Association
American Chemistry Council
Association of Postconsumer Plastic Recyclers
Biodegradable Products Institute
Can Manufacturers Institute
Fibre Box Association
Flexible Packaging Association
Glass Products Institute
International Molded Fibre Association
International Safe Transit Association
National Association for PET Container Resources
National Wooden Pallet & Container Association
Paper Recycling Coalition
Paperboard Packaging Council
Recycled Paperboard Alliance
Recycled Paperboard Technical Association
Reusable Pallet and Container Coalition
Rigid Plastic Packaging Group
Society of Plastics
Society of the Plastics Industry
Steel Recycling Institute

Mark Collatz
Bob Strieter
Cathy Foley
Keith Christman
Steve Alexander
Steve Mojo
Geoff Cullen
Brian O'Banion
Marla Donahue
Joe Cattaneo
Joe Grygny
Ed Church
Dennis Sabourin
Edgar C Deomano
Fran McPoland
Jerome T. Van de Water
Paul J. Schutes
Joanne Arnold
Fred Heptinstall
Pete Dinger
Susan Howe
Kevin D Ott
Bill Heenan

Specific Strategies to Deliver Success

- Align work with Corporate Goals
- Work with all functions in the supply chain
- Over communicate plans and progress
- Track progress and celebrate successes

Initial Results

- Wal-Mart Kid Connection – “Right-Sized” 300 toy boxes
 - Saved 3,425 tons of corrugated materials, 1,358 barrels of oil, 5,190 trees, 727 shipping containers and \$3.5 million in transportation costs
- Sam’s Club Digital Media – Merchandising Change
 - Worked with Apple to convert I-pod packaging to 100 percent renewable, recyclable and more sustainable materials, the package is also reusable and 50% smaller
- Hamburger Helper – Product Modification
 - Reduced the size of boxes by straightening their noodles and eliminating empty space. Reduced need for 900,000 pounds of paper fiber every year, reduced its overall greenhouse gas emissions by 11 percent and was able to take 500 trucks off the road.
- Car Seat – Remove Materials
 - Buyer pointed out an infant car seat could easily be transported in a thick plastic cover instead of a large, bulky box. Wal-Mart saw our shipping and fuel costs drop, and now our customers can see and touch the seat

WAL★MART®



Wal-Mart Inc.
Sustainable Packaging Scorecard
for Products

Project Objective

Create and implement a tool which supports Wal-Mart Stores Inc.'s definition of sustainability, provides suppliers and buyers with direction and measures progress towards:

- 100% renewable energy
- Zero Waste
- Use of Preferred Products/Packaging

Packaging Scorecard Goals

- 100% Populated with Active Items by 2/1/08
- 5% Reduction of Packaging by CY2013
- \$3.4 Billion in Cost Savings by CY2013

- 667,000 metric tons of carbon dioxide from entering the atmosphere and 213,000 trucks off the road annually =
- Saving 323,800 tons of coal and 66.7 million gallons of diesel fuel from being burned



Review Answers

Background & Product Info.

Supplier Name?	ECRM
Supplier Number?	Scot Case
Wal-Mart/Sam's Club Item Number? (6 or 8 Digits)	123456
Product SKU? (14 Digits)	12345678912345
What is the quantity of product Per Selling Unit?	1
What is the item descriptions? (20 characters)	CD case
Date of Package Launch? (mm/dd/yyyy)	12/12/2006
What was the purchasing company?	Beta Testing WM STORES INC. USA
What is the estimated number of items sold to the above purchaser?	140646719
Testing was conducted and the new package performance is:	N/A first submission
What is the primary product department/category?	ELECTRONICS (Dept. 5)

Selling Unit Packaging materials

What is the percentage of cube utilization?	.8
How many selling unit packaging materials are used?	1 Material(s)
What is the first packaging material?	PLA (polylactic acid)
What is the total weight per package for this material?	25
How far did this material travel before packaging occurred?	Between

Transport Packaging Materials

Is this item a break pack?	<input checked="" type="checkbox"/>
What is the percentage of cube utilization?	
How many materials are used to transport the selling unit package?	1 Material

Package & Model Scores

Metric	Raw Score	Rank	Weight
Greenhouse Gas Emissions from Package Production	0.1041	50%	15%
Evaluation of Material Type	2.3159	50%	15%
Average Distance to Transport Material	5.6829	50%	10%
Product to Package Ratio	1.7094	50%	15%
Cube Utilization	0.2850	50%	15%
Recycled Content	0.0009	50%	10%
Recovery	1.6857	50%	10%
Renewable Energy to Power Each Facility	0.3300	50%	5%
Innovation Different from Energy Standard	0.3300	50%	5%
Total Normalized Score (out of 10)		5.5600	

Would You Like To Improve Your Score?

Using our interactive modeling feature allows you to experiment with new or different packaging materials to see how you score could improve with different materials.

[Begin Modeling This Package Now!](#)

company, we know we must play our part to restore the life practices across our entire industry. We created Sustainable Value environmental and business sustainability.

The Challenge

In order to make a difference we are stressing the importance of using preferable materials. We are asking that you actively participate in this initiative by completing a scorecard that will rate your packaging in terms of

Packaging Metrics

- Product to Package
- Package Recovery

Sustainable Product

At Beta Testing, we think you shouldn't need to n produced in a sustainable way. We are dedicat purchase product at our stores and are commit

Packaging Metrics

- Material Type
- Recycled Content
- Package Innovation

- Renew
- Revenue
- Read

Scorecard Questions for Suppliers

- Material Type
- Material Weight
- Material Transport Distance
- Cube Utilization

Metrics – Current Weighting

- 15% GHG / CO2 per ton of Production
- 15% Sustainable Material Metric (formerly- Material Health & Safety)
- 15% Package/Product Ratio
- 15% Cube Utilization
- 10% Transportation
- 10% Recycled Content
- 10% Recovery Value
- 5% Renewable Energy
- 5% Innovation / Extra Credit

Metric Alignment

Goals



Supplied 100% by Renewable Energy



Create Zero Waste



Sell products that sustain our Resources & Environment

Metrics

Renewable Energy

GHG Emissions

Cube Utilization

Recovery

Transport Distances

Package to Product Ratio

Recycled Content

Material H & S

Principles

Remove

Reduce

Reuse

Recycle (able)

Renew (able)

Next Steps

- Using Scorecard
 - Put the data in the buyers hands
 - Track Progress
 - Highlight best practices
 - International Rollout

- Phase II of the scorecard
 - Recycled Content for Individual Packages
 - Recovery tied to package type
 - Expand Material Base
 - Possibly include Converting

Learn more about Sustainability

www.Packaging.Marketgate.com

- **Modeling Software**
- **Virtual Trade Show**

Education

- **IOPP Fundamentals of Packaging**
 - **www.iopp.org**
- **ISTA CPLP Training**
 - **www.ista.org**
- **Sustainable Packaging Coalition Training**
 - **www.spc.org**
- **Wal-Mart Scorecard Training – ECRM**
 - **www.sustainability-education.com**

Questions?

- **PkgSVN@wal-mart.com**
- **One topic per e-mail, concise subject line**