BIG BENEFITS IN SMALL PACKAGING . . .
Unilever’s strategy for sustainable packaging

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Packaging Manager for Environmental Sustainability, Unilever
Packaging as part of the overall sustainability strategy

Packaging Summit – May 14th, 2008
Humberto Garcia
$55 Billion
400 brands
174,000 employees

160 million times a day, someone somewhere is buying a Unilever brand
Our Mission

Unilever’s mission is to add vitality to life. We meet everyday needs for nutrition, hygiene and personal care with brands that help people feel good, look good and get more out of life.

Social responsibility and environmental sustainability are core business competencies – opportunities for innovation and product development.
## Framework for Action

<table>
<thead>
<tr>
<th>Sustainable Development</th>
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<tbody>
<tr>
<td>Nutrition</td>
<td><img src="image1" alt="Image" />.jpg)</td>
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<tr>
<td>Hygiene</td>
<td><img src="image2" alt="Image" />.jpg)</td>
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<tr>
<td>Social Innovation</td>
<td><img src="image3" alt="Image" />.jpg)</td>
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Sponsors:
- Walmart
- WWF
- UNICEF
- Oxfam
- Sustainable Packaging Coalition
- World Heart Federation
- WFP
- United Nations World Food Programme
Eco-Efficiency Improvements

1995 - 2006

Energy
Down 38%

Water
More than halved

CO$_2$ from Energy
Down by > a third

Hazardous Waste
Down by > 75%
We have estimated Unilever’s total emissions of greenhouse gases. Depending on the assumptions, the consumer use phase can account for 30-80% of the total, while packaging represents 2.1%.

Packaging evaluated in the context of full life cycle.
Packaging Approach

Packaging which, as part of a whole product system, minimizes the environmental impact of our products.

CREATE MORE SOCIAL VALUE, WITH LESS ENVIRONMENTAL IMPACT
CREATE MORE SOCIAL VALUE, WITH LESS ENVIRONMENTAL IMPACT

Packaging must be functional and attractive, while keeping the impact on the environment as minimal as possible.

Packaging must be evaluated with life cycle in mind.

The Unilever Responsible Packaging Steering Team leads development and delivery of strategies for responsible packaging
Packaging Approach

- **Remove** where possible, *unnecessary layers of packaging* such as outer cartons and shrink-wrap film.
- **Reduce packages** to the optimal size and weight through the use of best in class technologies and product innovation.
- **Reuse packaging** from the materials we receive at our factories.
- **Recycle:** Increase the use of recycled, recyclable and single-material components in packaging for easy sorting and recycling at the end of its use.
- **Renew:** Maximize the proportion of packaging from sustainable resources sourced responsibly.

Always applying life-cycle thinking to minimize the environmental impact of the product in all phases.
Packaging Design Tools

Benefits of Design
- Improved consumer interaction
- Faster product development
- Up front testing and development
- Better decision making
- Improved risk management
- Environmental Optimisation

Prototyping and Testing

Early Concept

CAD model

Part & Process optimization

Functional optimisation

Fast tooling
Packaging Reduction

- **Wish-Bone Salad dressing**
  - Shipper redesign to Tray/Shrink
  - 2,100 tons fewer corrugated
  - 11,000 fewer pallets
  - almost 500 fewer truck loads

- **Knorr Recipe Mix**
  - Replace pouch/carton with pouch
  - 50% reduction!

*Material reduction in metric tons*
Packaging Reduction

- **Rexona Roll-on**
  - 15% weight reduction (1260 fewer metric tons of resin globally)
  - 40% cycle time reduction (Reduction of ~6MM of kWh globally)
  - 10x Top load (Reduce outer packaging and increase stack height)
Packaging Reduction

- **Suave Naturals Shampoo**
  - Bottle: 16% weight reduction
  - Closure 12% weight reduction
  - 607 tons of resin annual savings
  - Increased top load strength
  - …. And a consumer preferred design!
  - Equivalent to 16 million bottles not entering the waste stream

- **Hellmann’s Mayonnaise glass to plastic**
  - 44,300 tons weight reduction
  - 2,442 fewer pallets (cube efficiency)
  - 1,700 fewer truck loads
  - Less breakage

*Material reduction in metric tons*
Packaging Reduction through Product Innovation

Unilever is leading the conversion of liquid laundry detergents around the world from dilute formulations to concentrated formulations.

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<table>
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<tbody>
<tr>
<td>Gallons of water saved in production:</td>
<td>24 million (70%)</td>
</tr>
<tr>
<td>Gallons of diesel saved:</td>
<td>1.3 million (66%)</td>
</tr>
<tr>
<td>Reduced # of trucks:</td>
<td>6,000 (66%)</td>
</tr>
<tr>
<td>Plastic resin reduction:</td>
<td>10 million lbs</td>
</tr>
<tr>
<td>Reduced # of out of stocks:</td>
<td>50%</td>
</tr>
</tbody>
</table>

Annual savings 3x – US only
In the US, Unilever markets 3x and 2x concentrates. 3x concentrates offer more benefits for business, for consumers and for the environment.

### The Concentration Effect - For each 1 million 32 load bottles:

<table>
<thead>
<tr>
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<th>50 fl oz (2x)</th>
<th>32 fl oz (3x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resin savings</td>
<td>64,000 Kg</td>
<td>88,000 Kg</td>
</tr>
<tr>
<td>Corrugate reduction (lbs)</td>
<td>49% less</td>
<td>45% less</td>
</tr>
<tr>
<td>Cases handled</td>
<td>33% fewer</td>
<td>55% fewer</td>
</tr>
<tr>
<td>Units per truck</td>
<td>Almost double</td>
<td>Triple</td>
</tr>
<tr>
<td>Truck loads</td>
<td>74 fewer truck loads</td>
<td>114 fewer trucks loads</td>
</tr>
<tr>
<td>Fuel Savings</td>
<td>19,000 gallons</td>
<td>26,000 gallons</td>
</tr>
<tr>
<td>Shelf Efficiency</td>
<td>Almost double</td>
<td>Triple</td>
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When comparing to dilute 32 loads bottle
A new packaging format for pasta sauce

Packaging Reduction through Product Innovation

<table>
<thead>
<tr>
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<th>Glass jar 26oz</th>
<th>Pouch 13.5oz</th>
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<tbody>
<tr>
<td>Weight of primary packaging</td>
<td>376 g</td>
<td>8.8 g</td>
</tr>
<tr>
<td>Weight of secondary packaging</td>
<td>124 g</td>
<td>304 g</td>
</tr>
<tr>
<td>Units per case</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Total packaging weight per unit</td>
<td>386.3 g</td>
<td>59.5 g</td>
</tr>
<tr>
<td>Packaging / oz of product</td>
<td>14.9 g</td>
<td>4.4 g</td>
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70% reduction
As it relates to energy use, packaging represents ~30% of the full life cycle of the pasta sauce in glass, compared to ~6% of the full life cycle of the pasta sauce in pouch.

The over-riding issue is what happens to the glass and pouch at the end of life – increasing recycling for the glass jar would have a positive contribution, although several recycle loops would have to be performed to arrive at parity with the pouch.
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Packaging which, as part of a whole product system, minimizes the environmental impact of our products

Packaging must be evaluated with life cycle in mind.

We have made progress in terms of packaging reduction, reducing the overall impact.
Sustainable Development: External Recognition

- **Carbon Disclosure Project**
  - Rated *Best in Class* in Climate Change Disclosure

- **Dow Jones Sustainability Indexes**
  - Rated #1 in the Food & Beverage Sector for the 9th consecutive year

- **Wal-Mart**
  - Supplier of the Year for Sustainable Engagement
Thank You