



Department  
for Environment  
Food & Rural Affairs

# **Resource and Waste Strategy and Challenges Around the Circle of the Circular Economy**

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## Resource and Waste Strategy - what is it?

- This Strategy is for the long term - to 2050
- First significant Government statement in this area since the 2011 Waste Review.
- Sets out some fresh approaches to old and new problems. All stages of circular economy
  - PRODUCTION
  - CONSUMPTION
  - WASTE/END OF LIFE
  - CROSS CUTTING ISSUES, eg data
- Will help us achieve the targets to double UK resource productivity by 2050 and zero avoidable plastic waste by 2042, and zero avoidable waste of all kinds by 2050.
- Managing waste and managing the resources which become waste.
- How to change behaviour for the better:

## Resource and Waste Strategy, What is it? (contd):

- 25 Year Environment Plan pledged to leave the environment in better shape for the next generation.
- Already achieved a lot – eg since 1990, the household recycling rate has increased fourfold. Much less to landfill.
- But we need to move further from linear to circular - more re-use, recycling, repair and prolong the lives of materials and goods. Unlock more of the value in waste.
- Acknowledge the Earth's natural capital, - the environment will benefit as we reduce landfill and carbon emissions, and use fewer finite natural resources.
- And the economy, as producers get more efficient, paying less for resources, resilient to critical raw material shortages and price volatility.
- Give businesses the confidence to invest more in resource-efficient technology and infrastructure,

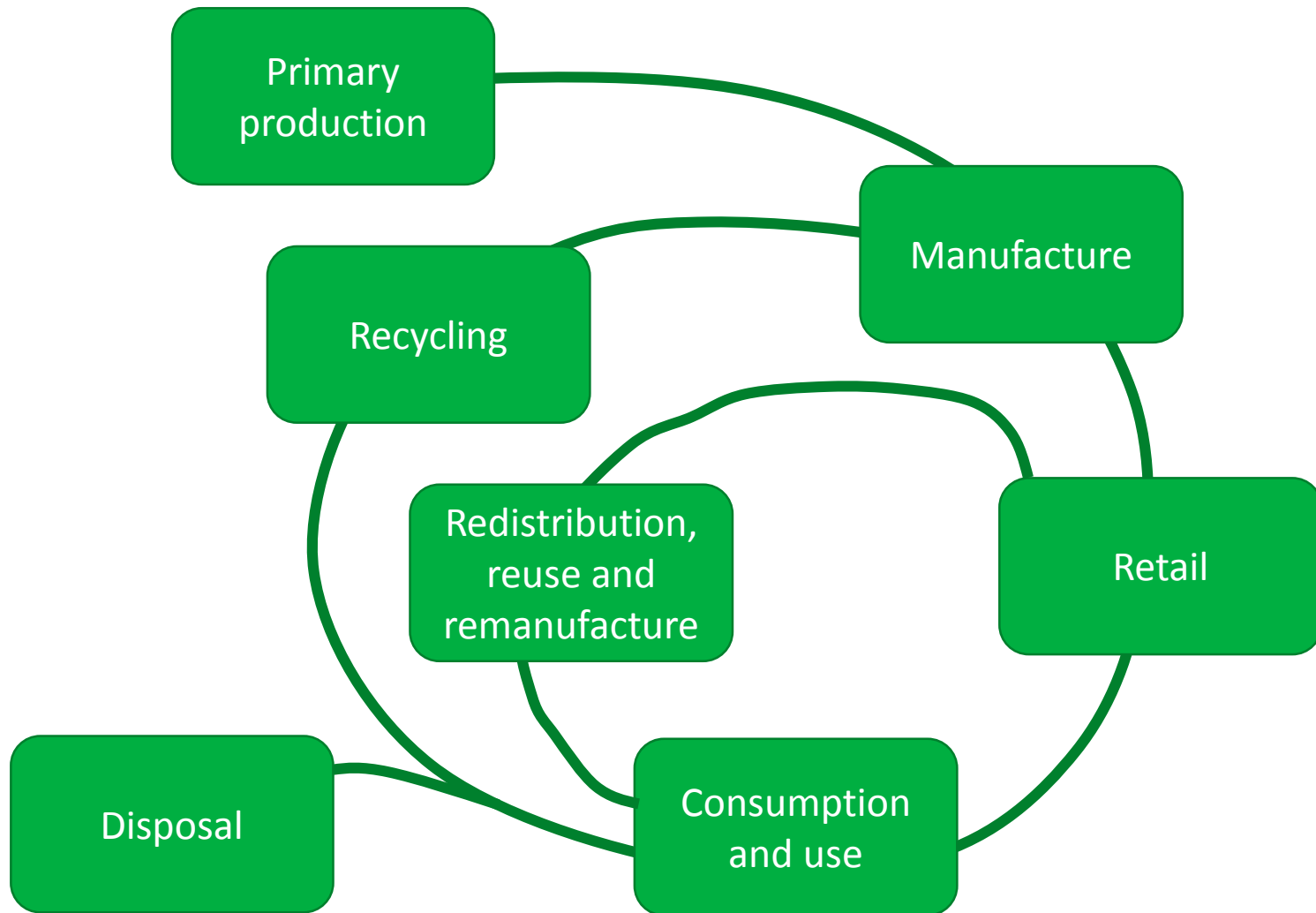
## Resource and Waste Strategy Why now? It builds on:

- 25 Year Environment Plan pledged to leave the environment in better shape for the next generation.
- The Resources and Waste Strategy will help do that and will complement other government strategies which relate to our ambitious targets to double UK resource productivity and achieve zero avoidable waste by 2050.

*Eg the 25 Year Plan, the Clean Growth Strategy, the Industrial Strategy, the Litter Strategy, and the 2017 Government Office for Science Report, From Waste to Resource Productivity.*

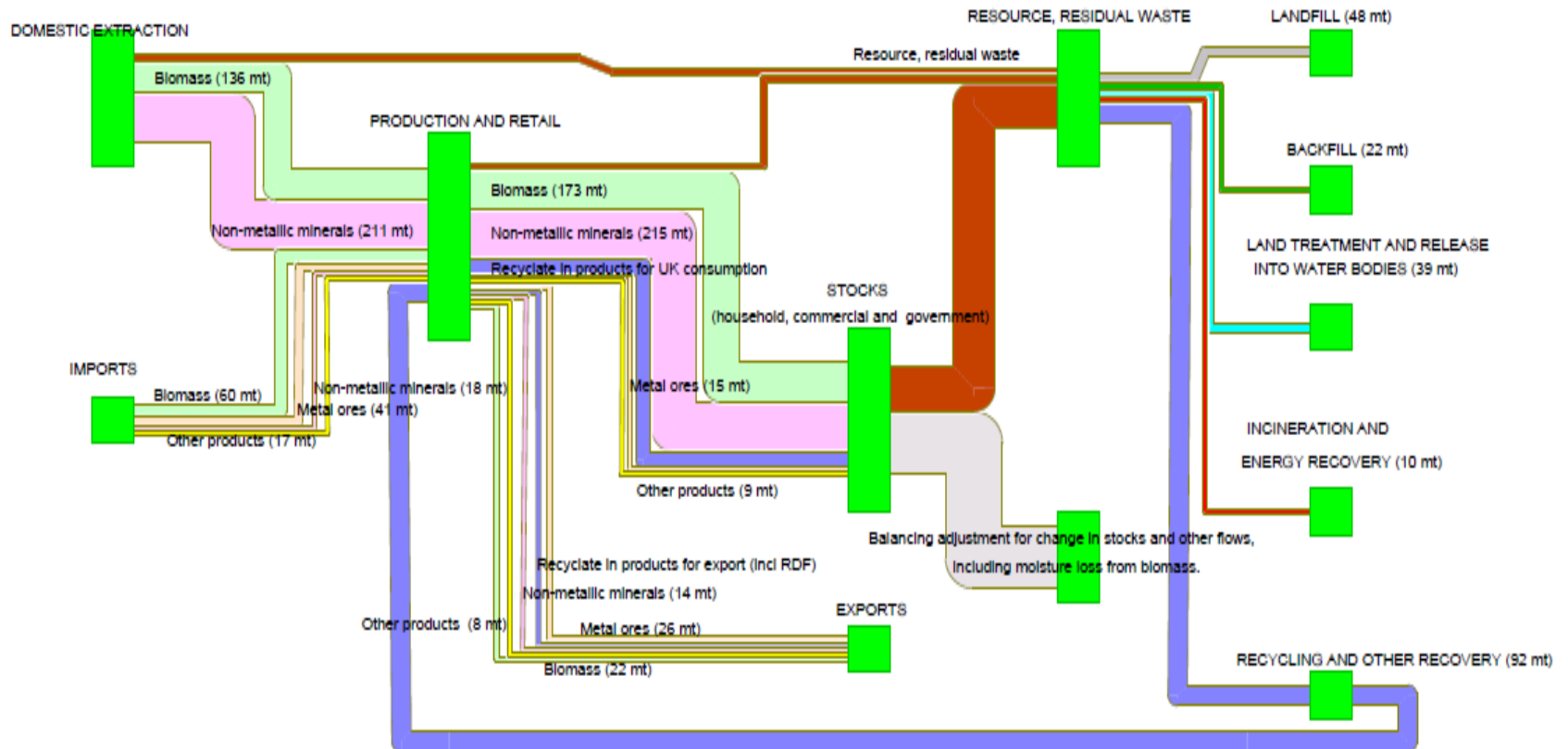
- Measures such as the 5p plastic bag charge have brought about desired changes in behaviour and attitude.
- Public ever more concerned about the state of the planet.

# A Circular Economy



# Presentation to APSE contd:

Figure 1.1: Sankey diagram of flow of resource in the UK, 2014, (excluding fossil fuels and energy carriers).



# Main challenges around the circular economy?

- Society engagement
- Human behaviour
- Industry action
- Waste management
- Policy (including regulation)
- Incentives, drivers, communication
- Monitoring and evaluation

# Society engagement

- Education
- Consumers *wanting* to do the 'right' things
- Making it *easy* to do the right things
- Enabling consumers to see they are doing the right things



# Human Behaviour

- Actually *doing* the right things!
- Waste crime
- Litter (eg how much would DRS help?)
- Fly tipping

### **Industry action:**

- Phasing out difficult to recycle materials
- Design for durability, reuse, repair, recycling
- Increased use of secondary materials
- Accounting of environmental impact of products and services
- National Materials Database

### **Waste management:**

Eg Plastics

Some plastics can be digestible in AD,

.....or compostable in in-vessel composting

.....or biodegradable in open air

Biodegradable plastic may not be suitable for building products exposed to air.

A digestible cup is not compostable, And a compostable cup is not digestible.

The design of the product and the system to manage the waste are intricately linked.

# Waste Management

- Right waste in right place (reduce contamination, increase participation)
- Consistent set of materials collected.
- Minimise landfill where avoidable
- Time required to ensure there is sufficient capacity for the capture and reprocessing of materials.

# Policy (including regulation)

- Regulation that needs to be reviewed?
- Eg Steel industry residues have a reuse pathway into aggregate, but they contain significant amounts of Vanadium and Rare Earth Elements which could be extracted and used, eg in clean growth technology.
- But deviation from the current regulations controlling the decontamination and stabilising of the residues would prevent it's reuse as bulk aggregate.
- So, in this case, pursuing Vanadium and rare earth elements recovery would, under current regulations, mean more of the bulk residue being categorised as 'waste' and be a disincentive to more circularity.
- End of life targets fail to give any drive to producers to produce for durability, reuse or recycle.
- Increase producer's stake to ensure recovery of resource value from materials

# Incentives, Drivers, Communication

- Better quality of secondary materials
- Better markets for secondary materials
- Increase producer's stake to ensure recovery of resource value from materials
- A good framework provides both push and pull for materials across the value chain and requires participation from everyone
- Different actors must play their part in greater circularity.

# Monitoring and evaluation

- Ideally environmental performance is measured across the whole value chain
- Waste management is usually weight based and can drive perverse behaviours, eg collecting garden waste for recycling rather than home composting, Quantity of secondary materials at expense of quality.
- Weight based data can be used in a smarter way by combining it with other data and information.
- Carbon metrics?, Natural capital metrics?
- National targets can require many different interventions from different stakeholders and might not incentivise change.

**Thank you**

**Discussion**

