Waste or Resources
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Just a question of semantics?

According to Richard Girling's book Rubbish! (2005)

- 90% of the raw materials used in manufacturing become waste before the product leaves the factory
- 80% of products made get thrown away within the first six months of their life.

This, coupled with growing tensions around geopolitics and supply risk, are contributing to volatile commodity prices.

A circular economy could help stabilise some of these issues by decoupling economic growth from resource consumption

Waste and Resources

- a dynamic sector that already provides over 100 000 jobs and almost £7bn Gross Value Added to the economy,
- improving resource productivity and efficiency in the UK through sustainable waste practices and the supply of the quality secondary raw materials.
- providing inclusive growth and employment,

Optimizing material flows and use within a circular economy context often involves designing:

- Products with materials and designs that best enable reusing, refurbishment, remanufacturing and recycling;
- Sharing mechanisms that can also extend the life of products;
- Waste management systems that retain the quality and value of materials, including through recycling.

- Predictable and affordable access to materials is an essential part of delivering industrial competitiveness, sustainable economic growth and long term business security.
- EEF “UK manufacturers have consistently highlighted that high material prices and security of supply is a threat to growth”.

Primary mining
~5 g / tonne silver in ore
Similar for Platinum Group Metals (PGM)

Urban mining
200-250g / tonne silver in PCBs
300- 350g / tonne silver in mobile phones
2000g/ tonne PGM

Nearly every car scrapped in the developed world contains 2 - 3 grams of PGM which is 2 – 3 times richer than the ore that is mined

- Almost a third of profit warnings issued by FTSE350 companies in 2011 were attributed to rising resource prices.

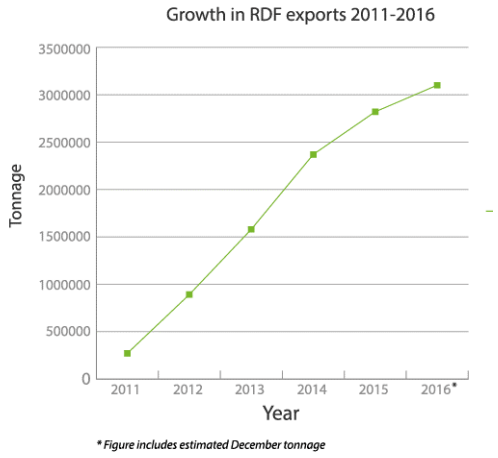
- For the priority growth industries in the UK, an assessment of the resource implications is essential;
  - eg, raw materials are the biggest cost driver in the automotive industry, more than double the cost of labour. Raw materials contribute about 47% to the cost of a vehicle; in comparison, labour costs represent around 21% of the total cost.

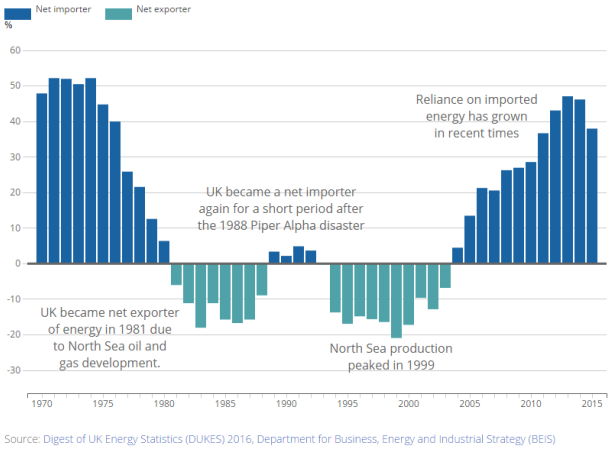
FRN members are reusing over 110,000 tonnes of product per year. Saving families over £350million per year.

- have seen anywhere between a 40% and 100% increase in demand.

Likely growth in waste volumes could see the cost to local authorities and businesses go up by £260-485m per annum without further action to reduce waste and improve recycling.

Landfill capacity is falling rapidly; overseas markets for the UK's refuse derived fuel (RDF) are showing signs of levelling out; the current programme of Energy from Waste facilities is coming to an end. There is serious concern that we will hit a capacity gap in residual waste treatment infrastructure post 2020 unless there is significant further investment.





Source: Digest of UK Energy Statistics (DUKES) 2016, Department for Business, Energy and Industrial Strategy (BEIS)

- ESA (2016) suggests that there is almost no new public sector procurement of recycling infrastructure through their members currently in the pipeline for England.
- 15% of the UK's current recycling capacity likely to end its useful life during this timeframe, could see a reduction in household recycling rates of 5% and the loss of 8,000 jobs.

- Waste crime in the UK is widespread
- It is estimated to cost the UK economy over £500m a year in lost taxes and profits
- HMRC estimates the lost landfill tax from waste misdescription at £150m a year.

Move to a circular economy?

- Need to consider the whole waste hierarchy – prevention and reuse
- Long-term recycling goals will guide current and future efforts.
- Circular economy requires collaboration across the entire supply chain.
- Product design will be a critical factor in determining reuse, recyclability and value of secondary materials.
- New business models can be applied across the supply chain to drive circularity.
- Energy from waste has a role to power the circular economy

Future?

- Move from just weight based targets to ones that recognise the quality and value of materials
- Ensure that current environmental standards are maintained and that the UK continues to show ambition on delivering clean growth and a better environment, irrespective of Brexit
- Embed better resource productivity and efficiency as a key strand of government economic and environmental policy
- Provide a clear and stable future policy direction to 2030 and beyond, taking account of the development of the EU Circular Economy framework.

Thank You

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