

# Sustainability by Hispack challenges

**Hispack**  
**2018**  
PACKAGING, PROCESS  
& LOGISTICS

  
**Fira Barcelona**

## Modern & Innovative Packaging for Sustainable Growth

**Ed Roberts**

Regional Sustainability Director – EMEA  
Sealed Air



# A European Strategy for Plastics in a Circular Economy



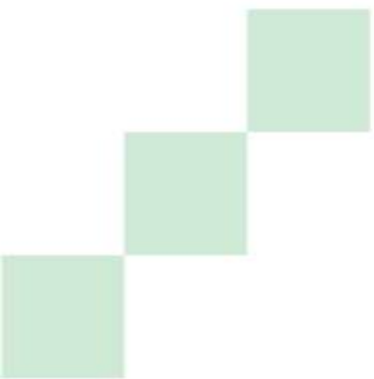
- Increase recycling rates for member states;
- Investment in collection, sorting and recycling infrastructure;
  - Some estimates as high as €20 billion required
- Improved identification of materials and substances to boost recycling rates and ensure clean, safe material cycles;
- Develop quality standards for sorted plastic waste and recycled plastics;
- Develop Green Public Procurement criteria on integrating recycled content

**EU also has a target to reduce food waste by 50%**

# Examining the Issues

- Environmental impact of food waste
- Environmental impact of alternatives to plastic
- Comprehensive recycling of plastic
- Holistic corporate sustainability

# Food Waste



# Environmental Impact

- Globally, nearly 1.3 billion tonnes of food produced for human consumption is lost or wasted each year



Food production is responsible for  
**~70%**  
of freshwater consumption

Food waste represents over  
**~20%**  
of municipal waste

Food production is responsible for  
**~30%**  
of energy consumption



# Estimates of Global Food Waste



- Fruits & Vegetables



- Fish & Seafood



- Cereals



- Meat



- Dairy

45%



35%



30%



20%



20%



Sustainability by  
**Hispack**  
challenges

# Beef in the UK

	Energy	Water
1 kg	70 kWh	15,000 Litres
375,000 tonnes	26.4 Billion kWh	5.6 Billion m <sup>3</sup>
20% Wastage 75,000 tonnes	5.3 Billion kWh	1.1 Billion m <sup>3</sup>

Energy 20%

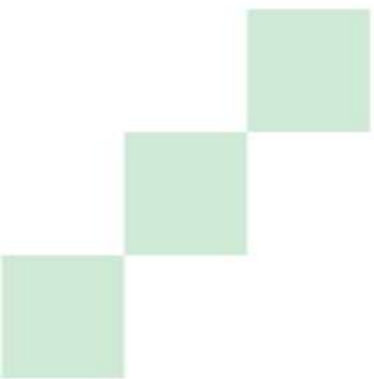
12.5% of the energy produced by wind in the UK

Water 20%

Water that flows over Niagara falls in 400 seconds



# Alternative Packaging



# Paper & Pulp

*“The pulp, paper and printing sector accounted for 5.6% of industrial energy consumption in 2014. ...the sector’s energy use must decline by 0.8% and direct non-biomass CO<sub>2</sub> emissions by 17% by 2025 from 2014 levels to meet the 2DS”*

International Energy Authority, 2017

# Paper & Pulp

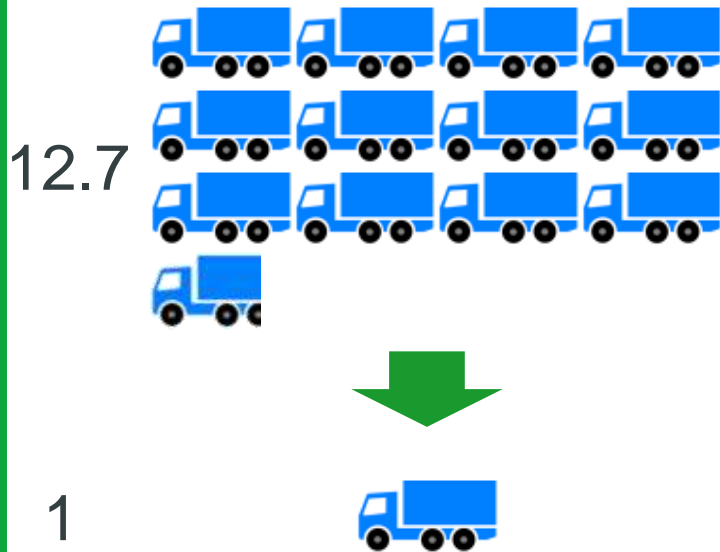
“A paper bag takes about the same amount of oil to make as a plastic one. It is 6 times heavier than a plastic bag and 10 times bulkier. This means it will need 10 times more lorries to transport – and they'll use more fuel too, because of the extra weight. Paper bags don't last, so they're more likely to fall apart after a single use. And, when they go to land-fill, which most of them will, they'll degrade and release greenhouse gases.”



Julia Hailes MBE, 12 January 2018  
Author/co-author of nine books, including  
the million selling Green Consumer Guide

# Packaging Value Analysis

3,000 Paper Rolls to NewAir I.B.



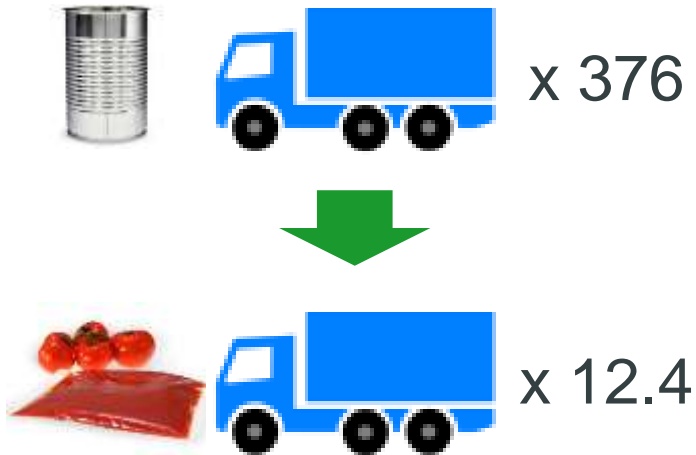
Plus

- Cost of product damage
- CO<sub>2e</sub> of product damage
- Impact of unhappy customers
- Health & safety impacts
- Fulfilment velocity
- Cube utilisation
- Cost of shipping
- CO<sub>2e</sub> of shipping
- Cost of diesel
- CO<sub>2e</sub> of diesel
- Cost of warehousing
- CO<sub>2e</sub> of warehousing
- Labour cost
- Resource use kg
- Resource use CO<sub>2e</sub>

# Resource Reduction

European Pizza Sauce Manufacturer – Steel Cans to Cryovac® VPP

**20,000 tonnes sauce p.a.**

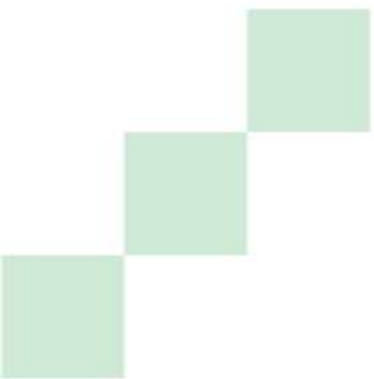


CO<sub>2e</sub> of shipping down 85%

## Plus

- Cost of shipping
- Cost of diesel
- Cost of warehousing
- CO<sub>2e</sub> of warehousing
- Labour cost
- Resource use kg
- Resource use CO<sub>2e</sub>

# Improved Recycling



# All plastics recyclable by 2025

- EU likely to increase member state plastic recycling to (only) 55%
  - Member state focus likely to be on rigid plastic
- The vast majority of plastics are technically recyclable today via various mechanical and chemical techniques but facilities are not widely available
  - Some estimates suggest significant investment (€10-20B) in infrastructure (EU offering approx. €125M)
- Growing consensus that “**recyclable**” means majority of citizens have access to appropriate recycling facilities

# On-Pack Recycling Label (OPRL)

## United Kingdom Voluntary Scheme



**Widely  
Recycled**



**Check  
Locally**

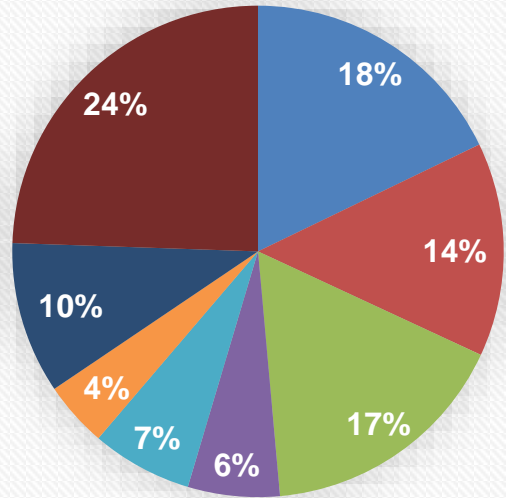


**Not Yet  
Recycled**

Component	Aerosol	Bag	Band	Base	Beverage carton	Blister	Booklet	Bottle	Box	Can (not paint)	Cap	Card	Carton*
<b>Recommended materials:</b>													
Glass								Widely Recycled	Widely Recycled				
Metal (inc. aluminium foil)	Widely Recycled							Widely Recycled	Widely Recycled	Widely Recycled			Widely Recycled
Paper (inc. paper pulp e.g. egg boxes)		Widely Recycled		Widely Recycled			Widely Recycled					Widely Recycled	Widely Recycled
Card (inc. cartonboard & corrugate)				Widely Recycled	See p8		Widely Recycled					Widely Recycled	Widely Recycled
Plastic – PP non-black (clear & opaque)		Not Yet Recycled	Not Yet Recycled	Widely Recycled		Widely Recycled		Widely Recycled	Widely Recycled		Widely Recycled	Widely Recycled	Not Yet Recycled
Plastic – aPET/rPET clear uncoloured				Widely Recycled		Widely Recycled		Widely Recycled	Widely Recycled				Not Yet Recycled
Plastic – HDPE non-black (clear & opaque)	See p8			Widely Recycled		Widely Recycled		Widely Recycled	Widely Recycled		Widely Recycled	Widely Recycled	Not Yet Recycled
<b>Other recyclable materials:</b>													
Plastic – LDPE non-black	See p8												Not Yet Recycled
Plastic – aPET/rPET coloured (clear & opaque)	Not Yet Recycled	Not Yet Recycled	Not Yet Recycled	Widely Recycled		Widely Recycled		Widely Recycled	Widely Recycled		Widely Recycled	Widely Recycled	Not Yet Recycled
Plastic – PS non-black (clear & opaque)	Not Yet Recycled	Not Yet Recycled	Not Yet Recycled	Widely Recycled		Widely Recycled					Widely Recycled	Widely Recycled	Not Yet Recycled



# Composition of Municipal Waste



■ Food Waste    ■ Garden Waste    ■ Paper  
■ Card    ■ Glass    ■ Metals  
■ Plastics    ■ Other

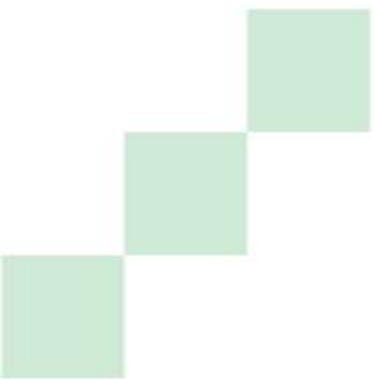
- Paper, card, glass and metals are “widely recycled” yet constitute 33.6% of “landfill” waste
- Paper/card = 6.43 million tonnes

# Packaging Reduction

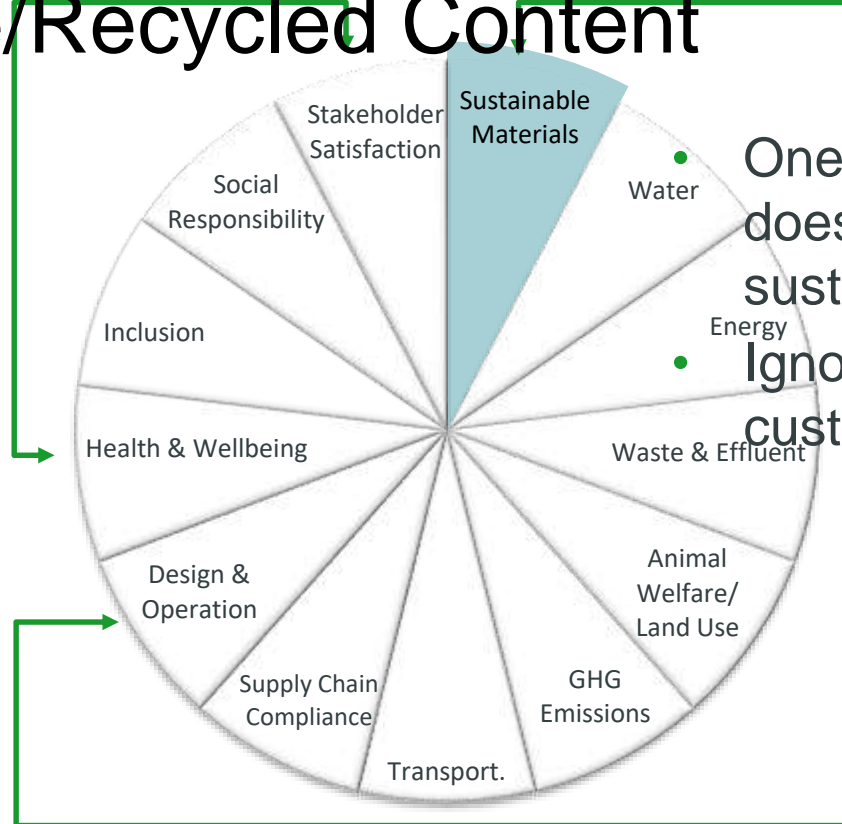
European FRM Producer

- Move from tray skin to Cryovac® Darfresh On Tray – annual savings
  - Area Film 1,348,387 m<sup>2</sup>
  - Volume Film 202.3 m<sup>3</sup>
  - Mass Film 193,116 kg
  - Carbon Footprint 685,562 kgCO<sub>2e</sub>

# Holistic Sustainability



# Recyclable/Recycled Content



One positive attribute does not mean sustainable

• Ignores other customer needs

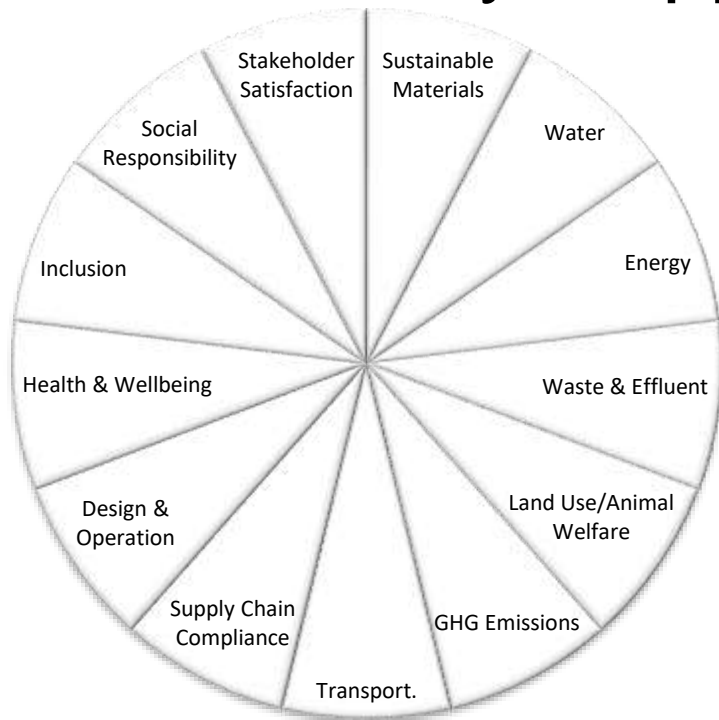
**Environmental**



TRIPLE BOTTOM LINE



# Sustainability Mapping



Using annual sustainability report



Priority 1's

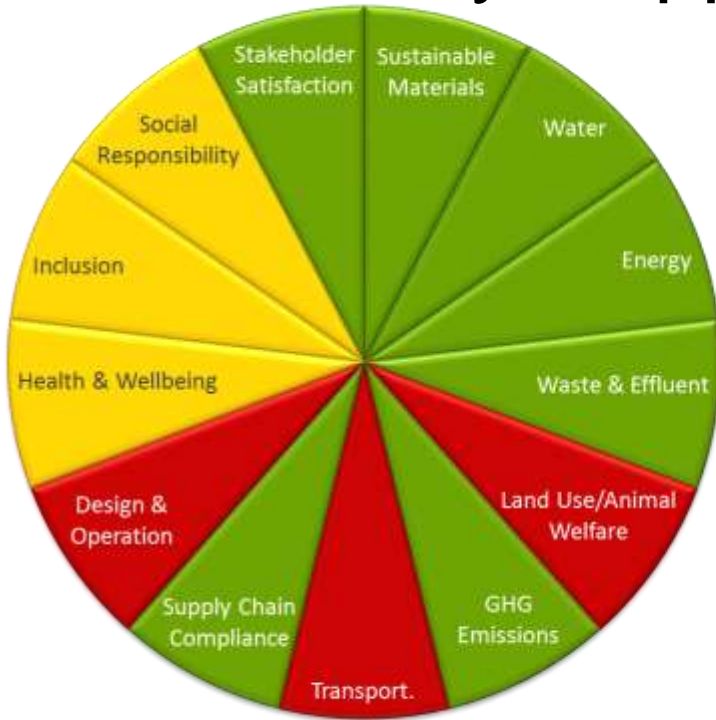


Priority 2's



(NO) Priority 3's

# Sustainability Mapping



Priority 1's



Priority 2's



(NO) Priority 3's



M&S 




Morrisons 



Sainsbury's 



Tesco 



Migros 



Aldi 



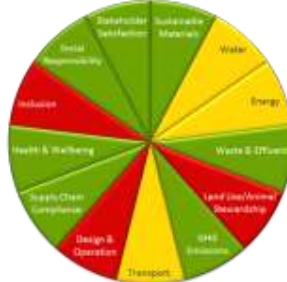
Lidl 



Metro 



REWE 



Ahold 



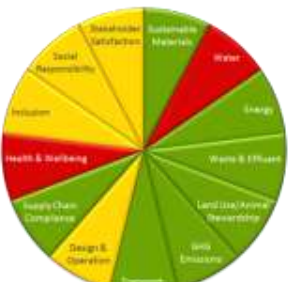
Carrefour 



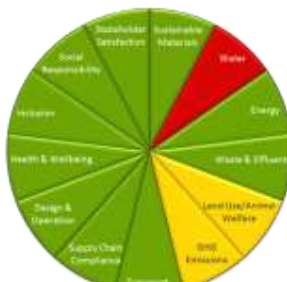
Intermarché 



Safeway 



Walmart 



Mercadona 



# Resource Reduction

European Retailer – Chicken Portions from MAP to Darfresh® on Tray



- Transportation



- Refrigeration

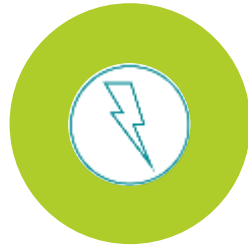


- Fresher for Longer

36,000 Litres  
Diesel



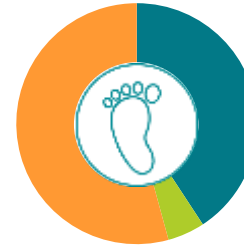
1.85 million kWh



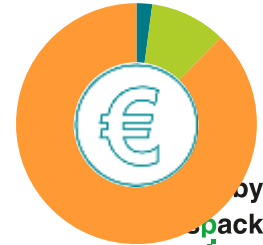
340,000 kg



1.87 million kgCO<sub>2e</sub>



€2,400,000



# Multiple Solution SVA

## Online Retailer



### Cryovac® CT Films

- Damaged packs reduced 80%
- Reduced packaging
- Improved labour efficiency



### Mail Lite® Mailers

- Throughput improved 50%
- Shipping costs reduced
- Overall packaging reduced



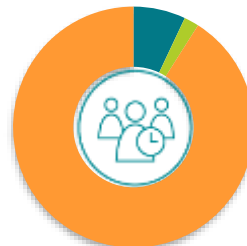
### Fill-Air® Inflatables

- Reduced damage by 20%
- Reduced packaging waste
- Customer satisfaction improves

31,000 tonnes



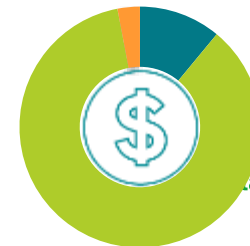
€23.2 million



130,000 tonnes CO<sub>2e</sub>



€119 million



Sustainability by  
**Hispack**  
challenges

# Summary

- Waste in the environment is unacceptable and circular economy principles are **part** of the solution
  - Improved recycling is essential but will take significant investment and/or time and consumer education
  - Businesses and society have multiple sustainability needs that go beyond recyclability
- Alternatives to plastic packaging for many applications may be worse for the environment and society
- Modern & innovative packaging has a more significant impact to play on reducing resources and overall environmental, social and economic impact
- Modern & innovative packaging differentiates the packaging supplier especially when aligned to customer sustainability needs

# GRACIAS

ed.roberts@sealedair.com