How UK Retail is leading the Sustainable Agenda for Packaging and Why?

Presented by

Ian Schofield

PLASTIC HEALTH SUMMIT

HOW TO TAKE CARE OF THE NEXT GENERATION?

OCTOBER 3 – 2019
AMSTERDAM

- Highlights.
- **We *eat*, *drink* & *breath* microplastics!**
- **63 known toxic chemicals in food and drink packaging**
- **Nylon in our lungs**
- **EDC'S (**Endocrine-Disrupting Chemicals) **affecting fertility**
- **Plastic is killing our immune cells**

New York last week

Global Megatrends

- Identified areas to consider

Globalization & society

- Urbanization & population growth
- Single households
- Ageing population
- Hectic lifestyle
- Packed goods demand

Innovation & digitalization

- Online Grocery & convenience growth
- Food packaging innovation
- Blockchain
- Processes needs for material recovery

Sustainability

- Food waste
- rPET growth
- Change and resource scarcity
- Recyclability and related regulation changes
- European retailers packaging drivers

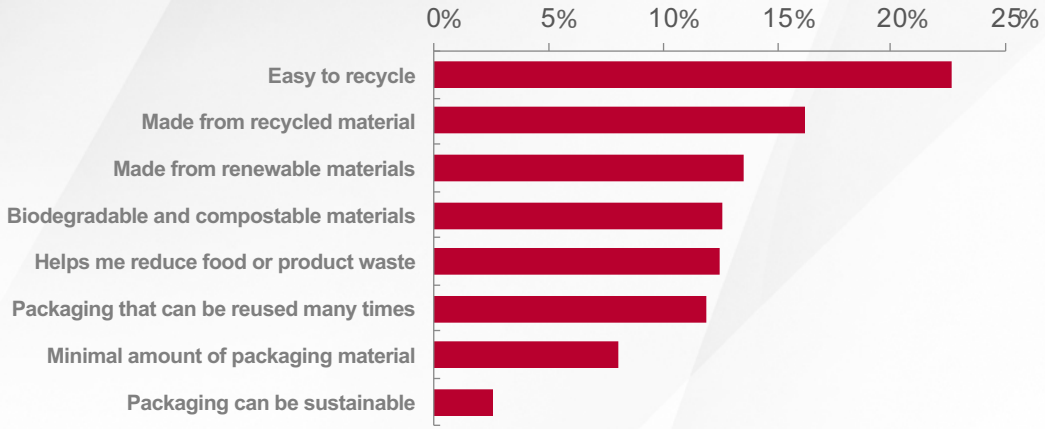
Global Megatrends

- Sustainability

Resource Scarcity

+35% **+40%** **+50%**

Demands of the global population will increase by 2030.



Consumer opinions on the definition of **sustainable packaging**

Observation

The interconnectivity between trends in climate change and resource scarcity is amplifying the impact.

Climate change could reduce agricultural productivity by up to a third across large parts of Africa over the next 60 years.

Globally, **demand for water will increase** by 40% and for energy by 50%.

The world's current economic model is **pushing beyond the limits of the planet's** ability to cope.

Considering the consumer desires related to sustainable packaging, **"Easy to recycle"** and **"made from recycled contents"** can be the key drivers for meeting the need around resource scarcity and **sustainable packaging consumer perception.**

When i trained

- 1978-1983-Co-op-40 YEARS AGO
- Packaging Team –Central Laboratories
- Working in 100 factories from Tea, Winery, margarine, cereals, biscuits, drinks, preserves.
- First jobs moving out of traditional materials and into plastics
- Now-Moving Plastic into traditional materials in 4 years

Iceland
#toocoolforplastic

– Key Highlights


Daily Mail

TUESDAY, JANUARY 16, 2018 www.dailymail.co.uk NEWSPAPER OF THE YEAR 65p

GOOD HEALTH STARTS PAGE 34

A GLORIOUS SOUVENIR PULLOUT TRIBUTE TO ...

THE MIGHTY LANCASTER STARTS ON PAGE 39

SUPERMARKET BANS PLASTIC

Exclusive: Iceland first store in the world to remove plastic packaging from ALL its own-label products

By Sean Poulter
Consumer Affairs Editor

A UK supermarket will be the first in the world to remove plastic packaging from all of

Pop star's

KEY MESSAGES:

- All its own-label products will have no plastic packaging within five years
- It puts pressure on other supermarkets to follow suit a lower levels of pollution
- Packaging on 1,400 product will be replaced across more than 250 suppliers
- The company, which has more than 900 stores, has a five-year plan to ditch plastic from all of its own-brand products.

BBC RADIO 4 TODAY

Cost Neutral

Iceland
#toocoolforplastic

Iceland

How did we tackle this

- Packaging Supplier Conference
- Empowered buyers
- Set goals
- Linked with like minded people-Plastic Planet
- “COST Neutral”. We cannot put up prices!
- Scour the earth to find alternatives.
- Issued guidelines of RAG for suppliers after careful selection procedure
- Started trials and tests immediately
- We influenced Government, Trade Bodies, Global retailers and brands
- Went upstream to the actual makers of materials.
- Adopted new OPRL guidelines
- Seen as leaders and pioneers- **Disruptors**
- **Passion, Passion, Passion**

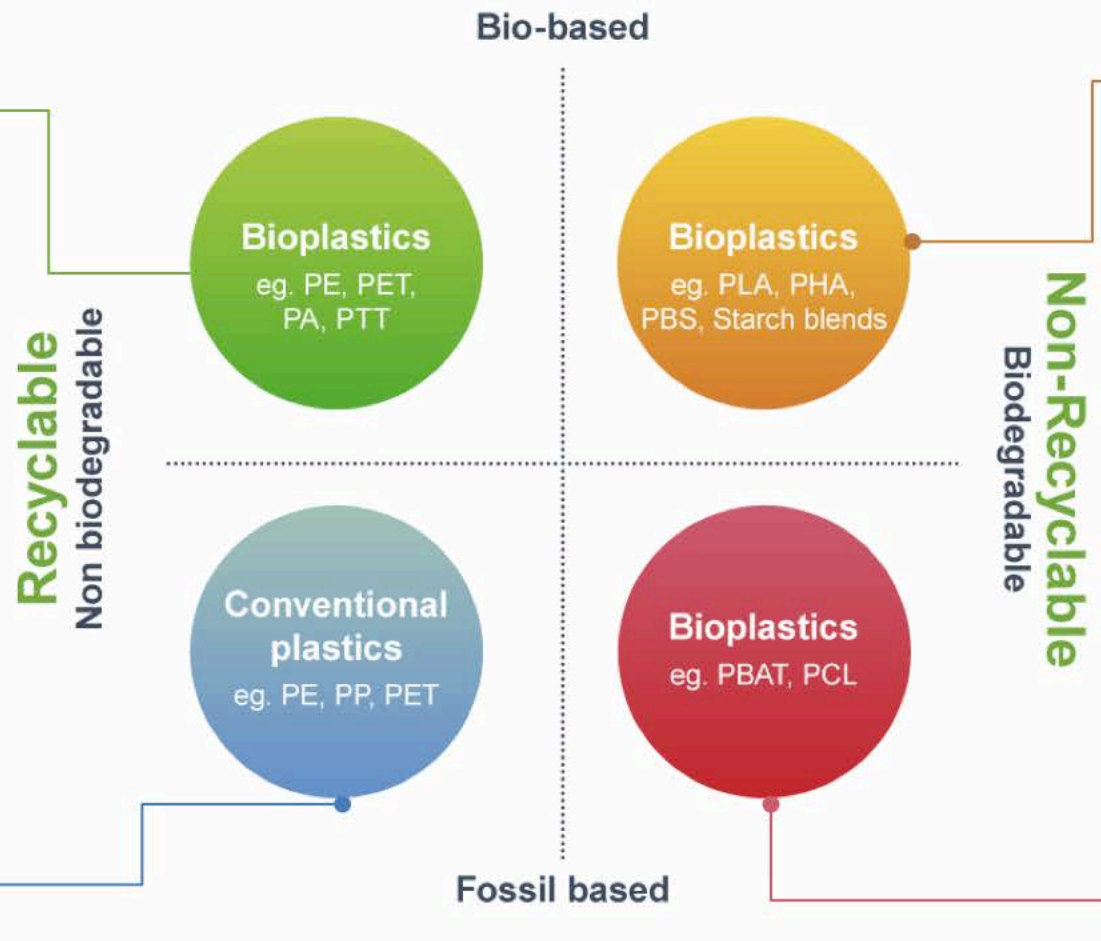
The Tail wind

- Customers, wildlife, ocean's and kids want this
- Support from many environmental bodies
- Subject moved into "Climate Change"
- Poor arguments from Plastic industry
- Media-Cups, Water Bottles, Straws etc
- Buying Team
- Buy in from the top level.
- We only have one chance here. More and more bad plastic stories

Plastics can come from multiple raw material start points and have multiple post-consumer end points

'Plastic' can be made from **bio-based, non-fossil fuel** materials

These are still categorised as plastics and bio-based plastic or bioplastic does not automatically mean it will biodegrade



More organic by their nature, **non-fossil fuel bioplastics** such as PLA, PHA, PBS are biodegradable

Biodegradable ≠ compostable.
'Biodegradable' means that the material breaks down in a defined period of time, however the speed, method and nature of biodegradation differs hugely between materials

Plastic is **most commonly made from fossil-based materials**

Conventional polymers such as polyethylene (PE) are classed as easily recyclable

Fossil-based plastics like PBAT are **biodegradable** but are **non-recyclable**

The Plastic Argument

- Weight
- Food Safety
- Food Waste
- It’s only Asia!
- CO2
- It’s only Fish!

What About?

- Circular Economy
- Recycling
- Government/ EU rules
- China Ban
- PEF (polyethylene –furanoate)
- PLA (Polylactic Acid)
- Bio Plastics
- Oxy-Biodegradable
- Customers

The Heads Wins

- Price of alternatives- 3-10 times plus
- Change!
- Shelf Life Implications
- New Capital needed-De-nesting, new tooling
- Economy
- Customers budgets-Going down not up
- Slow reaction of many suppliers
- Recycling Methods-Compostable?
- Common Ground in Wrap/Plastic Pact/Defra
- LCA on alternatives

Iceland - Packaging Guidelines (1)

- Bio-polymers – where these replicate current plastics not to be included
  - No 'food' based sources; no GMO
  - Cellulose & PLA potential (plus PHA/PHB?)

- Bio-Degradable Polymers
  - Potential interest if no alternative to Plastic exists
  - triggered decomposition – also of interest if proved to completely break down (and certified) as a last resort

MARINE OK bio-degradable VINÇOTTE

ASTM D7801-05
ASTM D6691-09

- Compostable Packaging
  - Fully bio-degradable/compostable packaging are options

CSN EN 13432

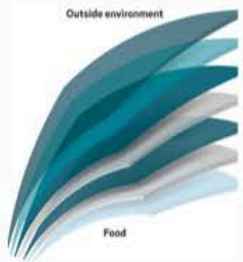
Packaging - Requirements for packaging recoverable through composting and biodegradation - Test scheme and evaluation criteria for the final acceptance of packaging

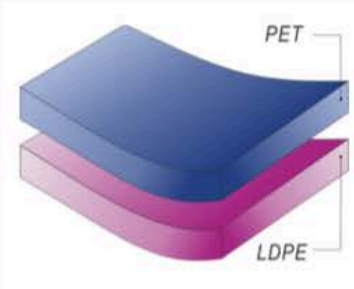
Compostable

Similar properties to biodegradable packaging but compostable packaging materials actually give **nutrients back to the earth after breaking down**

Iceland - Packaging Guidelines (2)

- Films & Laminates – (whilst they are still being used) - simplification to aid recycling:
  - Multi-layer to PET/PE to PE





- Ready Meal (& Other) Trays – from Plastic to paper-based substrates or Aluminium where appropriate
  - 85-90% reduction in plastic first step
  - Longer term coatings / cellulose option develop test and implement
  - Black to be limited on outside, subject to confirmation

Iceland - Packaging Guidelines (3)

- Punnets, Egg Boxes & Trays
  - Moulded Pulp – heat-sealed – paper based film?





- Lidding Film – develop paper based / cellulose alternatives

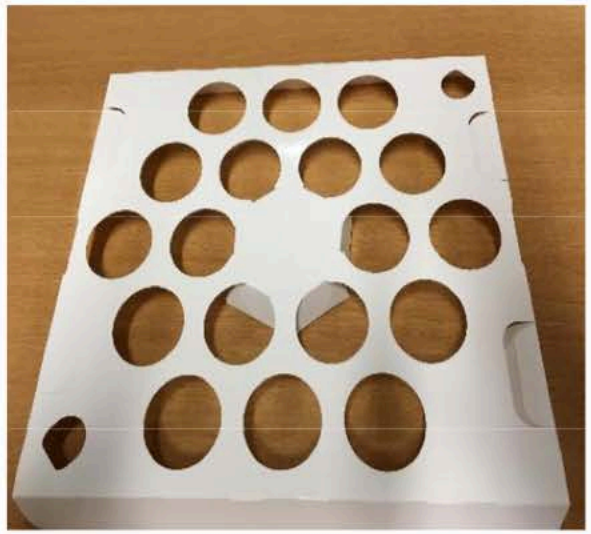


- Flow-wrap in cartons – removal where feasible, coated board to protect
  - Where not possible – consider paper / cellulose / bio-degradable alternatives

DESIGN CONSIDERATIONS

	NO ISSUES TO RECYCLE Full compatibility – materials can pass through with no negative effects on the waste streams from the recycling plant	MODERATE BUT TOLERABLE ISSUES Limited compatibility – materials can pass through with limited negative effects on the waste streams from the recycling plant	PROBLEMATIC. TO BE AVOIDED. Low compatibility – negative effects on the waste streams from the recycling plant
FILMS AND LAMINATES	Less than 3% by weight Removable, peelable by the customer preferred Material density less than 0.95 or greater than 1.15 Soluble barrier systems	Less than 5% by weight	More than 5% by weight Two-sided lamination, oxodegradable materials, PVC Materials with a density between 0.95 and 1.15
COATINGS AND ADDITIVES	Water-soluble Metallic inks (as long as not UV cured)	Hard sized	UV inks and varnishes
TRANSLUCENT PAPERS	Tracing paper	Glassine without silicone	Greaseproof, wax/wax coated, silicone
FOIL BLOC PRINTING	–	Under 30% of external surface area	Over 30% of external surface area
ADHESIVES	–	Adhesives with repulp certification	Those which plasticise above 35 degrees C
ALTERNATIVE FIBRES	–	With repulp certification	Incompatible with paper making
WRAPPING PAPER	Paper only	–	Foiled or plastic based Glitter
FOOD CONTAMINATION	No food	Surface staining only	Baked on food

Example of “it can be done”

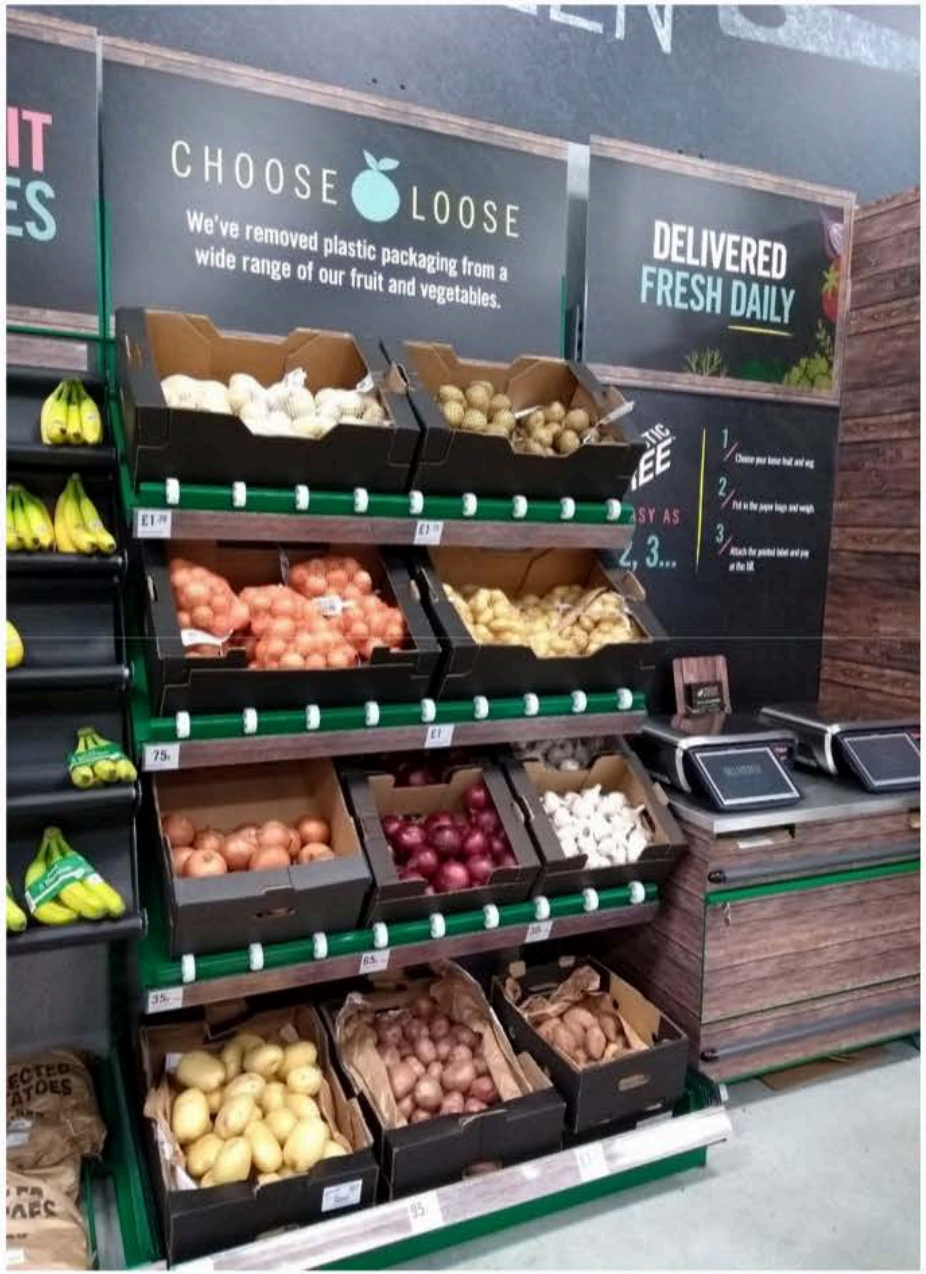


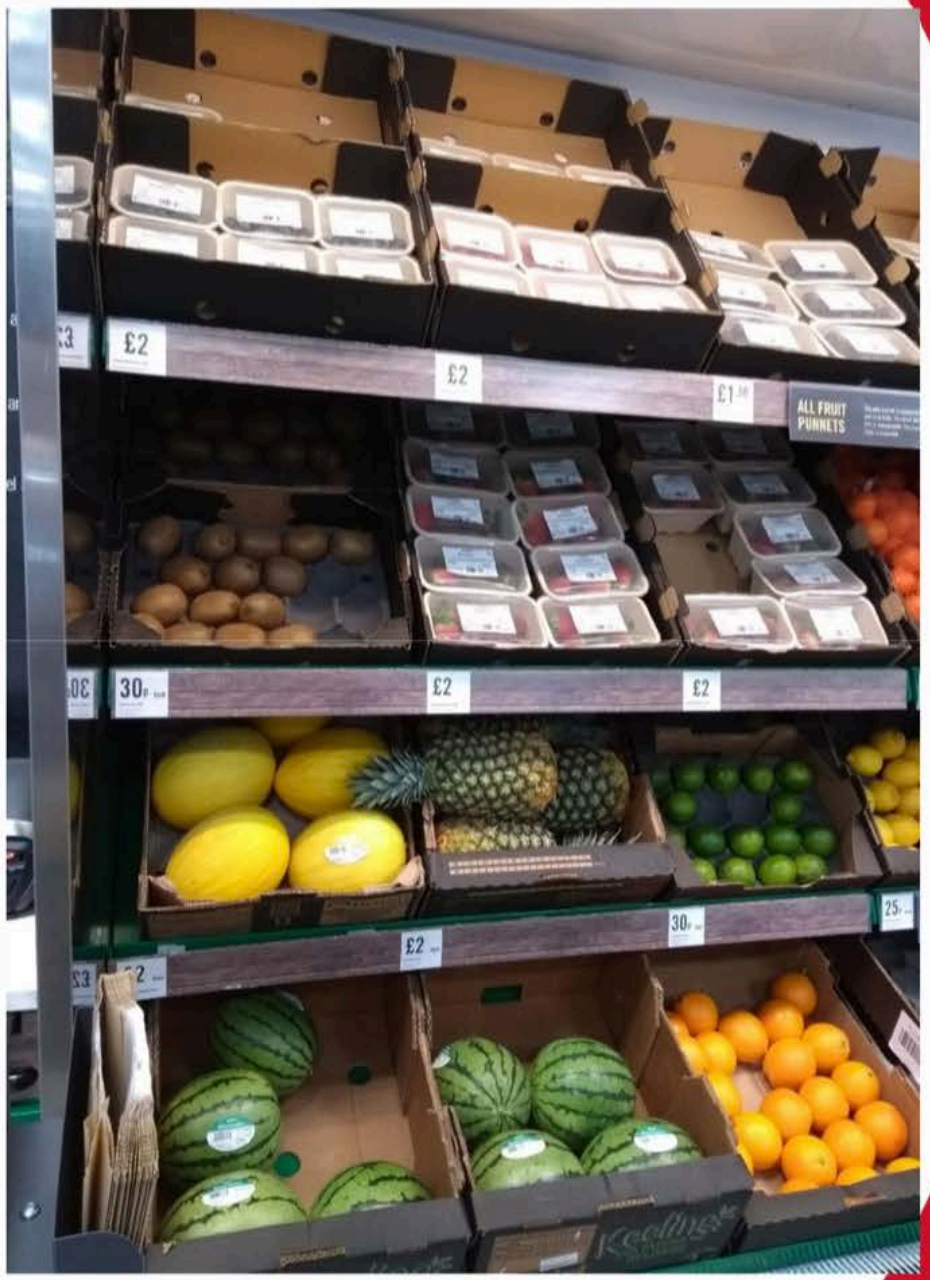
Party food 2019
packaging brief

PLASTIC FREE

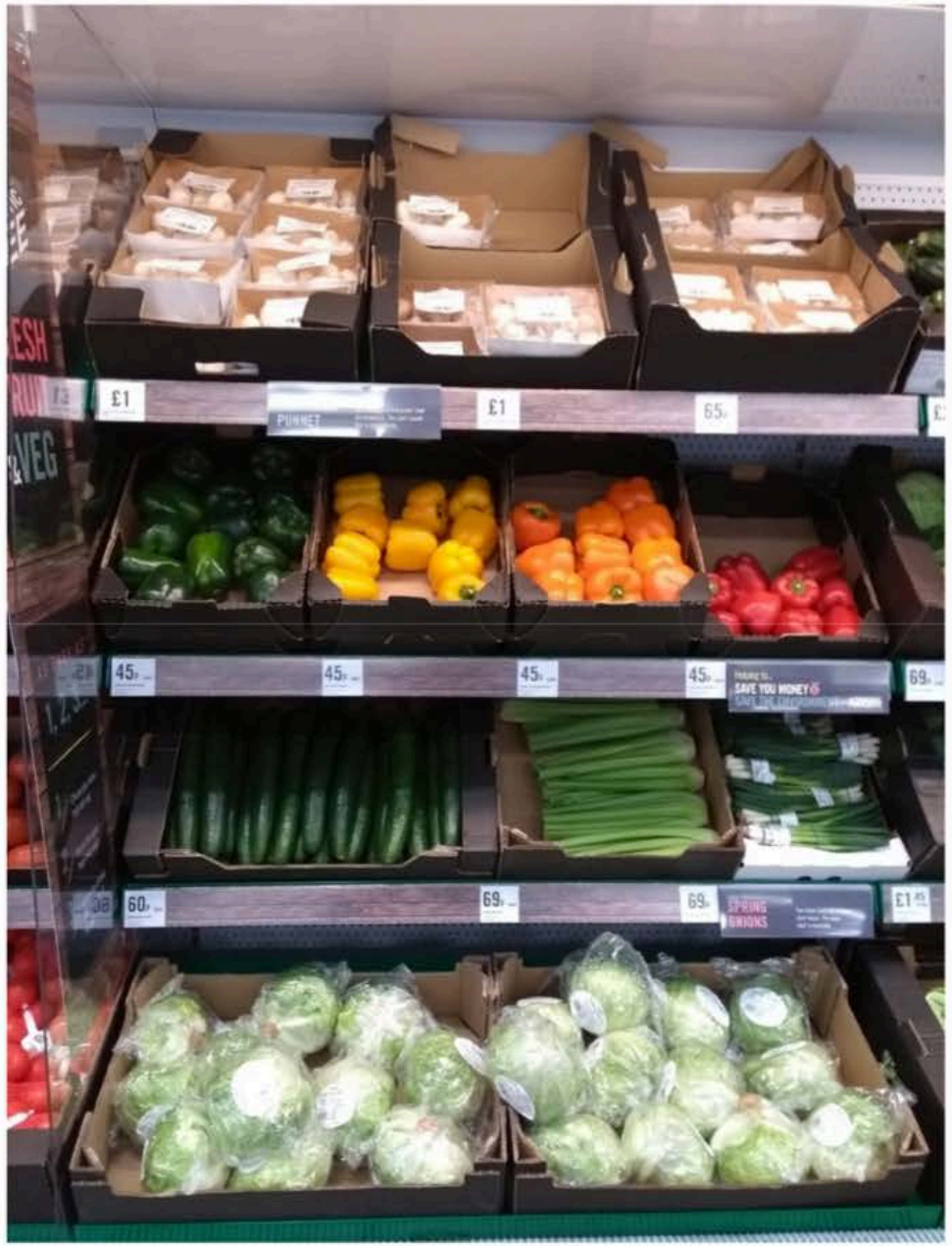
Produce

- Natural Products
- Back to Corner Shop
- Back to Cello
- New Films
- Pulp trays
- Surprising Wins
- Why any Packaging?
- Thinking Differently-Bananas & Lemons


CHOOSE LOOSE
We've removed plastic packaging from a wide range of our fruit and vegetables.
DELIVERED FRESH DAILY


£2
£2
£1.50
ALL FRUIT PUNNETS
30p
£2
£2
£2
30p
25p

Iceland


£1
£1
65p
45p
45p
45p
45p
SAVE YOU MONEY
69p
60p
69p
69p
SPRING ONIONS
£1.45


£2
£2
90p
69p
69p
£1.19
SAVE YOU MONEY
SAVE THE ENVIRONMENT
£1.45
SAVE YOU MONEY
SAVE THE ENVIRONMENT
75p
FRESH
FRUIT
&VEG
AS EASY AS
1, 2, 3...

Iceland

Tesco Preferred Materials/Formats

Version: B05
Date: 250619

Red: Materials that we will remove by the end of 2019 (or by April 2019 for Tesco Partners, excluding black plastics)
Amber: Materials that we will either investigate alternatives for, or **use only where required**
Green: Materials we will continue to use and use as replacements for the Red List

Red – Exit (poor for recycling and/or potentially harmful)	Amber - Hold (until infrastructure and/or scientific developments take place)	Green – Preferred (easily recycled, can have high recycled content)
PVC & Polystyrene	Home compostable E.g. Cellulose, Mater-bi & Natureflex	Sustainably sourced Wood, Board, Paper & Glassine
PVdC	Complex laminates/multi-layer films	Glass
Oxy degradable materials	OPP - Oriented polypropylene	PET - Polyethylene terephthalate
Acrylic (for food applications)	Acrylic (for bathroom products)	PE – Polyethylene (preferred material for flexible film)
PLA – Polylactic acid	PP – Polypropylene (for certain food applications)	HDPE & LDPE
Industrial compostable	New materials	PP – Polypropylene (non-food)
Polycarbonate		Steel & Aluminium
Rigid Water soluble plastics		
Expanded/Foamed Polymers		
* Black Plastics		

* Black plastic refers to all dark coloured plastics that are non-detectable in recycling plants. For **all** suppliers the deadline for exiting black plastic is the end of 2019

Red packaging

Red – Exit (poor for recycling and/or potentially harmful)
PVC
Polystyrene
Oxy degradable materials
Acrylic (for food applications)
PLA – Polylactic acid
Industrial compostable
Polycarbonate
Rigid Water soluble plastics
Expanded/Foamed Polymers

PVC – Poly Vinyl Chloride

PS – Polystyrene

Oxy Degradable

Acrylic

PLA – Polylactic Acid

Industrial Compostable

PC – Polycarbonate

Rigid Water Soluble

Expanded/Foamed Polymers

TESCO

Introducing the 4 R's

Remove it where we can.

Reduce it where we can't.

Reuse more.

Recycle what's left.

TESCO

Retail is detail

We don't sell air.

We don't move or store air.

We don't want to package air.

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Removing excess packaging benefits through the supply chain

A 20% packaging reduction on these own brand and branded products can provide the following per annum

c3,200 less pallets

c2.8 tonnes packaging reduction

c24 tonnes corrugate box reduction

c50,000 reduced road miles

c300 less pallets

c0.9 tonne packaging reduction

c5 tonnes corrugate box reduction

c3,500 reduced road miles

44

TESCO

23 September 2019

Co-op has today been unveiled as the first British retailer to become a signatory of the UN's 'Our Only Future' campaign at its Climate Action Summit in New York.

All our own-brand packaging will be easy to recycle by 2023 (80% by 2020)

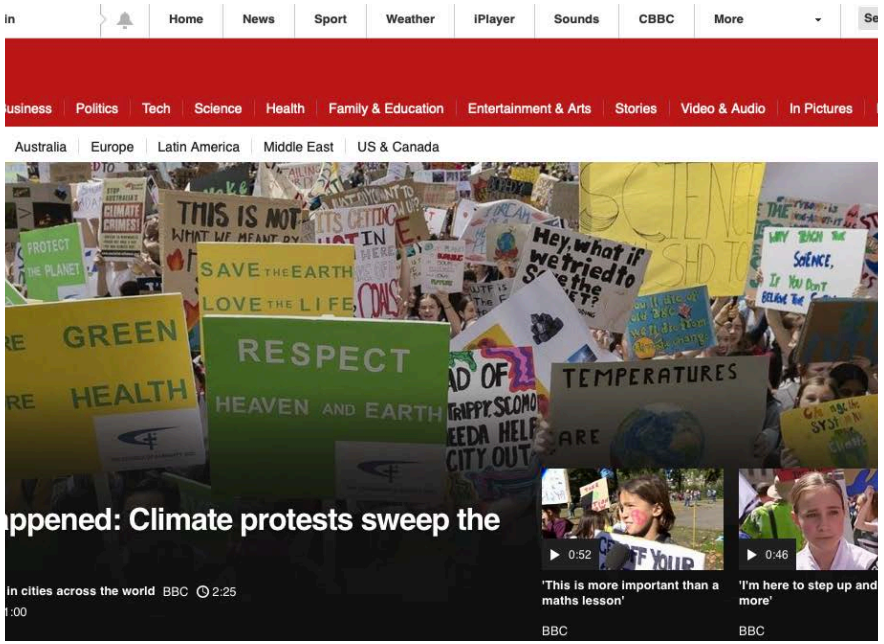
We will use a minimum of 50% recycled plastic in PET plastic, pots, trays and punnets and HDPE bottles by 2021

We will eliminate own-brand CPET, black and dark plastic packaging by 2020

We've replaced single-use carrier bags in almost 1,400 Co-ops with the UK's first compostable carrier bag

We will remove any plastic (from packaging and products) that is not designed to be recycled or reused by 2023

We will work with partners to improve recycling rates and help customers reuse & recycle easily



Climate Change- The pressure is growing

Q & A