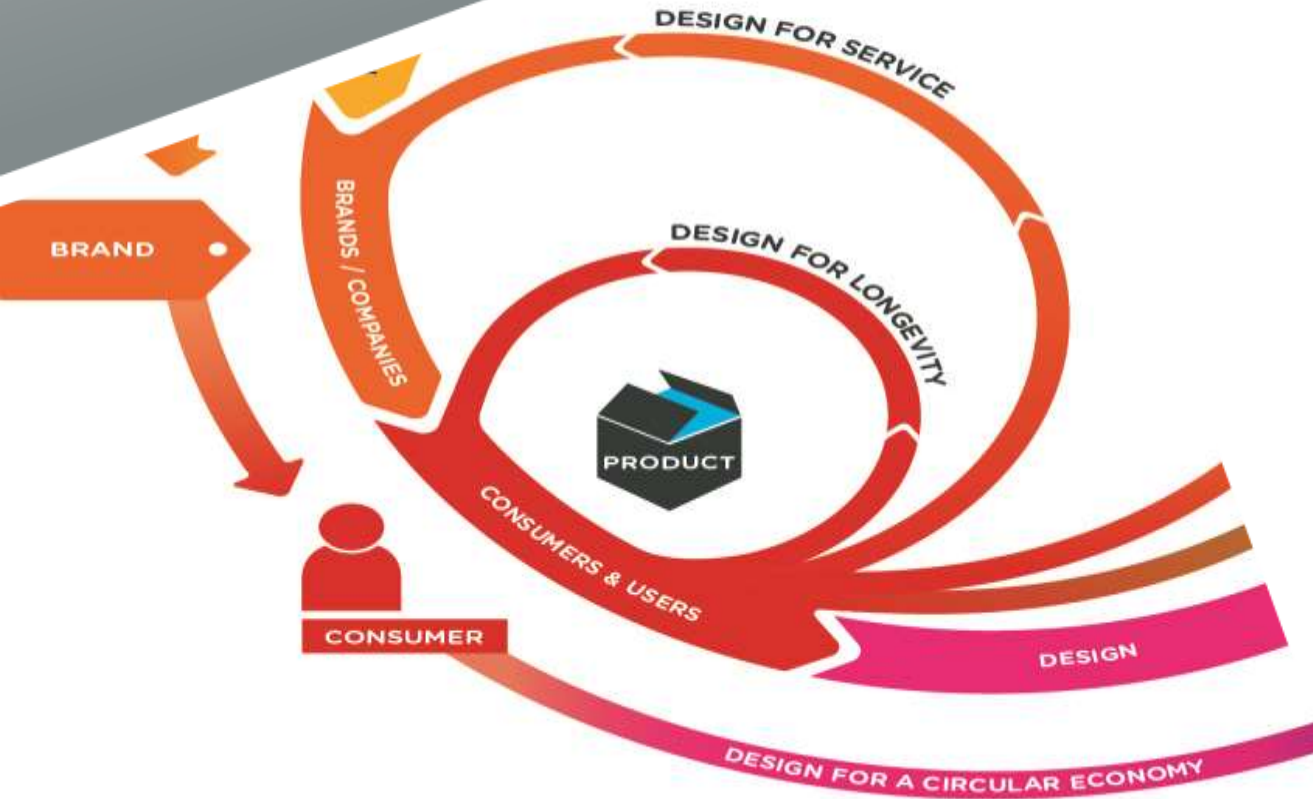


UK Sustainable Manufacturing

18th February 2014

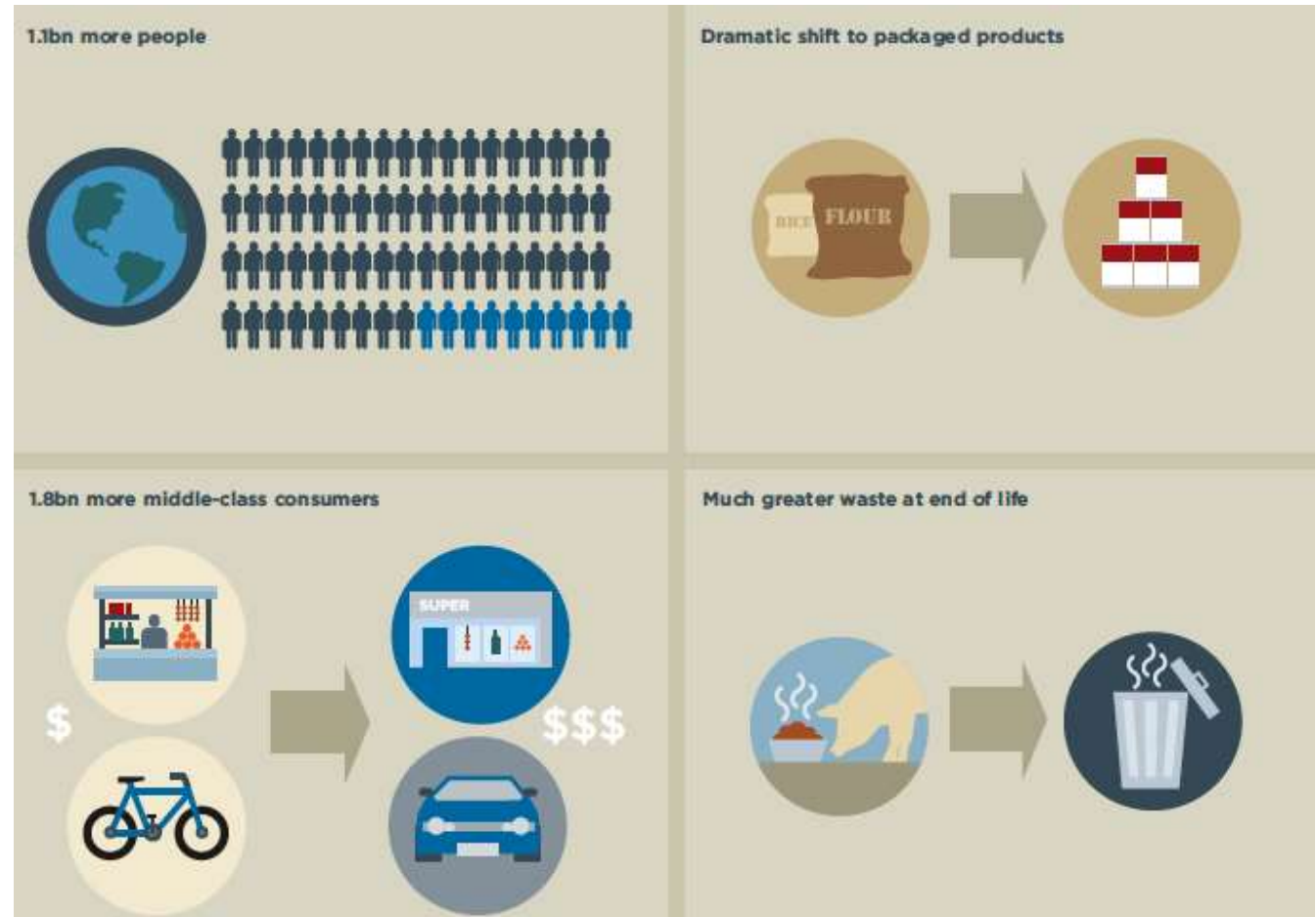
Zoe Rowe

PhD Candidate

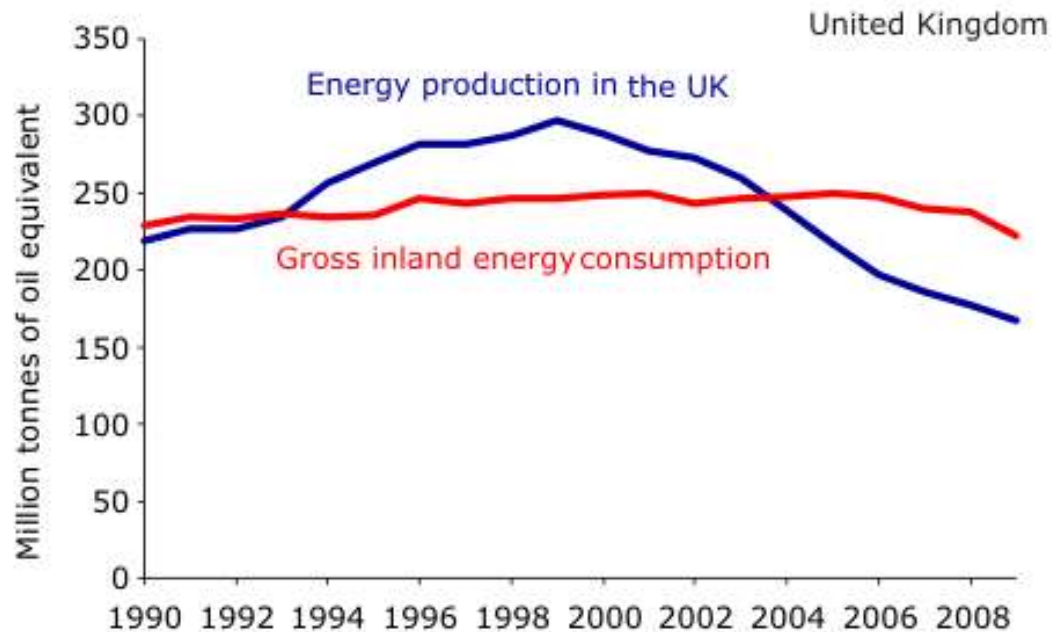


Unsustainable Consumption Rates Global

- +24% caloric consumption
- +57% food spending
- +47% packaging
- +47% end-of-life materials



UK Energy Production and Consumption

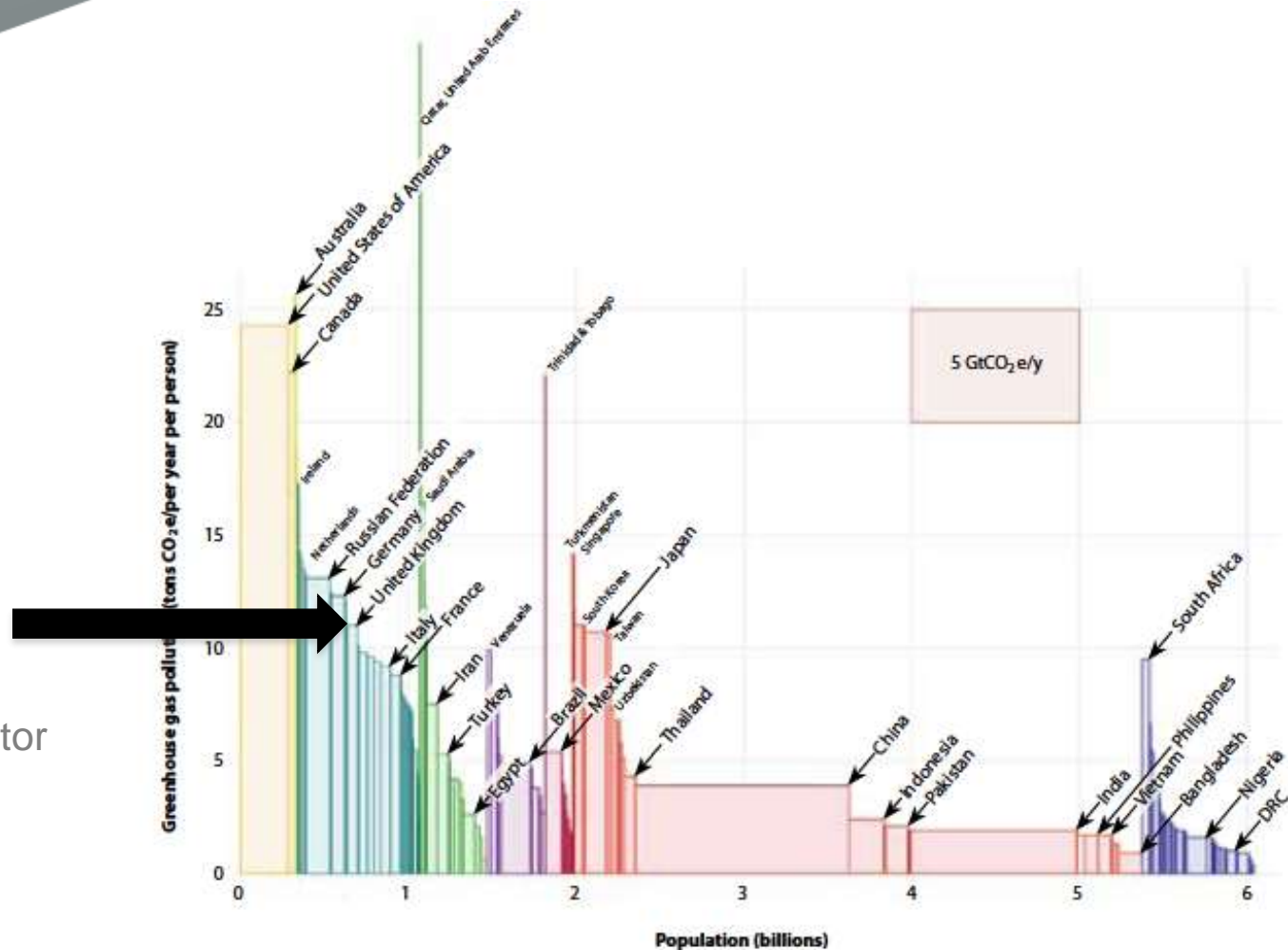


Source: DECC

- Reduced resources
- Increased prices

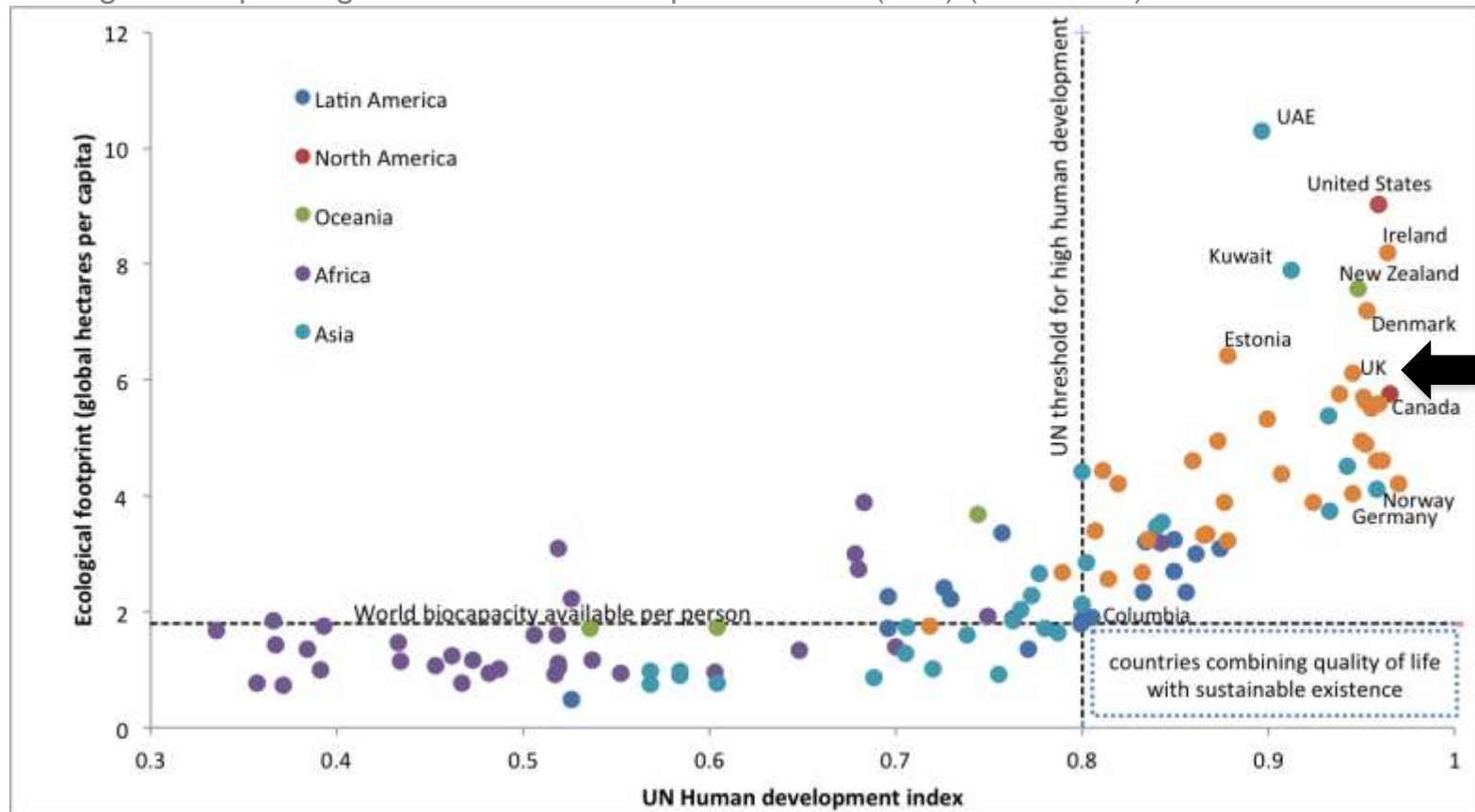
UK's Contribution to Climate Change

11th
Largest
Greenhouse
Gas Contributor



UK Unsustainable Development

Ecological footprint against Human Development Index (HDI) (2006 data)

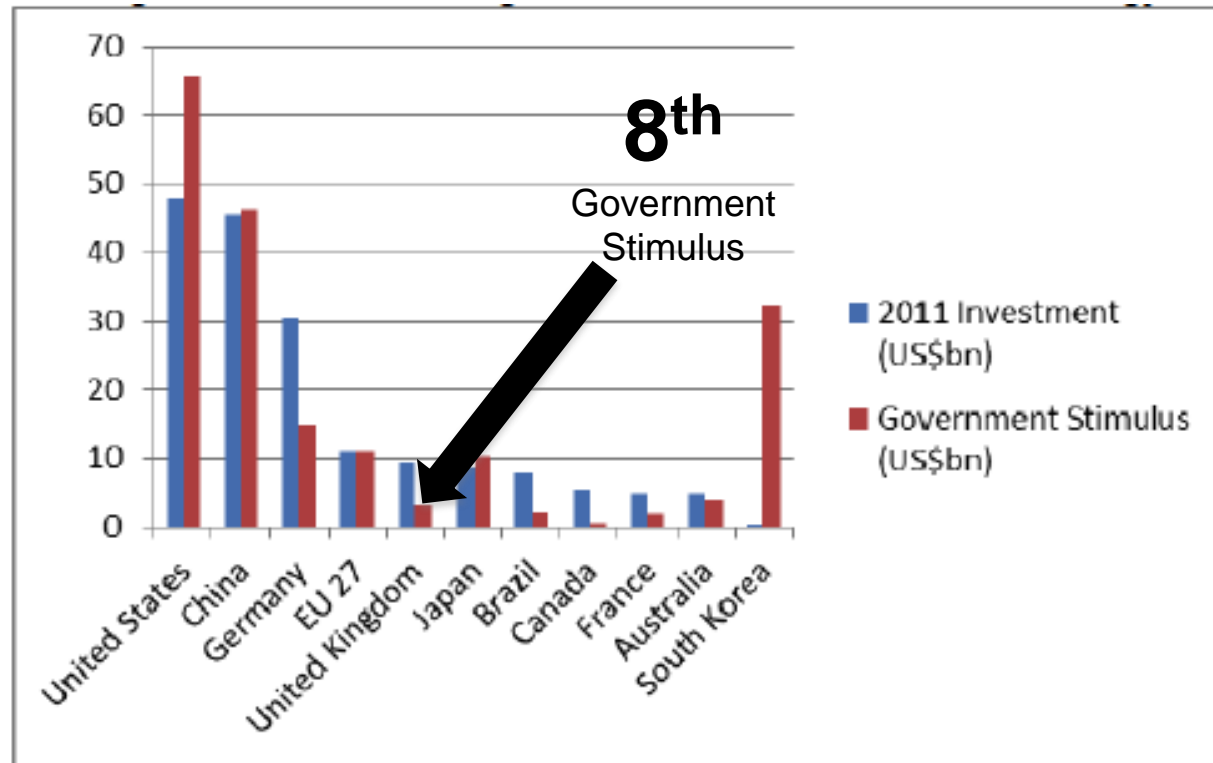


What are the major challenges for the UK?

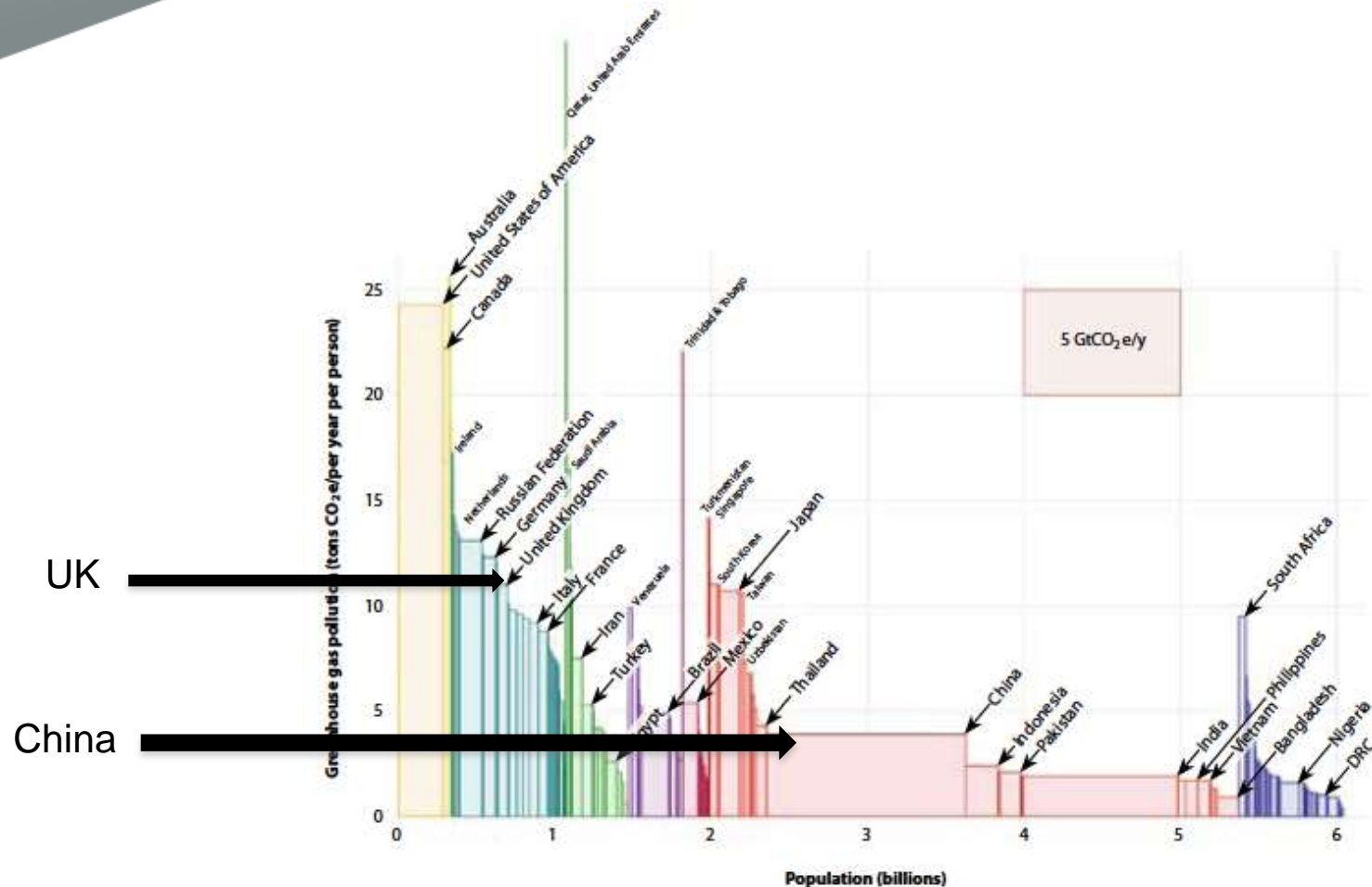
- Domestic sector accounts for 28% of total British energy demand
- Responsible for approximately 30% of Britain's total emissions

What are the major challenges for the UK?

Investment and government stimulus for clean technology

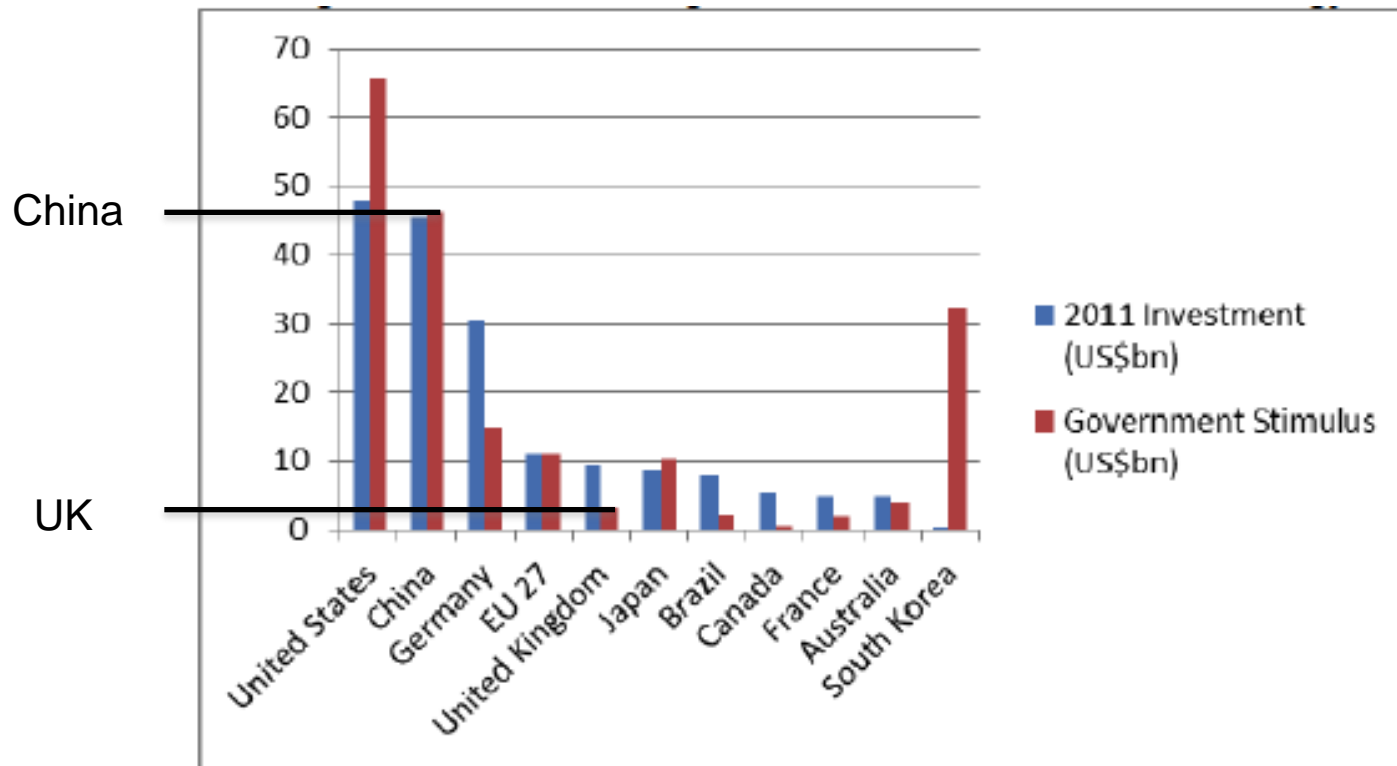


UK's Contribution to Climate Change



What are the major challenges for the UK?

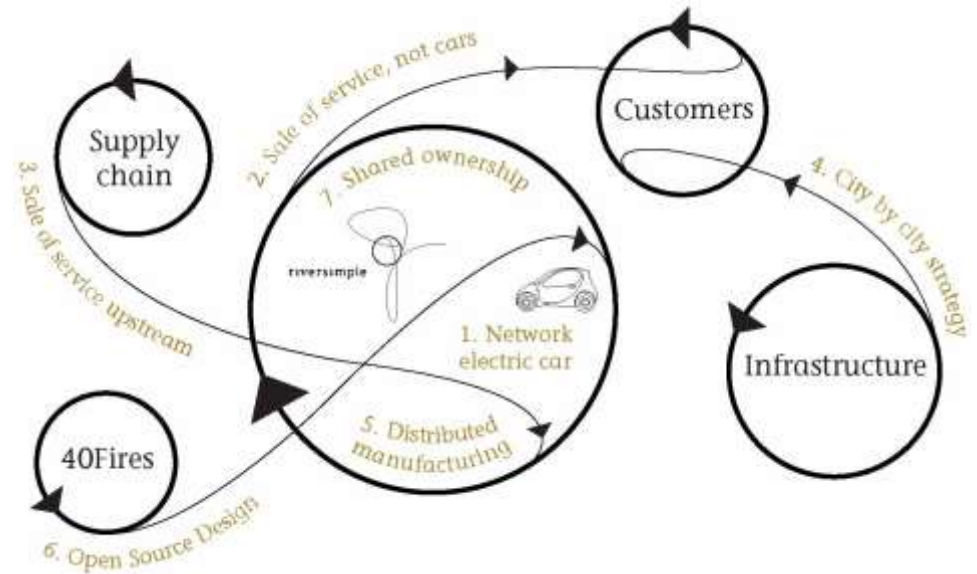
Investment and government stimulus for clean technology



Source: Pew Charitable Trusts, 2012

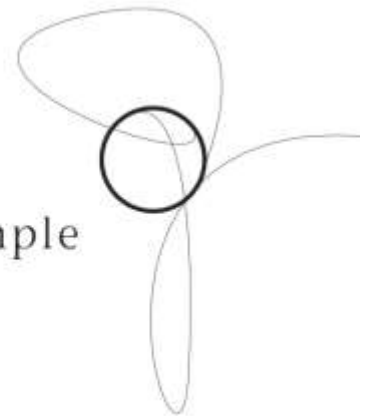
New Business Models: Riversimple

- Environmental vehicle design
- Shared ownership
- Open source design and development
- Service concept
- 'Cradle-to-cradle'



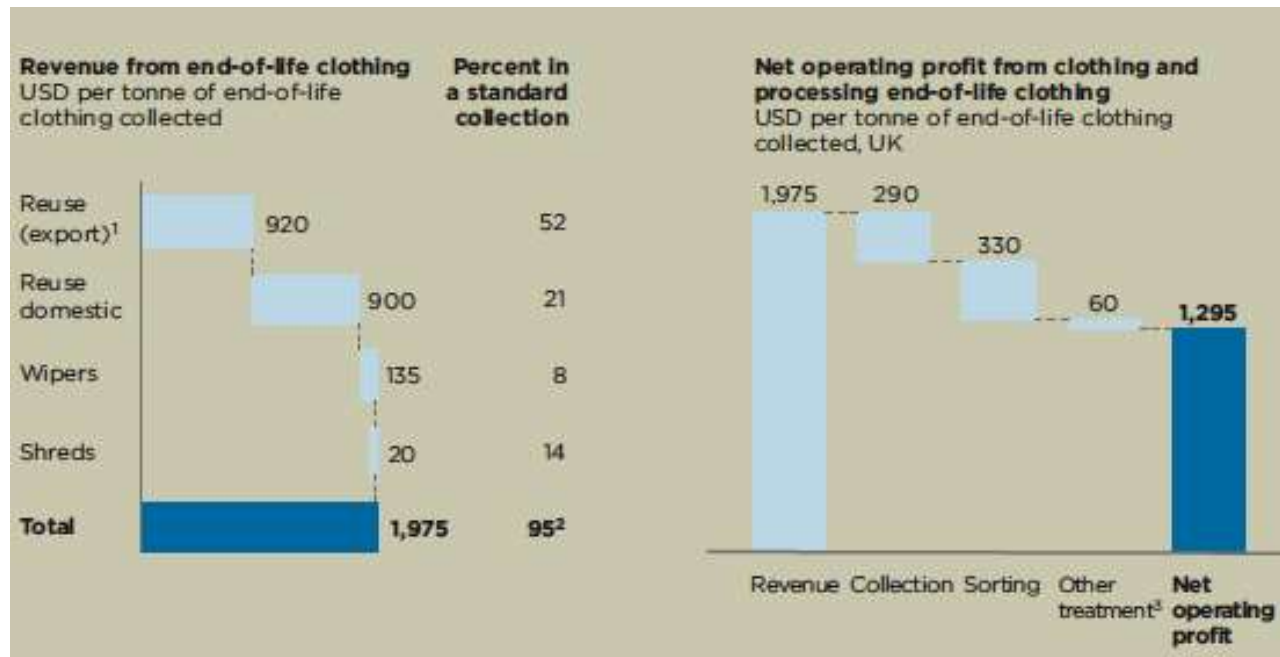
riversimple

“Being less
unsustainable is still
not sustainable”



Circular Economy: UK Clothing

Clothing: current collection and sorting profitable business model



Sources: Towards a circular economy, Opportunities for the consumer goods sector, Ellen Macarthur Foundation, 2013

Case Studies



IMPROVING HEALTH AND WELL-BEING

By 2020 we will help more than a billion people take action to improve their health and well-being.

REDUCING ENVIRONMENTAL IMPACT

By 2020 our goal is to halve the environmental footprint of the making and use of our products as we grow our business.*

ENHANCING LIVELIHOODS

By 2020 we will enhance the livelihoods of hundreds of thousands of people as we grow our business.

1 HEALTH & HYGIENE
>>

2 IMPROVING NUTRITION
>>

3 GREENHOUSE GASES
>>

4 WATER
>>

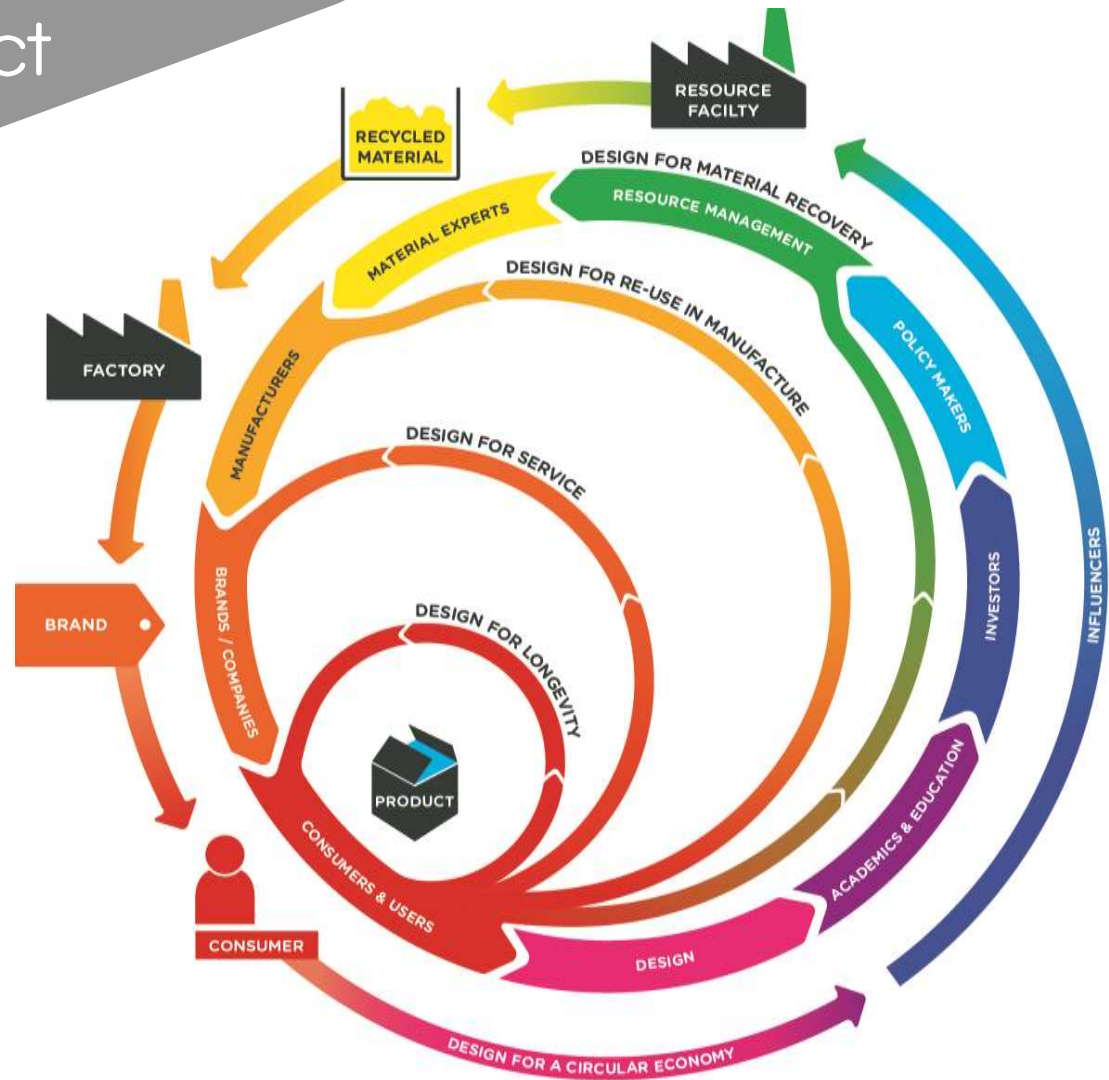
5 WASTE
>>

6 SUSTAINABLE SOURCING
>>

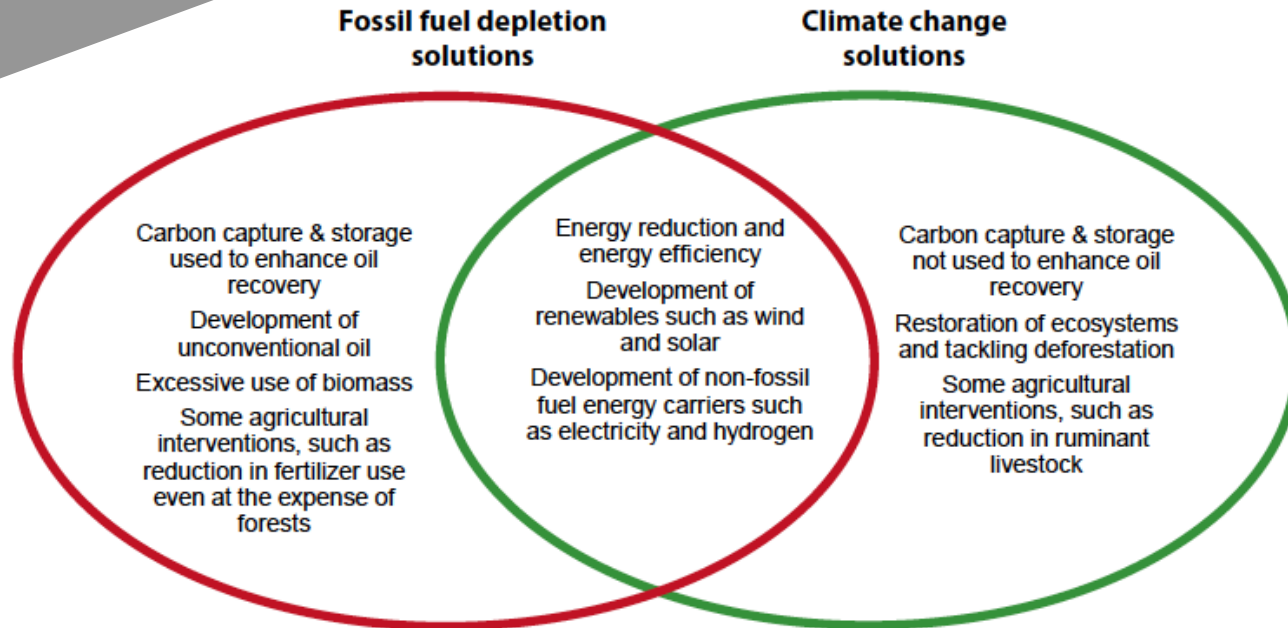
7 BETTER LIVELIHOODS
>>

Case Study: The Great Recovery Project

- 540m tonnes of products and materials enter the UK economy
- Only 117m tonnes of this gets recycled
- New Designs for a Circular Economy

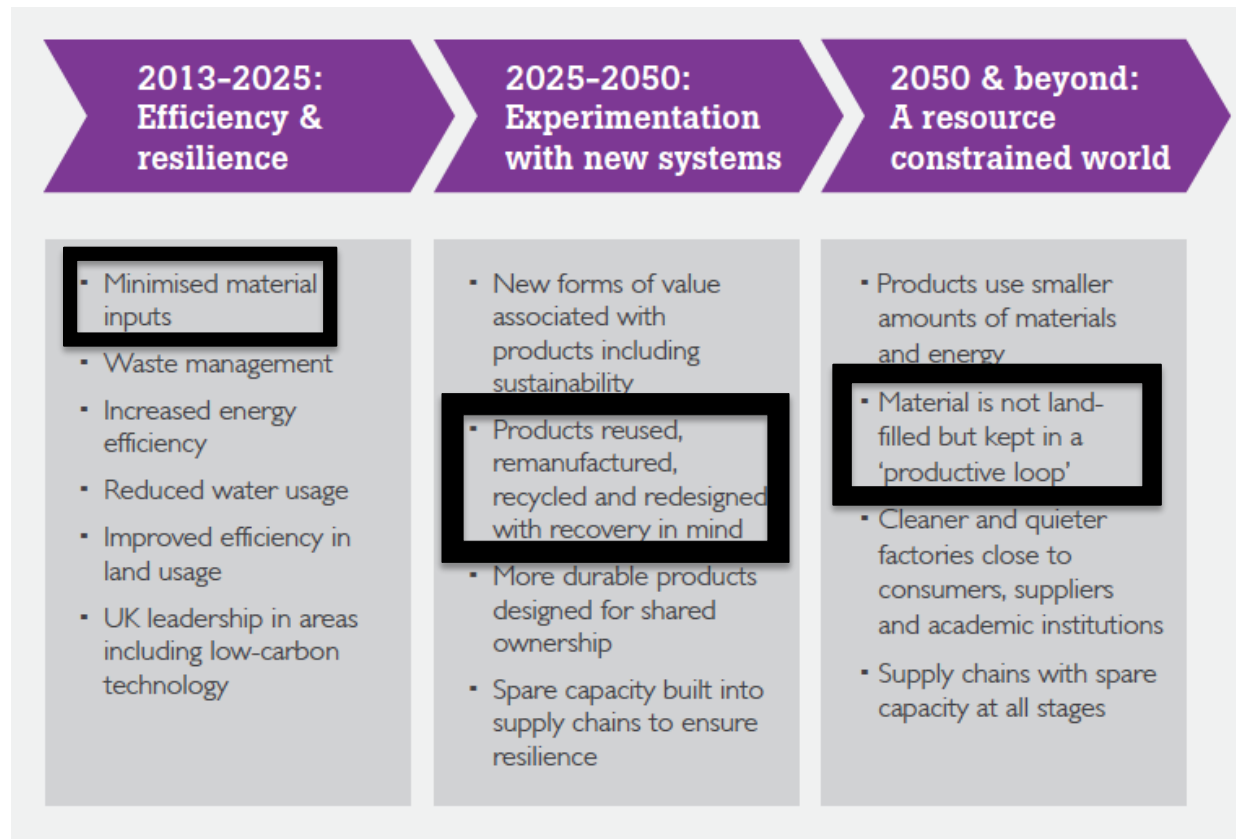


UK Sustainable Manufacturing: Future Needs



- Resource efficiency
- Skill future generations
- New business models
- Collaborations
- Policies
- Communications

Shift to Sustainable Manufacturing



Thank you.