

FDF – PLASTICS IN FOOD & DRINK

➔ What can manufacturers do to increase recyclability?

October 2019

global **environmental** and **advisory** solutions

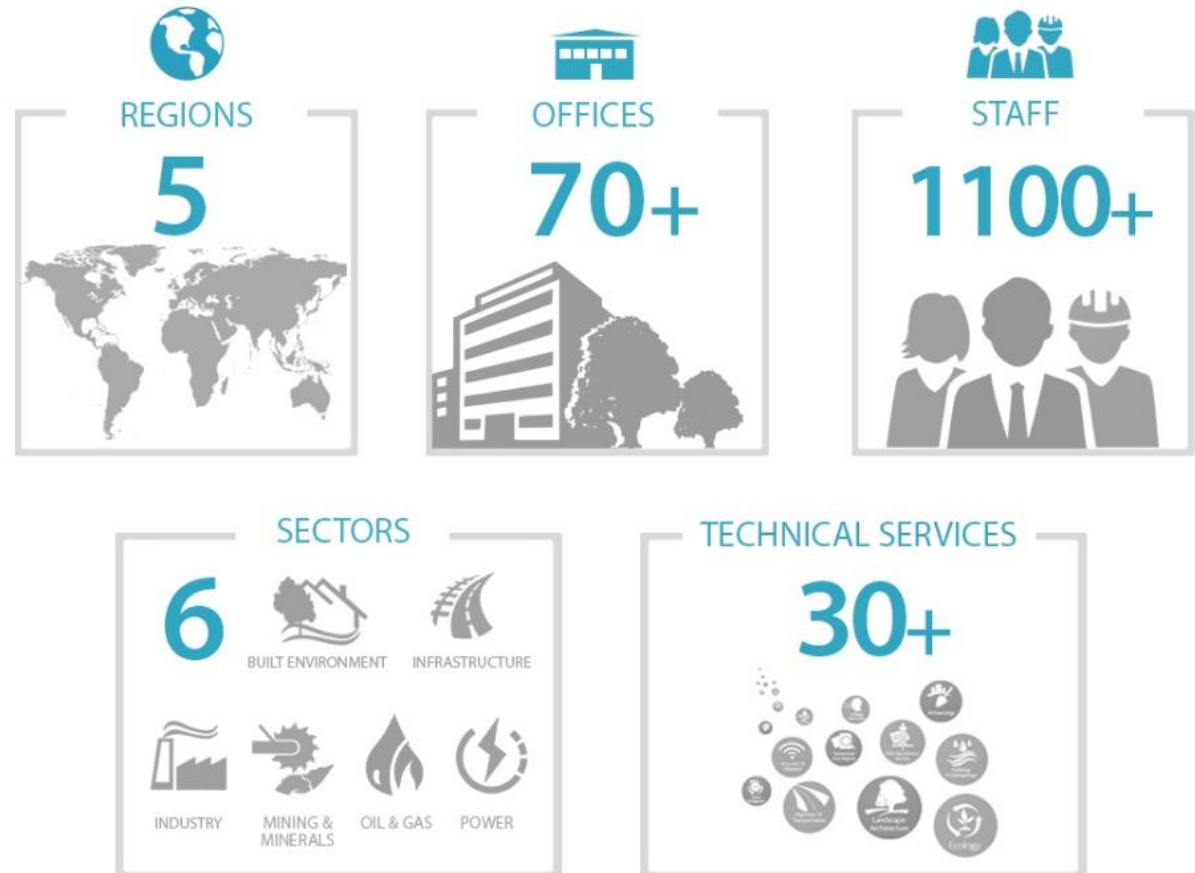


SLR TODAY



SLR delivers global **environmental** and **advisory** solutions

We provide advice and services to clients in the oil and gas, mining and minerals infrastructure, built environment, industry, and power sectors.



SLR EUROPE CLIENTS BY SECTOR

 Industry	 Infrastructure	 Mining	 Oil & Gas	 Built Env.	 Power
       	       	     	     Private Equity Firms	      	      

Industry



CHEMICALS AND PHARMACEUTICALS

- Decontamination and decommissioning
- Site investigation and remediation
- Chemical compliance and reporting
- Mergers and acquisitions
- Process safety and design
- Sustainability reporting and support
- EHS compliance and management
- Acoustic and noise control services
- Risk assessment



CONSUMER PRODUCTS MANUFACTURING

- Chemical Compliance
- Mergers and acquisitions
- EHS Compliance
- Site investigation and remediation



METAL PRODUCTS MANUFACTURING

- Site Investigation and remediation
- Mergers and acquisitions
- Air compliance and controls
- Waste management
- EHS compliance and management
- Process safety
- Waste water treatment and design
- Decommissioning



GENERAL MANUFACTURING

- Decontamination and Decommissioning
- Site investigation and remediation
- Mergers and acquisitions
- EHS Compliance and management
- Sustainability reporting and support
- Outsourced EHS
- Acoustic and noise control services



FORESTRY, WOOD, & PAPER PRODUCTS

- Site investigation and remediation
- Chemical compliance and reporting
- Mergers and acquisitions
- EHS Compliance
- Process safety and design
- Outsourced EHS support



WASTE MANAGEMENT

- Landfill design
- Wastewater management
- EHS compliance

OVERVIEW

1. WHAT IS THE CHALLENGE?
2. WHAT DO CUSTOMERS WANT?
3. PLASTICS RECYCLING - IS THAT ALL?
4. DRIVING SUSTAINABLE BUSINESS SOLUTIONS?
5. SUMMARY

THE VOTE – a quick show of hands

- (a) Who thinks recycling plastics is the biggest environmental issue you face as FDF members?
- (b) Who thinks plastics is your problem as manufacturers?
- (c) Who thinks the decarbonisation agenda is here to stay?
- (d) Who thinks there is an easy single solution to plastics recyclability?

1. WHAT IS THE CHALLENGE?

1. WHAT IS THE CHALLENGE?

- **WWF Living Planet Report Oct 2018**

- *Populations of mammals, birds, fish, reptiles, and amphibians have, on average, declined in size by 60 percent in just over 40 years.*
- *The biggest drivers of current biodiversity loss are overexploitation and agriculture, both linked to continually increasing human consumption.*
- *WWF urges the global community to unite for a global deal for nature and people to reverse the trend of biodiversity loss.*

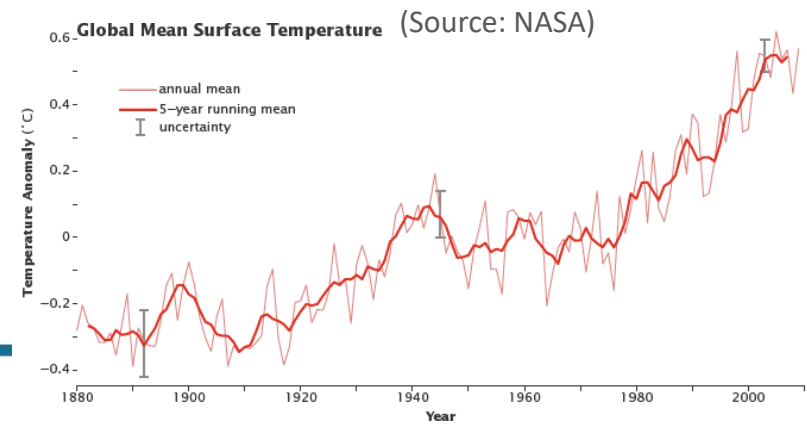
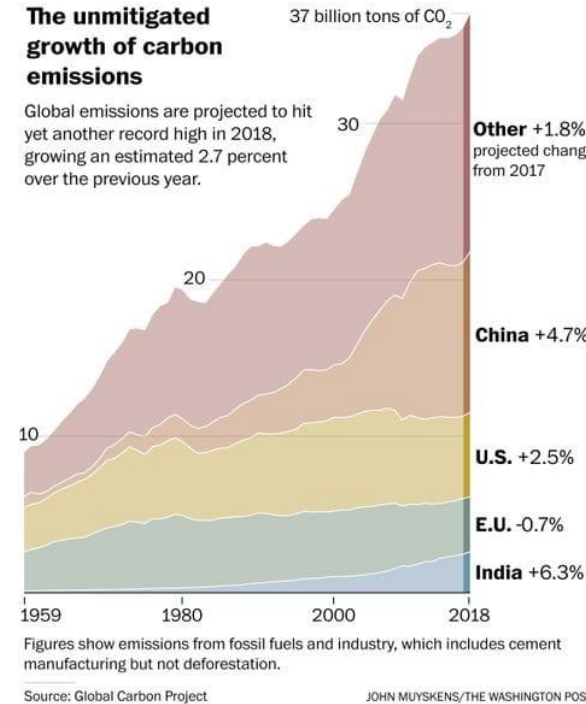
- **National Trust - State of Nature Report 2019 (loss of nature since 1970)**

- ***15 per cent** of species under threat of extinction and **2 per cent** of species have already gone for good*
- *Average abundance of wildlife has fallen by **13 per cent** with the steepest losses in the last ten years*
- ***41 per cent** of UK species studied have fallen and **133 species** have already been lost from our shores*
- *Butterflies and moths, down **17 per cent** and **25 per cent** respectively. Numbers of high brown fritillary and grayling butterflies, have fallen by more than three quarters*
- *The average amount of mammals has fallen **by 26 per cent** and the wild cat and greater mouse-eared bat are almost extinct*

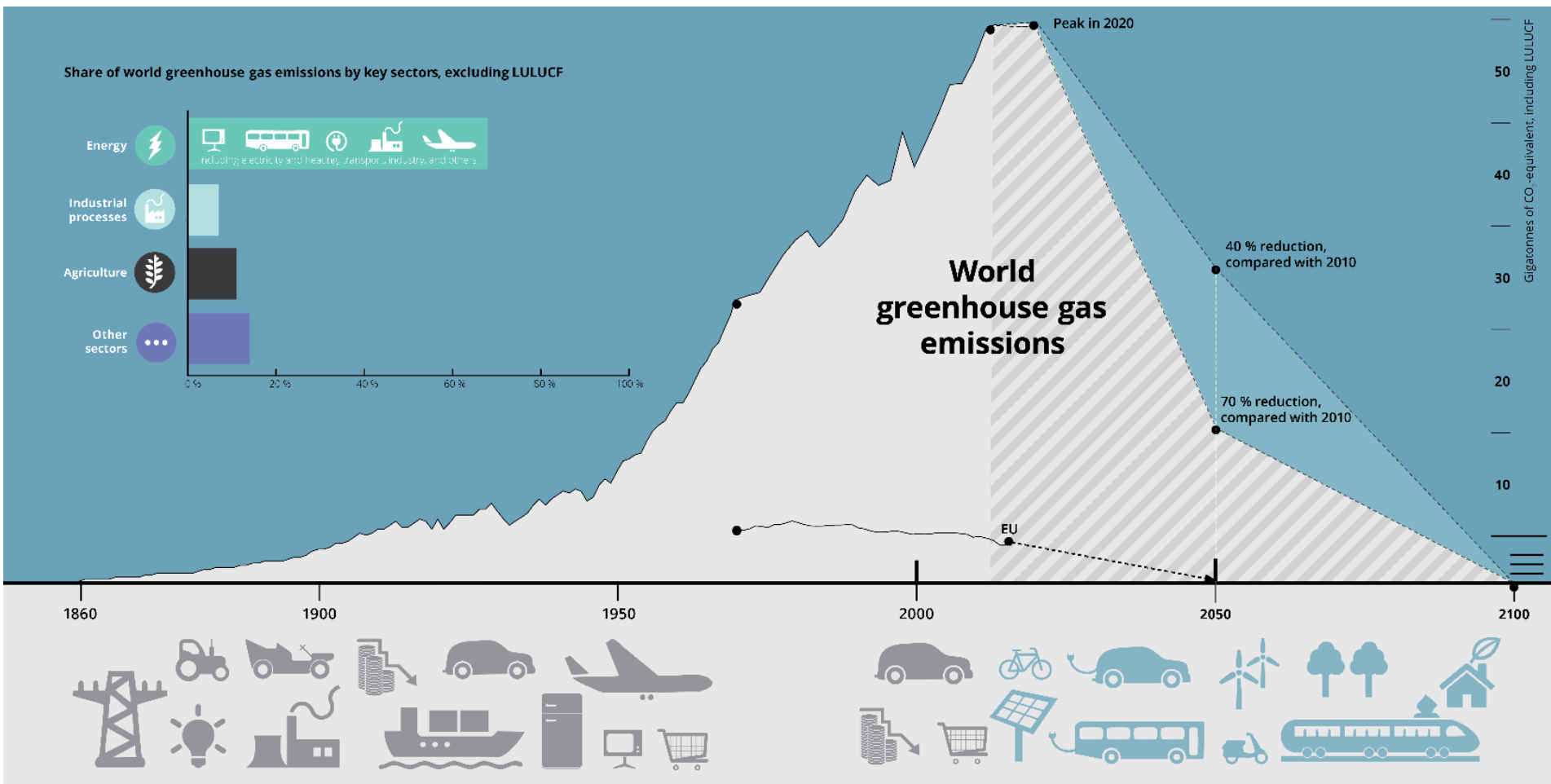
1. WHAT IS THE CHALLENGE?

- IPPC Climate Change Reports

- Sea level rise globally
 - *~15 cm during the 20th century,*
 - *currently rising more than twice as fast – 3.6 mm per year – and accelerating*
 - *Sea level will continue to rise for centuries.*
 - *It could reach around 30-60 cm by 2100 even if greenhouse gas emissions are sharply reduced and global warming is limited to well below 2°C, but around 60-110 cm if greenhouse gas emissions continue to increase strongly.*
- Melting ice (including in mountains), rising seas
- More frequent extreme sea level & flood events,
- Changing ocean ecosystems,
- Declining Arctic sea ice,
- Thawing permafrost.



1. WHAT IS THE CHALLENGE?



(Source: European Environment Agency)

1. WHAT IS THE CHALLENGE?

- It is now headline news ... most weeks



(Source: Daily Express)



(Source: Metro/Reuters)



(Source: BBC)



(Source: Radio Times)



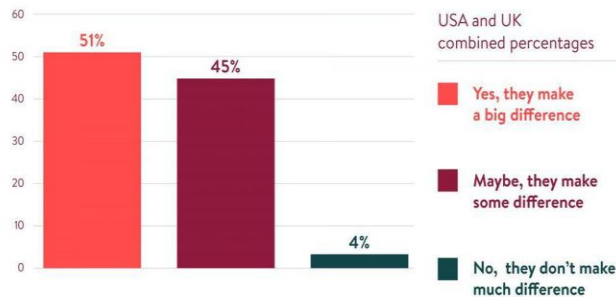
(Source: BBC)

2. WHAT DO YOUR CUSTOMERS WANT?

2. WHAT DO YOUR CUSTOMERS WANT?

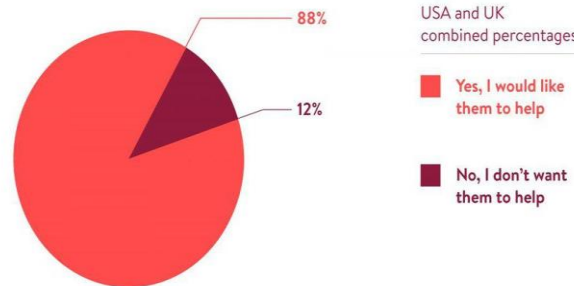
- Convenience ... product integrity ... value ... choice ... and now SUSTAINABILITY

Do you think personal actions (like donating, recycling or buying ethically) can make a real difference in the world?



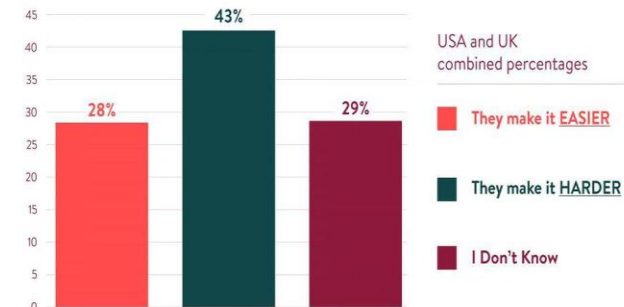
Survey of 1,004 respondents in the USA and UK.
November 2018 for Futerra by OnePulse

Would you like brands to help you be more environmentally friendly and ethical in your daily life?



Survey of 1,004 respondents in the USA and UK.
November 2018 for Futerra by OnePulse

Do brands make it easier or harder for you to be environmentally friendly and ethical in your daily life?



Survey of 1,004 respondents in the USA and UK.
November 2018 for Futerra by OnePulse

2. WHAT DO CUSTOMERS WANT?

- Sustainability can be all things to all people
- Balancing convenience/ integrity /value / choice /sustainability is difficult
 - Designing products to minimise waste is not always easy ... packaging free aisles
 - Recycling is not always easy
 - Re-Use is not always easy ... although servitisation model can be applied in other sectors (take back) ... refills for flour jars/coffee tins/chocolate tins
- **Honesty & transparency** ... its complicated ... and we all have to do our bit
 - Take them with you on the journey you are having to travel

Quotes from our survey of corporate experts (anonymous):

“People are swamped by the magnitude of the problems around them, stressed, steeped in consumer culture, feel powerless and impotent and do nothing but continue to consume.”

“The level of desired transparency varies across different products, brands, categories, markets and consumers. There isn’t a one size fits all approach.”

“Now, many consumers don’t care about transparency at all, but a few power consumers have strong interest in it. These gaps make things complicated.”

“Consumers want you to be transparent with other people. They expect you to be open with what you do, but the average consumer doesn’t want to read the report and go through the data. They are looking for a shorthand for transparency, like the farmer’s name on the apple, that demonstrates your openness.”

Mike Barry, Director of Sustainable Business,
Marks & Spencer

(Source: CGF & Futerra Vol 01)

2. WHAT DO CUSTOMERS WANT?

- Do they really want to know the detail?
- Who's been to a post consumer MRF?



(Source: FT)



(Source: Lets Recycle)



(Source: Packaging Europe)



(Source: Kirkland Seattle)



(Source: Sheffield City News)

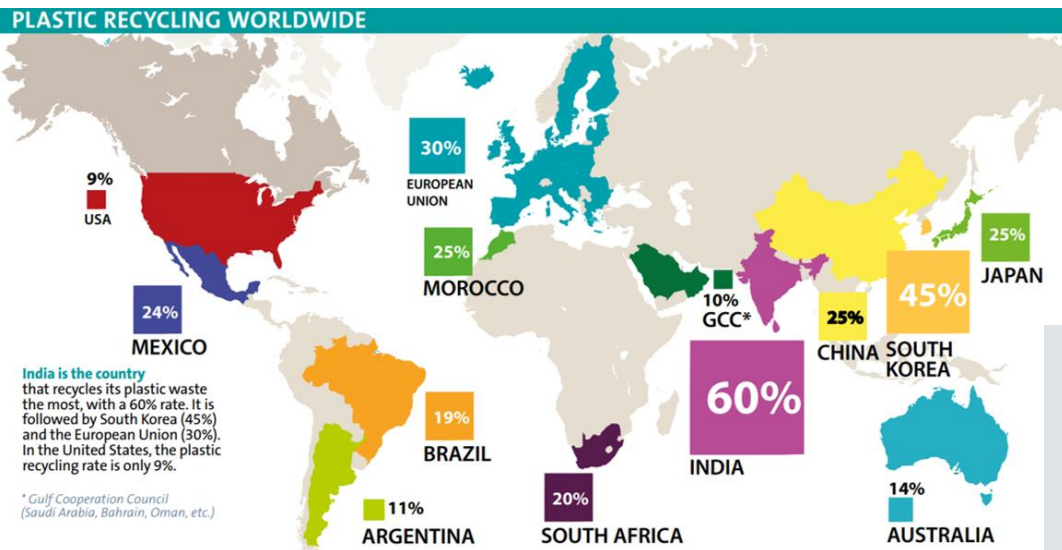


(Source: The Guardian)

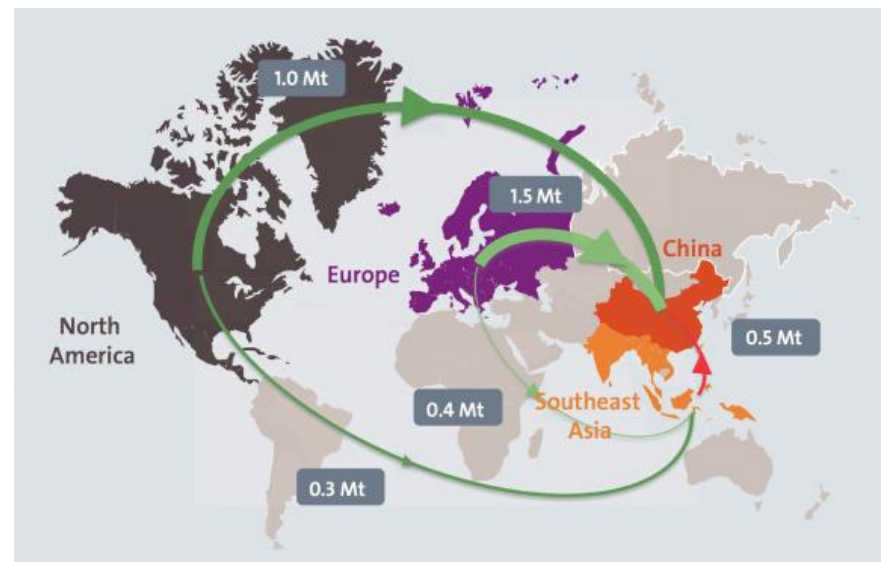
3. PLASTICS RECYCLING – IS THAT ALL?

3. PLASTICS RECYCLING – IS THAT ALL?

- Recyclable does not mean recycled
- 14% of global plastics are recycled, 30% European average , UK 7th best in Europe



Source: www.bpf.co.uk (from Veolia)



3. PLASTICS RECYCLING – IS THAT ALL?

- We all talk about plastic BUT there are multiple plastic types, multiple prices, and multiple disposal, recovery and recycling routes
- Recycled plastics is typically 3-8 times less carbon intensive than virgin plastic (up/down recycling ... open/closed recycling)
- Currently virgin plastic is much more expensive than recycled plastics, during last Oil price crash this reversed



78% of plastic packaging is recovered

[3]

74% of plastic drinks bottles are recycled

[6]

46% of plastic packaging is recycled

[4]

70% of all plastic is recovered

[5]

59% of all plastic bottles are collected

[2]

31% of all plastic is recycled

[5]

**includes all plastics used in construction and automotive, etc.*

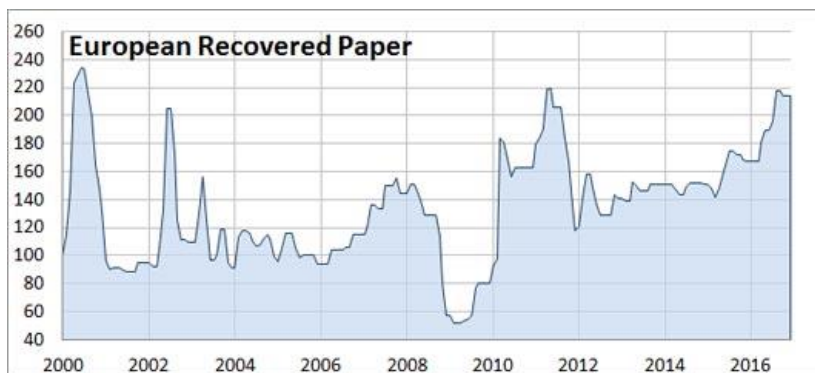
**includes all plastic bottles, such as shampoo and bleach bottles, etc.*

**figure immediately above includes the whole of Europe*

www.bpf.co.uk stats for UK

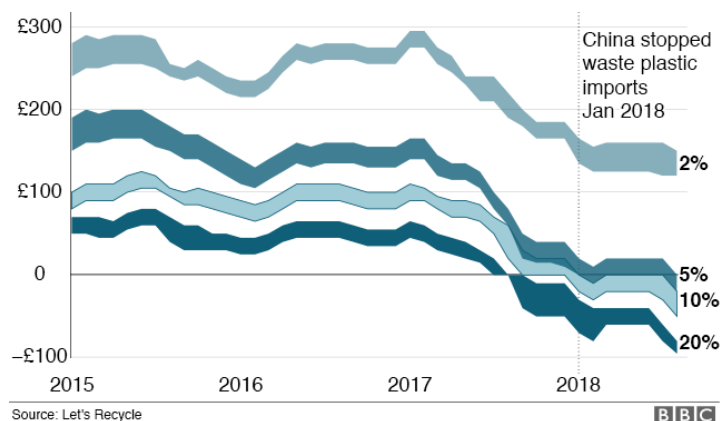
3. PLASTICS RECYCLING – IS THAT ALL?

- It is actually typically cheaper to recycle than dispose or burn waste ... on a per tonne basis ... often even when collection considered



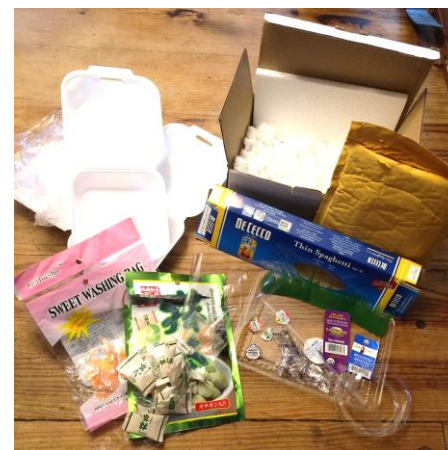
Prices of plastic film destined for export have begun to go negative

Monthly price range per tonne for each level of contamination



Source: Let's Recycle

BBC

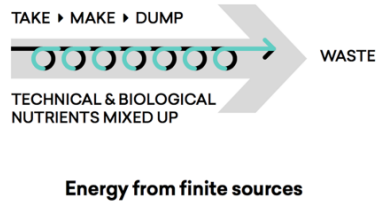


4. DRIVING SUSTAINABLE BUSINESS SOLUTIONS?

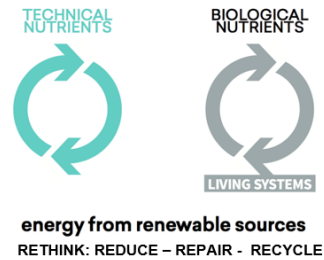
4. DRIVING SUSTAINABLE BUSINESS SOLUTIONS?

- Moving towards a Circular Economy thinking

LINEAR ECONOMY

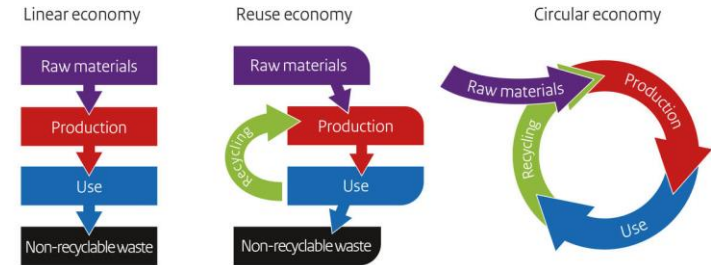


CIRCULAR ECONOMY



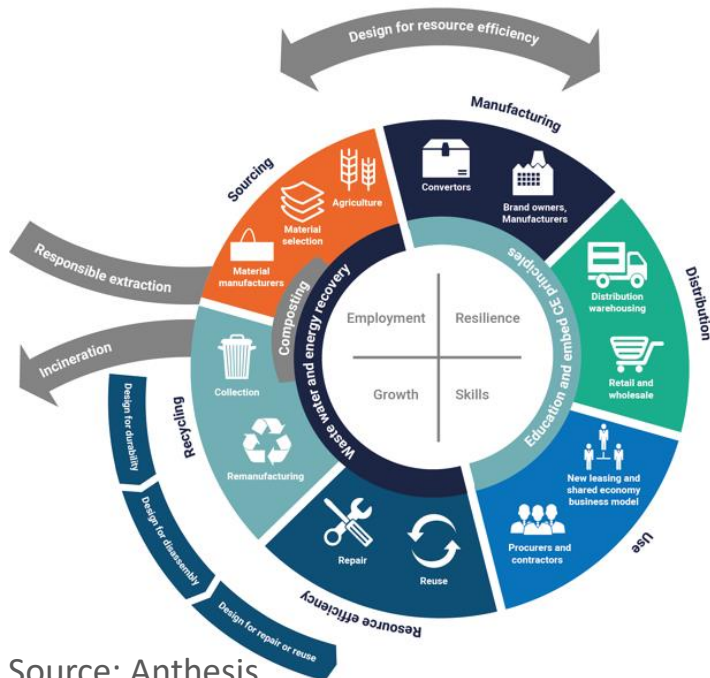
The three Rs (3R)
Reduce, Reuse and Recycle. The rule of the three Rs (3R).

From a linear to a circular economy

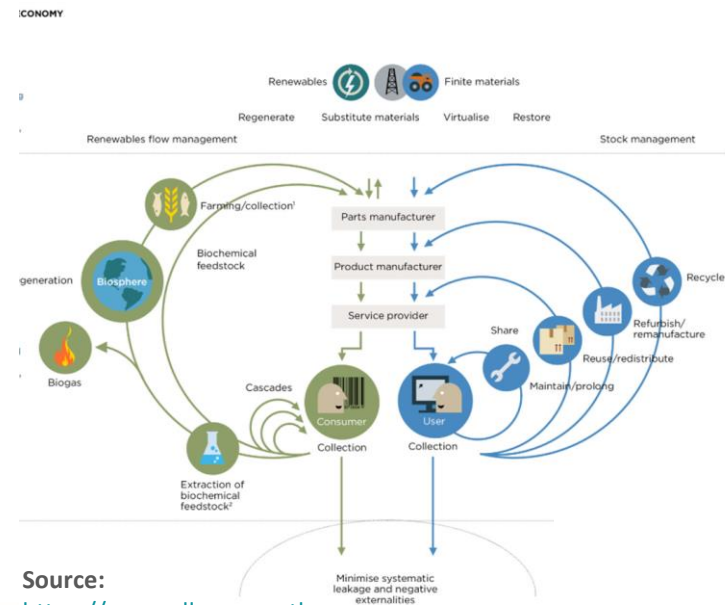


Source: Netherlands Govt

Source: EU Sustainability Guide



Source: Anthesis



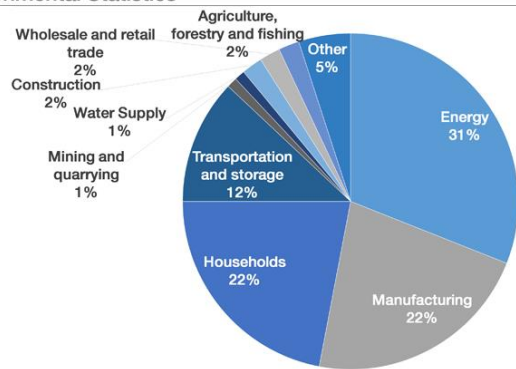
Source:
<https://www.ellenmacarthurfoundation.org/circular-economy/concept>

4. DRIVING SUSTAINABLE BUSINESS SOLUTIONS?

- Huge global disparity in carbon footprints by nation state ...as a function of productivity ... consumption and resource efficiency
- In the EU energy is biggest carbon emitter (31%) ... then manufacturing (22%)... then households (22%) ... then transport and storage (12%)
- Whilst meat, fish & dairy more carbon intensive than beans and nuts this does vary – again its complicated

What are the sources of European CO₂ emissions?

OECD Environmental Statistics

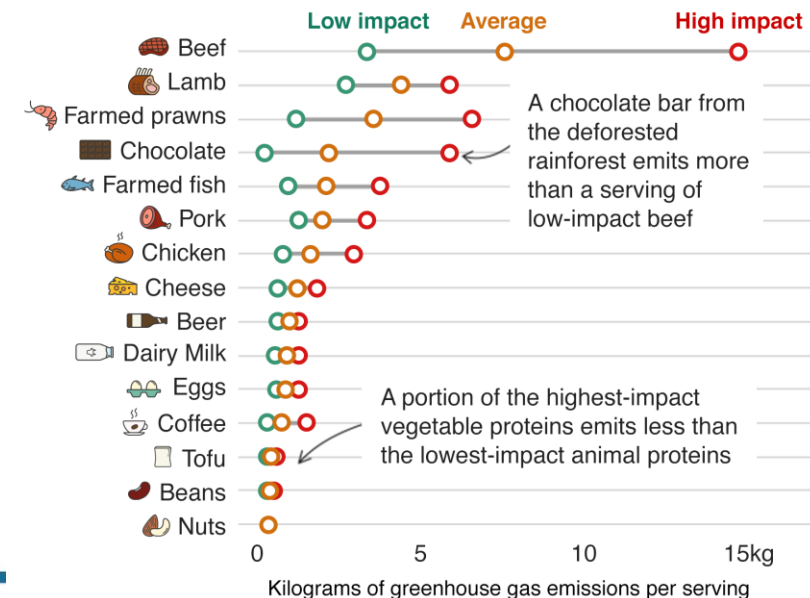


Source: OECD



Beef has the biggest carbon footprint - but the same food can have a range of impacts

Kilograms of greenhouse gas emissions per serving



4. DRIVING SUSTAINABLE BUSINESS SOLUTIONS?

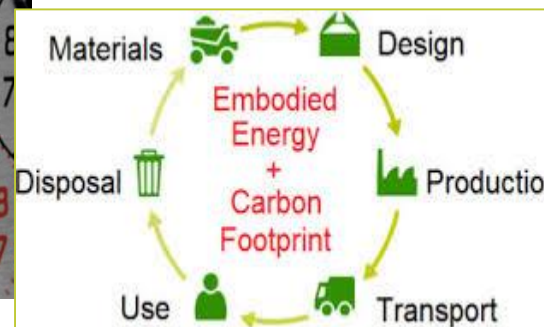
- **Assessing sustainable business priorities**
- If not done so already audit what you are currently doing on water, energy, waste, raw materials ... to set the context of what you want to do to drive better sustainability and decarbonisation
- Understand the contracts you have in place and what incentives are in there for innovation and change



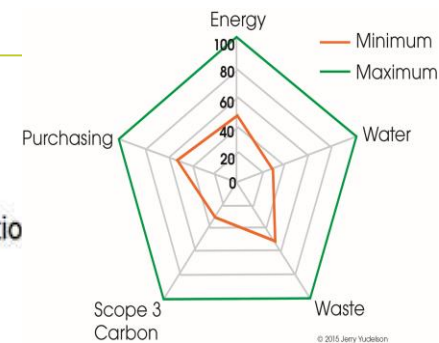
Source: Qair.net



Source: Grainger.com



Source: Science Direct



Source: Jerry Yudelson

4. DRIVING SUSTAINABLE BUSINESS SOLUTIONS?

- **Engage with your supply chain** to drive sustainable thinking
- Removing packaging from deliveries, reverse logistics, sustainable procurement enshrined with contracts
- Price in innovation and sharing reward – to align with your goals



Source: Reba.global



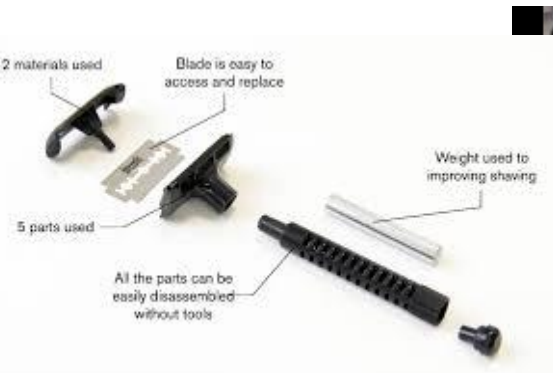
Source: Mr6business.com



Source: Logisticsviewpoints.com

4. DRIVING SUSTAINABLE BUSINESS SOLUTIONS?

- Engage with design teams to drive sustainable product design
- Product light-weighting ... disassembly ... refillable containers ... refill packs



Source: Greatrecovery.org.uk

Source: youtube

Source: kisspng.com

Source: latestgkgs.com

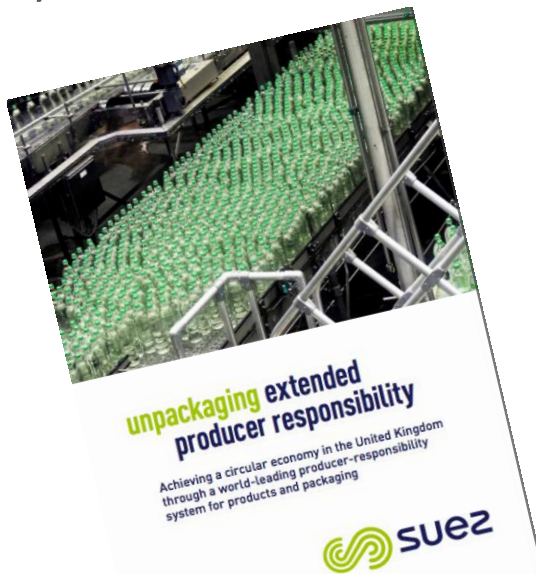
4. DRIVING SUSTAINABLE BUSINESS SOLUTIONS?

- Engage in the policy debate (through FDF)
- Extended producer responsibility
- Deposit returns schemes
- Understand the influence you may have on current recycling & collection systems

Consultation outcome

Introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland: Executive summary and next steps

Updated 22 August 2019



1. **More sustainable design.** EPR should encourage producers and designers to design products for recycling, repair or reuse and make more use of secondary materials, while any environmental burden designed into a product should be reflected in its cost.
2. **Enhanced brand equity.** Brands should be able to differentiate from their competitors on the basis of environmental performance and should be rewarded for progressing this area.
3. **A level playing field.** EPR obligations should apply to all companies operating in the UK market (not just England) and to all materials and products placed on the market. These products should meet minimum sustainable design standards in the UK.
4. **Informed, empowered consumers.** Through EPR, consumers should be empowered to make more sustainable choices through national communications campaigns that retain a sufficient flexibility as to be locally relevant.
5. **A competitive marketplace.** A good EPR system should encourage competition at all levels of the value chain.
6. **Innovation.** A well-designed EPR regime should encourage materials, systems and product design innovations, while also taking into account the transition period and potential disruptive impacts of these changes.
7. **Simplicity for all.** New processes for placing materials on the market, recovering them from the consumer at their end of life and reprocessing them should work within existing systems where possible, while processes should be simplified where change is necessary.
8. **Minimal consumer cost.** As consumers will pay for an EPR regime through the cost of products they buy, schemes must work to deliver the best outcomes for the lowest cost.
9. **A system free from crime.** To avoid criminality, systems should be designed with clear standards for operators, appropriate barriers to entry and robust processes for collecting and auditing data.
10. **Rewards and penalties.** Producers that meet environmental goals should be rewarded while those that do not should be penalised. The costs of failure should be borne by obligated companies that do not meet their responsibilities.



4. DRIVING SUSTAINABLE BUSINESS SOLUTIONS?

- **Review marketing/branding/sustainability strategy** to build brand loyalty and trust
- Set your initiatives within a broader context (supply chain, design, product development/integrity, etc.)
- Take them on a journey ... be honest and transparent – engage with your customers in this context



5. CONCLUSIONS

- Sustainability in the broadest sense is back! Because of this broad definition it can be all things to all people.
- Decarbonisation, climate change and global warming are increasingly becoming an accepted part of our mainstream Global narrative. As with any shortcoming recognition and acceptance are the initial stages of the concerted path to action. These actions and their pace are only likely to increase as time progresses.
- Better plastics recycling is only part of the picture. Plastics recycling is complex in itself, and mixed with other sustainability issues creates more complexity. Customers want honesty and transparency and simplicity. Take them on the journey with you to more sustainable business practices, whatever that might be.
- There may be many steps to sustainable business heaven but here are my top 5:

5. CONCLUSIONS

- There may be many small steps to sustainable business heaven but here are my top 5:
 - Review your sustainability strategy to prioritise your actions
 - Engage with your supply chains – both upstream and downstream
 - Engage with your design teams to integrate sustainable thinking
 - Engage in the policy debate to be aware of what may well be coming
 - Review your customer engagement approach to increase brand trust and loyalty

CONTACT



Alban Forster
Infrastructure Director – SLR Consulting

t +44 (0) 7899 928514
e aforter@slrconsulting.com
w www.slrconsulting.com