UK Government Response to Commission Consultation on the Review of European Waste Management Targets

Summary

1. The UK Government would like to thank the Commission for initiating the consultation on the review of European Waste Management Targets. Seeking evidence and ideas from a wide range of stakeholders is a valuable approach. We would like to encourage the Commission to take an equally open and inclusive approach to the remainder of the review of EU waste policy and legislation. The UK would value further opportunities to input.

2. European waste legislation and targets have made a huge difference to domestic waste regulation across the EU - the Landfill Directive and the Packaging and Packaging Waste Directive drove wider recycling in the UK. However, we are aware that in poor economic times, a number of Member States are not currently on course to meet the 2020 targets. **The European Commission should find ways to help Member States implement existing targets before setting new targets.**

3. The UK Government would support the Commission in focussing effort on assisting Member States to extract the value from waste materials, with a view towards developing a circular economy. **The European Commission should determine the barriers in existing legislation to reuse, recycling and recognising the value from waste products.** For example, focussing on recyclate quality throughout the supply chain will help maximise the environmental and economic benefits of reprocessing raw materials.

4. **The UK Government would support a clear direction of travel to reduce waste and improve resource efficiency** across the EU to provide waste management authorities and business with a stable legislative framework, but considers there to be insufficient evidence to support associated EU-wide targets at this time.

5. **The UK Government recommends that the European Commission should focus on determining the environmental and economic outcomes of a range of options**. For example:

    a. Reducing regulatory burdens for businesses.

    b. Ways of improving data comparability across Member States.

    c. Allowing flexibility for local solutions (such as Waste Management Plans, Waste Prevention Programmes) within an EU framework.

    d. Alternatives to targets or heavy regulatory approaches through sharing examples of best practise and guidance and support on meeting a direction of travel (e.g. on the waste hierarchy). Sound life-cycle thinking and economic evidence can demonstrate where the largest environmental outcomes can be gained through cost effective action and where the market currently fails. Robust impact assessments of costs to business and consumers are

vital before proposals can be considered and evidence is required on evaluation to demonstrate what actually works.

e. Evidence base required for measures based upon environmental impact.

f. The benefits to be gained from EU-level action on eco-innovation. How this can deliver incentives to improve the efficiency of the supply chain, moving towards a circular economy through eco-innovation, specifically to achieve waste prevention and better recycling performance through improvements to product design.

6. The UK Government would NOT support the following as they would be unlikely to improve the current system and could result in perverse or unintended outcomes:

   a. Changing the targets or definitions for 2020 set out in the Waste Framework Directive.

   b. New environmental targets - the EU environmental policy framework is largely complete and new environmental targets, including targets on waste prevention and reuse, are unlikely to be needed unless new evidence becomes available that the benefits of new targets would outweigh the costs. Any new environmental targets would require clear and robust justification supported by full impact assessments, including evidence that they would not adversely impact economic growth and that voluntary action would not deliver the required outcomes. This evidence base is not currently in place. Development of new indicators should be the focus ahead of any proposals for new targets, so that these would be demonstrably economically-efficient, cost-effective, realistic and achievable.

   c. Extending landfill bans or restrictions for specific materials at an EU-level, unless there is a clear economic and environmental case to do so.

7. The UK Government's responses to specific areas identified in the Consultation are given in the attached annex. This includes specific examples from across the UK's devolved administrations, Wales, Scotland and Northern Ireland. There are differing approaches to strategies for managing waste across the UK, as this is an issue managed at the level of the individual countries. The current EU structure allows flexibility for each administration to set their own targets, based on the best outcome for their regions and the needs of their electorate. At lower regional levels, some English local authorities have introduced their own targets to limit landfill and increase recycling.

8. The UK's devolved administrations have been consulted in developing this position paper, although this should be considered a UK Government, not UK, response.

Contents

Annex A: UK Government Response to Consultation on the Review of European Waste Management Targets

A.1 Waste Framework Directive	
The consultation explores: *1. establishing a single target and calculation method for municipal waste;* *2. extending targets to include additional waste streams (for example, wood, food, textiles);* *3. establishing a single target and calculation method for household waste;* *4. including biowaste in the recycling target;* *5. Setting targets which reflect environmental impact; (see section*	**The UK Government would not support changing EU-level targets for 2020** set out in the Waste Framework Directive, at this time. **Waste Management policy and delivery requires stability and a long term direction of travel.** Infrastructure associated with new waste management systems requires a significant lead-in time. Too frequent changes to EU level goals increase instability for the waste management sector, leading to uncertainty for investment opportunities. As a consequence the sector could suffer from a lack of financial investment due to the level of risk. There is also the risk of disengaging consumers and businesses from pro-environmental behaviour. Changing key definitions, such as household or municipal waste, or extending targets to additional waste streams prior to 2020 would effectively change the Waste Framework Directive targets. **Greater clarity would be required on the costs and benefits of amending targets beyond 2020.** Existing legislation has only recently been transposed. Member States are still in the process of implementing revised Waste Framework Directive requirements; and waste collection and disposal systems are adapting, with EU provisions on separate collection yet to fully come into force. Amending targets in 2014 would be too early to robustly evaluate the impact from these recent changes, and for the markets to adapt. Local Authority waste management plans would need to be revised and resources deployed to manage such a change. Therefore, targets and definitions should be left alone for 2020 and any targets or definitions beyond 2020 should be made as early as is reasonable to provide local authorities and business with a stable legislative framework. Target definitions should be broad enough to encompass different collection methods across Member States. Beyond 2020, the UK Government would not be averse, in principle, to recycling targets which used a definition of household waste. Whichever options are selected, sufficient evaluation of existing systems is essential to develop **a strong case for the net economic and environmental benefits of any future targets**. This would require a wide-range of evidence covering environmental trade-offs, practicalities, costs and benefits. Although the available data on actual recycling rates for household

A.7) 6. *Improving monitoring and validation of reporting;* 7. *Introducing requirements on businesses to sort waste materials;* 8. *C&D 70% recycling (+recovery+reuse target) should not include backfilling;* 9. *Providing clear definitions of recycling and recovery and how these should be calculated;* 10. *Mandating C&D waste sorting on site;* 11. *Achieve high level of recycling of C&D*	waste is thorough, we do not *currently* have sufficient evidence to robustly estimate future recycling rates for the whole of the UK – and hence set realistic targets - beyond 2020. A number of Member States are not on course to meet existing targets. The European Environment Agency concluded that 16 Member States would have to make 'extraordinary' efforts to meet the 50% municipal waste recycling target[1]. The UK Government feels that setting more stringent targets now would not stimulate change for many of these. In addition, research in the UK has shown that household recycling behaviours and recycling rates can be improved by increasing ease of use to the individual, in particular alongside education and awareness campaigns. **Are there better ways to achieve the Commission's goals?** **The UK Government supports a clear direction of travel without an associated target**. The waste hierarchy gives the highest priority to preventing waste followed by preparing for reuse, recycling and other recovery with disposal as the least favourable option. Those who deal with waste must legally (through Article 12 of the Waste (England and Wales) Regulations 2011 and in Northern Ireland regulation 17 of the Waste Regulations (Northern Ireland) 2011) take all reasonable measures to apply the waste hierarchy when they transfer waste. The UK Government therefore views the appropriate focus to be increasing the opportunity and infrastructure for waste prevention, reuse and recycling to pull the waste up the hierarchy. Waste hierarchy guidance aligned with the revised Waste Framework Directive further supports the regulations and guides operators as to the most environmentally beneficial management option for waste (within boundaries of technical, environmental and economic practicability). This guidance is based upon robust lifecycle analysis data and is kept under review as new research becomes available. The UK Government is concerned that without considering the most appropriate solutions for materials and products at end of life, higher EU-wide recycling targets implemented in isolation may have **potential for perverse or unintended outcomes:** the evidence of their impact on drives to increase reuse and prevention is not clear. The risks of waste being managed further down the hierarchy, or recyclates being of poor quality, are of concern. This risk is likely if indicators are poorly designed without considering the external consequences. Higher targets could risk driving products and materials towards inappropriate waste management solutions, without the best environmental outcomes. Re-use, re-manufacture and eco-

[1] http://www.eea.europa.eu/publications/managing-municipal-solid-waste

wastes.	design may be the most environmentally-beneficial approaches depending on the specific product or material. Suggestions throughout this consultation need to be better aligned with ambitions outlined in the Commission's Eco-innovation Action Plan. The UK has put in place a number of effective non-regulatory initiatives, and we would encourage the Commission to consider **proposals which allow flexibility for Member States** to promote recycling, prevention and reuse as is economically and environmentally beneficial in local circumstances, where basic technological, economic and physical limitations can sometimes dictate different approaches within and across Member States. One example of this is that extending the existing recycling targets to *optionally* include other specific waste materials (such as wood, food, textiles, etc), could work well if this decision was made at a local, rather than at EU, level. At local levels, decision-makers understand their customers' and taxpayers' circumstances and needs. **In Wales:** the Welsh Government has recently introduced a voluntary 70% recycling target for Commercial and Industrial wastes and a mandatory 70% recycling target for municipal wastes in Wales for 2025, based on estimates of recycling for different types of municipality in Wales. For example, the municipal waste 70% rate is based upon such mechanisms as recycling of litter and street sweepings, and increase capture rates for recyclable materials. The Welsh Government, having examined the evidence concluded that the 80% rate was probably out of reach, but that 70% was more feasible for Wales. **In Scotland:** As part of its Zero Waste Plan, the Scottish Government has introduced a long term non-statutory target of 70% recycling for **all** waste arising in Scotland by 2025, regardless of its source, based on improved data and supported by sector-specific programmes of work. Annex A[2] of the plan sets out the range of targets which will be used to measure progress towards delivery of the plan. **In Northern Ireland:** The Department of the Environment is currently consulting on policy proposals for a Recycling Bill that will contain powers to introduce a statutory recycling target for local authority collected municipal waste (LACMW). Following the introduction of said powers it is planned to bring into operation subordinate legislation that will introduce a statutory

[2] http://www.scotland.gov.uk/Publications/2010/06/08092645/6

	target of 60% for Local Authority Collected Municipal Waste to be achieved by 2020. **<u>Improving data consistency across Member States</u>** The UK would support developing robust and well-validated datasets, but favours making cost-effective use of existing systems which will provide high quality, well-validated, data. The UK has a comprehensive system for monitoring municipal and household waste arisings and waste sent for recycling, with 100% compliance by waste collection and disposal authorities. However, there remains a risk of an uneven playing field due to lower-quality monitoring systems in other Member States and these inconsistencies should be addressed. **Would interpretation between monitoring systems suffice to achieve this goal?** **Clarifying the definitions of recycling and recovery is a good idea in principle beyond 2020, and could improve consistency across Member States**, in particular clarity around the following terms would be helpful: **- Recyclability:** A consistent definition of the recyclability of wastes would be beneficial as part of common waste hierarchy guidance. This should include **practical and economic limitations** underpinned by robust life-cycle evidence, and be open to considering when **landfill is the most practicable and environmentally-beneficial option**. **- Recycling:** Existing recycling targets were agreed on the basis of a definition which included a mixture of closed and open loop recycling. We would want to continue to attribute glass recycling into aggregate towards the Packaging and Packaging Waste Directive and the Waste Framework Directive recycling targets. Clarity on what should be included within the recycling targets would be helpful; alongside greater clarity on when a material qualifies as 'recycled' - specifically biowaste - would be of benefit to all Member States. We are aware that there are different interpretations across the EU and there are also particular concerns among small companies and community groups that the costs of demonstrating recycling may be disproportionate. **- Recovery:** Inert C&D wastes of low economic value should only be considered as recovery when used in backfilling operations where backfilling is a genuine recovery operation meeting the substitution principle (as like for like replacements for their virgin counterparts). We need continued landfilling of inert residual waste to restore land used for mineral workings.

	Construction and Demolition (C&D) waste: Recovery and recycling of C&D waste is economically advantageous to the industry. Markets, rather than EU targets, are more of an incentive to operators. The practical and technological ease of proposals for increasing reporting of recycling, recovery and re-use of C&D waste in Member States are unclear. Approaches that Member States take in reporting against the C&D target (for recycling, recovery and reuse) are not clear, as is the current performance of Member States. Data to understand the full impacts of these suggestions and their potential burden on the industry are lacking, so it is premature to change requirements on sorting and calculating C&D recovery, recycling and reuse before these become clear. The UK would support retaining backfilling in the current target. In the UK, inert C&D wastes of low economic value should only be considered as a genuine recovery operation when used in backfilling where it meets the substitution principle (as like for like replacements for their virgin counterparts) and is not stones and/or soil from excavation. Continued landfilling of inert residual waste is needed to restore land used for mineral workings. **Use of minimum technical standards (Article 27)** Consideration of the use of minimum technical standards for permitted operations as provided under Article 27 may also have the effect of increasing the quality and value of recyclate, thus providing confidence to invest in new technology. Currently Permitted operations that are not subject to Best Available techniques only seek to prevent harm or pollution. They do not encourage the use of best technologies or regulate the standards of treated material, and could be reassessed.
A.2 Landfill Directive	
The consultation paper suggests: *1. Revising targets not to penalise fast growing economies starting from a lower base;*	**Restricting biodegradable materials to landfill (or tightening targets)** The UK agrees that there is a need to reduce the amount of biodegradable waste sent to landfill. However landfill bans or restrictions come with practical constraints and are not the only way to achieve this goal. Before introducing proposals to restrict any materials, certainty is required that this is the best-value way of moving material up the waste hierarchy and that the costs to businesses and the public sector are not prohibitive. **On Food Waste**: The UK Government prefers a focus on food waste prevention rather than the introduction of a specific EU-

2. *Establishing a legal obligation for reporting on municipal waste and enforcing a common definition;* 3. *Standardising performance measurement;* 4. *Set more recent baseline years in MS's where 1995 does not exist;* 5. *Clarify when treated waste is no longer biodegradable;* 6. *Tighten existing targets to move to 0 BMW to landfill;* 7. *Include all biodegradable waste*	wide landfill-ban or restriction. The UK has worked very successfully with industry to reduce supply chain food and packaging waste by nearly 10% over the last 3 years, while household food waste is down by even more - 13% since 2006[3]. UK experience shows that a voluntary approach is effective[4], and for businesses it has allowed them to reduce waste and become more efficient and competitive. As well as the continuation of the Courtauld agreement to reduce food and packaging waste in the retail and manufacturing sector, the UK has recently launched a further voluntary agreement which takes the same approach with the hospitality and food service sector[5]. The UK is making progress in the collection and recycling of food waste, which is used to generate electricity, using Anaerobic Digestion. Local Authorities in the UK collected and recycled approximately 250,000 tonnes of separately collected food waste from households in 2011, a 54% increase on 2010. This is expected to be nearer 300,000 tonnes in 2013, which could provide the equivalent of enough electricity for 30,000 homes. **In Scotland**: The Scottish Government has introduced Regulations which require that separate food waste collection services must be provided to both households and businesses from 1 January 2014. The legislation also introduces a ban on **all** biodegradeable waste going to landfill from 1 January 2021. **In Northern Ireland**: A consultation is expected to be issued before the end of August 2013 on legislative proposals to introduce restrictions on the landfilling of food waste. **Restricting other materials to landfill** A report by Eunomia in 2010 for the UK's Waste and Resources Action Programme (WRAP) on the feasibility of landfill bans concluded that a landfill ban on plastics and food waste would result in net costs to society rather than benefits. The report noted that the additional financial costs of collection and reprocessing appeared to exceed the associated environmental benefits. It is likely that introducing either a ban on landfill or diversion targets would result in additional costs to businesses.

[3] http://www.wrap.org.uk/sites/files/wrap/New%20estimates%20for%20household%20food%20and%20drink%20waste%20in%20the%20UK%20FINAL%20v2%20%28updated%207thAugust2012%29.pdf

[4] http://www.wrap.org.uk/node/9297/

[5] http://www.wrap.org.uk/content/hospitality-and-food-service-wraps-work-0

in the targets (not just BMW); 8. *Introduce targets which progressively reduce "residual waste";* 9. *Define pre-treatment for landfill unambiguously.*	The UK Government would be unable to support an EU-wide ban on plastics and food entering landfill unless it was shown clearly that the marginal social benefits of such a measure would exceed the marginal social costs. Responses to a call for evidence carried out in 2012, suggested that there may be less wood waste going to landfill in England than initially thought[6].. The call also supported our analysis suggesting that wood waste to landfill has been falling since 2009 and will continue to decline further in the coming years without intervention. The time is therefore not right to introduce a restriction on wood waste to landfill as, in addition to the evidence of falling rates, a restriction would also result in additional costs to businesses. The Department of Environment, Food and Rural Affairs is continuing to monitor the situation in order to respond to any possible future increases of wood waste sent to landfill. Before bringing forward any proposals on restricting any materials to landfill, the UK Government would need to be content that restrictions are the best-value way of moving material up the waste hierarchy and that the costs to businesses and the public sector are affordable. Moreover, a ban on plastics (or other materials) entering landfill would be insufficient to drive recycling on its own. Other measures would need to be developed to prevent plastics (or other materials) from simply being diverted to energy from waste where it would be more appropriate for them to be treated further up the hierarchy. Careful consideration would also be needed of how bans or diversion targets would be implemented and regulated to ensure effectiveness. Technology and end markets are changing all the time for recycling and recycled products, making new outcomes possible – for example there is currently no end market for some types of plastic polymer. Without alternative collection and treatment infrastructure to recycle plastics, a ban may have unintended consequences. There is a risk that deliberate mis-description of waste or illegal export would increase. Accordingly, alternative infrastructure would need to be in place to manage wastes and any ban would need to be supported by other mechanisms to avoid detrimental use of the material with consideration of full life cycle effects. Banning plastics from landfill comes with logistical difficulties because they are an integral component of numerous products (cars, WEEE, toys, packaging, etc).

[6] https://www.gov.uk/government/consultations/wood-waste-landfill-restrictions-in-england-call-for-evidence

	Risk of perverse or unintended outcomes Although a good ambition, **progressively reducing residual waste does not necessarily make a good target to deliver improved environmental outcomes**. Although waste may be driven up the hierarchy, there is a risk that this drive may be uneven. For example, if targets were weight-based, lighter wastes like plastics may not be processed to attain optimal environmental benefit. The mix of remaining residual waste could be unsuited to energy generation and would paradoxically be pushed down the hierarchy to landfill. The UK Government would not support targets based on residual waste, because of the potential variability of what constitutes residual waste. Sending plastics to landfill generally delivers better environmental outcomes than incinerating it at low efficiency: in landfill, plastics are incredibly slow to decompose so the production of methane is lower than for other types of material. However, incinerating waste plastics to create energy usually results in the release of significantly more fossil carbon into the atmosphere than would be the case if the plastics remained in landfill. This does not mean that there is no place for energy recovery, but recycling is preferable, so incineration with energy recovery should only be pursued after the other steps in the hierarchy have been exhausted. In order not to be environmentally harmful, most plastics would need to by-pass the energy recovery stage of the waste hierarchy if they were removed from landfill. Defra is undertaking some research into the relative environmental costs and benefits of recycling and incinerating plastics, which we have promised to share with the Commission when it is published later this year. **In Scotland:** the Scottish Government has introduced legislation banning the landfilling (and incineration) of all separately collected recyclable waste from 1 January 2014. **In Wales**: the Welsh Government has introduced targets to limit the landfilling of waste to (pre-treated) residues only and to no more than 5% of waste arisings by 2025. Wales are considering landfill restrictions on biodegradable, combustible and recyclable wastes. At lower regional levels, some English local authorities have introduced their own targets to limit landfill and increase recycling.

	Defining pre-treatment The definition of treatment for the purposes of Article 6 of the Landfill Directive allows for minimal sorting of wastes destined for landfill to satisfy the requirement to treat. A clearer and more consistently applied definition of treatment perhaps coupled with minimum technical standards of permitted operations would be likely to bring about further reduction in landfilling of biodegradable and recyclable waste in a cost beneficial way.
A.3 Packaging and Packaging Waste Directive	
The consultation paper suggests: 1. *Standardising the methodology for calculating recycling rates;* 2. *Making targets consistent with the Waste Framework Directive;* 3. *Bringing recycling rates for different materials closer together;* 4. *Consider environmental benefits*	The UK Government believes that a greater focus on recyclate quality throughout the supply chain will help ensure that extracting recyclables from waste promotes high quality recycling, maximising the environmental and economic benefits of reprocessing raw materials. Efforts should be focussed on building the conditions for encouraging competitiveness and growth by providing a framework in which that can work. This includes the benefits of the single market for packaging enabled by the Packaging and Packaging Waste Directive. The Packaging and Packaging Waste Directive's single market goals have been an effective tool for the single market in packaging, packaging prevention, and in managing waste packaging, through the setting of targets, sharing of best practice and the development of European standards. Many aspects of the Directive only function with this legal base and this mechanism is fundamental to technological innovation in packaging across Europe. This allows: • businesses to manufacture and sell products across the EU, improving competitiveness and increasing commercial growth; • the development of packaging technology to spread across the whole EU market without the need for Member State specific changes to meet local legislative requirements; • uniform protection for EU citizens, the recycling and reuse industry and the environment - due to the restriction of hazardous substances in packaging; • recycling to take place across EU borders with compliant packaging being the same in all member states.

within the targets; 5. *Sub-dividing materials targets;* 6. *Setting household packaging targets;* 7. *Removing the 80% recycling maximum;* 8. *Introducing a prevention target;* 9. *Making definitions of reuse and prevention consistent with the Waste Framework Directive;* 10. *Including reuse in the recycling target;* 11. *Introducing targets for commercial transit packaging;* 12. *Introducing reuse*	Recycling achievements in a number of Member States have been realised since the directive was initially developed. The packaging recycling market has a great deal of complexity and simple measures, such as standardising recycling targets across packaging materials, will not take this into account. There is merit in examining the effectiveness of the Directive as a whole, its achievements and barriers to success - as the Commission is doing through the ex-post evaluation. Specific measures (including altered or new targets) should be for Member States to determine. **Rather than introducing new targets, the UK Government would prefer that Commission proposals continue to allow flexibility** for Member States to **promote recycling, prevention and reuse using local mechanisms** which are economically and environmentally suited to their circumstances. Provisions within the Packaging & Packaging Waste Directive already allow for Member State-specific targets to be set as the environmental and economic case is built – including sub-divided targets. **There may be some areas where more challenging targets could be considered at Member State level, given a clear economic and environmental case for doing so**. For example the UK has recently introduced challenging evidence-based recycling targets for plastics packaging, which will almost double current recycling rates over the period 2013-17 to 42%. The UK has also adopted a higher target for metal, and a split target for glass recycling so that more goes to re-melt rather than non-re-melt applications such as aggregate. It should be for Member States to determine the most effective interventions to suit their circumstances. The UK is also developing other measures to reduce and re-use plastics. Voluntary agreements with the major retailers in the UK resulted in a reduction of 40% of carrier bags distributed between 2006 and 2010 and some countries in the UK have taken steps to charge for single use carrier bags. Wales and Northern Ireland have introduced a charge for single-use plastic carrier bags, which they believe will encourage prevention and re-use, and Scotland are about to do so. It would be better to focus on the product and innovation in product design to minimise the need for packaging, than on **packaging prevention targets**[7]. This report also stated that "a flexible approach to preventing packaging waste should be taken at the European level that encourages Member States to take action while leaving them the choice of the most

[7] REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT (6.12.2006) ON THE IMPLEMENTATION OF DIRECTIVE 94/62/EC ON PACKAGING AND PACKAGING WASTE AND ITS IMPACT ON THE ENVIRONMENT, AS WELL AS ON THE FUNCTIONING OF THE INTERNAL MARKET http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0767:FIN:EN:PDF

targets 13. *Estimate achievable rates of recycling*	appropriate instruments and measures". **The 80% upper limit of recycling packaging was introduced to avoid overloading the recycling market**. Higher recycling targets have the potential to give rise to distortions and imbalances in the market for secondary raw materials. Since 2004, Member States have been allowed to exceed the maximum levels, in cases where the Commission and the other Member States were satisfied that this would not create distortions or hinder their own achievement of the targets. The UK would recommend that analysis on the current state of the market is undertaken prior to consideration of new proposals. **The UK Government does not have sufficiently robust modelling evidence in place to estimate packaging recycling rates** beyond 2017. **In Wales** –The Welsh Government have identified a number of different measures in their Collections, Infrastructure and Markets sector plan for promoting a recycling sector which maximises the potential of waste materials. The Plan highlights a need to increase the reprocessing capacity for plastics film and non bottle high density plastics. The overarching strategy, 'Towards Zero Waste' states that closed loop systems should be used where possible for recycling waste. The strategy calls for effective collections to be implemented to reduce the contamination levels allowing value to be retained. **In Scotland:** the Scottish Government has put in place legislation which will require the separate collection of plastics (and other) recyclables from homes and businesses, with a ban on landfilling of those separately collected materials. The legislation will also ban the incineration of dense plastics. The Scottish Government expects that these regulatory measures will improve the recycling rates of plastics.
A.4 Roadmap for a Resource Efficient Europe: Waste Prevention and Reuse	
The consultation paper asks whether there should be targets for waste prevention and preparation for reuse; and	The UK Government has undertaken several projects looking at measures to prevent waste and is of the view that **the most effective interventions should focus on design** for the in-use phase of materials as well as end of life. One of the best ways to reduce waste is to extend product life, depending on function and likely consumer behaviour. There is a role for public procurement to push the market towards producing repairable/upgradeable products as well as supporting those manufacturers with take back schemes.

makes proposals	The UK has published two sets of research on longer product lifetimes – one looking at the environmental impacts and another at consumer attitudes and behaviours. The UK Government believes that product design policy should take a holistic, lifecycle-science based approach which looks at the full range of environmental issues that each product encounters. Focusing on just a single material (or other single issue) risks causing unintended negative consequences. **Lack of a comprehensive evidence base for targets** The suggestions for prevention and reuse targets in the consultation paper do not appear to be supported by evidence on ensuring good environmental or economic outcomes. Any new environmental targets would require clear and robust justification, including evidence that they would not adversely impact economic growth and that voluntary action would not deliver the required outcomes. This evidence base is not currently in place. **Development of robust indicators should be the focus** ahead of any proposals for new targets, so that consequent targets would be demonstrably economically-efficient, cost-effective, realistic and achievable. **Practical difficulties** Setting meaningful targets for prevention and reuse has inherent practical difficulties, particularly: • Meaningful measurement is difficult. • Targets based on waste generation do not distinguish the impacts of waste prevention activities from economic decline – measurement against the target would need to allow for the economic trajectory. • Monitoring waste generated by businesses, such as commercial packaging, has less practical difficulties but could impose undue reporting burdens. • There are challenges of data quality for setting targets by sector. • Targets for specific materials or products could be seen as a trade barrier or could encourage a switch to alternatives. Robust evidence on whole lifecycle impacts (compared to all alternatives and end uses) would be required and would

need to allow for developments and innovation.

These issues may be exacerbated if these were set at an EU-level across a diverse set of Member States with very different attitudes, behaviours and economic conditions; and need to be better understood before robust and meaningful indicators can be developed. Furthermore, the waste prevention plans drawn up under the requirements of the rWFD should be given time to make an impact before further measures are considered in this area.

High risk of perverse or unintended outcomes

It is difficult to set reuse or prevention targets which are effective and meaningful with a low risk of transferring poor environmental behaviours elsewhere. There are significant risks of perverse or unintended outcomes associated with adopting poorly considered targets or indicators:

- Targets based on waste generation ignore the potential transfer of environmental burdens (e.g. waste prevention is achieved by moving production to other countries with less rigorous environmental legislation, with the result that local economy declines and global pollution increases).
- Targets based on number of waste prevention and/or reuse schemes in place do not take into account the costs, benefits or effectiveness of a scheme and risk disengaging consumers and businesses.
- Targets based upon weight do not reflect environmental impacts.
- Effort moves towards meeting particular waste prevention targets and causes other areas to be ignored, stifling innovation.
- The externalities associated with waste prevention measures need to be better understood before robust and meaningful indicators can be developed, ahead of targets.

There are more proportionate and effective measures to achieve prevention and reuse goals

Waste Prevention Programmes set at a country level are more likely to develop indicators of progress which are applicable

	and relevant to local cultural and economic circumstances. **In Scotland: t**he Scottish Government has consulted on a 5% waste prevention target by 2015 based on a 2011 baseline. The proposed targets would be weight based and apply to all wastes. The Scottish Government intends to issue its final Safeguarding Scotland's Resources Strategy soon – meeting WFD requirements for a waste prevention programme. Reuse targets are already encompassed in Scotland's recycling targets. The same consultation sought views on the practicality and value of establishing separate reuse targets. **In Wales:** the Welsh Government has set targets for waste prevention and reuse. Their Waste Prevention Programme identifies what they can do to help meet these targets, but feel that much needs to also be done at a UK and EU level to ensure that the targets are met.
A.5 Roadmap for a Resource Efficient Europe: Recycling Rates	
The consultation asks for estimates for the highest recycling rates for all waste streams.	The evidence base is not currently in place to robustly estimate future recycling rates for the whole of the UK beyond 2020. Partly this is due to uncertainty over the long-term effects of waste prevention measures with the introduction of waste prevention plans in Member States this year, as well as uncertainty over the future composition of waste and changing attitudes of the public towards reuse and recycling. **In Wales:** the Welsh Government aims to achieve recycling rates for household waste (70%), commercial & industrial waste (70%) and C&D waste (90%). However these rates were based on an assumption that the composition of waste would remain the same, which the report acknowledges is unlikely. It remains to be seen how changes in composition might affect the rates of recycling achieved. Even higher rates may be possible.
A.6 Roadmap for a Resource Efficient Europe: Limiting incineration and Reducing Landfill	
The consultation asks whether incineration should be capped and	In general, **the UK Government is not in favour of limits to energy from waste generation or landfill,** but to promote the management of waste for the most beneficial environmental outcomes, based on robust lifecycle-thinking.

whether landfill should be limited.	The waste hierarchy gives the highest priority to preventing waste followed by preparing for reuse, recycling and other recovery with disposal as the least favourable option. Those who deal with waste must legally (through Article 12 of the Waste (England and Wales) Regulations 2011) take all reasonable measures to apply the waste hierarchy when they transfer waste. This means that only genuinely residual waste should enter incineration (which is used to produce energy) or landfill. We therefore see the appropriate focus to be on increasing the opportunity and infrastructure for waste prevention, reuse and recycling to pull the waste up the hierarchy rather than an arbitrary cap on residual waste treatment routes. Furthermore, a cap on energy from waste perversely risks driving waste down the hierarchy to landfill unless its value makes it economic to recycle. Although there is a strong economic case for recycling some plastics (e.g. bottle plastics), the recycling market would not necessarily drive the recycling of all plastics without complementary measures to incentivise recycling. **In Wales:** the Welsh Government has set limits for both landfill and the generation of energy from waste.
A.7 Targets based upon Environmental Impacts	
The Consultation paper explores setting recycling targets based upon environmental impacts	**The UK Government is supportive in principle of measures based on environmental impact**, as these should promote good environmental outcomes and reduce the risk of perverse outcomes. Measures based upon environmental impact **could increase flexibility for local decisions** on the management of waste – however a "one size" target will not fit all Member States. A strong, **comprehensive evidence base would be required to support practical targets based upon environmental impact**. The impacts included within indicators to support targets would need to go beyond impacts on carbon emissions; including lifecycle analysis of numerous processing systems, optimal transporting distances, cost-benefit, achievability, whether multiple targets are needed, exports, enforcement and a strong economic case. At this time, the strength of the evidence base that the Commission could deploy in developing targets or indicators is uncertain and remains a key risk to achievability of such targets, as well as well-designed indicators. There is not enough clarity to sign up to targets based upon environmental impacts across the board.

A.8 Targets as a tool in waste legislation: Going Beyond Targets	
The Consultation paper asks if the Commission should do more than just setting targets, including: 1. *Developing guidance on implementing PR schemes;* 2. *Developing guidance on implementing the waste hierarchy;* 3. *Developing mechanisms to ensure that a combination of economic and legal instruments are applied;* 4. *Develop minimum service standards for municipalities;* 5. *Improve consistency of definitions and ensure proper monitoring.*	**The UK Government would support a clear direction of travel without associated EU-wide targets, using other mechanisms to ensure that the environmental outcomes of waste management improve.** In this context, Member States should have the flexibility to promote recycling, prevention and reuse as is economically and environmentally beneficial to suit their own circumstances - especially as research has shown that policies which work in some areas can be ineffective in others. In principle, financial instruments and pricing mechanisms can be useful tools to influence behavioural change effectively. Any decisions relating to the imposition of charges, levies or taxes should remain primarily a matter for Member States and it is vital that Member States retain the flexibility to shape their own tax policy to suit their economic circumstances. Any new EU targets or regulation should only be introduced after strong supporting economic evidence that the marginal social benefits would exceed the marginal social costs. **Member State-led initiatives can provide good examples of best practice in waste management.** Light-touch, non-regulatory approaches have been shown to deliver good environmental outcomes in waste management. Below are examples of the ways in which such approaches have worked in the UK: **<u>Guidance</u>** Waste hierarchy guidance accompanying the Waste (England and Wales) Regulations 2011 – provides UK operators with guidance on the management of waste as high within the waste hierarchy as is technically, environmentally and economically practicable. This guidance is based upon robust lifecycle analysis data and is kept under review as new research become available. The Government is currently developing guidance to help local authorities assess their duties under the Waste Framework Directive to separately collect waste paper, glass, plastic and metal except where this is not necessary or not technically, environmentally and economically practicable. The guidance will build on the Commission's own guidance and our understanding of the practicalities of providing waste collection services within England and Wales.

	Voluntary Initiatives Voluntary agreements can be effective in achieving policy aims in certain circumstances. Some voluntary schemes in the UK, such as: the Courtauld Commitment; the Home Improvement Sector Commitment; the (WRAP) Halving Waste to Landfill commitment[8] for construction waste; and the milk roadmap have proven effective in reducing waste production. For example, to date, 2.3 million tonnes of waste has successfully been prevented by the Courtauld signatories and consumers during the first two phases of the Commitment, which ran from 2005-2010 and 2010 to 2012. The value of waste prevented is around £3.5bn. The UK has worked very successfully with industry to reduce supply chain food and packaging waste by nearly 10% over the last 3 years, while household food waste is down by even more - 13% since 2006[9]. The latest results from the Courtauld Commitment show that the voluntary approach is working[10], and for businesses it allows them to reduce waste and be more efficient and competitive. As well as the continuation of the Courtauld agreement to reduce food and packaging waste in the retail and manufacturing sector, the UK has launched a further voluntary agreement which takes the same approach with the hospitality and food service sector. **Reward and Recognition Schemes** The UK Government believes that it is better to reward householders for doing the right thing with their waste than to penalise them for doing the wrong thing. We are therefore encouraging councils to reward people who recycle or re-use their waste. We believe that reward and recognition can motivate people to take action, so the Government has funded 28 projects through a £1.5m Reward and Recognition scheme from 2011/12 to 2013/14. The programme has a strong evaluation element to it, to identify what works best to encourage recycling. Previous evaluations of reward schemes have shown that schemes set up to reward positive recycling behaviour, supported by appropriate service provision, to enable easy recycling for the user and targeted communications to be fully effective are

[8] http://www.wrap.org.uk/content/what-halving-waste-landfill

[9] http://www.wrap.org.uk/sites/files/wrap/New%20estimates%20for%20household%20food%20and%20drink%20waste%20in%20the%20UK%20FINAL%20v2%20%28updated%207thAugust2012%29.pdf

[10] http://www.wrap.org.uk/node/9297/

	effective in increasing recycling participation rates. This is especially true for those groups which currently have a low to medium level of recycling, and where the reward involved is guaranteed and attached to the individual recycler (as opposed to probabilistic or community rewards). Such schemes often also operate as education and communication campaigns about the benefits of recycling, another method identified as cost-effective and efficient in promoting recycling at all levels. Education, communication and rewarding good behaviour are seen by the public themselves as better motivators for increasing recycling than regulatory approaches. [Bell, et al 2013; Brook Lyndhurst, 2007] In addition, the Weekly Collection Support Scheme is funding 40 local authorities to introduce or extend recycling reward schemes. These range from smaller, neighbourhood-level projects to ambitious cross-district initiatives. All 40 will create engaged local communities with a common aim to contribute towards the environmental benefits being sought. **Incentivising the business sector to improve efficiency in the supply chains** In the UK, the Technology Strategy Board provide funding support[11] for eco-design feasibility studies into the re-design of products, components and systems to retain material within the economy over several cycles of use. They are also working with others to build new networks, bringing together parties within supply chains to understand design issues[12]. From a resource efficiency perspective, it would be sensible to align waste legislation with European initiatives on eco-design to incentivise re-design: to ensure that products generate less waste at end of life; are more durable; are easily recyclable and have a high recycled content.

[11] https://www.innovateuk.org/competition-display-page/-/asset_publisher/RqEt2AKmEBhi/content/resource-efficiency-new-designs-for-a-circular-economy

https://www.innovateuk.org/competition-display-page/-/asset_publisher/RqEt2AKmEBhi/content/design-challenges-for-a-circular-economy?p_p_auth=6ojIWfD1

[12] http://www.greatrecovery.org.uk/

Annex B: Evidence

Cited papers

Bell, S., McGeevor, K., Mocca, E. and Shaw, B., (2013) 'Synthesis Report: Review of evidence on the use of reward and recognition schemes in enhancing recycling and waste prevention behaviours (EV0528)' Policy Studies Institute. Defra, London.

Brook Lyndhurst (2011) 'Public Understanding of Product Lifetimes and Durability- Final Report (EV0520)' Defra, London

Downes, J., Thomas, B., Dunkerley, C. and Walker, H. (2011), 'Longer Product Lifetimes (EV0445)' Environmental Resource Management/Defra, London

European Environment Agency (2013) 'Managing municipal solid waste- a review of achievements in 32 European countries' Rosendahls-Schultz Grafisk, Copenhagen

Scottish Government (2010) 'Scotland's Zero Waste Plan' Scottish Government, Edinburgh

Technology Strategy Board (2012) 'Resource efficiency: New designs for circular economy' TSB, Swindon

- And associated competition accessible at https://www.innovateuk.org/competition-display-page/-/asset_publisher/RqEt2AKmEBhi/content/design-challenges-for-a-circular-economy?p_p_auth=6ojIWfD1

The Great Recovery (2013) 'Investigating the role of design in the circular economy' RSA, London

Waste Watch (2007) 'Establishing the behaviour change evidence base to inform community based waste prevention and recycling: Technical Report'. Brook Lyndhurst, London

Published Impact Assessments

Commission of the European Communities (2006) Report from the Commission to the Council and the European Parliament on the Implementation of Directive 94/62/EC on Packaging and Packaging Waste and its Impact on the Environment, as well as on the Functioning of the Internal Market' European Commission, Brussels

Department for Environment, Food and Rural Affairs (2013) 'Wood Waste Landfill Restrictions in England: Call for Evidence- Analysis' Defra, London

WRAP documents

Eunomia (2012) 'Landfill Bans: Feasibility Research' WRAP, Oxon

Waste & Resources Action Plan (2010) 'Evaluation of Courtauld Food Waste Target- Phase 1' WRAP, Oxon

Waste & Resources Action Plan (2011) 'The Construction Commitments: Halving Waste to Landfill- Signatory Report 2011' WRAP, Oxon

Waste & Resources Action Plan (2011) 'The Courtauld Commitment Phase 2: First Year Progress Report' WRAP, Oxon

Waste & Resources Action Plan (2012) 'The Hospitality and Food Service Agreement: Signatory Pack' WRAP, Oxon

Quested, T and Parry, A. (2011) 'New estimates for household food and drink waste in the UK' WRAP, Oxon