

# Prevention is better than cure The role of waste prevention in moving to a more resource efficient economy



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Credit: Great Recovery, RSA

### Ministerial Foreword

Global population growth, increasing consumer demand and pressure on limited resources mean that we must all focus on realising the opportunities from sustainable growth. We need to make better and more efficient use of the increasingly valuable resources available to us. I want to see a world where substantially less waste is created across the economy, delivering real financial, environmental and social benefits.

We need to develop further the concept of a circular economy, where one person's waste becomes another's valuable resource. Making the changes needed may require innovation and creative thinking but it is vitally important because of the benefits they can bring.

I want businesses to manage all resources more efficiently by using less while creating more. Products should be designed to use fewer resources from the start and with longer lifetimes, repair and reuse in mind. Services for householders and businesses should make preventing waste and using reuse and repair services easier. I want to see less waste created in the first place, but where there is waste, I want to see it used as a resource and its potential maximised. Options for reuse should be used prior to recycling; what remains should be used to produce energy with disposal to landfill being the last resort. I want England to have thriving and innovative manufacturing and resource management industries that are rising to the challenge.

Government's role must be to get out of people's hair; to set the conditions and guidelines that allow the market, businesses, local authorities and people to make the changes that will propel us towards a more circular and sustainable economy. It hinges on everyone playing their part, building partnerships to seize the opportunities that exist.

This Programme is a step on the path. It considers not just the role for government, but also the part that businesses, the wider public sector and civil society must also play. I look forward to seeing reactions from right across society.



**Dan Rogerson** Parliamentary Under Secretary of State for water, forestry, rural affairs and resource management



### **Executive Summary**

A key priority for the Government is to boost growth in the economy whilst continuing to improve the environment. Whilst the economy is turning a corner, the recovery is in its early days and many risks remain. Moving towards a more resource efficient, circular economy offers scope for innovation, sustainable growth and saving money, as well as reducing the impact on the environment.

Waste prevention includes many different types of activity, each contributing to making better use of resources. Action to reduce waste arisings and increase resource efficiency should therefore be a priority for all sectors of the economy.

This document sets out the Waste Prevention Programme for England. It articulates the actions for government and others which together will move us towards reducing waste.

The aim of the Programme is to **improve the environment and protect human health by supporting a resource efficient economy, reducing the quantity and impact of waste produced whilst promoting sustainable economic growth.** 

We want to:

 encourage businesses to contribute to a more sustainable economy by building waste reduction into design, offering alternative business models and delivering new and improved products and services Designing waste out of products and services is essential – and here we look to business to make these changes, supported by government action to help facilitate and incentivise change.

We will develop, through the Waste and Resources Action Programme (WRAP), a Sustainable Electricals Action Plan, aimed at catalysing sector action and seeking commitment on design for longer life, and increased technical durability. This will help businesses develop service models which keep products in circulation for longer, such as trade-in for resale, rental and leasing. Through the Technology Strategy Board's (TSB) investment of up to £5 million in collaborative research and development and their design challenges for a circular economy competition (£1.5 million) we are supporting innovation in design.

We are also raising awareness of **resource** efficient business models and supply chain innovations through a £900,000 programme of Action Based Research pilots and WRAP run trials of take back schemes and leasing/hiring schemes.

 encourage a culture of valuing resources by making it easier for people and businesses to find out how to reduce their waste, to use products for longer, repair broken items, and enable reuse of items by others Changing behaviour is also key. We all have a role to play here – central government, local authorities, businesses, civil society and individuals. We will develop a **£800,000, two-year scheme** to support **communities to take forward innovative waste prevention, reuse and repair actions** in their local areas, working in partnership with local businesses, authorities and civil society groups.

We will develop, through WRAP, a webbased **postcode locator** to provide a practical tool to enable householders to find their local reuse and repair services.

We will work in partnership with industry and others to increase customer (both business and consumer) confidence in the quality of second-hand goods, including working, through WRAP, on the development of a **standard for reuse**.

We will also continue to support local authorities and others to communicate effectively by providing guidance and communications materials which they can use to promote action in their local areas. And we will work with others to

# promote resource efficiency and waste prevention in schools and higher education.

 help businesses recognise and act upon potential savings through better resource efficiency and preventing waste, to realise opportunities for growth

Minimising the amount of waste produced is the first step towards achieving more resource efficiency. We are asking businesses to look at their own business practices to identify the opportunities open to them.

In response, we will **improve access to finance for businesses,** through **improving the information available to banks,** enabling them to promote the business benefits of investment in resource efficiency, particularly for small and mediumsized businesses and by continuing the **£1.5 million Waste Prevention Loan Fund**. We will also work with others to **update** tools which help businesses and local authorities maximise the opportunities from waste prevention and resource efficiency.

 support action by central and local government, businesses and civil society to capitalise on these opportunities

Finally, we as government need to lead by example. We will set a clear direction by mandating **a five pence charge on single use plastic carrier bags** in England; providing **clarification on the application of the Definition of Waste** to reuse and repair activities and exploring how **Individual Producer Responsibility** (IPR) can be implemented.

We will continue to work towards ensuring that whole life value for money is taken into account in central government procurement decisions, which will include bringing waste prevention and reuse criteria within **Government Buying Standards** and **piloting a cross-government scheme** to enable exchange and reuse of goods across departments. The wider public sector will be encouraged to do the same through central government leading by example.

We will continue to support **collaborative action;** facilitating partnership working by bringing together the waste management sector with local authorities and civil society groups to enable greater reuse and repair, and setting up a Local Authority Forum as an opportunity to share best practice.

We will help the wider public sector to reduce their waste, starting with the **NHS; we have commissioned research** to explore the potential for savings by reducing the amount of waste they produce, and making better use of equipment.

We will work with businesses, local authorities and the civil society to **develop a suite of metrics by the end of 2014** to help monitor progress on waste prevention, enabling consistent measurement of, for example, financial, environmental and social impacts, and levels of engagement. Over time, we will look to expand these metrics to include wider environmental impacts.

### Introduction

'Prevention is better than cure: The role of waste prevention in moving to a more resource efficient, circular economy' sets out the Waste Prevention Programme for England, a requirement of the revised Waste Framework Directive (rWFD)<sup>1</sup>.

This Programme sets out the Government's view on how to reduce the amount of waste produced and presents the key roles and actions which should be taken in our transition towards a more resource efficient economy. It also sets out the actions government is taking to support this transition.

<sup>&</sup>lt;sup>1</sup> Directive 2008/98/EC www.ec.europa.eu/environment/waste/framework/

### A More Resource Efficient Economy

A key priority for the Government is to boost growth in the economy whilst continuing to improve the environment. Moving towards a more resource efficient, circular economy offers scope for innovation, sustainable growth and saving money, as well as reducing the impact on the environment.

Improved efficiency in the way resources such as energy, water and raw materials are used, along with reducing waste, can help save businesses money. Managing products and materials efficiently helps to reduce the risk of exposure to volatile and high commodity prices, as well as limiting the need for these valuable resources – allowing UK businesses to improve their resilience and competitiveness. It will also help the UK meet greenhouse gas emissions reduction targets and place the UK in a stronger position during a time of increased competition for resources.

Sustainable economic growth and environmental improvement go hand in hand, they are not mutually exclusive.

A resource efficient economy is one where fewer resources are used to produce more, making the most of those resources by keeping them in use for as long as possible, extracting the maximum value from them whilst in use, then recovering and regenerating products and materials at the end of each service life. It is an economy where throwing things away happens only as a last resort.

Preventing waste in the first place is a key aspect of this. Sited at the top of the waste hierarchy, a concept which classifies waste management practices in order of environmental impact, actions which prevent waste should be considered as a priority in any resource management system.

Traditionally, the economy has been built on a linear approach of make, use and dispose, resulting in a loss of valuable resources. Moving towards a circular economy encourages better use of materials throughout the life cycle of a product, keeping resources in use for longer and promoting the recovery of key materials.

Optimising material inputs and reducing wastage through design has to be the starting point of a resource efficient economy. It is not enough to just recycle waste; action is also needed to prevent the waste from being created in the first place. **Resource Efficiency** means using the Earth's limited resources in a sustainable manner while minimising negative impacts on the environment.

The **Circular Economy** means moving away from our current linear economy (make – use – dispose) towards one where our products, and the materials they contain, are valued differently; creating a more robust economy in the process.

**Waste Prevention** focuses on actions taken *before something becomes waste* that reduce:

- the quantity of waste produced, including through the extension of product life through design, repair or reuse
- the adverse impacts of waste produced on the environment and human health, or
- the content of harmful substances in materials and products

Opportunities for waste prevention occur throughout a product life-cycle. Actions could include:

- designing out, or minimising, waste by reducing material offcuts or optimising packaging, but also looking at taking steps to change business practices so less waste is produced
- improved design to optimise the lifespan of products and components and to enable more repair, remanufacture, reuse and recycling
- the use of different business models such as take-back schemes, leasing and producer responsibility

Making this transition will require action from everyone in the supply chain, from those extracting raw materials to the designers, manufacturers, distributors, retailers, consumers, as well as those managing the collection and processing of waste. Critical to delivering this will be a change in mindset and corresponding change in behaviour – each actor has an important role to play.

# The Case for Action

Our economy and businesses depend on global trade and resources. However, as the world's population grows in number and wealth there is growing pressure on energy, natural resources and the wider environment. Using resources more efficiently will put us in a strong position to win the global race. By reducing waste that is created in the production of goods and services, businesses can produce more using fewer resources, making the UK economy more productive; bringing direct benefits to UK businesses and the wider society at the same time as helping to protect the environment.

Consumption of products which are manufactured abroad means we place demands on global resources. Carbon dioxide  $(CO_2)$  emissions associated with imported goods and services in 2011 accounted for around 39% of the UK's  $CO_2$  footprint, which is around 252 million tonnes  $CO_2$ .<sup>2</sup> Since 2000, on average, resource prices have more than doubled, reflecting both the depletion of natural resources and the concerns around security of supply of those materials.

In 2010, total waste generated in England was estimated as 177 Mt.<sup>3</sup>

The waste that we produce costs UK businesses £885 million to manage.<sup>4</sup>

Waste management costs to local authorities for 2011-12 are estimated at £3.2 billion.<sup>5</sup>

Using material resources in a more efficient and sustainable way has the potential to deliver a range of benefits across the economy:

#### Financial benefits

- to businesses through greater resource efficiency, reduced waste management costs and selling improved products and services which customers value
- to local councils through a reduction in waste collected and managed
- to consumers through full use of items or products (for example, reduction in costs from wasted food or faulty household appliances) and through other consumption models such as leasing

UK businesses could save around  $\pounds18$  billion and avoid greenhouse gas emissions of 16 million tonnes of carbon dioxide equivalent (MtCO<sub>2</sub>e) annually.<sup>6</sup>

#### Opportunities for innovation

- some prevention and reuse activities may require development of new practices and technologies which could lead to new market opportunities, new jobs and economic activity
- designing products and services to create
  less waste

- <sup>5</sup> www.local.gov.uk/c/document\_library/get\_file?uuid=a9ae477e-e0cf-4665-862e-ed01caa810f6&groupId=10180
- <sup>6</sup> http://randd.defra.gov.uk/Document.aspx?Document=EV0441\_10072\_FRP.pdf

<sup>&</sup>lt;sup>2</sup> www.gov.uk/government/uploads/system/uploads/attachment\_data/file/261692/Consumption\_emissions\_18\_ Nov\_2013.pdf

<sup>&</sup>lt;sup>3</sup> England component of the UK waste statistics regulation data, reference period 2010

<sup>&</sup>lt;sup>4</sup> www.gov.uk/government/publications/environmental-protection-expenditure-epe-survey-2011. Includes operational and capital costs.

UK householders spend £12.5 billion every year on food that could have been eaten but ends up being thrown away. Food and packaging waste is estimated to cost the UK food industry £6.9 billion per year.<sup>7</sup>

- adopting resource efficient business models which help meet customer demand for improved services, such as product hire and buy-back schemes
- through an increase in repair, reuse and remanufacturing services

#### Benefits to society

- through increased jobs and training (assuming that redesign, repair and reuse work is UK based)
- increased choice in consumption models available to consumers and extension of product lifetimes

It is estimated that £140 million worth of used clothing goes to landfill each year.<sup>8</sup>

Almost a quarter of used electrical products taken to household waste recycling centres each year could be reused, with a gross value of £200 million.<sup>9</sup>

#### Environmental benefits

• through the reduction in carbon emissions from material extraction and waste produced, and a reduction in the use of hazardous materials

Despite evidence that the potential environmental and financial benefits from preventing waste outweigh the costs, these opportunities are frequently not taken up.

#### **Barriers to preventing waste:**

*Environmental Externalities:* The consumption or production decisions made by individuals and businesses that result in waste may not take into account the environmental damage caused by that waste. The full cost of the waste may not be felt by the producer or consumer.

*Split Incentives:* In many cases the costs and benefits of waste prevention actions are realised at different stages. For example, a manufacturer may invest in redesigning a product to reduce waste (such as extending product lifetime), but the benefit may be to the consumer further down the line. In this way there may be little financial incentive to take preventative actions for those who are able to do so as the benefits do not always align.

*Information Failures:* Consumers or businesses may not be aware of the value associated with waste efficiency savings; they might fail to appreciate the full costs of waste (for example, unnecessary raw material and labour costs embedded in products); or they may be unaware of the preventative actions which could be taken. Furthermore, information may be too costly to acquire (in terms of time and resources). Potential savings from waste prevention actions are often not known or understood.

<sup>&</sup>lt;sup>7</sup> www.wrap.org.uk/sites/files/wrap/hhfdw-2012-main.pdf

<sup>&</sup>lt;sup>8</sup> Valuing our Clothes:

<sup>2012</sup> www.wrap.org.uk/sites/files/wrap/VoC%20FINAL%20online%202012%2007%2011.pdf <sup>9</sup> The Value of re-using household waste electrical and electronic equipment: 2011

www.wrap.org.uk/sites/files/wrap/WRAP%20WEEE%20HWRC%20summary%20report.pdf

#### Barriers to preventing waste: (Cont'd...)

*Behavioural Barriers:* Companies may often underestimate the value of long-term benefits versus short-term costs and/or overestimate the risks associated with such investments (known as status quo bias). Additionally, individuals may place more emphasis on the upfront costs compared to the long run benefits to be gained by making a change. Both underestimate benefits, overestimate risks and focus on upfront costs rather than long-term benefits.

*Financial Barriers:* Certain waste prevention actions will require an initial investment before benefits can be realised. If businesses or individuals have constrained access to credit then they will be unable to make the initial investment to realise the subsequent benefits.

Whilst there has been significant progress in reducing waste arisings in recent years, future arisings levels are uncertain. Defra forecasts ranges for future household waste arisings and commercial and industrial waste arisings. Taken together, these waste streams constituted approximately 40% of total waste in England in 2010. The central estimates of the forecast ranges show that overall waste arisings are expected to stay relatively flat over the next few years, with only modest changes forecast between now and 2020<sup>10</sup>.

Action has already been taken that has resulted in a reduction in the amount of waste arising. These include fiscal instruments such as landfill tax, effective in pushing waste up the hierarchy; voluntary agreements with industry like the Courtauld Commitment which has optimised grocery packaging so that around one million tonnes less packaging has been used<sup>11</sup>, and consumer campaigns like Love Food Hate Waste which has contributed to a reduction of 15% in food waste since 2007.<sup>12</sup> Everyone – government, the wider public sector, businesses, the civil society and consumers – has a stake and a part to play in making this happen. It is a question of looking for and grasping the opportunities, and of providing the conditions to allow the market, businesses and people to make those changes.

Everyone has a stake and a part to play. No single actor has overall responsibility or oversight.

<sup>&</sup>lt;sup>10</sup> www.gov.uk/government/uploads/system/uploads/attachment\_data/file/251523/pb14031-forecasting-2020waste-arisings-norfolk-131017.pdf

<sup>&</sup>lt;sup>11</sup> www.wrap.org.uk/category/initiatives/courtauld-commitment

<sup>&</sup>lt;sup>12</sup> www.wrap.org.uk/sites/files/wrap/hhfdw-2012-main.pdf

### Objectives

*Our aim:* To improve the environment and protect human health by supporting a resource efficient economy, reducing the quantity and impact of waste produced whilst promoting sustainable economic growth.

Increasing the level of resource efficiency, and preventing waste, will contribute to breaking the link between waste arisings and the environmental impacts associated with the generation of waste, known as 'decoupling'. This Programme's objectives are to:

- encourage businesses to contribute to a more sustainable economy by building waste reduction into design, offering alternative business models and delivering new and improved products and services
- encourage a culture of valuing resources by making it easier for people and businesses to find out how to reduce their waste, to use products for longer, repair broken items, and enable reuse of items by others
- help businesses recognise and act upon potential savings through better resource efficiency and preventing waste, to realise opportunities for growth
- support action by central and local government, businesses and civil society to capitalise on these opportunities

# Measuring Progress

In order to assess progress against the aim of this programme, we will measure changes in overall waste arisings, assess the environmental impacts of this waste and also consider how these factors relate to changes in the resource efficiency of the economy. We will also measure the amount of waste produced per unit of economic activity. This will allow us to assess efficiency within the economy, and provide an insight into the link between waste arisings and the environmental impacts associated with the generation of waste for a given level of economic activity.

For household waste, we will consider measures of household expenditure or income which can be used to show:

 waste arisings (Mt) per unit household economic activity

For commercial and industrial, and construction and demolition waste:

 waste arisings (Mt) per unit Gross Value Added<sup>13</sup> (GVA) in constant price (volume) terms We recognise that measuring waste on the basis of weight does not fully reflect the environmental impacts or the financial cost of the waste generated and results in a bias towards action on heavier wastes. Carbon factors are available for most waste types as a measure of environmental impacts and we will assess the waste generated in the form of carbon equivalent per unit economic activity. Going forward, we also intend to assess how we could measure wider environmental impacts.

GVA data (for England only) can be estimated at broad sectoral level and therefore used to assess the relationship between economic activity and waste prevention for individual sectors. Additional metrics which allow measurement of, for example, environmental or social impact and levels of engagement, will be considered in partnership with relevant organisations to give a suite of indicators where appropriate. The Government proposes to use 2009 as a benchmark year against which to measure progress. This is the latest year for which complete data on the waste arising categories noted above is currently available.

<sup>&</sup>lt;sup>13</sup> Gross Value Added (GVA) measures the contribution to the economy of each individual producer, industry or sector. In order to compare waste arisings in physical terms with GVA, the estimates will need to be converted into constant price (volume) terms using an appropriate deflator.



Credit: WRAP

### What Will Central Government Do?

We believe a more sustainable and circular economy can and should be delivered with limited government intervention as industry responds to the clear business case for action. Many businesses are already acting but there is still more that can be done. The challenge is now for business and society to take forward the opportunities to deliver growth while improving the environment.

Public funding is under extreme pressure and we must ensure that this limited funding is targeted at the key priorities; on the essentials that only government can do, and must do. We will provide leadership; continuing to act as a catalyst for business to be more resource efficient. We will step back where businesses are better placed to act and where there is no clear market failure. That said, we are investing substantial amounts in supporting innovation and action by businesses and in communities.

One way in which this support is provided is through our funding of the Waste and Resources Action Programme (WRAP). This funding is targeted on supporting businesses and local government to realise the benefits of resource efficiency and effective waste management. Defra's contribution in 2014/15 will be about £18 million, and in 2015/16 will be about £16 million with a focus on supporting waste prevention and resource efficiency in the food and drink sector and on key materials such as electrical equipment and textiles.

We also recognise that everyone's budgets are similarly stretched and that it is only by working together, in partnership across supply chains and sectors, that change will be achieved. The Government's role must be to set the conditions and guidelines that allow the market, businesses, local authorities and people to make the changes that will propel us towards a more circular and sustainable economy. Government can also help by brokering sector partnerships and sharing evidence of these opportunities. But it is a question of everyone playing their part, taking actions to deliver savings and seize the opportunities that exist.

We also recognise that it is important to demonstrate co-ordination of policies affecting the resource management sector. Defra has, for example, brought together resource management, resource efficiency and sustainability policies under one directorship.

#### Leadership

#### Action G1: Setting a clear direction

- We are proactively aiming to reduce plastic bag distribution by mandating a five pence charge on single use plastic carrier bags in England by autumn 2015.<sup>14</sup> A similar approach has already proved to work in Wales, where they have seen a 76% decrease in single use carrier bags. We are also looking into the opportunities for developing a more sustainable biodegradable bag. Providing these bags meet the right criteria, they could be exempt from the charge. This could potentially lead to new opportunities and growth for UK businesses. We are currently discussing the criteria the bag should meet and options for developing standards with industry. Small businesses with fewer than 250 employees will be exempt from the plastic carrier bag charge, to ensure that they are not disproportionately burdened by administrative costs associated with the charge, such as training staff and developing a method for recording data.
- We will work with the Environment Agency to provide clarification on the application of the **Definition of Waste** to reuse and repair activities by summer 2014. This will help businesses and other organisations realise reuse and repair opportunities and ensure a consistent regulatory approach across England.
- The forthcoming revised Waste Electronic and Electrical Equipment (WEEE) Regulations will prioritise reuse. To support this, we will:
  - work with local authority collection facilities which decide to take responsibility for managing their own WEEE, encouraging them to explore opportunities for reuse

- work with the industry to explore how Individual Producer Responsibility can be implemented. This enables businesses to benefit when they design and manufacture products which can be more easily reused, repaired and recycled, and design systems enabling them to retain ownership of products. We will hold a workshop in the first half of 2014 and develop options by autumn 2014
- Government has developed an industrial strategy<sup>15</sup> to set out a long-term, crossgovernment approach to supporting business. This will give confidence now for investment and growth.
- Government has implemented the Public Services (Social Value) Act (2012)<sup>16</sup> which requires local authorities and other commissioners of public services to consider how their services can benefit people living in the local community.

#### Action G2: Leading by doing

Public sector spending is worth approximately 15% of the UK's Gross Domestic Product (GDP).

Central Government alone buys the equivalent of 8% GDP.<sup>17</sup>

- Government will continue to work towards ensuring that whole-life value for money is taken into account in central government procurement decisions. The wider public sector will be encouraged to do the same through central government leading by example.
- We will include waste prevention and reuse requirements where the Government Buying Standards for specific products are updated, building on existing references to reuse, as in, for example, the Furniture Buying Standard. We will also seek to

<sup>&</sup>lt;sup>14</sup> A call for evidence on the Single-use plastic bag charge for England was published on 25 November 2013. www.gov.uk/government/consultations/single-use-plastic-bag-charge-for-england-call-for-evidence

<sup>&</sup>lt;sup>15</sup> www.gov.uk/government/policies/using-industrial-strategy-to-help-the-uk-economy-and-business-competeand-grow

<sup>&</sup>lt;sup>16</sup> www.legislation.gov.uk/ukpga/2012/3/enacted

<sup>&</sup>lt;sup>17</sup> www.gov.uk/government/publications/public-expenditure-statistical-analyses-2013

#### Cutting Down

Defra **reuses products** across its estate where possible. For example, over-sized desks are cut down and reused under a scheme run in partnership with the Ministry of Justice and Prison Services. Inmates are trained in carpentry, metal cutting and, more recently upholstery. The cost of cutting a desk is only 25% that of disposing of an existing desk and buying a new one to replace it.

ensure that generic guidance and training is offered that assists both the Crown Commercial Service and government departments to take waste prevention and reuse into account.

- A government-wide 'swap shop' will be piloted to enable the exchange and reuse of goods across departments. This will enable transfer of assets across departments and make better use of existing resources.
- We will continue to drive waste reduction within central government departments and their agencies. The Greening Government Commitment aims, by 2015, to deliver a reduction in the amount of waste generated by 25% from a 2009/10 baseline and ensure redundant ICT equipment is reused or responsibly recycled.
- On food waste, all central government departments are supporters of the Hospitality and Food Services Voluntary Agreement.<sup>18</sup> As part of their support, government departments are producing implementation plans on how they will prevent food waste and how they will handle any food waste produced.
- We will encourage authorities to engage in pre-procurement market engagement with a diverse range of suppliers and use outcome based tender requirements. This will allow the market to put forward bids and proposals and bids on how the procurement can be designed to support low waste solutions for example, through the supply of refurbished or upgradeable products. We will work to ensure businesses and civil society groups are aware at an early stage of future

opportunities through encouraging local authorities to publish their future needs in the procurement pipelines.

#### Supporting Action by Others

#### Action G3: Collaborative action

- We will develop, through WRAP, a **Sustainable Electricals Action Plan** (SEAP) to catalyse sector action, share evidence and bring together the many different stakeholders around the electrical products life cycle. WRAP is already working with a number of the leading UK retailers and brands on various activities to improve the sustainability of electrical products, including developing 'industry standard' guidance on product design and buying specifications for major household appliances, aimed at significantly reducing failure rates for the most common failure modes, particularly in lower-end products. The intention, through SEAP, is to go further and seek sector commitment on design for optimum product life, which could be delivered through a range of actions such as longer minimum guarantee periods and ease of repair for the most common failures. Increased technical durability will also help businesses develop service models which keep products in circulation for longer, such as trade-in for re-sale, rental and leasing.
- We will work in partnership with industry and others to increase customer (both business and consumer) confidence in the quality of second-hand goods, including working, through WRAP, on the development of a **standard or similar mechanism for the reuse sector**.

<sup>18</sup> 

<sup>&</sup>lt;sup>18</sup> www.wrap.org.uk/content/hospitality-and-food-service-agreement-3

- We will **facilitate partnership working** and share best practice through:
  - bringing together the waste management sector with local authorities, businesses and civil society groups to enable greater reuse and repair, and increasingly manage waste further up the hierarchy by hosting a workshop early in the new year, and developing proposals by Autumn 2014
  - setting up a Local Authority Forum as an opportunity to share best practice and raise concerns on taking forward waste prevention and reuse in their local areas by Summer 2014
  - building on the work of our previous reuse forums and facilitating discussions between local authorities, reuse organisations and businesses to develop partnerships and overcome obstacles to greater levels of reuse
- Government will continue to encourage businesses to take collaborative voluntary action to make their products and services more sustainable, through **agreements** like:
  - the Courtauld Commitment, which aims to reduce household food and drink waste, reduce grocery ingredient, product and packaging waste in the supply chain and improve packaging design
  - the Hospitality and Food Service Agreement,<sup>19</sup> which aims to cut food waste and associated packaging waste in the hospitality and food services sector
  - the Sustainable Clothing Action Plan,<sup>20</sup> which is a collaboration of major retailers, brands, recyclers, NGOs and charities working together to reduce the waste, water and carbon footprint of the clothing consumed in the UK. This includes work to develop a 'Longevity Protocol' establishing standard design and buying criteria to increase

durability and tackle key failure modes in commonly worn garments. We will also work through WRAP to address impacts of non-clothing textiles

• Continuing to support the businessled **Circular Economy Task Force,**<sup>21</sup> which looks at ways of capturing materials, so that today's goods are remanufactured or reused to become tomorrow's goods, rather than going to landfill.

# Action G4: Driving innovation and culture change

- We will develop a £800,000, two-year scheme to support communities to take forward innovative waste prevention, reuse and repair actions in their local areas; working in partnership with local businesses, authorities and civil society groups.
- We will help the wider public sector to reduce their waste, starting with the NHS; we will explore the potential for savings across NHS services by identifying the quantity and type of waste produced at some representative Trusts and identifying the opportunities for waste prevention.
- We will work with others to promote resource efficiency and waste prevention in schools and higher education.
- Government, through the Technology Strategy Board (TSB), is supporting innovation in design. The TSB is investing up to £5 million in collaborative research and development<sup>22</sup> that aims to preserve the value of products and/or materials at end of life and keeps them in productive use for longer. They are also running a £1.5 million competition on design challenges for the circular economy, encouraging companies to rethink the design of products, components and/or services with the

<sup>&</sup>lt;sup>19</sup> www.wrap.org.uk/content/hospitality-and-food-service-agreement-3

<sup>&</sup>lt;sup>20</sup> www.wrap.org.uk/content/sustainable-clothing-action-plan-1

<sup>&</sup>lt;sup>21</sup> www.green-alliance.org.uk/grea1.aspx?id=6571

<sup>&</sup>lt;sup>22</sup> www.innovateuk.org/uk/competition-display-page/-/asset\_publisher/RqEt2AKmEBhi/content/supply-chaininnovation-towards-a-circular-economy?p\_p\_auth=ysRGty3q; launched in November 2013

potential to reduce their environmental impact by a factor of four. The TSB is supporting the work of the **Great Recovery Project**<sup>23</sup>.

- Government will **improve access to finance for businesses**, through:
  - improving the quality and quantity of information available to enable investors to quantify risks more specifically, and developers to improve their forecasts. Work has been commissioned to provide WRAP with an analysis of the current data available within the waste sector that is of use to investors and developers to support investment decisions. Outputs from the initial work are expected early in 2014
  - improving the information available to banks to enable them to promote the business benefits of investment in resource efficiency, particularly for small and medium-sized businesses
  - bringing together investors and developers at a series of networking events to share knowledge and expertise in business planning to assist projects to become more 'investment ready' by the time funding is sought. The networking events, run by WRAP, will take place early in 2014 and focus on the themes of plastics, anaerobic digestion and reuse
  - setting up a business bank to support small and medium-sized businesses. The Business Bank will bring together and build upon existing government schemes aimed at supporting access to finance for businesses under a single organisation. The bank has £1 billion of additional government funding, which will be managed alongside £2.9 billion of existing government commitments, and will be operational from autumn 2014
  - continuing the Waste Prevention
    Loan Fund, managed by WRAP on behalf of Defra, providing £1.5 million support to support waste prevention and reuse

 the Green Investment Bank invests in commercial and environmental UK projects; waste is a priority area for investment

#### Action G5: Influencing others

- We will continue to work with and **influence the European Commission** and other member states to ensure that we promote resource efficiency whilst minimising burdens on business.
  - We have welcomed the approach the Commission have taken under the Roadmap to Resource Efficient Europe, particularly its plans to ensure coherence and drive improvements through existing dossiers. We will continue to encourage the Commission to favour non-legislative approaches that allow business to innovate and achieve the economic and environmental benefits from resource efficiency, and to allow Member States the flexibility to implement measures appropriate to domestic economic circumstances
  - As a principle, the Government considers that targets can have unexpected and undesirable consequences. The European Commission is undertaking work to consider whether a target on waste prevention should be applied at an EU level and is expected to publish any such proposals in spring 2014. We will work closely with the Commission, and other member states, to ensure that there is a robust analysis of the costs and benefits as part of any consideration of targets for waste prevention
- We are implementing the **EU Ecodesign Directives and the EU Ecolabel scheme** in the UK. As part of this work, we will influence the EU to bring waste prevention requirements into product standards as they are updated. For example, in forthcoming revisions of the Ecolabel criteria for PCs and laptops, there will be discussions around modifying repairability criteria

<sup>23</sup> www.greatrecovery.org.uk

 We are working with the British Standards Institute<sup>24</sup> (BSI) to encourage the inclusion of waste prevention requirements and principles in standards development and strategic standardisation projects, as well as exploring standards and other tools to help organisations develop or enhance their thinking around the circular economy.

#### Action G6: Information and advice

- We will develop, through WRAP, a webbased **postcode locator** to provide a practical tool to enable householders to find their local reuse and repair services.
- Government will work with WRAP and others to ensure **tools to help businesses and local authorities maximise the opportunities from waste prevention and resource efficiency are updated** as needed.
  - As part of this, we will consider how best to support training of local authority officers to offer advice to local businesses and civil society groups to reduce waste
  - We will also continue to support local authorities and others to communicate effectively by providing guidance and communications materials which they can use to promote action in their local areas
  - Through WRAP, we will work with businesses and social enterprises in the asset management, repair and reuse sectors to increase capacity, quality of outputs and commercial sustainability

- Government will develop a framework of actions that realise the full benefits of corporate responsibility by the end of 2013. Corporate responsibility is the voluntary actions organisations take on environmental and social aspects above and beyond their legal obligations. A component of this is likely to focus on waste and waste prevention, setting out the case for action.
- Government will continue to promote the work of the Technology Strategy Board and Knowledge Transfer Networks to deliver support action on resource efficiency, products and innovation.

#### Evidence

#### Action G7: Developing the evidence base

- We will work with businesses, local authorities and civil society to develop a suite of metrics by the end of 2014 to help monitor progress on waste prevention, enabling consistent measurement of, for example, financial, environmental and social impacts, and levels of engagement. Over time, we will look to expand these metrics to include wider environmental impacts.
- We are raising awareness of resource efficient products and business models and supply chain innovations through a £900,000 programme of Action Based Research pilots and WRAP supported trials of take-back schemes for resale and leasing/hiring schemes. For example, Communications Technology (ICT) provision can be purchased through service-based contracts where the equipment is owned by the leasing company. Using this

#### **Pushing Forwards**

Defra's **Re-engineering Business for Sustainability (REBUS) project** is testing a new way of providing pushchairs. The approach explores the potential of a business model where the consumer purchases the use of a product, rather than the product itself. In this case, the consumer rents a pushchair which can be exchanged or upgraded as the baby grows and needs change. The used models are then refurbished as new for the next customer.

<sup>&</sup>lt;sup>24</sup> BSI is the UK's National Standards Body and a founding member of ISO and CEN.

approach means the service provider has an incentive to provide durable equipment which can be repaired or upgraded, to arrange equipment transfers to subsequent users, and to get best value from assets at end-of-life by selling them on. As a result, the customer can benefit from lower whole-life costs, a more reliable product, and access to newer or older equipment according to their needs and budget.

- We will also undertake work to establish a more robust **baseline of waste arisings**, particularly in the **commercial and industrial (C&I) sector**. We have launched a project to provide a new methodology for estimating waste generated by the commercial and industrial sector, reconciling some previously encountered data inconsistencies and providing an improved grasp of recent trends. The project will also provide a better account of waste generation and waste management choices by SMEs.
- The development of the Electronic Duty of Care (EDoC), to be launched in January 2014, will support a more comprehensive picture of commercial and industrial waste arisings in England in the longer term. The move away from paper based Duty of Care waste transfer notes to an online, electronic system will reduce the administrative burden on businesses whilst halving the cost of record keeping. It has been estimated that by using the voluntary system UK businesses will collectively save at least £5 million pounds each year.
- Government will continue to **undertake research** to more fully understand the opportunities and challenges of waste prevention activities, for example by gaining a better understanding of the **repair sector**.
- We will continue to support the Product Sustainability Forum, a collaboration of retailers and suppliers, academics, NGOs and government, led by WRAP, which has

identified the highest priority products to address to reduce environmental impacts associated with grocery consumption in the UK. The analysis includes consideration of materials use and waste associated with grocery products,<sup>25</sup> as well as greenhouse gas emissions, embedded energy and water. The Product Sustainability Forum have published 'An Initial Assessment of the Environmental Impact of Grocery Products' which identifies the top 50 'hotspots' to address and have provided a range of practical materials to help businesses implement changes.

#### **Priority Materials**

Many of the actions in this programme are relevant across sectors and materials, but the areas below have been identified as priorities to help provide direction to government, businesses, local authorities and others when determining where to focus action on waste prevention.

#### Food

- We are continuing to support voluntary action focused on food waste, including the Hospitality and Food Services Agreement, the Product Sustainability Forum, and the Courtauld Commitment. Phase 3 of the Courtauld Commitment aims to reduce household food and drink waste by 5% by 2015 from a 2012 baseline.
- We are also continuing to support the work of WRAP to reduce food waste, through for example, Love Food Hate Waste.
- All central government departments are supporters of the Hospitality and Food Services Voluntary Agreement.

#### **Textiles**

 Through the Sustainable Clothing Action Plan, we are working with industry to reduce the waste, water and carbon footprint of the clothing consumed in the UK. This includes work to develop a 'Longevity Protocol' – establishing standard design and buying criteria to increase durability and tackle key failure

<sup>&</sup>lt;sup>25</sup> www.wrap.org.uk/sites/files/wrap/An%20initial%20assessment%20of%20the%20environmental%20 impact%20of%20grocery%20products%20final\_0.pdf

modes in commonly-used garments. We will also work through WRAP to address impacts of non-clothing textiles.

• Work to increase reuse will also include textiles.

#### Paper and board

- The continuation of the Courtauld Commitment into the third phase will aim to:
  - improve packaging design through the supply chain to maximise recycled content as appropriate, improve recyclability and deliver product protection to reduce food waste, while ensuring there is no increase in the carbon impact of packaging by 2015, from a 2012 baseline.
  - reduce traditional grocery ingredient, product and packaging waste in the grocery supply chain by 3% by 2015, from a 2012 baseline.
- We will update tools to help businesses and local authorities maximise the opportunities from waste prevention and resource efficiency.

#### **Plastics**

- We are proactively aiming to reduce plastic bag distribution by mandating a 5p charge on single use plastic carrier bags in England.
- We are also looking into the opportunities for developing a more sustainable biodegradable bag. Providing these bags meet the right criteria, they could be exempt from the charge.
- As detailed above, the third phase of the Courtauld Commitment will aim to further optimise packaging, reduce packaging waste and improve recyclability.
- The UK Producer Responsibility (Packaging Waste) Regulations require producers of packaging to ensure that a proportion of the packaging they handle is recovered and recycled, linked to the amount of packaging they have used the previous year. As these targets become more challenging, the incentive on businesses to minimise the packaging they use further increases.

#### Electronic and electrical equipment

- We will develop a **Sustainable Electricals Action Plan (SEAP)** to catalyse sector action, share evidence and bring together the many different stakeholders around the electrical products life cycle.
- The forthcoming revised Waste Electronic and Electrical Equipment (WEEE) Regulations will prioritise reuse. Work to implement Individual Producer Responsibility will also continue.
- Work to increase reuse will also include electrical items.

#### Other items for reuse

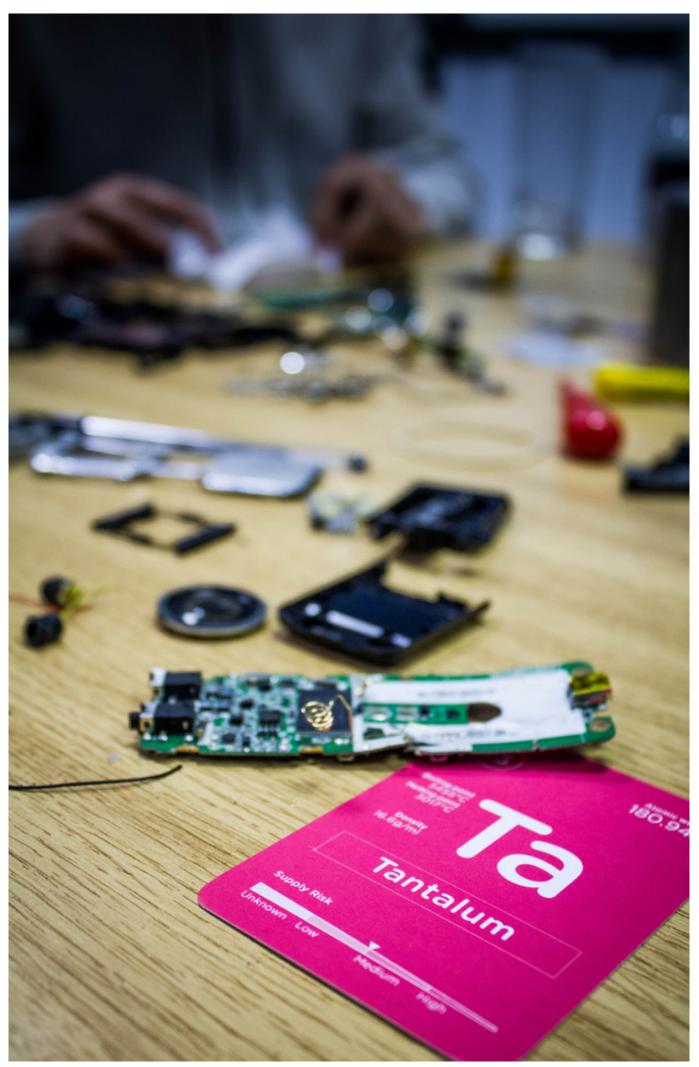
- We will work with the Environment Agency to provide clarification on the application of the **Definition of Waste** to reuse and repair activities.
- Government has implemented the **Public Services (Social Value) Act (2012)** which requires local authorities and other commissioners of public services to consider how their services can benefit people living in the local community.
- Waste prevention and reuse will be included in Government Buying Standards as they are updated.
- We will work in partnership with industry and others to increase customer (both business and consumer) confidence in the quality of second-hand goods, including working, through WRAP, on the development of a **standard for reuse**.
- We will develop, through WRAP, a webbased **postcode locator** to provide a practical tool to enable householders to find their local reuse and repair services.

#### Built environment (including construction and demolition and facilities management)

• Government and industry are working collaboratively through the Green Construction Board (GCB) working group on waste to drive forward actions to reduce waste.

#### Chemical and healthcare

• We will work with the NHS to identify potential savings through preventing waste.



### Businesses

In 2010, commercial and industrial waste was estimated to account for 27% (48Mt) of the total waste generated in the UK, more than double that generated by households in the same year<sup>26</sup>. Managing this waste is estimated to cost businesses £885 million every year. It is clear that businesses have a key role to play in waste prevention and, in doing so, they can make a significant contribution to the economy.

Taking action to minimise the amount of waste produced and make best use of resources makes business sense. Evidence shows simple measures to produce less waste, which pay back within a year, could save businesses £18bn. So, changing wasteful practices can have a significant financial impact and can help increase competitiveness. Reducing reliance on material requirements may also help resource security and to protect against price volatility. Taking action to minimise the amount of waste produced and make best use of resources makes business sense.

There are also significant opportunities for innovation; through leadership on sustainable design and growth of the repair, remanufacturing and reuse sectors. Innovative and effective product design can have significant benefits, increasing financial returns as well as contributing towards resource efficiency and reducing financial impacts. Implementing these types of measures will be key to moving to a more sustainable economy and they have the potential to boost employment.

Many UK businesses are world leaders in resource efficiency and are already reducing their impact on the environment whilst increasing their competitiveness.

#### **Better by Design**

Faith Products, a small manufacturing company in the North West, employing 45 staff to produce hair and skin products, was able to significantly reduce its annual spend by making minor adjustments to its packaging design. Following a review of the company's environmental impact, Faith Products reduced the size of the containers used to package each of their products by six grams and switched to 100% recycled plastic packaging. As a result of this single change, the company has achieved annual savings of £2,700, whilst also improving their environmental credentials/performance.<sup>27</sup>

<sup>&</sup>lt;sup>26</sup> www.gov.uk/government/collections/waste-and-recycling-statistics

<sup>&</sup>lt;sup>27</sup> http://enworks.com/case-study/Faith-Products

The actions set out below show not just where businesses can have the greatest impact on the economy but also provide a starting point and identify priorities for action. Many of the actions are applicable to **all** organisations, not just businesses. Identifying areas of wastage and acting on them, demonstrating leadership and working in partnership are equally important actions for public sector organisations.

#### Innovation

# Action B1: Design products and processes sustainably

Opportunities for waste prevention abound when designing products or processes. The more efficiently products are made or supplied, the greater the opportunity to profit. Designing to remove the causes of waste early on in a product or service typically offers greater savings across its lifetime in terms of resources, labour and cost. It is estimated that over 80% of all product-related environmental impacts are determined by the design of a product.<sup>28</sup>

In order to design out waste it is important to understand what activities and processes give rise to waste. This information can then be used to review and (re)design products and processes. Tools<sup>29</sup> can help to determine the points in the supply chain or product life cycle where intervention would give the greatest gains. Products should be designed with longevity and repair in mind, so they can easily be reused, repaired or remanufactured later on. Leading retailers and brands in the Sustainable Clothing Action Plan and WRAP's Electrical Products Pathfinder Group are developing good practice criteria for costeffective durability testing and specification in key product categories.

Significant progress has been made to date in packaging design and minimisation. In addition to the **Courtauld Commitment**, industry has also taken the lead in producing guidance on the eco-design of packaging.<sup>30</sup>

#### **Courtauld Commitment**

The Courtauld Commitment is a voluntary agreement aimed at improving resource efficiency and reducing waste within the UK grocery sector

Courtauld 1 (2005-2009) looked at new solutions and technologies so that less food and primary packaging ended up as household waste.

Courtauld 2 (2010-2012) also included secondary and tertiary packaging, and supply chain waste. It moved from reducing weight to reducing the carbon impact of packaging.

Courtauld 3 launched early May 2013 and runs until 2015. It aims to further reduce the weight and carbon impact of household food waste, grocery product and packaging waste, both in the home and the UK grocery sector.

Over the first phase 1.2 million tonnes of food and packaging waste was prevented, with a monetary value of  $\pounds$ 1.8 billion, and a saving of 3.3 million tonnes of CO<sub>2</sub>e.

A total of 1.7 million tonnes of waste has been prevented through the influence of the Courtauld Commitment 2, saving  $\pounds$ 3.1 billion. This represents a reduction of 4.8 million tonnes of CO<sub>2</sub>e.

<sup>&</sup>lt;sup>28</sup> Cited in German Federal Environment agency (2000) 'How to do Ecodesign: A guide for environmentally friendly and economically sound design' London: Art Books International

<sup>&</sup>lt;sup>29</sup> Examples include Life Cycle Analysis and Material Flow Analysis. BIM (Building Information Modelling) and WRAP's Designing Out Waste tools have been developed specifically for use by the construction industry.

<sup>&</sup>lt;sup>30</sup> www.packagingfedn.co.uk/images/reports/Incpen&Envirowise%20Guide%20to%20Packaging%20Eco%20 Design.pdf

The **Great Recovery Project** is an ongoing partnership between the Technology Strategy Board (TSB) and the Royal Society of Arts (RSA). This initiative is supporting a shift toward design which is mindful of the whole system or life cycle of products, including a £1.25 million investment by the TSB in 'new design and business partnerships that re-think products, components and systems that 'close the loop'.

For some businesses, however, it may be appropriate to take it a step further and entirely redesign the operating model.

# Action B2: Consider resource efficient business models

There are many different business models, some of which can help businesses retain ownership of the materials or products – for example take-back schemes, leasing with servicing or hiring for a limited time. Other business models may retain or increase a competitive edge.

Selling less does not have to mean making less money. Bicycle shops secure customer loyalty (and spend) by offering mechanic services and upgrades, car hire models like ZipCar continue to grow in popularity and major pushchair manufacturers in the UK are now trialling leasing-based service systems. Innovative services can increase turnover by offering better value for money to secure new customers, such as whole-life managed service for corporate wear instead of the one-off sale of new garments.

Many leasing services already exist, such as carpet cleaners or formal dress hire, but there is more scope for innovation. Moving away from a fully volume sales based approach could bring several opportunities, including reducing the susceptibility of a business to resource volatility, the chance to profit from the re-sale of the goods and increasing customer loyalty.

#### Leadership

#### Action B3: Give consumers confidence

Consumers want to purchase good quality, reliable products, but to do this they need to have clear, comparable product information and confidence in their purchase, for example through the offer of a reasonable guarantee. It should be made clear to customers how long they can expect products to last and the options they have for repair. This is one way businesses can help consumers to make informed decisions.

Offering a longer guarantee can be a competitive advantage and many companies are extending their guarantees and warranty packages to demonstrate their confidence in product life. For example, Dyson offer a five-year guarantee, John Lewis offer three years on own-brand electronic and electrical appliances and five years on televisions, and Kia provide a seven-year warranty on their cars.

Consumers may be sceptical about guarantees or green claims but adhering to a recognised mark or standard can support such claims. The Government has published Green Claims Guidance<sup>31</sup> to help businesses make clear, accurate and relevant environmental claims.

Customer confidence is equally important when buying second-hand goods. Government is looking to develop a **reuse standard** to help provide a route for consumers of these goods to be reassured as to their quality and safety. Providing warranties on the purchase of these goods is another way consumers can be reassured.

In a similar way, taking part in a voluntary agreement such as the Sustainable Clothing Action Plan enables businesses to demonstrate their performance on waste, and communicate clearly to consumers about how their business is conducted and what a consumer can expect from the product or service offered.

<sup>&</sup>lt;sup>31</sup> www.gov.uk/government/publications/green-claims-guidance

#### **Opportunities for the Waste Management Sector**

There are many roles for the Waste Management Sector in helping others to reduce unnecessary waste, and achieve greater value from resources through managing waste as high up the hierarchy as possible.

This could be through influencing their customers to use products and store waste in a way which maximises its value, supporting partnerships which allow other organisations greater access to goods which could be reused or repaired, and ensuring that collection and waste management processes do not prevent reuse, for example, by crushing items before they can be assessed for their reusability.

#### Action B4: Measure and report progress

Waste costs money. Whatever the size of business, inefficient use of resources and waste management costs are likely to cost more than expected. In 2011, UK businesses spent £885 million on waste management, but this figure does not include the value of materials wasted, or the time taken to manage the waste.

By improving resource efficiency, businesses would be able to save up to  $\pounds$ 1,000 per employee<sup>32</sup>. The efficiency of resource use and waste management has a direct impact on the bottom line. Therefore, it is important that waste is accounted for and monitored like any other cost to business such as staff costs.

A relatively simple and inexpensive first step is to **undertake regular waste audits** to record the amount and type of waste produced. This provides information as to where action is needed and can help to strategically plan and review actions in reducing waste.

Reporting progress regularly on material efficiency and waste, and the financial impact of any changes made, provides an incentive to act now and in the future.

#### Focus on SMEs

The challenges faced by small and medium sized businesses can differ to those of larger companies. However, there are benefits that preventing waste can bring to all businesses. The following ideas can help SMEs take advantage of these opportunities.

- Sign up to the **free online 'On Course For Zero Waste' training course** for English and Welsh small and medium-sized enterprises/organisations (accredited by CIWM).<sup>33</sup>
- Try to step back from day-to-day operations, challenge how things are done.
- Work with staff to identify options and make changes.
- Work with other businesses to share ideas and have greater purchasing power, for example in waste management services.
- Review how much stock is stored and goes out of date before it can be used.
- Review how much damaged stock there is, what could be done to prevent this?
- Work with suppliers, requesting reusable or returnable packaging for example.
- Use available guides such as WRAP's Finding Cost Savings: Resource Efficiency for SMEs<sup>34</sup>

<sup>&</sup>lt;sup>32</sup> www.wrap.org.uk/content/rethink-waste-resource-efficiency-manufacturers

<sup>33</sup> www.wrap.org.uk/content/course-zero-waste

<sup>&</sup>lt;sup>34</sup> http://www.wrap.org.uk/sites/files/wrap/Finding-Cost%20Savings-March-2013.pdf

Where businesses own or operate a substantial stock of assets such as furniture and electrical equipment, an asset or resource management plan can provide a structured way of evaluating the purchase, utilisation, redeployment and discard options. WRAP have developed a Mobile Asset Management Plan<sup>35</sup> to help.

# Action B5: Put an emphasis on resource efficiency

Key to the success of any change in a business is clear leadership and engaged management. Making waste prevention a part of everyday business sends a clear message to staff and customers. Preventing waste should be for every employee at every level of a business and visibly supported by senior managers. It could form part of a business' corporate social responsibility agenda or be integrated into existing environmental management systems.

Seeking external recognition of the actions taken to reduce waste can also be beneficial. For example, the Carbon Trust is developing an organisational Waste Reduction Standard, and the BSI is evaluating the scope for a standard on resource efficiency.

#### Tools for Business Resource Efficiency from WRAP

- The *Business Resource Efficiency Toolkit* helps identify ways for businesses to become more resource efficient and profitable.<sup>36</sup>
- The *Facilities Management Procurement* tool provides information on how to ask for waste prevention measures when procuring services.<sup>37</sup>
- The *ReThink Waste* online tool helps manufacturers reduce waste, improve resource efficiency and save money.<sup>38</sup>
- The *Designing Out Waste* Tool helps improve materials resource efficiency in construction projects.<sup>39</sup>

#### Partnership

#### Action B6: Work across the supply chain

Each business can have an impact on those it works with, and with its customers. By working along the supply chain, discussing requirements and suggesting changes which reduce waste, benefits can be realised jointly.

Actions can be taken at the design stage of the supply chain that deliver improvements in other areas. Businesses can influence customers and suppliers, as client requirements can be a lever for change. Work with your suppliers to redesign a product to meet your specifications, for example by delivering materials in a specified length rather than having to cut to fit on site. Ask suppliers to provide resource efficient products (eg printers/photocopiers which default to double-sided), to reduce the amount of packaging on deliveries or use reusable or returnable packaging (plastic pallets etc.). Other examples include requesting electronic invoices or delivery notes instead of paper copies and providing feedback if a product doesn't last as long as expected.

<sup>&</sup>lt;sup>35</sup> www.wrap.org.uk/content/facilities-management-strategy-group

<sup>&</sup>lt;sup>36</sup> http://epub.wrap.org.uk/

<sup>&</sup>lt;sup>37</sup> www.wrap.org.uk/content/fm-client-procurement-toolkit-0

<sup>&</sup>lt;sup>38</sup> www.wrap.org.uk/node/11174

<sup>&</sup>lt;sup>39</sup> www.wrap.org.uk/content/designing-out-waste-1

# Action B7: Work with local authorities and civil society

Businesses should investigate opportunities beyond the immediate business community, such as working with local authorities, other public sector organisations and civil society groups. These partnerships can bring new opportunities for training or apprenticeships, open new markets and routes for selling or passing on items which could be reused or repaired.

#### Supply chain change

Supermarket chain Morrison's worked closely with ready meal supplier Kerry Noon to reduce waste whilst keeping things simple for the consumer. Having 'walked through' each step of the supply chain together, the two companies used their better understanding of the supply chain to align ordering with production schedules, improve the ordering process, improve communication between the companies and, through changes to the packaging, make it easier for customers to identify and select their desired product. Together, these changes have reduced waste product at the point of manufacture by 33%, increased forecast accuracy by 6% and reduced the packaging on some products by 20%, whilst improving flow to shelf and making it easier for customers.<sup>40</sup>

#### **Fresher for Longer**

The 'Fresher for Longer' campaign was developed in 2013 to reduce food waste through better public understanding of the functional roles of packaging. It builds on the messaging of the Love Food Hate Waste programme. The campaign founders are: the Industry Council for Packaging and the Environment, the Packaging Federation, the Food and Drink Federation, the Kent Resource Partnership, the Waste and Resources Action Programme, and the British Retail Consortium. Marks and Spencer plc was the 'exclusive launch retailer'.

The partners recognise the importance of working across the supply chain to reduce food waste and look for other prevention opportunities. The combined efforts of several partners' funding and staff expertise can create better outcomes than by working alone.

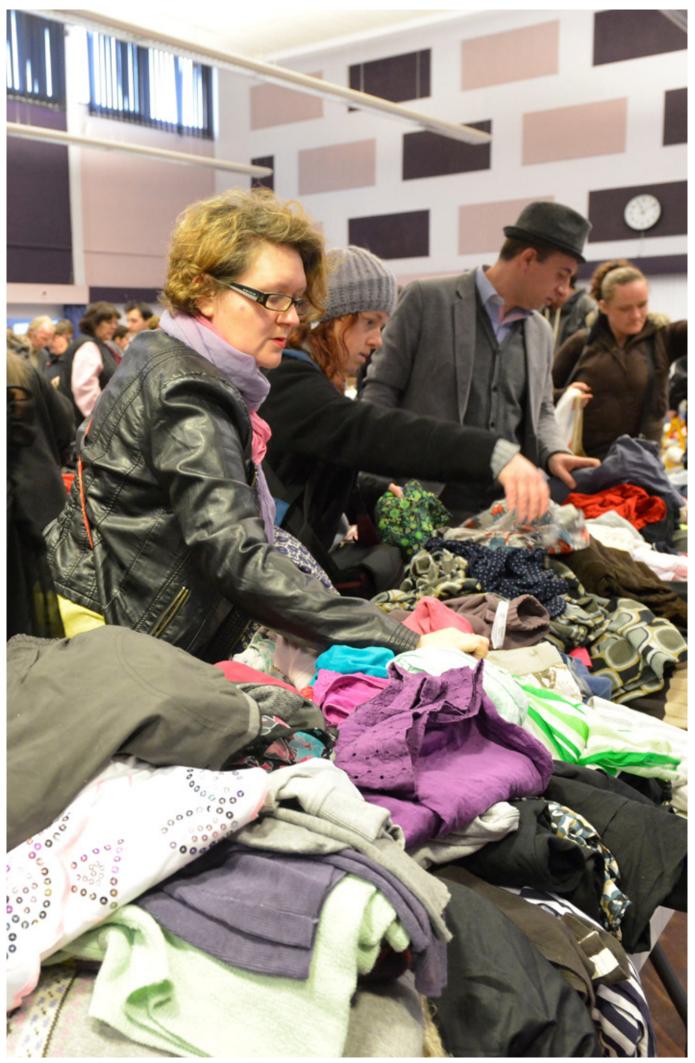
There are some excellent examples of food packaging where innovation has led to both a reduction in packaging material, or its environmental impact, and an increase in shelf-life for consumers, such as vacuum-packed fresh meat and fish (M&S, Waitrose, Co-op for example) where packaging has been reduced by up to 75% but with an extra five days' life.

Fresher for Longer also aims to more fully understand the relationship between 'packaging' and 'reducing food waste', and how one can assist the other. In particular, the function of packaging in the home needs to be better understood by consumers.

There will be a conference in February 2014 where councils and retailers can move forward together.<sup>41</sup>

<sup>40</sup> www.wrap.org.uk/sites/files/wrap/WRAP\_IGD\_supply\_chain\_report.pdf

<sup>&</sup>lt;sup>41</sup> www.wrap.org.uk/fresherforlonger



Credit: North London Waste Authority

# The Wider Public Sector

The wider public sector, including local authorities, has a key role in reducing waste. They can show leadership through their own procurement and business practices, through the services they provide in their local areas, as well as the information and education they provide to others.

Managing waste in the public sector is a costly activity; in 2011/12 the total cost of waste management to the National Health Service was **£90 million**<sup>42</sup> and waste management was estimated to cost local government at least **£3.2 billion**<sup>43</sup>. Preventing waste from occurring in the

first place, and reusing items provides an opportunity for significant cost savings across all parts of the public sector, but without accurate data on total waste arisings, the full potential of these savings is unknown.

As well as cost savings, there are wider potential benefits from preventing waste to be gained such as increased employment, social benefits (for example from reuse activities) and reduced carbon emissions through delivery of activities outside the traditional waste management approach.

#### Seven Figure Savings for Surrey

Surrey Council's waste prevention programme has helped reduce the amount of waste collected across Surrey by 80,000 tonnes over four years, which has saved the Council over £6 million.<sup>44</sup>

#### Local authorities

Local authorities have legal obligations for the collection and disposal of waste which provide them with the opportunity to directly engage with people and businesses at a local level. They have an important role to play in the circular economy as sources of information on resource efficiency as well as providers of services. Some local authorities are already doing great work in preventing waste through a range of activities. They are realising the benefits of waste prevention by keeping costs of service delivery down for local tax payers, reducing the environmental impacts of waste and boosting the local economy. From our discussions with local authorities and others, the following actions are a guide to best practice on waste prevention.

42 www.hefs.ic.nhs.uk/ERIC.asp

<sup>&</sup>lt;sup>43</sup> www.local.gov.uk/c/document\_library/get\_file?uuid=a9ae477e-e0cf-4665-862eed01caa810f6&groupId=10180

<sup>44</sup> www.surreycc.gov.uk

#### Leadership

#### Action L1: Become a local leader

As a large employer, purchaser and provider of public services, public sector organisations can set an example in preventing waste by integrating waste prevention messages and methods across internal policies, processes and procedures. Adopting a 'whole' organisation approach (not just a waste management focus) to implementing waste prevention activities will also enable messages to reach a wider audience, whilst reaping the broader benefits beyond cost savings (for example, providing reused household goods to those in need) and delivering activities in a cost-effective manner. As an organisation, involve staff in waste prevention activities such as including the waste hierarchy in staff training. Consider joining furniture reuse networks<sup>45</sup> and exemplify best practice in how facilities are run and managed. Work with facilities management service providers (if the service is outsourced) to develop a resource management plan that encourages continuous improvement in waste prevention<sup>46</sup>. This could mean, for example, using reusable cutlery and crockery where possible<sup>47</sup>. Implementing environmental management systems and achieving standards such as ISO 14001 can demonstrate commitment to reducing material use, whilst ensuring coherence of waste prevention policies throughout the organisation.

#### **Outfitting Oxfordshire's Offices**

Oxfordshire County Council saved £150,000 on procurement costs and £5,000 on disposal costs by reusing office furniture and equipment from building closures between October 2010 and April 2011.<sup>48</sup>

#### Minimising Waste in the West Midlands

The West Midlands Love Food Hate Waste campaign was delivered by all 33 councils within the West Midlands from December 2010 to September 2011. Campaign activities, including radio advertisements and local events, reduced waste by 140,000 tonnes (from 2009/10 levels). Cost savings achieved through joint working, purchasing, and media 'extras' were £240,000 (on top of waste disposal savings estimated at around £2 million).<sup>49</sup>

Just like any business it is important to measure waste regularly. Consider simple changes to everyday activities that reduce the quantities of materials used and increase reuse of items which can help avoid collection and disposal charges. Exploring options like take back schemes with suppliers can influence the supply chain, putting pressure on producers to change their practices and business models.

# Action L2: Develop a Waste Prevention Plan

All local authorities are encouraged to have a current waste prevention plan, setting out a strategy for local action on preventing waste. The plan should tackle priority actions for the local area, based on what activities give the greatest return in terms of environmental, social and economic benefits. It should be tailored to suit the characteristics of each local area, whether this is a single Waste Collection Authority or several Waste Disposal Authority areas. Achieving efficiencies in implementing waste prevention plans through joint working with other authorities or organisations is also key.

Where a plan is already in place, it is worth reviewing the progress at least every six years in line with guidance in the revised Waste Framework Directive.

<sup>&</sup>lt;sup>45</sup> For example, WARPit www.warp-it.co.uk or Furniture Reuse Network (FRN) www.frn.org.uk

<sup>&</sup>lt;sup>46</sup> www.wrap.org.uk/content/fm-client-procurement-toolkit-0

<sup>&</sup>lt;sup>47</sup> www.wrap.org.uk/content/facilities-management-case-studies

<sup>&</sup>lt;sup>48</sup> www.oxfordshire.gov.uk

<sup>&</sup>lt;sup>49</sup> www.westmidlandsiep.gov.uk/index.php?page=849

When determining the waste prevention budget assess whether it is commensurate with the level of ambition presented in the local waste prevention plan. Tools like the Waste Prevention and Carbon Tool,<sup>50</sup> developed by a consortium of ten UK local authorities, Defra and WRAP in conjunction with CIWM and the Local Authority Recycling Advisory Committee (LARAC), allow local authorities to estimate the costs and benefits of waste prevention initiatives when developing plans.

Approximately 50% of local authorities currently have a local waste prevention plan in place.

For example, the North London Waste Authority, which has a well developed waste prevention plan, has set a waste prevention budget which is 1% of the Authority's 2013/14 budget for the management and provision of current waste services and as a result, diverted 9,000 tonnes of waste from disposal.

### A Planned Approach

Oxfordshire Waste Partnership's waste prevention plan takes a business case approach – building on their active community sector they developed their own Community Impact Model to help quantify the social benefits of waste prevention.<sup>51</sup>

### Action L3: Measure progress

It is important to measure progress. Quantifying changes in the amount of waste generated, and demonstrating the wider benefits of activities, will help to support investment in delivering waste prevention activities. Locally-based aims and relevant indicators could be included in a Waste Prevention Plan, helping to drive action towards tackling priority areas. This would reflect an individual authority's set of circumstances, based on existing infrastructure and waste arisings, and level of ambition. Each local authority can choose how to best capture the data relevant to their chosen targets and indicators. WasteDataFlow is universally recognised by local authorities as a comprehensive waste data management tool. Government encourages authorities to also use WasteDataFlow to record reuse data, as many authorities are already doing, to demonstrate their performance in this area.

Some local authorities are using more novel methods for capturing data which may be of relevance to others. We also recommend considering the impacts beyond waste arisings – cost savings to your own services as well as social benefits.

### Value of Auditing Waste

The Newcastle Upon Tyne Hospitals NHS Foundation Trust carry out proactive waste audits as part of their commitment to reduce resource use, promote reuse, promote correct segregation and waste disposal and to increase recycling across the Trust. The audits highlighted, amongst other things, that rigid plastic containers made up a significant proportion of their medical waste and, in turn, accounted for 30-40% of the Trust's annual spend on medical waste incineration. As a result, the Trust investigated alternatives to the industry standard plastic yellow boxes, which are used in the majority of healthcare facilities. The paper-based BioBin©, was identified as a lighter, cheaper, more environmentally-friendly substitute and is now being used across the Trust, saving over £13,500 in waste costs.<sup>52</sup>

<sup>&</sup>lt;sup>50</sup> http://www.ciwm.co.uk/web/FILES/newsonlinedocs/Waste\_Prevention\_and\_Carbon\_Tool\_Report.pdf <sup>51</sup> www.oxfordshirewaste.gov.uk

<sup>&</sup>lt;sup>52</sup> www.sdu.nhs.uk/documents/case\_study/Case\_Study\_Waste\_Newcastle\_Oct\_2013.pdf

### Action L4: Educate and raise awareness

Raising the awareness of the opportunities for householders and businesses to save money and make better use of products is a key role that local authorities can play. Local authorities are often a trusted source of information and advice for consumers. This provides the opportunity to both raise awareness and encourage action in their local area.

Authorities are encouraged to use resources from national campaigns which provide consistent messages, for example Love Food Hate Waste; and posters and other materials on reuse which have been developed by WRAP to support local authorities in their work. Some authorities have put in place local champions to drive change which can be very successful.

Demonstrating the changes that local authorities have made to their own operating and procurement practices to reduce waste and save money can also be a good way to lead by example and help galvanise action across the local area.

### Partnership

### Action L5: Work with businesses

Public sector organisations have an important role to play in the circular economy, facilitating the link between supply and demand for materials in business processes. Gaining information on the types of businesses operating in the local area can be the first step in understanding where demand may exist.

The wider public sector can make a big difference to their local economy by supporting small (and large) firms to grow and create jobs. One way to support businesses is by demonstrating opportunities to increase competitiveness and maximise profits by preventing waste.

Authorities could consider providing information on resource efficiency on their website, for example, Leeds City Council have provided a handbook<sup>53</sup> which enables businesses to obtain guidance on waste prevention when arranging trade/ commercial waste services.

#### Action L6: Work with civil society

Traditionally, a significant proportion of reuse services are delivered by third sector organisations. In doing so, reuse and repair activities may also provide a vast range of transferable skills and employment opportunities through preparing items for reuse.

Reuse can be using the item again in its original form, such as reusing furniture or clothing, or repairing an item for reuse, such as white goods. Reuse and repair activities help extend the life of products and materials, saving resources and energy.

### Bounty from Banks and Bins in Birmingham

A partnership between Birmingham City Council, the University of Birmingham and the British Heart Foundation (BHF) was set up to oversee the management of waste and reduce fly-tipping incidents, created from when students move out of their accommodation at the end of the academic year.

The project set up temporary clothes banks and bins across the campus at designated locations, as well as co-ordinating with council kerbside collection to ensure as much material was collected for reuse as possible.

The project led to a reduction of waste collected from 171 tonnes to 132 tonnes by the council. Textiles were sold in a new BHF shop in the city centre with all proceed going to BHF.<sup>54</sup>

 <sup>&</sup>lt;sup>53</sup> www.leeds.gov.uk/docs/business%20waste%20handbook%20fullv2%20web%20jan%202011%5b1%5d.pdf
 <sup>54</sup> www.birmingham.gov.uk, www.bhf.org.uk

Working in partnership with businesses and third sector organisations to provide reuse services can deliver multiple benefits, providing opportunities for training whilst achieving growth in local economy and other social benefits. One way to do this is to work with these organisations to offer a bulky waste service, and to ensure waste management contracts operate in a way which supports reuse, for example by offering timed collections, providing space at HWRCs for the collection of goods for reuse and reducing the crushing of waste until it has been assessed for potential for reuse and repair. The Public Services (Social Value) Act should be applied when procuring public service contracts.

Other examples could be working with local groups to run specific events, for example swapping schemes or repair days to collectively raise the awareness of these options in the local area and make these services more visible.

### Innovation

### Action L7: Explore new ways of working

Local authorities could consider how to integrate waste prevention messages more broadly across council services. Messages may be particularly successful when provided alongside other information at lifechanging moments, such as moving house and starting school, when people will be establishing new behaviours which could be influenced by the type of message received. In these examples, providing information about reuse services, or where people could buy second-hand school uniforms, could be extremely helpful.

Other options could be to explore using publicly owned facilities, for example libraries, to host events to promote reuse and repair, and to work with schools to encourage action to reduce their own waste.



**Civil Society** 

The Civil Society has had, and continues to have, a key role in reducing waste in local areas. The activities of these groups vary considerably, from using or redistributing good quality surplus food which would otherwise go to waste, and making items of furniture available to individuals at an affordable price, to providing training in skills related to the repair, reuse and sale of goods.

These activities deliver real-world changes. Social benefits include creating new employment opportunities and providing training and apprenticeships, particularly for the long-term unemployed. They also often help low income families by making items available to them that they would otherwise be unable to afford. A further benefit is in driving community cohesion, for example, by creating shared interest groups and sharing knowledge and experience with another, e.g. repair skills.

By taking forward this breadth of work, these organisations also protect the environment by making better use of materials and products. However, it is often the wider social benefits that drive interest and action from civil society groups, and not specifically the environmental benefits.

Although these organisations play an important role in society, challenges remain. One of the most important is ensuring that organisations are able to operate on a financially sustainable footing, generating sufficient income to maintain their activities. To achieve this, organisations need the skills to operate successfully, access to the goods they require as part of their operations, and the ability to deliver a professional service to meet the needs of their customers.

Civil society has an important role to play in waste prevention, from awareness raising and information provision, to guidance on consumer rights and making informed choices when purchasing goods. Social enterprises are developing new business models, offering leasing services such as in DIY equipment or bicycle repair. They are in an excellent position to help us all move quickly to a resource efficient economy.

The following actions will help to maximise the opportunities for civil society organisations looking to start up or improve existing services.

### Nothing Left to Waste

The Community Furniture Project in Basingstoke collects, refurbishes and redistributes furniture to local families in need. They facilitate reuse and have also sought innovative ways to put the furniture which is not suitable for redistribution to good use. One such initiative is a range of wooden toys made using bed slats. These toys are made available for purchase through their shop, and not only prevent perfectly usable wood from going to waste but also offer trainees the opportunity to learn new skills.<sup>55</sup>

## Leadership

### Action C1: Be a pioneer

Civil society groups have often been at the front of new movements, for example, by pioneering recycling services decades

### A tall, skinny, repair to go please ...

before they became commonplace. Often driven by passionate individuals, the ability of these groups to identify and take forward opportunities means that they are in an ideal position to trial innovative solutions.

The Repair Cafe is a free, regular event at The Goodlife Cente in Waterloo, London, which enables people to mend possessions that they might have otherwise been forced to throw away, in a supportive and friendly environment. Visitors are encouraged to bring their broken items from home to The Repair Cafe, where (if assessed to be repairable) they can mend their item in the Centre's workshop which is equipped with tools, materials and DIY and electrical experts from the Centre, who are on hand to advise. The Repair Cafe supports the repair and reuse of a whole variety of items including clothes, furniture, electrical appliances, bicycles, crockery and toys. It equips people from the local community with the practical knowledge and skills to repair a wide range of everyday items.<sup>56</sup>

### Action C2: Think like a business

As funding becomes increasingly difficult to secure, it is vital that organisations are able to manage their services in a way which makes best use of the income they have, and to put themselves on a sustainable financial footing. One way to do this is to learn from good business practices, maximising the potential profit to provide more funding for their social activities.

Government provides targeted support, through WRAP, to businesses and social enterprises in the repair and reuse sectors to help them develop sustainable business plans and increase the capacity, quality of outputs and commercial sustainability of their services.

## Partnership

# Action C3: Work with local authorities and businesses

The Public Services (Social Value) Act requires commissioners of public services to consider how their services can benefit people living in the local community. Public sector procurers must now consider how they can improve the economic, environmental and social impact of their public service contracts before they start the procurement process. This Act therefore provides an opportunity for organisations to demonstrate how they can work with public sector bodies, including local authorities, or businesses to improve services in their local areas. For example, by developing partnerships which enable greater access to goods for reuse and repair, or providing training as part of their services. In order to benefit from these opportunities, civil society groups need to be able to demonstrate that they can provide a quality and sustained service.

Defra has set up the Reuse Forum as one way to facilitate discussions between civil society groups and local authorities on how to best create partnerships.

### Action C4: Work with other local groups

By working together, local groups can have a greater impact. There are opportunities for combining effort and facilities with other, similar groups, for example in sharing services, a hotline, or premises. It can also be useful to share information and ideas on projects and discuss opportunities.

<sup>56</sup> www.thegoodlifecentre.co.uk/repair-cafe/

### FareShare

FareShare is a national charity fighting hunger and food waste in the UK that:

- distributes surplus 'fit for purpose' product from the food and drink industry to more than 1,000 charities supply organisations working with disadvantaged people in the community
- provides training and education around the essential skills of safe food preparation, nutrition and warehouse skills

In 2012/13, the food redistributed by FareShare contributed towards more than 10 million meals, helping to save 1850t CO<sub>2</sub>e in 2012/13.<sup>57</sup>

## Innovation

# Action C5: Develop services around customer need

Simple changes can make a big difference. Structuring services around the needs of the customer can improve take-up and build or enhance reputation. Things to consider include:

 timed collections – makes it easier for the customer and keeps the goods in a better condition rather than being left outside awaiting collection

- provide a repair service this could be done for a minimal charge and would develop skills
- make the retail environment more inviting to encourage more customers into their shops
- get online show people what you do before they come to visit

### **British Heart Foundation**

The British Heart Foundation has invested in developing their services to make it easier for their customers. For example, they have redeveloped their shops to create a more 'high street' experience, with shops which specialise in certain goods (furniture and electricals, or books) and allow people to book a timed collection of donated goods online.<sup>58</sup>

<sup>40</sup> 

<sup>&</sup>lt;sup>57</sup> www.fareshare.org.uk<sup>58</sup> www.bhf.org.uk



Credit: WRAP

## Consumers

Very few of us are happy with the idea of wasting things, but sometimes the best way to avoid waste is not obvious or easy. As technologies change, new ways to prevent waste become available. Lots of people already take simple steps which mean

they can make the most of the things they have. Many people already sell or pass on unwanted goods or have cut down on food waste. We have gathered together some information on ways to reduce waste, and how the Government is supporting these.

### Did you know?

 $\pounds$ 700 = estimated amount an average family could save per year by taking a series of simple steps to avoid food waste, such as meal planning and using leftovers.<sup>59</sup>  $\pounds$ 320 = estimated value of unused electrical gadgets in UK homes.<sup>60</sup>

 $\pounds$ 4000 = value of clothes in average UK household, 30% of which haven't been worn for at least a year.<sup>61</sup>

23 = percentage of electronic equipment taken to Household Waste Recycling Centres which still works.<sup>62</sup>

### Reducing wasted food

Reducing food waste saves money and resources. There are lots of handy hints on reducing food waste (and ultimately saving money) on WRAP's Love Food Hate Waste website<sup>63</sup>.

There are simple things that can be done to keep food fresher for longer and prevent waste, for example:

- Keeping most fruit in the fridge in its packaging can keep it fresher for a week or more (a cucumber lasts 11 days longer if it is kept in its wrapping)
- Reclosing packs of cheese and sliced meats helps to stop them drying out in the fridge

- Not storing bread in the fridge, where it will go stale six times quicker
- Freezing food that won't be eaten before it goes out of date (60% of people think that food has to be frozen on the day of purchase, but in reality most food that is suitable for freezing can be frozen any time before the date on the label, and retailers and brands are updating their labels to show this). If products are frozen raw in the home, or bought frozen, then thawed and cooked, the product can be refrozen.

Government has been working with WRAP and the food and drink industry to develop packaging which helps to keep food fresh for longer, and to provide information to consumers on how to reduce food waste<sup>64</sup>.

<sup>&</sup>lt;sup>59</sup> www.wrap.org.uk/sites/files/wrap/hhfdw-2012-main.pdf

<sup>&</sup>lt;sup>60</sup> Survey commissioned by Gadget Show Live Christmas (2012)

https://bdaily.co.uk/hospitality/03-04-2012/techies-prepare-to-cash-in-at-gadget-show/ <sup>61</sup> Valuing our Clothes: 2012

www.wrap.org.uk/sites/files/wrap/VoC%20FINAL%20online%202012%2007%2011.pdf <sup>62</sup> The Value of re-using household waste electrical and electronic equipment: 2011

www.wrap.org.uk/sites/files/wrap/WRAP%20WEEE%20HWRC%20summary%20report.pdf <sup>63</sup> www.lovefoodhatewaste.com/

<sup>64</sup> www.wrap.org.uk/fresherforlonger

### Reducing carrier bag usage

Taking bags to the supermarket, and reusing bags as many times as possible, makes the best use of the resources which have been used to create the bag.

Government is aiming to reduce plastic bag distribution by mandating a 5p charge on single use plastic carrier bags in England in autumn 2015. A similar approach has already proved to work in Wales, where they saw a 76% decrease in single use carrier bags. We are also looking into the opportunities for developing a more sustainable biodegradable bag. Providing these bags meet the right criteria, they could be exempt from the charge.

### Signing up to Mail Preference Services

Schemes are available to reduce unwanted mail, such as the Mail Preference Service<sup>65</sup>, or by placing a notice on your letterbox saying 'no' to circulars.

Government has teamed up with the Direct Marketing Association and drawn up a responsibility agreement<sup>66</sup> on direct mail activities.

### Passing on or selling unwanted goods

Since 2001, recycling levels have increased from 11% to 43%, but there is more that can be done to make better use of products before they get recycled.

Passing unwanted items on to others directly, through charity shops or through reuse networks, selling them through online auctions or trading them through retailers or specialist re-sellers, all help to give goods a new lease of life.

It can be surprising that what one person thinks is rubbish, another person considers a treasure. This is particularly worth considering when moving house, or when you no longer need babies' and children's items.

Other items may be thrown away as they are no longer the latest model or, with clothing in particular, no longer fit or are unfashionable. However, the recent trends for 'vintage' clothes, jewellery and furniture have meant people are interested in keeping things for longer.

### Swapping This for That

Some local communities have developed their own swap schemes, where skills, as well as items from seeds to furniture, are offered to others.

Government is helping to develop new services to make it easier to work out how to pass on things that are no longer needed, for example, through a new web-based postcode locator for reuse organisations and businesses.

### Getting it repaired

Getting cars or even shoes repaired is a common practice, but there are many more things that can be repaired to prevent them from becoming rubbish. Many things can be repaired simply at home with advice on how to do it readily available through, for example, online advice sites. Some communities also provide training on these skills.

Government recognises, however, that it can sometimes be hard to find somewhere to repair some items. It can also be difficult to know whether the cost of repair is worth it, and how long you can expect the repair to last. There are many businesses that already investigate a fault for free, provide a guarantee on the repair or provide fixed price repairs which can help provide certainty of cost to customers.

<sup>65</sup> www.mpsonline.org.uk/mpsr/

<sup>&</sup>lt;sup>66</sup> www.gov.uk/government/uploads/system/uploads/attachment\_data/file/69332/direct-mail-responsibility-deal-pb13668.pdf

The Pedallers' Arms is a voluntary co-operative which provides a place where people can fix and maintain their own bicycles. Located in Leeds, it allows members of the public access to the advice, tools and workshop space necessary to repair their bicycle.

In return, users are asked to make a donation in accordance with what they can afford, or can purchase an annual membership to help meet the overheads of the project.

The Pedallers' Arms also make pre-owned bicycle parts available to keep environmental and financial costs to users low, whilst diverting useful resources from landfill.<sup>67</sup>

Government is helping to develop new services to make it easier to find repair services, for example, through a new web-based postcode locator. We are also working with the industry to develop more services and standards for repair and reuse, and to make components more readily available.

### **Buying second-hand**

Many people use online trading and auction sites, as well as local charity shops to purchase second-hand goods. This saves money and gives goods further useful life.

### **Consumer Rights**

When you buy goods or services the law gives you consumer rights. These protect you from being treated unfairly by a trader. Goods should be:

- Of satisfactory quality
- Fit for the purpose made known to the trader, and
- As described

You have the same rights when you buy second-hand goods as you do when you buy new. However, your expectations relating to satisfactory quality ought to be realistic when buying second-hand goods.<sup>68</sup>

To encourage consumer confidence in used goods, government has funded WRAP to develop a Reuse Standard, which will help show that products on offer have been subjected to a quality assured process. Government is also working with the industry to provide greater assurance to customers that used electrical products are electrically safe to use, and functionally fit for purpose.

### Buying better or hiring

Considering the full costs of a product over the whole of its life rather than just the upfront costs, and choosing products which work efficiently, can be reused or which will last longer, can save money over time.

Reducing the use of disposable products can help minimise the amount of waste that

gets thrown away. Using single-use products may seem cheaper but buying durable, reusable items can save money in the long term. Disposable everyday items which can be replaced with longer-life equivalents include rechargeable batteries, water bottles and takeaway coffee cups, and there is a growing market in products made with recycled materials.

The type of product used, and how it is used, can also save money and waste. For example, some fonts use 50% more ink to print than others, and there will be less packaging waste by using a coffee machine that uses large bags of coffee rather than individual cup sized packages.

<sup>67</sup> www.pedallers-arms.org

<sup>68</sup> www.adviceguide.org.uk/consumer\_e

Choosing products with longer lifetimes or that are easier to repair can also save money and reduce the number of times an item has to be replaced, whether that is a washing machine or a T-shirt. A product which comes with a longer guarantee can give an indication of how long it is expected to last.

For things which are only used occasionally it can be cheaper or more convenient to hire or borrow the item rather than buying new. Often better quality products are offered for hire, which can mean they are more affordable. For some products, this has become the norm, for example, carpet cleaners, tools, wedding suits and cars are all readily available for hire; books and DIY tools are often borrowed from family and friends. There are more examples which are being trialled by manufacturers and retailers. Government is working with industry representatives to design products so that they will last for longer, and to make more hire and lease-based services available.

#### Spread the word

Consumer power can be a very powerful tool. Asking for information about how long products last, buying products which come with a longer guarantee period or asking where they can be repaired can create a strong message for manufacturers and retailers on what their customers want. Joining forces with other consumers could have a real impact on how products are designed, made and sold.

Everyone has a role to play, including by influencing others, whether by taking good practice from home to work or sharing ideas with family and friends.

### A Shared Idea

www.phonebloks.com is a concept for a new phone which can be easily repaired and upgraded. To date, almost one million people have expressed an interest in owning such a product and the concept has attracted the interest of Motorola who will be working with phonebloks to take it forward.



## Annex A – The Requirements of the revised Waste Framework Directive

The development of a Waste Prevention Programme is a requirement of the revised Waste Framework Directive (2008/98/ EC) and takes forward a commitment in the Government Review of Waste Policy in England 2011.

The revised Waste Framework Directive requires Member States to establish waste prevention programmes not later than 12 December 2013. The programme is required to:

- Set out the waste prevention objectives. The aim of objectives and measures is to break the link between economic growth and the environmental impacts associated with the generation of waste.
- Describe existing waste prevention measures and evaluate the usefulness of example of the measures in Annex IV of the Directive or other appropriate measures. These documents are available at www.gov.uk/government/publications.

• Determine appropriate specific qualitative or quantitative benchmarks for waste prevention measures adopted in order to monitor and assess the progress of the measures and it may determine specific qualitative or quantitative targets and indicators.

The Waste Prevention Programme must be reviewed every six years.

## Annex B – Scope and definitions

The revised Waste Framework Directive defines waste prevention as measures taken before a substance, material or product has become waste, that reduce:

- (a) the quantity of waste, including through the reuse of products or the extension of the life span of products
- (b) the adverse impacts of the generated waste on the environment and human health, or
- (c) the content of harmful substances in materials and products.

In addition, 'preparing for reuse' is defined as checking, cleaning or repairing recovery operations, by which products or components of products *that have become waste* are prepared so that they can be reused without any other pre-processing.

In practice, these definitions encompass a wide range of actions. The following terms are used within this document to refer to these varied actions:

*avoidance* – reducing process waste, the reintroduction of unprocessed material into manufacturing processes, buying fewer items

*reduction* – designing products so they last longer and are used for longer (including upgradability and repairability and ease of disassembly), using less materials per unit and reducing the use of hazardous substances in materials and products, increasing the utilisation of products, e.g. through hiring, leasing and maintenance services

*reuse* – buying and selling *whole* used items, possibly after washing or minor repair (other terms used, particularly in the construction sector, include reclaimed)

*remanufacturing* – restoring a product to a *like-new* condition by reusing, reconditioning and replacing parts (other terms used include refurbishment)

*repair* – repair and/or replacement of a component part in a used item.

For the purposes of the Waste Prevention Programme for England, we are including activities which fall under both 'waste prevention' and 'preparation for reuse' as, in practice, these actions can result from similar behaviours.

Waste prevention does not include waste management activities such as recycling. Defra does not consider home composting to be a strict waste prevention measure as the waste is still produced even though it reduces the amount of waste that needs to be collected, but we recognise that many local authorities will wish to promote this action within their local areas.