

## No Time to Waste: An Effective Resources and Waste Strategy

#### POLICY PAPER June 2018

The Aldersgate Group is an alliance of major businesses, academic institutions, civil society organisations and cross-party politicians, which drives action for a sustainable and competitive economy. Our corporate members, who come from across the economy and have a collective global turnover of nearly £600bn, recognise that ambitious and well-designed environmental regulations provide economic benefits to the UK.<sup>1</sup>

The UK government has committed to developing a Resources and Waste Strategy "to make the UK a world leader in terms of competitiveness, resource productivity and resource efficiency." The Strategy is expected to be published in the autumn of 2018. This policy paper sets out the Aldersgate Group's recommendations for what it should include.

The economy-wide benefits of resource efficiency are well documented.<sup>3</sup> It can save businesses money, reduce reliance upon finite materials, provide insulation from materials' price volatility, protect the natural environment from harm by the processes of material extraction and waste disposal and reduce the UK's carbon emissions.

To secure these benefits the government's Resources and Waste Strategy (RWS) must provide a coherent policy framework that moves beyond the take-make-dispose model of waste management and recognises the need for integrated regulations, standards and funding to support business engagement and innovation in developing new relationships, products and processes. As this policy paper sets out, resource efficiency can be driven by many areas that fall directly within the government's responsibility, but consistency and interconnectedness in the policy framework will be fundamental in tackling this highly complex area.

<sup>&</sup>lt;sup>1</sup> Recommendations made in this response cannot be attributed to any single organisation and the Aldersgate Group takes full responsibility for the views expressed

<sup>&</sup>lt;sup>2</sup> HM Government (October 2017) The Clean Growth Strategy. Leading the way to a low carbon future

<sup>&</sup>lt;sup>3</sup> Aldersgate Group (January 2017) Amplifying Action on Resource Efficiency: UK edition



#### **Policy Recommendations**

#### 1. Role of government: policy direction and support access to skills and information

- a. Create a cross-departmental body to oversee resource risk and opportunities across the economy. This would be informed by a 'Stern for Resources' review into the UK's exposure to resource security risk.
- b. Explicitly link the government's commitment to double resource productivity to the environmental net gain principle, now applied to all new building projects.
- c. Target priority waste streams, selected according to the economic and environmental savings that effective action could deliver.
- d. Consider measures to support the development of new infrastructure to ensure the UK can deal with more of its own waste, retaining materials within the UK economy for re-use, remanufacturing, recycling or heat recovery, instead of exporting them for processing.
- e. Update the RWS every five years.
- f. Standardise regulation of waste treatment across devolved geographies and administrative borders, encouraging waste collection companies and local authorities to work together and regulating to simplify municipal waste streams.
- g. Link resource efficiency targets to existing domestic and international commitments, including the UK's carbon budgets, the Paris Agreement and the UN's Sustainable Development Goals.
- h. Encourage circular design principles to be embedded in all construction-related degree courses.
- i. Ensure businesses have sufficient information to support industrial symbiosis through (i) creation of forums that encourage cross-sector business engagement, (ii) improvement of data for commercial waste arisings and composition through greater digitalisation, (iii) consultation with industry on how to rationalise existing schemes and (iv) encourage greater data collection and internal assessment within businesses on resource use.

#### 2. Setting product standards to drive a resource efficient economy

- a. Develop product standards that incentivise durability, repairability, reuse, disassembly, capacity for remanufacture and recyclability.
- b. Maintain product standards that are at least equal to those set in the EU, by building on the measures being developed as part of the Circular Economy Package, the Plastics Strategy and the Ecodesign Directive.
- c. Where environmentally desirable, technically and economically feasible, consider improving upon European product standards with a UK Ecodesign programme.

## 3. Establish support for businesses to develop and consumers to demand resource efficient goods and services

a. Use fiscal mechanisms to better reflect the whole lifecycle economic and environmental benefits of secondary materials. Government should consider: (i) adjusting VAT rates on products with higher levels of recycled material, (ii) renewing the Landfill Tax Escalator as part of a package of policies to ensure it does not encourage waste crime, (iii) developing tax measures that encourage greater resource efficiency and, (iv) shifting taxation from labour to primary resource use.



- b. Ensure public procurement policy reflects the government's resource efficiency goals in order to drive demand for products and services with higher resource efficiency standards. This should include further bans on products that are deemed incompatible with the government's resource efficiency priorities.
- c. Support business innovation through provision of funding (for complex areas) and expertise, particularly for SMEs, drawing on international examples of good practice such as the Dutch Green Deal.
- d. Build consumer awareness of the benefits of more resource efficient products through better labelling, trust in repaired and remanufactured products through warranties and safety guarantees and financial incentives that make repair a more attractive option than disposal.

#### 4. Support an effective regulatory regime for resources and waste

- a. Provide adequate funding for regulators and local authorities to support the pragmatic, consistent application of waste regulations whilst tackling waste crime.
- b. Ensure the new Environment Watchdog is accountable to Parliament, adequately funded, able to take legal action against government for a breach of environmental law and supported by an Environmental Principles and Governance Bill that includes objectives to ensure the goals of the 25 Year Environment Plan are delivered.
- c. Include environmental principles in the European Union (Withdrawal) Bill.

#### 5. Ensure the effective implementation of the Waste Hierarchy

- a. Investigate whether the Waste Hierarchy should be better informed by lifecycle assessments for treatment of products or waste streams that may contradict the existing Hierarchy.
- b. Support development of new metrics that will be better able to track progress towards the government's targets and ensure materials are treated in a way that delivers the best environmental outcome.
- c. Develop a new Resources Hierarchy, to support the Waste Hierarchy by prioritising materials that are rare, difficult to source or fundamental to the UK economy.

#### 6. Optimise producer responsibility

a. Extend producer responsibility to capture more businesses and more products, whilst improving governance, transparency and consistency. This should include (i) incentivising businesses to take greater responsibility for the environmental impact of their products, (ii) penalising those businesses who fail to comply, (iii) ensuring systematic monitoring and oversight of an extended producer responsibility scheme, (iv) using fee modulation to improve pricing signals.



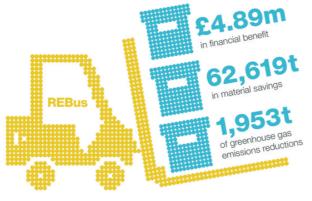
### WHY DOES THE UK NEED A RESOURCES AND WASTE STRATEGY?

#### A clear business case

The potential economy-wide benefits of greater resource efficiency were well illustrated by the recent EU LIFE+ funded REBus project<sup>4</sup>, on which the Aldersgate Group was a partner. This project ran 30 pilot schemes to help businesses of all sizes adopt more resource efficient business models across a range of market sectors in the UK and the Netherlands. These pilot schemes generated significant financial, material and greenhouse gas savings and when scaled up to represent the EU economy as a whole, demonstrated that resource efficient business models could secure an increase of up to £280bn GVA for the EU economy by 2030, a reduction in material demand of 184 million tonnes and a reduction in greenhouse gas emissions of 154 million tonnes CO<sub>2</sub>eq.<sup>5</sup>

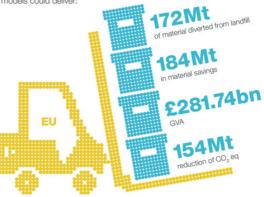
However, the REBus case studies also showed that in the absence of public policy intervention, businesses face a number of barriers to taking greater action on resource efficiency. They range from regulatory obstacles (such as when materials are deemed to be waste) and a lack of market signals (such as product standards, public procurement and fiscal incentives), to difficulties in obtaining finance and technical advice to drive innovation (a difficulty often encountered by small- to medium-sized enterprises (SMEs)).

# RESOURCE EFFICIENCY: DELIVERING ON THE GROUND Across its pilots, REBus has delivered:



### RESOURCE EFFICIENCY >> SCALING UP ACROSS THE EU

When REBus results are scaled up across the EU economy, it shows that by 2030, the adoption of resource efficient business models could deliver:



Source: Aldersgate Group (January 2017) Amplifying Action on Resource Efficiency: UK Edition. Figures correct as of 30th November 2016.

<sup>&</sup>lt;sup>4</sup> More information on the REBus project can be found at www.rebus.eu.com

<sup>&</sup>lt;sup>5</sup> Aldersgate Group (January 2017) *Amplifying Action on Resource Efficiency: UK Edition*. All case studies can be found here: <a href="http://www.rebus.eu.com/resources/case-studies/">http://www.rebus.eu.com/resources/case-studies/</a>



#### The groundwork has been laid

The government's commitments to make the UK a world leader in resource efficiency<sup>6</sup> and to double resource productivity by 2050<sup>7</sup> are timely. Comprehensive action on resource efficiency can help the UK to meet its legally binding Fourth Carbon Budget and reduce the current overshoot of the Fifth Carbon Budget by 80%.8 Government commitments must now be informed by a detailed Resources and Waste Strategy (RWS), that moves away from the traditional take-make-dispose market structure towards the presumption that resources must be conserved and reused multiple times where an overall environmental gain can be secured. The RWS must tackle the system holistically, ensuring the policy framework supports incentives for businesses and consumers and that regulatory changes are viewed in the round to avoid perverse outcomes.

The government has laid much of the groundwork for this shift in a series of policy developments, including:

- the Industrial Strategy, which seeks to rebalance productivity including in areas that have suffered from the decline in manufacturing, where reuse, repair and remanufacturing could now generate new skilled iobs:9
- the Clean Growth Strategy which recognises that greater resource efficiency within the economy could create up to 205,000 jobs, roughly a quarter of which could be in areas currently suffering from underemployment;<sup>10</sup>

- the 25 Year Environment Plan (25YEP) which sets long-term commitments to shape the UK's relationship with waste and the natural environment, including zero food waste to landfill by 2030 and zero avoidable plastic waste by 2042. The 25YEP was launched by the Prime Minister, which demonstrated welcome leadership;
- publication of a consultation by Defra on the creation of a new Environmental Watchdog, to provide environmental governance for the UK after Brexit.<sup>11</sup>

All of these policy documents need further detail to drive action and allow the government to be held accountable.

## 1. ROLE OF GOVERNMENT: POLICY DIRECTION AND ACCESS TO SKILLS AND INFORMATION

Government must assume a long-term facilitation role. Investing in new business models, products, processes and services is expensive for businesses and the government must build confidence that the move to a resource efficient economy that circulates materials wherever possible and disposes of the absolute minimum, will remain a long-term priority.

"Planning for the longterm is the best way to do business."

Anglian Water<sup>12</sup>

<sup>&</sup>lt;sup>6</sup> HM Government (January 2018) A Green Future: Our 25 Year Plan to Improve the Environment, p85

<sup>&</sup>lt;sup>7</sup> HM Government (January 2018) A Green Future: Our 25 Year Plan to Improve the Environment

<sup>&</sup>lt;sup>8</sup> Green Alliance (May 2018) Less in, More out. Using resource efficiency to cut carbon and benefit the economy

<sup>&</sup>lt;sup>9</sup> Government Office for Science (December 2017) From waste to resource productivity. Report of the Government Chief Scientific Advisor

<sup>&</sup>lt;sup>10</sup> HM Government (October 2017) The Clean Growth Strategy

<sup>11</sup> https://consult.defra.gov.uk/eu/environmental-principles-and-governance/

<sup>&</sup>lt;sup>12</sup> Anglian Water's submission in response to Environmental Audit Committee's inquiry into the 25YEP



#### 1.1 Setting the policy direction

Resource efficient thinking must be embedded across government, starting with key Whitehall departments: HM Treasury (HMT), the Ministry of Housing, Communities & Local Government, the Department for Transport and the Department for Business, Energy and Industrial Strategy (BEIS). Government should consider creating a crossdepartmental body to ensure coherent policies are developed and potentially damaging resource constraints can receive a swift response. This could be informed by a 'Stern for Resources' review into the UK's exposure to resource security risk and the impact on the economy.

Resource efficiency considerations must be prioritised for major infrastructure projects such as HS2 and delivering the government's commitment to build 300,000 new homes per year,<sup>13</sup> given excavation, construction and demolition is the highest waste-producing sector, responsible for 100 million tonnes of waste per year.<sup>14</sup> It is extremely positive that the 25YEP has already stipulated that all building must deliver environmental net gain<sup>15</sup> but there is scope to go further and explicitly link new development to the government's goal to double resource productivity by 2050.<sup>16</sup>

Clear guidance from central government on the importance of embedding environmental considerations into all new development would help provide extra support for local authorities who face conflicting priorities. The UK still exports a significant quantity of its waste to European countries, meaning recovered materials worth £4.35bn were exported in 2013. This may make the UK's trade balance seem more favourable and makes economic and environmental sense while the UK lacks the domestic infrastructure to deal with these materials that would otherwise be sent to landfill, but is a missed opportunity considering the benefits in economic and job-creation terms of retaining those materials within the economy (see graphic below). This situation cannot be swiftly resolved considering new facilities can take four years to build, 17 which emphasises that there is a need for clear policy signals in the RWS, to encourage the capital intensive investments that the UK needs to support its ambitions for re-use and recycling.

<sup>&</sup>lt;sup>13</sup> HM Treasury (November 2017) Autumn Budget

<sup>&</sup>lt;sup>14</sup> Figures accurate for the years 2004-2012. Government Office for Science (December 2017) From waste to resource productivity

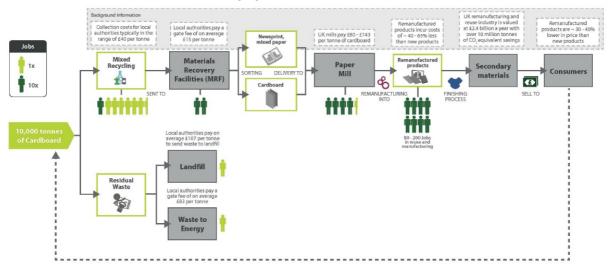
<sup>&</sup>lt;sup>15</sup> HM Government (January 2018) A Green Future: Our 25 Year Plan to Improve the Environment

<sup>&</sup>lt;sup>16</sup> HM Government (January 2018) A Green Future: Our 25 Year Plan to Improve the Environment

<sup>&</sup>lt;sup>17</sup> SUEZ's response to Environmental Audit Committee's inquiry into the 25YEP



A more resource efficient economy creates jobs: Job generation equivalent for material flow of 10,000 tonnes of paper and cardboard.<sup>18</sup>



Source: BuroHappold report commissioned by the Aldersgate Group (December 2017) *Help or Hindrance? Environmental Regulations and Competitiveness* 

The government's current focus on plastic and municipal waste tackles high profile environmental issues, but there is a wide range of other materials (such as aluminium, rubber and rare earths) which are important to the economy, can give rise to environmental damage when disposed of and which could be used more efficiently. The RWS must target priority waste streams, selected according to the economic and environmental savings that effective action could deliver.

Given the fast moving trends that affect international resource flows and the rate of technological advance in designing new products and handling resources, the government should review and republish the RWS at least once every five years to ensure it remains relevant.

This could be undertaken in tandem with the review of progress against the 25YEP, as advocated by the Environment Secretary.<sup>19</sup>

#### 1.2 Greater policy co-ordination

Central government must where possible coordinate policy with devolved administrations and local authorities to avoid different regulations applying across administrative borders. Variations encourage materials or production to be moved to take advantage of differences in taxation, better incentives or more lenient policy frameworks, which undermines the business case for investment and therefore the success of the government's objectives.<sup>20</sup>

<sup>&</sup>lt;sup>18</sup> This infographic was designed based on data from publicly available sources. Where possible, data from the UK was used; some figures were adapted from the United States. Although it is not possible to compare the exact number of jobs involved in the recycling and disposal pathways, the long value chain of the recycling pathway suggests that many more jobs are created and maintained when waste is recycled rather than when it is consigned to landfill.

<sup>&</sup>lt;sup>19</sup> Michael Gove, Defra Secretary of State giving evidence to the Environmental Audit Committee on 18th April 2018

<sup>&</sup>lt;sup>20</sup> SUEZ's response to Environmental Audit Committee's inquiry into the 25YEP



Government should encourage waste collection companies to collaborate to make it easier for waste treatment to be standardised. This could be supported by local authorities working together to merge their procurement of waste recovery and treatment. There is also scope for regulation to help mitigate the variation in waste streams, for example government could specify that only five types of plastic should be used for the majority of products, a process that is already being begun by leading businesses such as Marks & Spencer, which is aiming to use a single polymer for all its packaging by 2025.<sup>21</sup>

Lastly, to build credibility, the UK's short and long-term targets for resources must be linked to and mutually supportive of the achievement of other commitments, including the UK's legally binding carbon budgets, the Paris Agreement which commits to keeping global warming to well below 2°C and aims to limit the increase to 1.5°C and the UN's Sustainable Development Goals (SDGs).

#### 1.3 Supporting skills development

Businesses face a significant skills gap when it comes to driving better resource productivity, particularly in areas that are key to improving resource efficiency, such as construction<sup>22</sup> and remanufacturing.<sup>23</sup> For businesses to invest in upskilling those already in work requires consistent policy drivers to create demand for jobs and give the private sector confidence.

Leading engineering services firm, WSP, advocates that **circular design principles** 

should be included in all engineering, architecture and design degree courses from 2020, ensuring that all construction staff have sufficient knowledge of modular, adaptable and resource efficient design.<sup>24</sup> Some universities have already started to incorporate this agenda, such as the University of Gloucestershire, which has made sustainability the central theme of everything they teach, including a community outreach project, the Repair Café.<sup>25</sup>

## 1.4 Helping businesses access information to support industrial symbiosis

The government must support provision of data and advisory services that businesses need to understand existing resource flows within the UK economy, to access funding and to identify opportunities for using others' waste as their inputs, commonly termed industrial symbiosis. Government recognition of that fact in the 25YEP is highly welcome.<sup>26</sup>

From 2005 to 2009 the UK government provided funding for the National Industrial Symbiosis Programme (NISP), a business-led programme that combined a focus on innovation and encouraging business interaction (to identify opportunities from one another's outputs and inputs), with a delivery plan at a regional level. One of the major benefits of NISP was that it brought together a wide range of businesses from different industries and sectors that otherwise would have been unlikely to meet, to discuss potential circular economy opportunities.

<sup>&</sup>lt;sup>21</sup> Packaging News (5<sup>th</sup> January 2018) "M&S, Plan A and a polymer for all reasons?"

<sup>&</sup>lt;sup>22</sup> Federation of Master Builders press release (25th January 2017) "Construction Skills Shortage Gets Worse

<sup>&</sup>lt;sup>23</sup> Green Alliance (January 2015) Employment and the Circular Economy

<sup>&</sup>lt;sup>24</sup> WSP (June 2018) Taking the circular economy to the next level in the built environment

<sup>&</sup>lt;sup>25</sup> https://sustainability.glos.ac.uk/partners/rce-severn-projects/regeneration-repair-cafe/

<sup>&</sup>lt;sup>26</sup> HM Government (January 2018) A Green Future: Our 25 Year Plan to Improve the Environment, p84 notes, "We need to make data more available to support processes such as industrial symbiosis."



NISP reduced landfill, CO<sub>2</sub> emissions, the use of water and primary materials as well as costs to business, while generating extra sales, jobs and raising three times as much money as the original government subsidy.<sup>27</sup> This model has subsequently been rolled out to more than 20 other countries.<sup>28</sup>

Zero Waste Scotland has recently run a successful comparable programme in Glasgow<sup>29</sup> which similarly prioritised the creation of links between businesses from different sectors. Through facilitation and educational support they generated significant interest in the Glasgow area with the direct result that waste bread from a local bakery is now supplied to a local brewery to make beer.<sup>30</sup> There is a clear facilitative role for government in supporting business forums in multiple regions to allow the sharing of data and learnings.

Secondly government should improve data available for commercial waste arisings and composition, for example by making existing sources of data more widely available by shifting from paper-based to digital formats wherever possible. This would be a useful area for government to consult on, to create a system that tracks transport and disposal of waste and rationalises existing systems. The Environmental Product Declarations could provide a useful model for consideration, as these already identify materials used within a product and could enable cross-sectoral cooperation.

Thirdly the government could encourage new sources of data within businesses by encouraging them to audit their water

and material use. The Energy Saving Opportunity Scheme (ESOS) provides an example of how discussion at the Board level can be enabled through regulation.

Any new system for resources should be straightforward and designed for the medium term to inform industry of the sustainability impact and security issues around priority resources. Simple guides could be deployed initially and developed over time into a database of materials made available to industry and advisors, with resources ranked by sustainability index. In keeping with the ESOS, action on the information generated could remain voluntary.

## 2. SETTING PRODUCT STANDARDS TO DRIVE A RESOURCE EFFICIENT ECONOMY

Product standards are essential to promote greater resource efficiency and build the market for secondary materials. More than 80% of a product's environmental impact is determined at the design stage,<sup>31</sup> so standards must incentivise products that have lower embodied carbon and water and are designed for durability, repairability, reuse, disassembly, capacity for remanufacture and recyclability.

Some businesses are already taking the lead in designing resource efficiency into their products,<sup>32</sup> so standards must provide a level playing field to ensure progressive businesses are not undercut by those with lower standards.

<sup>&</sup>lt;sup>27</sup> Government Office for Science (December 2017) From waste to resource productivity

<sup>28</sup> http://www.nispnetwork.com/

https://www.zerowastescotland.org.uk/content/circular-glasgow

<sup>30</sup> https://www.jawbrew.co.uk/about/circular-economy/

<sup>&</sup>lt;sup>31</sup> Graedel, T. E & Allenby, Braden R & American Telephone and Telegraph Company (1995) Industrial ecology

<sup>&</sup>lt;sup>32</sup> See for example, case studies by Naturalmat, Sky and WSP in Aldersgate Group (December 2017) *Beyond the Circular Economy Package: maintaining momentum on resource efficiency* 



To retain British-based businesses' competitive position in exporting their goods to the European Single Market, the government must maintain product standards on a par with those in the EU, or consider improving on them to encourage innovation, where it is in the UK's environmental and economic interests to do so. It will be important to keep major European policy developments relating to this area in mind. such as:

#### The EU Circular Economy Package

The European Commission's Circular Economy Package (CEP) includes an Action Plan and amendments to the Waste Framework Directive, the Landfill Directive. the Packaging Directive and Directives on end of life vehicles, batteries and accumulators and waste electrical and electronic equipment. The CEP includes the ambition to require more resource efficient design for a range of products through the EU's ecodesign regulations (see below), the development of criteria to favour resource efficient goods and services through the Commission's public procurement policy. technical and financial assistance measures to support business innovation, encouragement for Member States to use fiscal incentives to grow consumer demand for resource efficient goods and an increase in recycling targets.

#### The Plastics Strategy

In January 2018 the Commission published the European Plastics Strategy, which paves the way for legislation that will require all plastic packaging by 2030 to be designed to be cost- effectively recyclable or reusable.

The Strategy also announces upcoming measures to boost consumer demand for recycled plastics (such as through quality standards), introduce pricing and fiscal tools to reduce demand for single use plastics and restrict the intentional use of microplastics.<sup>33</sup>

## **EU Ecodesign Directive and product regulations**

The EU's Ecodesign policy (which includes the Ecodesign Directive and productspecific Ecodesign Regulations) sets energy efficiency criteria for a range of energyrelated products sold on the EU Single Market and provides an effective tool by which to drive improvements. Ecodesign rules for energy-related products have already saved UK consumers money.<sup>34</sup> The Commission's intention to introduce resource efficiency standards for products<sup>35</sup> already covered by the ecodesign scheme and extend regulations to other products (including possibly non-energy related products) are sending an important market signal, which UK policy should build on. The Commission's latest consultation on a Product Policy Framework contributing to the circular economy<sup>36</sup> and commitment to regular reviews through the annual review and publication of an Ecodesian Working Plan will be helpful in setting a roadmap for businesses.

<sup>&</sup>lt;sup>33</sup> See European Commission website: http://ec.europa.eu/growth/content/plastic-waste-european-strategy-protect-planet-defend-our-citizens-and-empower-our\_en

<sup>34</sup> Committee on Climate Change (March 2017) Energy Prices and Bills - impacts of meeting carbon budgets

<sup>&</sup>lt;sup>35</sup> A list of six new products was announced in the Ecodesign Working Plan of December 2015: building automation and control systems, lifts, electric kettles, solar panels and inverters, refrigerated containers and hand dryers.
<sup>36</sup> <a href="http://ec.europa.eu/info/law/better-regulation/initiatives/ares-2018-2409307\_lv">http://ec.europa.eu/info/law/better-regulation/initiatives/ares-2018-2409307\_lv</a>



In addition to energy-related products, ecodesign standards for non-energy related products should be prioritised where producers have already been taking the lead in demonstrating their ability to embed high quality resource efficiency standards. For example:

- Interface has demonstrated that carpets can be disassembled and reused multiple times, rather than being sent to landfill.<sup>37</sup>
- IKEA has run a pilot on textile takeback scheme<sup>38</sup> and already operates collection services for old beds, mattresses, sofas and appliances which are re-used where possible, or disassembled and recycled.
- M&S' 'shwopping' scheme for unwanted clothing<sup>39</sup> has collected over 20 million items for resale, reuse or recycling since 2008.
- Naturalmat is an SME that has redesigned its mattresses to be easier to disassemble and the materials reused, recycled or upcycled. This has generated additional income of £35,000, 81 tonnes of material for recycling and 89 tonnes for re-use.<sup>40</sup>

All of these businesses have operations in several European markets, which reinforces the need for the UK to ensure minimum consistency with European ecodesign regulations.

#### 2.1 A UK ecodesign programme

Where environmentally desirable as well as technically and economically feasible, the UK should consider exceeding or improving upon specific European product standards. This could help UK businesses innovate ahead of their competitors in other markets and develop products that are more durable, repairable, modular and upgradable.

A UK ecodesign programme should take care to deliver the best environmental, energy and resource efficiency outcomes and could prioritise waste streams where the recovery of materials could deliver the greatest economic, environmental and social value.

A UK ecodesign programme should be a simple tool designed for use by industry, developed in line with new metrics from Defra that are under development for different waste streams and should tackle priority materials first rather than approaching all materials simultaneously. Government could consider building ambition into the programme, by specifying that best practice in a sector will become the target in five years' time.

<sup>&</sup>lt;sup>37</sup> See blog by Nigel Stansfield, President of Interface EMEA (21st September 2017) on Aldersgate blogsite: http://www.aldersgategroup.org.uk/blog/think-of-sustainable-practice-as-a-business-utility

<sup>38</sup> See IKEA case study for the REBus project: http://www.rebus.eu.com/wp-content/uploads/2018/02/REBus-case-study-IKEA.pdf

<sup>39</sup> http://www.marksandspencer.com/s/plan-a-shwopping

<sup>&</sup>lt;sup>40</sup> See full case study in Aldersgate Group (December 2017) Beyond the Circular Economy Package: Maintaining momentum on resource efficiency



3. ESTABLISH SUPPORT FOR **BUSINESSES TO DEVELOP AND CONSUMERS TO DEMAND MORE RESOURCE EFFICIENT GOODS AND SERVICES** 

#### 3.1 New fiscal mechanisms

The transition to greater resource efficiency does not mean increasing the regulatory burden on industry. It means modifying the current fiscal approach, so that businesses are encouraged to innovate and develop more resource efficient products, whilst consumers are incentivised to buy more resource efficient products and to repair their goods.

Where the upfront cost of secondary materials (or products using secondary materials) is higher than that of primary raw materials, pricing mechanisms are needed to better reflect the whole lifecycle economic and environmental benefits of using secondary materials. In recent years, for example, the growing imports of cheap single-use tyres have reduced the market share of retreaded tyres in the UK by 30%. Each time a truck tyre is retreaded, 30kg of rubber, up to 20kg of steel and 60kg CO<sub>2</sub> emissions are saved.<sup>41</sup> Key fiscal mechanisms for the government to consider are:

- **Adjusting VAT rates on products** with higher levels of recycled material. This could be extended to mandate recycled content or set durability or reuse targets (drawing on the Swedish case study, below).
- Renewing the Landfill Tax

**Escalator** that has driven a 44% reduction in waste to landfill since 2000.42 This should be part of a package of policies including better tracking mechanisms for waste and funding for the police, **Environment Agency and HM** Revenue & Customs to ensure the **Escalator does not simply** increase the incentives for waste crime.

- **Considering tax measures that** encourage greater resource efficiency, such as incentivising product return to manufacturers at the end of useful life and phasing out the use of single use plastics.<sup>43</sup>
- Shifting taxation from labour to primary resource use in recognition of the fact that resource-efficient processes are frequently more labour-intensive which makes them more expensive.44 More than 40% of the UK's government budget is based on labour taxes, specifically income tax and national insurance contributions, while environmental levies are merely 1% of expected receipts.<sup>45</sup> A range of organisations have called for fiscal reforms that shift taxation from labour to natural resources, including the International Monetary Fund, the OECD, Eurogroup and the International Labour Organisation. An Ex'Tax study, which included Deloitte, EY, KPMG and PwC, found that such a tax shift could be worth €33.7bn and create hundreds of thousands of iobs.46

<sup>&</sup>lt;sup>41</sup> Aldersgate Group (December 2017) Beyond the Circular Economy Package, p20

 $<sup>^{42}</sup>$  HM Government (January 2018) A Green Future: Our 25 Year Plan to Improve the Environment, p83

<sup>&</sup>lt;sup>43</sup> See HM Treasury recent consultation, "Tackling the Plastic Problem" https://www.gov.uk/government/consultations/tackling-the-plasticproblem

44 Government Office for Science (December 2017) From waste to resource productivity. Evidence and case studies. Ekins, p176

<sup>&</sup>lt;sup>45</sup> In the Budget delivered to Parliament in March 2016, the forecast for the 2016–2017 fiscal year indicated £182.1bn from income tax, £126.5bn from national insurance contributions and £7.4bn from environmental levies. Receipts totalled £716.5bn

<sup>&</sup>lt;sup>46</sup> Ex'tax project (November 2014) New era. New Plan. Fiscal reforms for an inclusive circular economy



#### Sweden introduces tax breaks for repairs

The Swedish government introduced a 50% reduction on VAT on the repair of items like bicycles, leather goods and white goods as part of its 'Strategy for sustainable consumption'. 47 The government is also allowing citizens to reclaim up to 50% of labour costs for fixing home appliances from their income tax. As noted by Sweden's minister for financial markets and consumer affairs, Per Bolund, "this could substantially lower the cost and so make it more rational economic behaviour to repair your goods". 48 It is hoped that the tax breaks will provide a huge boost to the home repairs services industry and trigger job creation in this area.

#### 3.2 A public procurement policy that drives greater resource efficiency

UK gross public procurement totalled £122bn in 2015-16.49 Developing public procurement criteria to drive demand for products and services with higher resource efficiency standards is an effective way of changing the practices of businesses that bid for government contracts and sending a clear market signal to the supply chains that support them. New procurement guidelines could see the leasing of public building furnishings, prioritisation of remanufactured products such as retreaded tyres for transport contracts, application of good quality secondary raw materials for national infrastructure projects and purchase of products with higher recycled content. Although current procurement guidelines already include consideration of resource use and end of life costs, they must be updated to enable procurement teams to make purchasing decisions that prioritise lifecycle considerations over cost, which

would provide a better reflection of "best value". The Environment Secretary's recent recognition of the work to be done to embed a sustainable approach into public procurement decisions is very welcome.50

The government's decision not to buy certain products due to sustainability concerns is equally influential. The announcement in January 2018 that all single use plastics will be removed from central government offices was followed by the Foreign & Commonwealth Office (FCO) independently increasing that ambition just one month later.51 Further bans on products and resources that are incompatible with the government's resource productivity goals would be welcome.

#### 3.3 Supporting business innovation

There will be sectors where a step change and radical innovation will be required to go beyond incremental improvements. For those, it will be important to set up a

<sup>&</sup>lt;sup>47</sup> See website: http://www.government.se/articles/2016/10/strategy-for-sustainable-consumption <sup>48</sup> Guardian (19<sup>th</sup> 2016) "Waste not want not: Sweden to give tax breaks to repairs"

<sup>&</sup>lt;sup>49</sup> HM Treasury (July 2016) Public expenditure: Statistical analyses 2016: http://bit.ly/2dqpaqi

<sup>&</sup>lt;sup>50</sup> Michael Gove, Defra Secretary of State giving evidence to the Environmental Audit Committee on 18th April 2018, p5 of

<sup>&</sup>lt;sup>51</sup> FCO press release (27th February 2018) "Foreign Secretary orders plastic to be binned from Britain's diplomatic network"



dedicated resource efficiency innovation policy and consider new funding arrangements once the UK has left the EU and is likely to have less access to European Investment Bank funds.

Government should set up a fund targeted at innovation in complex areas (materials or supply chains) similar to the Natural Capital Investment Fund referenced in the 25YEP. Decisions over which projects will receive funding from existing sources, such as the Industrial Strategy Challenge Fund will be important, particularly as resource efficiency is not currently prioritised.

Lack of access to technical expertise is just as important a barrier to innovation as access to finance, especially for **SMEs.** This includes the expertise to access public funding, with small businesses struggling to complete complex application forms and present their project in a way that fits the scope of funding being made available.<sup>52</sup> Expertise provided through the REBus project included helping SMEs develop business models in a language that companies understood, providing market research support, helping with engagement with potential customers and structuring a new resource efficient business model in a way that fitted the scope of available innovation funding. With the end of the REBus project, there is a lack of comparable programmes to support SMEs. While InnovateUK provides valuable support to SMEs, its circular economy fund closed in 2015 and there is no apparent ongoing engagement with the circular economy agenda, for funding or expertise.

The Dutch Green Deal has been a successful programme launched by the Dutch government in 2011 to drive eco-

innovation. Through the provision of expertise rather than funds, the programme helps companies, industry organisations and NGOs address barriers such as ambiguous or restrictive legislation, legal confusion or a lack of partners.<sup>53</sup>

Dutch policymakers have seen considerable appetite for the Deals from applicants and government itself. Those taking part in the programmes have reported major benefits such as increased confidence in their business model and better lines of communication with government. In 2016 the EU launched the Innovation Deal, which is modelled after the Dutch programme.

#### 3.4 Consumer awareness and incentives

Consumers need the right incentives to make resource efficient choices. This can be achieved through the trilogy of education (effective labelling), confidence in repaired and remanufactured products (standards, plus ensuring barriers to maintenance and repair such as cost, convenience and quality assurance are minimised) and financial incentives.

The ability to repair a product is dependent upon the original design being conducive, but also upon manufacturers offering affordable repair services for their products. Repair services can also offer upgrades or extend the lifespan of a product, so greater awareness should drive consumer demand.

Meanwhile financial incentives must account for the fact that companies developing resource efficient products may struggle to compete solely on price. The purchase price of long lasting goods is

Aldersgate Group (December 2017) Beyond the Circular Economy Package: maintaining momentum for resource efficiency
 Parliamentary Office of Science and Technology (September 2016) Designing a circular economy.



often higher than products with a worse environmental footprint, yet the more expensive option offers greater benefits to the customer, wider society and natural environment. Effective testing and labelling can help redress the balance (see tyre case study, below).

Warranties and safety guarantees must be applicable to remanufactured products to ensure customer trust is supported, which will be particularly important for sensitive services such as take-back schemes for mobile phones when customers will need confidence that all their data has been wiped.

Clear regulations for this emerging service area will also give manufacturers confidence in long-term trends, supporting the case for investment in expensive research and development (R&D) to develop new products and processes.

#### **Better testing for tyres**

Tyres have been banned from landfill sites since 2006,<sup>54</sup> which means mechanisms to encourage their use for longer represent low-hanging fruit in terms of minimising waste and the need for incineration. Today, mechanisms exist to optimise tyre resource efficiency.

In order to be put on the market in the EU, new passenger car tyres must pass minimum performance requirements on fuel efficiency, noise levels and wet braking. Wet braking is affected as the tyre wears and the rate of deterioration depends upon the original design and quality.

Current testing only evaluates the wet braking of tyres when new. This means that some tyres perform significantly less well than others over time, affecting road handing and stopping distances of vehicles and undermining safety. When consumers are afraid that their tyres are not safe enough, they are tempted to change them earlier than the minimum legal tread depth. Without the relevant information, customers have no means of making a safer, more resource efficient purchase by buying a better-wearing tyre. There are also some stakeholders in the tyre industry who argue that tyres should be replaced at an earlier stage, when worn down to 3mm rather than the legal requirement of 1.6mm. Tests suggest this does not provide a safety guarantee for the user but ensures the sales of additional tyres.

Testing tyres for at their worst level for wet grip before they are available on the market, would contribute to improved worn tyre performance, while ensuring a minimum safety to all consumers. This would shift the market in favour of better wearing tyres, reduce costs for drivers who would need to replace their used tyres less often and reduce material and energy use associated with manufacturing new tyres.

If the industry were allowed to shift towards tyre replacement at 3mm, the environmental impact would be considerable. Applied across the EU this would result in an annual 35% increase in waste generation and raw material consumption, the destruction of an additional 5,700 hectares of primary forest for rubber production, an additional 6.6m tonnes  $CO_2e$ 

<sup>&</sup>lt;sup>54</sup> BTMA Briefing (9th April 2018) "Can the resource efficiency of tyres be improved whilst still maintaining performance?"

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generated and additional energy use of 32,800 GWh for manufacturing.<sup>55</sup> Tyre manufacturers in the UK export their products to the EU, so the regulatory change this case study proposes should be made in both jurisdictions simultaneously.

"Tyres should be safe when new, safe when used. Testing tyres at the worst case before they are placed on the market can drive up industry standards, protect drivers and minimise our industry's impact on the natural environment."

Mike Cole, Head of Public Affairs, Michelin UK & Ireland

#### 4. SUPPORT AN EFFECTIVE REGULATORY REGIME FOR RESOURCES AND WASTE

### 4.1 Support the pragmatic application of waste regulations

Some businesses find that the interpretation of 'waste' by regulators, legislators and HMT (who have built a body of case law) can act as a barrier to resource efficiency, as material is classified as "waste" and subject to taxes even though safe uses for it exist. This has often resulted in recoverable, viable materials not being re-used which, particularly for construction, infrastructure and utility companies, can result in hefty landfill fees. Businesses such as WSP are strongly in favour of materials not being classified as waste, unless no other safe use can be identified, creating a presumption in favour of re-use of reliable building materials.56

Unexpected changes to regulation can also give a false impression of businesses' performance. The changes to Environment Agency Guidance at the end of 2016 requiring one of two tests to be used for material use to be considered as recovery rather than landfill will see more excavation material being classified as waste. In turn this will see the apparent performance of the construction sector in diverting waste from landfill deteriorate, although in day-to-day practice nothing has changed.<sup>57</sup>

Regulators face difficult judgements on when to define materials as waste to ensure they are captured by waste legislation, versus when to accept them as secondary materials that can be re-used with relatively light touch oversight. To ensure regulation works for everybody, reasonable implementation of the rules by regulators that are sufficiently resourced by central government is essential, in tandem with forward planning by businesses to ensure they seek advice before they encounter a large amount of potentially re-usable waste.

<sup>&</sup>lt;sup>55</sup> EY (June 2017) Planned obsolescence is not inevitable

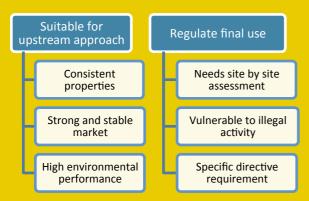
<sup>&</sup>lt;sup>56</sup> WSP (forthcoming publication) Taking the circular economy to the next level in the built environment

<sup>&</sup>lt;sup>57</sup> Further details on the change to EA guidance can be found here: https://esi-consulting.co.uk/esi-webinar-summary-long-road-recovery-recovery-waste-land/



#### Scottish Environmental Protection Agency (SEPA): Application of waste regulation

SEPA aims to help materials circulate in the economy, displacing primary materials with secondary wherever possible, within a framework of strong environmental protection.



Materials with high consistency, secure markets and a strong environmental performance can be suitable for 'by-product' and 'end-of-waste' approaches – moving the final point of waste regulation up the supply chain, as close the point of production as possible.

Alternatively, some materials carry higher risk whether from contamination (e.g. contaminated soil) or from waste criminals

(e.g. waste tyres). In these cases, SEPA applies waste regulation right though the supply chain to the final use to protect the environment and communities from harm.

The table below shows this approach in practice. Some construction materials never become waste. In other cases, SEPA regulates the recycling facility and sets a product specification, or where the risk is higher, waste regulation is applied through to final use to ensure environmental protection and guard against waste crime. As SEPA oversees Scottish waste treatment it is independent of the decisions made by the EA, discussed above.

Material	Left over paving slabs	Recycled aggregate from bricks, tiles & concrete	Brownfield soil
Approach	Re-Use	End-of-Waste	Regulated Use
Intervention point	Not waste – high certainty of reuse	Processed into a quality aggregate at an authorised recycling facility – the aggregate is no longer waste after processing and has the same performance as primary aggregate	Final use regulated through exemption – site specific assessment required to protect the environment – high risk of crime as material has a negative value



## 4.2 Provide adequate funding for regulators and local authorities

If the government wishes to meet its own targets around the interlinked issues of doubling resource productivity, tackling waste crime and improving the state of our natural environment, sufficient support for regulators and local authorities will be key. Sound policy fails due to inadequate monitoring and enforcement, yet while the local authorities' role in minimising waste in their boroughs is key, they face a funding gap of over £5bn by 2020.<sup>58</sup>

The Environment Agency (EA) estimates that waste crime costs up to £1bn per annum to legitimate businesses and lost HMT revenue, plus clean-up costs borne by local authorities and land owners. Fegulators recognise that identified waste crime is likely to represent only a small proportion of the total, which reinforces the need for greater support for enforcement and prosecution. Aside from lost earnings to legitimate companies and damage to the natural environment, waste crime may also inhibit private sector investment as it undermines the business case in areas where waste crime is high.

Although the EA polices the system and sanctions those who break the rules, enforcement may take the form of voluntary arrangements where offenders are made to pay to charities. This is a less strong penalty than criminal prosecution, <sup>61</sup> but is reflective of the constrained budgets within which the EA must operate. Despite the benefits of cracking down on waste crime and making the market fairer, HMT rules stipulate that public money – which is a ring-fenced income stream provided to the EA – is the

only funding that can be used to tackle offenders. Greater flexibility could allow the EA to use other streams of funding, such as charge money (levied upon businesses for permits, for example), to tackle illegal operators that are undermining legitimate businesses. Equally, the EA is re-opening the End of Waste Service to provide businesses with access to regulatory expertise and guidance for a fee. This highly welcome development will allow the EA to share its expertise and drive revenue streams, which could then be deployed to tackle issues that undermine legitimate businesses, namely waste crime.

The rules governing sources of funding for the Environment Agency, which are overseen by HMT, would benefit from reevaluation to ensure more funding streams are opened up to allow the EA to function more effectively, to the benefit of legitimate businesses.

<sup>&</sup>lt;sup>58</sup> Local Government Association's response to Environmental Audit Committee's inquiry into the 25YEP

<sup>&</sup>lt;sup>59</sup> Guardian (22nd September 2016) "Waste crime is 'the new narcotics', says Environment Agency chief

<sup>&</sup>lt;sup>60</sup> SUEZ's response to Environmental Audit Committee's inquiry into the 25YEP

<sup>61</sup> Libby Peake in Green Alliance blog (12th February 2018) "Ten things I hate about how UK recycling is (not) funded



#### **CEMEX UK:** secondary materials providing thermal energy to Rugby cement works and by-products offering agricultural opportunities

CEMEX is an energy intensive business that produces building materials. CEMEX is committed to reducing its environmental impacts, in particular by reducing its reliance on fossil fuels to power its kilns and reducing its waste to landfill.

In 2012 CEMEX formed a 25-year partnership with SUEZ, a recycling and resource management company, who agreed to build a new facility on the CEMEX site in Rugby, Warwickshire. 62 SUEZ committed to supplying up to 240,000 tonnes of solid recovered fuel (SRF), known as Climafuel, to CEMEX each year to heat the cement kiln and replace traditional fossil fuels: a tonne and a half of Climafuel produces the same amount of energy as a tonne of coal. 63 SUEZ produces Climafuel from domestic, commercial and industrial waste. Recyclable materials such as metals, cardboard and plastics are first separated out<sup>64</sup> and the residual waste that remains is shredded and supplied to CEMEX for use in a process called co-processing, where energy and material recovery occurs.

Climafuel now typically represents 50-60% of CEMEX's input fuel requirements in the Rugby kiln, meaning CEMEX consumes 80 times more waste than it sends to landfill.<sup>65</sup> This provides financial savings to SUEZ, which has diverted a significant quantity of waste from landfill, while CEMEX has a reliable supply of fuel for its kilns, which helps it to comply with the Industrial Emissions Directive and Emissions Trading Scheme. For every tonne of Climafuel used, CEMEX reduces carbon dioxide emissions by 1.2 tonnes and the use of Climafuel has reduced oxides of nitrogen, a key pollutant for thermal processes, by over 50%. The strict terms drawn up between CEMEX and SUEZ have allowed the regulator, the Environment Agency (EA) to approve the agreement.

However 25,000 tonnes per annum of a by-product called Cement Kiln Dust (CKD), are generated by CEMEX's kiln at Rugby and are classified as hazardous waste due to the lime content. Multiple uses for this product exist including for agriculture, as farmers need lime for their fields. CEMEX is able to supply farmers with a lime alternative cheaply and safely and thereby further reduce its waste stream.

The EA is supportive of waste recovery options for CKD, but the approval processes for a transaction between CEMEX and farmers can take around 11 weeks, which is impractical for the agricultural sector that requires swift delivery of materials when the weather or crops dictate. EA has ensured that this approval, once granted, remains valid for 12 months so the CKD can be supplied to the farm at any point in that period (providing notice is given at least 48 hours before deployment). The EA is also working on its processes to speed up the approval process, and with the landspreading industry on a deployment improvement project to improve the process. However relatively small quantities of Cement Kiln Dust (250 tonnes per 50 hectare deployment) currently make the paperwork requirements and cost of

<sup>62</sup> https://www.cemex.co.uk/-/cemex-uk-works-with-sita-uk-to-develop-waste-recycling-plants-for-the-production-of-

<sup>63</sup> https://www.cemex.co.uk/-/cemex-and-suez-open-new-facility-which-turns-waste-into-high-specification-fuel

<sup>&</sup>lt;sup>64</sup> Letsrecycle.com (21st September 2015) "Suez opens £18 million SRF facility in Rugby"

<sup>65</sup> https://www.cemex.co.uk/-/cemex-uk-the-waste-eaters-



deployment permits, which has recently increased by 120%, very restrictive. Swifter decisions, clearer guidelines and a pragmatic approach which recognises that microbusinesses, such as farms, will be highly unlikely to pollute their own land, are needed to allow businesses such as CEMEX to understand in advance what is likely to be approved and unblock the flow of secondary materials which are currently needlessly being classified as waste.

## 4.3 Creation of a new Environment Watchdog through an Environmental Principles and Governance Bill

The Aldersgate Group welcomes the government's consultation<sup>66</sup> on the creation of a new, independent, environment watchdog that is accountable to Parliament and provided with the necessary resources to carry out its role, which is vital. Being funded by Parliament in a similar way to the National Audit Office would be a good model to consider. Furthermore, if the body can be co-designed, owned and funded with the devolved administrations, this would help ensure its longevity.

A watchdog created along these lines would help give businesses confidence in the UK's commitment to high environmental standards going forward, not least by ensuring that these standards are properly monitored and enforced, thereby creating a more certain, consistent and attractive business environment. The link between environmental regulations and positive economic outcomes has already been well documented.<sup>67</sup>

However, the proposals in the consultation fell short of what is needed. The fact that the new body could not, as a last resort, take legal action against government for a breach of environmental law, as the European Union currently can, means that the enforcement powers on environmental legislation after Brexit would be weaker than now.

The proposals will need to be strengthened to replicate the functions provided by current EU arrangements and ensure that the body is world-leading in upholding environmental standards.

The Environmental Principles and Governance Bill, which is due to create the new body, should include objectives to ensure the vision of the 25YEP is delivered. Once in legislation, these goals can then genuinely shape environmental policies in the next couple of decades, provide much needed long-term policy direction to business and help drive private investment in the natural environment. The introduction of these goals should be accompanied by clear powers for the new body to regularly report to Parliament on progress in achieving these targets and hold government and other bodies to account on their activities to deliver them.

Meanwhile it is important that environmental principles be included in the European Union (Withdrawal) Bill, to build confidence around the government's longer-term commitment to high environmental standards.

<sup>&</sup>lt;sup>66</sup> https://consult.defra.gov.uk/eu/environmental-principles-and-governance/supporting\_documents/Environmental%20Principles%20and%20Governance%20after%20EU%20Exit%20%20C onsultation%20Document.pdf

<sup>67</sup> Aldersgate Group (December 2017) Help or Hindrance? Environmental Regulations and Competitiveness



"Minimising waste must now become a real policy priority, throughout the supply chain, and at every stage of industrial operation and society consumption." SUEZ<sup>68</sup>

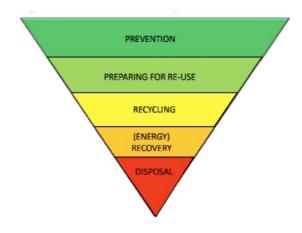
## 5. ENSURE THE EFFECTIVE IMPLEMENTATION OF THE WASTE HIERACHY

The government should investigate whether the Waste Hierarchy is fit for purpose for all products and resources. This requires clear understanding of the competing priorities around, for example, energy use, GHG emissions and use of resources such as water. Some lifecycle assessments for specific products or waste streams can uncover better choices that may not conform to the Hierarchy, for example where landfill is a better option than energy recovery, as suggested by the Interface case study. This work would need to be developed on a specific waste stream basis and updated regularly.

#### **Interface: Proof Positive carpet tile**

As part of its Climate Take Back programme by which Interface aims to go beyond reducing its impact on the world to play a restorative role, Interface has developed the Proof Positive carpet tile. This uses a plant-derived carbon, which is converted into a durable material that stores carbon. This is a carbon negative technology that, if applied more widely across manufacturing, could play a transformative role in reversing climate change.

The Proof Positive tile can be re-used multiple times. When it has reached the end of its life, it should not be sent to EfW because burning it would release the carbon it has stored.



<sup>68</sup> SUEZ's response to Environmental Audit Committee's inquiry into the 25YEP



### **5.1 Informing the Waste Hierarchy: new** metrics

The RWS offers a timely opportunity for government to consider new metrics for the Waste Hierarchy that reflect the UK ambitions of cutting carbon emissions and enhancing the state of the natural environment.

Defra's development of new metrics against which progress towards the goals set out in the 25YEP can be measured, should include consideration of how weight-based targets for recycling should be replaced, or complemented, by new measurements of carbon, lifecycle or (in the longer term), natural capital. Such a transition must be carefully planned and executed in stages to allow industry plenty of time to adjust, with Defra taking the lead in providing consistent terminology and implementation. For example, a shift to carbon-based metrics by 2030 would require new definitions, methods and models to be completed by 2020, operating in parallel with weightbased metrics until 2025, with carbon metrics then leading from the mid-2020s through to 2030.69

Government should consider supporting the Waste Hierarchy with a new Resources Hierarchy that sets out priority materials for the UK economy. This could prioritise materials that are rare, difficult to source, occur in significant quantities in waste streams and represent low hanging fruit, or are fundamental to the UK economy, with higher standards for their collection and reuse. It could also reflect management of materials that have significant environmental impacts during disposal. The Office for National Statistics already reports on the

UK's overall resource consumption and could be well placed to develop this work.

### 6. OPTIMISE PRODUCER RESPONSIBILITY

## **6.1 Redirecting responsibility to the producer**

Producer responsibility legislation seeks to shift the burden of waste management from local authorities and taxpayers, to producers. Existing schemes capture packaging, electric and electronic equipment, batteries and vehicles, yet local authorities face increasing challenges in managing a waste stream that is growing in volume and complexity. This approach should be extended (becoming Extended Producer Responsibility, or EPR), to capture more businesses and more products, ensuring that the costs of separate collections and end-of-life treatment of materials are fully covered. EPR systems in other jurisdictions such as Japan, Canada and Europe have stimulated innovative responses from producers, including leasing, service-based models and return schemes. While EPR could be borne by groups of businesses, individual producer responsibility is more likely to incentivise design improvements, limit freeriding and make enforcement and regulation easier.70

Government's responsibility is to ensure consistency and central-co-ordination as a poorly designed EPR scheme could drive unnecessary financial and environmental costs that ultimately would be borne by consumers. The UK currently has 49 competing compliance schemes for packaging, whereas the Eco-Emballages scheme in France offers a single co-ordinating body on behalf of the government.

<sup>&</sup>lt;sup>69</sup> See SUEZ (May 2018) A vision for England's long-term resources and waste strategy, p36 sets out this timeline in greater

<sup>&</sup>lt;sup>70</sup> SUEZ response to 25YEP inquiry by EAC



Having established a single set of rules, or authority to oversee this area, the government should:

- incentivise businesses to take greater responsibility for the environmental impact of their products, for example through rewards for designing less wasteful packaging, using recycled materials where possible and encouraging their customers to recycle. This should drive increased recycled content and help develop the markets needed to support domestic policy targets.<sup>71</sup>
- penalise those companies that fail to engage with any of these measures.<sup>72</sup>
- ensure there is systematic monitoring and data collection, transparency, enforcement, stakeholder consultation and adequate resources for oversight. EPR schemes must be developed in a way that is compatible with schemes that already exist in different localities to ensure that there are no unnecessary overlaps and added costs to business.

#### Fee modulation scheme

Fee modulation practices ensure that those producers that develop products with increased durability, reusability and recyclability pay lower waste management fees. The government should consider examples of good practice in from other countries, such as the Eco-Emballages scheme in France which has proved highly effective<sup>74</sup> and the EU-level Extended Producer Responsibility schemes have helped improve pricing signals at the end of product lifecycle stage.<sup>75</sup>

#### **Authors**

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<sup>&</sup>lt;sup>71</sup> See SUEZ response to 25YEP inquiry by EAC, p9

<sup>&</sup>lt;sup>72</sup> These three points all taken from Green Alliance (January 2017) Recycling reset. How England can stop subsidising waste

<sup>&</sup>lt;sup>73</sup> OECD (September 2016) Extended Producer Responsibility: Updated Guidance for Efficient Waste Management.

<sup>&</sup>lt;sup>74</sup> Green Alliance (January 2017) Recycling reset. How England can stop subsidising waste

<sup>&</sup>lt;sup>75</sup> taken from REBus '17, also recommended by Green Alliance, Nov '17

