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Carbon Auditing Supply Chains – Making the Journey

Multimodal 2008 Conference
NEC Birmingham
Topic Areas

• Far East to UK Logistics mapping and reductions achieved

• UK Logistics carbon reduction initiatives

• Products – Mapping the carbon footprint
Making the Journey

– Far East to the UK
Key process changes

• Converted 20’ to 40’ foot containers

• Consolidated cargo which increased container utilisation

• Shifted transport mode from Air to Sea
Result: CO2 per cubic metre reduced by 29%

Carbon reduction strategies:
- Reduction of cbm by air
- Reduction of kg / cbm by air
- Increase in container utilization
- Reduction in terminal handling

The study covers the supply chain from CFS facilities/load ports at origin to DC
Result: Reduced cost per cubic metre

Cost reduction strategies
- Reduction of air usage
- Increase in container utilization
- Reduction in terminal handling

The study covers the supply chain from CFS facilities/load ports at origin to DC.
Result: Continuous CO2 per Cubic Metre reduction

The study covers the supply chain from CFS facilities/load ports at origin to DC.

![Emissions Chart]

<table>
<thead>
<tr>
<th>Year</th>
<th>Emissions (kg/cbm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>76.0</td>
</tr>
<tr>
<td>2005</td>
<td>61.6</td>
</tr>
<tr>
<td>2006</td>
<td>57.2</td>
</tr>
<tr>
<td>2007</td>
<td>54.0</td>
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MAERSK LOGISTICS
Making the Journey
– UK Logistics Carbon Reduction Initiatives
Internal Efficiency

- **Double Deck Vehicles** Fleet of 41
  - Reduces 3 journeys down to 2
  - Saves 5.2 million kilometres and around 1340 tonnes of CO2 emissions p.a.

- **Wagon and Drag**
  - 12 Wagon and Drag vehicles provide flexibility for town / edge of town

- **Backloading**
  - Saves 2.2 million kilometres of travel on UK roads (around 1,750 tonnes of carbon dioxide) each year.
Collaboration

• A unique collaboration, started in May 2007, with JBT, a leading local road haulage services company based in the North of Scotland.

• Savings
  – 300,000 miles p.a
  – 150,000 litres p.a

• Reduces carbon emissions by 12% in Scotland for delivering our products to Boots stores.
Making the Journey
– A products journey
The product journey

1. Concept
2. Materials Production
3. Distribution
4. Retail Use
5. Disposal
Carbon Footprinting

Shampoo Footprint - Overall

- **CONSUMER USE - 93% water heating**
- Materials: 5%
- Distribution: 2%
- Production: 0.3%
- Retail: 0%
- Disposal: 0%
Carbon Footprinting

Shampoo Footprint - Excluding Use

- Production: 5%
- Distribution: 29%
- Materials: 66%
- Disposal: 0.3%
- Retail: 0%
- Packaging (Bottle / cap): 58%

Packaging (Bottle / cap) 58%
Reducing the footprint (1) - manufacture

• Use of 30% post-consumer recycled PET in blow moulded bottles
  - footprint reduced by 10%
  (excluding customer use phase)
Reducing the footprint (2) - Transport

• Redesigning the logistics network
  – Botanics distributed via reusable packaging. Overall footprint reduced by 10% (excluding customer use phase)
Reducing the footprint (3) – Consumer Use

We’ve reduced the carbon footprint of Botanics shampoo by 20%

You can help too. Using cooler water to wash your hair cuts CO2 emissions, reduces your energy bills and is actually better for your hair.

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Summary

• Active Management of Supply Chains is:
  – Good for the environment
  – Good for business