

Blueprint for a resilient economy

Briefing three

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Stop wasting valuable resources

Resource efficiency makes businesses stronger and benefits consumers by prioritising better and longer lasting products. It makes supply chains more resilient to volatile resources prices, reduces dependence on material imports, cuts pollution and emissions, and improves productivity. Shifting towards a more circular economy could also reduce unemployment, creating jobs in sectors like recycling, reuse, biorefining, servitisation (providing services rather than products) and remanufacturing.

Challenges and risks in recovery

Without better resource efficiency for some materials, the risks to UK supply chains from geopolitical volatility and shocks remain high, particularly in sectors reliant on critical raw materials (CRMs) in which the UK aims to be a global leader, like electric vehicle manufacturing and offshore wind. Currently, the country is 100 per cent reliant on imports of CRMs like rare earth elements and cobalt, but reuse and recycling could create a source of domestic supply.

The failure of the market to reflect the environmental costs of extraction, resource depletion and waste generation, and a lack of strategic insight on resource issues in business, mean resource efficiency is often overlooked as an area for investment. It is a virtually untapped, potentially [powerful tool for tackling carbon emissions](#). If policy fails to develop in this area, it would be a significant missed opportunity for the UK.

On a global scale, the UK has an ecological footprint – including the use of resources – [three and a half times](#) greater than the natural world can sustainably withstand. Extracting resources [increases pressure](#) on ecosystems abroad and this increases the risk of future pandemics.

Opportunities in recovery

- **Improve circular economy infrastructure.** Investing in system improvements, including prioritising innovation in information and logistics, to make better use of resources, could add at least [102,000 net jobs](#) of various skill levels right across the UK.
- **Accelerate innovation through new sectoral partnerships.** Creating new partnerships within the sectors which could most benefit from improved resource efficiency will speed up the identification of best practice, as well as the challenges that need to be overcome. This will reveal the resource management opportunities to start improving

business productivity: the Institute for Manufacturing says that improving the energy resource efficiency of manufacturers to the level of the best in their sector would yield an [additional £10 billion per annum](#) in profits for UK firms.

- **Regulate for better product design and improve data on materials.** Introducing new product design regulations, setting new targets for data capture of materials used in products, and bringing in mandatory targets on reuse and recycling of products, will lead to longer lasting, more sustainable products. In addition to benefiting the environment, this would be hugely popular with the public, [75 per cent of whom](#) want government to ensure businesses produce repairable and recyclable products.

Investment and policy to stop wasting valuable resources

Improve circular economy infrastructure

Very little government funding, beyond that for research, is going into realising the [potential of the circular economy](#). The government should dedicate a similar level of funding for upstream circular economy projects as it does to industrial resource efficiency. An investment of at least £400 million over the next five years would help businesses to deliver carbon savings and increase productivity through better design and reuse, refurbishment and high quality recycling services. This additional support should build on ongoing research and innovation, as well as previous programmes, including the National Industrial Symbiosis Programme (NISP) and the Resource Efficient Business pilot projects.

A transformation to a more circular economy, by encouraging and investing in recycling, buying services rather than products, biorefining, reuse and remanufacturing, would create jobs at different skill levels right across the country. These would be most likely to benefit areas with high unemployment. In total, [more than half a million jobs](#) could be created, with more than 102,000 of them net jobs.

Accelerate innovation through new sectoral partnerships

Resource efficiency challenges are likely to vary from sector to sector. Some sectors offer considerably more scope for improvement than others. [Our research](#) has identified construction, electronics, vehicles, food, and clothing and textiles as areas offering significant savings. Just [30 out of 106](#) economic sectors account for 80 per cent of the UK's material footprint. The government should establish partnerships within these key sectors, to identify best practice, challenges and opportunities, and set sector specific standards and targets for whole lifecycle savings of both carbon and materials. These partnerships could also work with UK Research and Innovation to identify products, processes and business models that would benefit from low cost loans to accelerate their uptake.

Capture better information on material use

Better resource management requires much better data on materials used and product stocks and flows. Given the importance of this, and its role in planning and creating a more circular economy, the government should fast track the development of the National Materials Datahub, and commit to it being fully functional for at least two sectors within five years.

Regulate for better product design

The UK has benefited from regulations on the efficiency of energy using products. But moving beyond energy efficiency to resource efficiency will ensure that these energy using products last longer and that the function of other products is also improved. Regulations should include provisions on a product's durability and repairability, information about its make-up, the availability of spare parts and solutions to common faults, preferably that owners can do themselves.

Set ambitious targets for recycling, resource productivity and reduction

Resource policy in the UK has been reliant on countrywide recycling targets to drive the collection of predominantly household material. But UK households only account for 13.7 per cent of the waste created. The UK does not currently have mandatory recycling targets for waste from commercial and industrial sources. There are also no current targets for waste minimisation or recycled content standards, apart from the proposed tax on plastic packaging with less than 30 per cent recycled content. The government's target to double resource productivity by 2050 is woefully unambitious, with the UK expected to surpass it easily. As existing targets are economy wide, they don't provide any incentives for individual companies or sectors to act.

Set targets for consumption emissions

The UK is one of the world's largest net importers of emissions embodied in traded products, which account for 46 per cent, and rising, of the UK's carbon footprint. The implications of this go beyond emissions. Environmental and human costs are associated with unsustainable consumption, through the extraction of raw materials and production, including for low carbon technology. Crucially, the average UK citizen has an ecological footprint – including the use of resources – [three and a half times](#) greater than the natural world can sustain. This increases pressure on ecosystems and the risk of future pandemics. The government should implement targets to bring the UK's consumption emissions right down and lead a global dialogue about unsustainable consumption.

This is one of five briefings supporting our publication [Blueprint for a resilient economy](#)

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