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| **Date:** | Wednesday 21st June 2017 |
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| **Type of meeting:** | Waste and Recycling Sounding Board |
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| **Purpose:** | The aim of the session is to discuss 4 big questions around waste and recycling. The feedback from this session will then go on to help us shape the direction of the discussion at the LGA’s EEHT board meeting on 19th July. |
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| **Attendees:** |  |
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| **Lead officer:** | Sonika Sidhu, Senior Policy Advisor, 0207 664 3076  [sonika.sidhu@local.gov.uk](mailto:sonika.sidhu@local.gov.uk) |
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**Objectives**

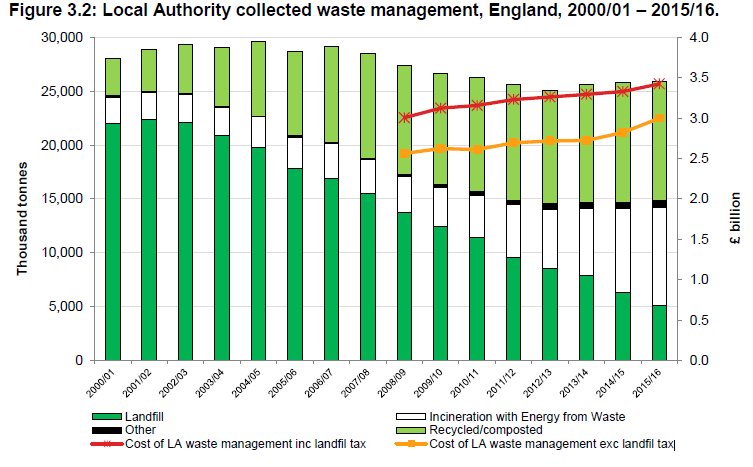
1. This will be the first meeting of the Waste and Recycling sounding board. The board will consist of senior council officers to provide feedback on key waste and recycling issues. We will use this first meeting to help us shape our thinking around Brexit and how we progress this portfolio area in the future.
2. The session will be held as a facilitated, whole group discussion with all feedback to be scribed. The session will begin with an introduction into the policy area and the position the LGA’s lobbying has taken over the last few years. Following this, the discussion will focus on 4 key areas:

* What do you see as the medium to long term risks for waste and recycling services?
* What is the post Brexit aspiration for this service area and what should be the balance between a national policy and local flexibility?
* Has recycling reached a natural plateaux, given our level of investment as a country or do you envisage recycling rates increasing and if so how? What incentives will be required to achieve this increase?
* Are there examples of models of service delivery, including partnerships, outsourcing etc. that might represent a future more efficient approach?

**Introduction**

1. Since 1997 councils in England have collected approximately 323 million tonnes of waste and recycled nearly 100 million tonnes; recycling rates have increased from 8.2 per cent in 1997/98 to 43.9 percent in 2015/16.[[1]](#footnote-1) These services are among the most recognised for council’s making them a key doorstep issue for households. Accordingly, English local authorities as key delivery agents for municipal waste collection, reuse, recycling and disposal services assign these services a high priority.
2. Compounding this success, the UK is firmly on course to exceed its EU landfill targets as a result of the extensive efforts of local authorities. This has seen a radical reduction in landfill per household by 78% since 2002/3; moreover more than 30% of waste is now sent to energy from waste facilities.
3. However, the annual rate of ‘waste from households’ recycling for 2015 was 43.9 per cent in 2015. This is a decrease of 0.9 percentage points, from 44.8 per cent in 2014. Recycling rates have largely plateaued over the last few years, with this the first time the waste from households recycling rate has been lower than 44 per cent since 2011. Figure one below clearly shows these trends of stagnated recycling rates coupled with rising costs, and increases in waste incineration for energy production.

**Figure one: Local Authority collected waste management, England, 2000/01 – 2015/16**



Source: Defra’s 2017 digest of waste and recycling statistics

1. Europe currently loses around 600 million tonnes of materials contained in waste each year, which could potentially be recycled or re-used. Only around 40% of the waste produced by EU households is recycled, with recycling rates as high as 80% in some areas, and lower than 5% in others. The European Commission’s most recent circular economy proposals suggest a number of challenging waste and recycling targets in the pipeline:

* A common EU target for recycling 65% of municipal waste by 2030
* A common EU target for recycling 75% of packaging waste by 2030
* A binding landfill target to reduce landfill to maximum of 10% of all waste by 2030

1. Clearly these are challenging targets, especially when considering the UK is struggling to meet the existing 50% 2020 recycling target. The EU has played a significant role in shaping the environmental legislation which impacts on councils at a local level. Post Brexit, the government will review EU-origin law through the Great Repeal Bill, and there will be an opportunity to shape future targets policy detail. However, this is a policy area where it is generally recognised that intervention from the EU has set a pace of achievement for the UK which has helped us keep up with European neighbours, so it is necessary to consider what elements of the EU framework should be kept as well as formulating new criteria.
2. With these challenges and opportunities in mind, the LGA is currently commissioning a paper on Waste and recycling in the context of recasting the legal framework of waste policy: what a post Brexit system might look like. While the work is at an early stage it will broadly follow these key messages:

* The principle of subsidiarity should apply. Councils want greater local flexibility in how waste is managed according to local choices and priorities.
* Councils seek reforms that will achieve changes in production and consumption patterns so as to consider waste as a potential resource and to promote the market in secondary materials.
* Councils will want to ensure that the ‘polluter pays’ principle remains in place post Brexit.

1. The LGA is working with local authorities to focus on actions and opportunities to help meet the existing recycling target. To help achieve this we have presented a range of proposals to the UK government which can be found across four previous publications - Wealth from Waste, Routes to Reuse, EU Circular Economy position paper, Meeting EU recycling targets.[[2]](#footnote-2) This paper gives a broad overview of some of the key issues in the waste policy discussion in order to stimulate debate.

**What do you see as the medium to long term risks for waste and recycling services?**

Regional recycling disparities

1. The national recycling rate hides significant variation in performance by different areas which shows a strong correlation between high levels of urban density and low recycling rates. For example the overall recycling rate in London is 34%, and 35% for the eight English Core Cities,[[3]](#footnote-3) both approximately ten percentage points below the national average. Without a more balanced performance level government will use this to strengthen their case for an imposed framework of consistency.

Employment

1. The waste sector as a whole employs more than 140,000 people. A more proficient circular economy would offer increased employment potential with estimates suggesting that it could help create more than 200,000 additional jobs in the UK by 2030.[[4]](#footnote-4) Of course, the reverse is true of a diminishing sector which could be catalysed by a lack of ambition in target setting and/ or a lack of investment.

EU target definitions

1. Currently many hundreds of thousands of tonnes of recycled material are not counted towards targets due to historic means of calculation. For example, a large proportion of street sweepings and other waste organic material collected by councils is recycled as part of land restoration projects. In addition, the ash by-product that forms at the bottom of residual waste incinerators is also routinely recycled to produce aggregate for the building industry but is not counted. If this material was appropriately verified and counted as recycling, as is the case in some other EU member states,[[5]](#footnote-5) it could contribute up to an additional 7 percentage points by 2020.[[6]](#footnote-6)
2. Across the EU, there are some substantial differences in the definition and measurement of waste flows. For example, France tends to treat outputs from a Mechanical Biological Treatment process as compost, even though this approach is prohibited in most other European states. Waste exports and backfilling are considered as recycling in some countries and not others. Germany reports a 0% landfill rate, despite the fact that significant amounts of incinerator residues are landfilled (since it deems that these are already counted as ‘energy recovery’). Some Member States define municipal waste as Local Authority collected household waste, whereas others include a much greater proportion of commercial waste.[[7]](#footnote-7) These ambiguities can distort incentives.

Plateauing recycling rates

1. Around 10 million tonnes of food and drink is wasted in the food chain annually. This is equivalent to around one quarter of the 41 million tonnes of food bought. Around 60% of this is avoidable. The total food waste had a value of over £17 billion in 2015 and is associated with around 20 million tonnes of greenhouse gas (GHG) emissions. This is a big issue for central government but with no new money on offer it is difficult to see how local authorities can impact this issue.
2. Local authorities and their contractors continue to carry out communications campaigns in their areas with targeted messages which have been successful to date in increasing resident recycling. However, one of the consequences of reduced local authority budgets has been a squeeze on the number of dedicated officers and resources for recycling communication activity. This is likely a key contributor to plateauing English recycling rates.

Spiralling costs

1. Achieving the targets on municipal waste and landfill will represent an enormous challenge for councils. The collection and disposal of waste and recycling is now the third highest cost service for English local authorities with budgets doubling since 2000 to £3.8 billion.[[8]](#footnote-8) Considering this alongside the plateauing of recycling rates means the UK is not yet on track to meet the EU’s 50% recycling target by 2020. To do so will require further changes and a significant increase in investment at a time of reducing or at best stagnant central and local government budgets.
2. Reflecting on what the top European performers do, it is not clear that adopting any one single action would quickly help us to improve our recycling rates. A very simplistic piece of analysis the LGA has done suggests that whatever action councils decide to take there will be a significant cost attached to achieving the level of progress required. To achieve a 1% increase in recycling rates could cost around £12m which would amount to around £240m to go from 45% to 65%.[[9]](#footnote-9)

Demand for recycled materials

1. Intervention designed to create a circular economy should balance supply with demand side measures to help create a self-sustaining market for secondary materials. The current EU Packaging Directive targets require the recycling of particular materials, but make no requirements for the use of recycled material in product manufacture. This gap means, as is currently seen across the EU, that secondary material re-processors have to compete in a volatile market that is often undermined by lower cost virgin materials.
2. UK plastics re-processors for example, have been experiencing severe difficulties as a result of the recent oil price slump which has made virgin plastic cheaper than the recycled product. This could lead to the closure of important UK plastic reprocessing facilities removing capacity and diminishing the business case for plastic collection. This is likely to increase overseas export running counter to the EU proximity principle.

Mismatch with UK context

1. There are also practical limitations on what can be realistically achieved. English local authorities have committed many hundreds of millions of pounds on waste treatment infrastructure to radically reduce landfill by 2020. This treatment capacity will process a volume of waste that will make meeting a suggested 65% recycling target unachievable by 2030. Unless Member States’ committed investments are taken into account in target setting there is a risk that these expensive and long-term facilities are made redundant leaving public authorities with large liabilities.
2. The targets proposed by the European Commission under the Circular Economy package represent a difficult choice from the UK’s perspective. They would impose an additional cost on UK businesses of £1.9 billion (in the period 2015-35). It is unclear whether these costs would be met by waste management firms or local authorities.[[10]](#footnote-10) The Commission’s own analysis shows that these targets fail to meet the optimal policy choice for the UK.
3. Exports of refuse derived fuel for energy from waste facilities elsewhere in the European Union have increased dramatically in recent years as it becomes a more favoured management route for waste. Further, the UK exports more scrap material than it imports. In 2015 the UK exported 14 million tonnes of scrap materials, worth over £3.5 billion. In 2014 there was a 0.6 million tonnes increase of all scrap materials exported, but a decrease in the monetary value of these exports (of £586 million). This scenario could be exacerbated with any fall in the value of the pound or EU import tariffs resulting from Brexit negotiations.

**What is the post Brexit aspiration for this service area and what should be the balance between a national policy and local flexibility?**

1. The vast majority of EU legislation that effects the UK, such as waste and recycling legislation, will be transposed into UK law following Brexit in what has become known as the ‘Great Repeal Bill’. This means that while the policies and targets defined by the Waste Framework Directive, and other EU waste directives, are currently enshrined in UK law, there is the opportunity to alter and amend these legislations once the UK leaves the EU. The suggestion then is that short-term, the UK will adhere to the current EU targets, but med-term, there is an opportunity to implement our own national framework which better suits the current infrastructure, needs and aspirations of the waste and recycling sector in England.
2. The timetable is also unclear: to what extent will the EU Circular Economy Package impact on the UK following Brexit? The government has indicated an EU exit target of 2019. Meanwhile the EU circular economy is expected to be finalised in 2018, only after this point would the Directive normally be transposed into UK law. With this in mind, Defra have indicated that they will continue to work with the EU on the circular economy, but it is unclear what this means in reality.
3. With the risks identified in the above section, including some shortcomings of the Circular Economy Proposals, it is worth exploring in this session what an alternative UK based framework might include.

Post Brexit framework:

1. There are many elements of the current framework which are and have been beneficial to UK waste and recycling policy. These include: Duty of care regulations, diversion from landfill, continued focus on improving recycling rates, extended enforcement powers, TEEP regulations, and local determination of waste management contracts. In addition to these we would recommend seeking to change legislation on the following key areas:
2. *Secondary materials market*. The government needs to work more closely with local government to drive demand for the secondary materials market. Through introducing product and material specific requirements to use recycled content in product manufacture the financial viability of recycling collection could be enhanced. The National Industrial Symbiosis Programme which ended in 2013 could be built on as it enjoyed some success.[[11]](#footnote-11)
3. *The polluter pays principal*:

* *‘As part of the broader sector-based approach set out in the Industry Strategy green paper, Government and industry should work to improve resource productivity and reduce waste*.’[[12]](#footnote-12) The current system of weak voluntary agreements shifts the onus onto tax payers.
* The LGA position is that waste and recycling collection services are a local decision for councils. Councils have already made significant investment in waste and recycling services and the responsibility for increasing recycling rates must sit with all stakeholders, not just council tax payers.
* The LGA has taken the position that producers of waste should take greater responsibility for the cost of collecting and disposing it. We have gone as far as asking for a minimum 50% producer contribution by 2025 and a full cost contribution to waste collection and disposal by 2030.
* Design out waste by setting out expectations on product design for greater waste prevention, reuse and recycling through an overarching suite of product specific targets delivered though a broadened Eco-design Directive.

1. *Recycling & reuse*:

* *‘Shift the emphasis of waste policy towards waste prevention and reuse. This needs to happen at all levels including Central Government and Local Government.’[[13]](#footnote-13)*
* Local government should promote reuse opportunities within their regions. For example, goods and materials at Household Waste Recycling Centres (HWRCs) can be promoted for resale or for distribution to local charities. This shows potential to reduce their waste and recycling spend.[[14]](#footnote-14) See **appendix two** for illustrative examples of this.

1. *Resetting and redesigning recycling targets*:

* Brexit provides an opportunity to set targets that reflect the UK situation including the heavy investment in waste processing for energy plants, and a stagnant funding scenario.
* The concerns raised over what is included/excluded in waste targets, whether tonnage is the right measure, and how prevention of waste is measured. We should also press for holistic targets rather than ones just aimed at local authorities. Local Authorities have a part to play, but household waste represents just 11% of the overall waste sector.

1. *Shared learning*

* Defra are keen to pursue a goal of moving councils to a consistent set of waste and recycling services. Fortifying Defra’s position is the fact that at local authority level, recycling rates vary widely ranging from 15% to 67%. Local government should strive to share learning and pull together to bring underperforming areas up to speed, thus weakening the case for a centrally imposed system and strengthening the case for a locally led regime.
* Wrap has developed a voluntary framework focussed on delivering greater consistency on the materials collected by councils for recycling and the type of containers used. They are promoting the idea that all councils should adopt one of three standard collection systems. They believe this would drive up recycling rates and could save money in the longer term by increasing revenue from the sale of recycled materials.[[15]](#footnote-15)
* Local Authorities should use proactive behaviour change marketing to improve waste and recycling among their constituents. See a summary of a 2015 3R report into the attitudes and behaviour of consumers in recycling for an illustrative summary of behaviours which could be targeted (**appendix one**).

1. *Energy generation:*

* *‘Government should prioritise energy from waste towards high efficiency technologies (producing ‘green gas’ or Combined Heat and Power). These technologies offer far higher levels of efficiency than electricity-only incineration facilities, and could play an important role in decarbonising heating and transport. Existing subsidy support schemes need to be amended to reflect this shift of focus.’[[16]](#footnote-16)*
* Community incentive schemes should be explored for communities which host energy from waste facilities.
* Government should tighten the definition of ‘Refuse Derived Fuel’, such that operators are required to extract all economically-recoverable materials prior to export of materials for energy recovery abroad*.[[17]](#footnote-17)*

**Has recycling reached a natural plateaux, given our level of investment as a country or do you envisage recycling rates increasing and if so how? What incentives will be required to achieve this increase?**

1. When looking at our European neighbours we can see that the UK’s performance at recycling and managing waste has significantly improved since 2001. In 2001 we were rated 16 out of 32 European countries by the European Environment Agency (EEA). By 2010 we had moved up to 9th place demonstrating the fastest increase in recycling rates across Europe along with Ireland. Throughout this period Austria, Germany and Belgium have been the top performers.

Despite this success, recycling rates are plateauing, and there is little in the way of investment to spur innovation. That said, there are inspirations that can be drawn from other models and ideas; a brief overview of some of these follow:

1. *Pay as you throw* (PAYT). The 2012 Localism Act removed councils’ powers to charge residents for the weight of their rubbish. A PAYT switches waste from a fixed charge to a metered service like other utilities, saving money for those who recycle more and throw away less. Examples from across Europe have shown PAYT schemes cutting household waste by 10% as they provide a direct economic incentive to recycle more and to generate less waste. Two further factors enhance the case for PAYT:
2. ***Economic Sustainability*** - PAYT is an effective tool for communities struggling to cope with soaring waste expenses. Well-designed programs generate the revenues communities need to cover these costs, including the costs of recycling and composting. Residents also have the opportunity to take control of their bills.
3. ***Equity*** – this point is a double edged sword. On the one hand, a variable-rate program may be said to inhabit a space of inherent fairness. When the cost of managing waste is covered in taxes, residents who recycle and prevent waste, subsidize their neighbors' wastefulness. Conversely, there may be an argument for disproportionately penalizing the poor, whose waste collections may currently be subsidized by wealthier residents through local taxes.
4. *Plastic bags.* England’s 5p plastic bag charge, introduced in 2015 has cut bag usage by 85%. The charge has also led to donations of more than £29m from retailers towards good causes including charities and community groups. Because of this wide success, the scheme could be expanded by reviewing and eliminating many of the exemptions e.g. currently only retailers with 250 or more full-time equivalent employees are effected, while smaller retailers and paper bags are not included. There are also exemptions for goods such as raw meat and fish, prescription medicines, seeds, flowers, and live fish.
5. *The Furniture Reuse Network* reused 2.7m items of furniture and electrical equipment, preventing over 100,000 tonnes of waste and saving low income families around £350m. Local authority reuse targets on household furniture and electrical items would not only prevent waste, but would also make a considerable difference to the lives of many people able to access this resource.[[18]](#footnote-18) (see appendix two for case study examples).
6. *Water fountains*: a network of public water fountains in prominent locations would provide a waste-free alternative to on the go plastic bottles and drink containers. This isn’t a new idea, both Rome and Sydney (among others) have invested in networks. Water companies could sponsor fountains, and a bonus public health advantage would be a reduction on the purchasing of sugary drinks.
7. *Food waste*. Over half of meal leavers eating out linked leaving food to various aspects of portion sizes. Two fifths (41 per cent) of meal leavers stated that one of the reasons why they had left food was because the portion size was too big and 11 per cent stated that they ordered/served themselves too much. These facts merit some thought into how to change the behaviours of both suppliers and consumers with regard to waste food.

The Food Waste Bill 2015/16[[19]](#footnote-19) has failed to make it through parliament. The Bill would require government to make provision for a scheme of incentives to implement and encourage observance of the food waste reduction hierarchy; to encourage individuals, businesses and public bodies to reduce the amount of food they waste; to require large supermarkets, manufacturers and distributors to reduce their food waste by no less than 30 per cent by 2025; to enter into formal agreements with food redistribution organisations; to require large supermarkets and food manufacturers to disclose levels of food waste in their supply chain. Given the prevalence of food wastage in England, there is a strong case to push for the Bills reintroduction.

1. *Payment by results (PbR)* is a way of delivering services where all or part of the payment is contingent on achieving specified outcomes. This outcomes focussed approach is attractive to policymakers as it shifts responsibility for determining which inputs or outputs will lead to the achievement of outcomes onto providers. The National Audit Office states the following advantages to this type of framework:[[20]](#footnote-20)

* Innovation: proponents argue that, by specifying ‘what’ needs to be achieved rather than ‘how’, PbR gives greater freedom to providers, which encourages innovation.
* Cost-effectiveness: all or some of the payment to providers is contingent on the outcomes they achieve, which reduces the amount of public money spent on ineffective activity.
* Risk transfer: PbR arrangements transfer financial risk to providers, who put in upfront financial investment to deliver services with no or limited guaranteed reward if they fail to achieve outcomes.
* Accountability: PbR schemes can clarify accountabilities as they make it clear that delivery of specified outcomes is the responsibility of providers.
* User responsiveness: PbR arrangements can increase responsiveness to service users’ needs, especially if they involve more innovative service delivery or specialist, local-level organisations with a good understanding of users’ needs.

There are however, a number of criticisms that can be levelled at a PbR framework. For example, what makes a good result or outcome? And who should set that results framework? If we agree with local democratic accountability, choice and the need for plurality of decision makers to drive quality in public services, such an approach may run against the grain of what local government would consider best practice. How, for example, do results frameworks impact on service users? The most often cited impact is the cherry-picking of the easiest ways to meet targets which may not necessarily be the best operation for the community. Any system design of PbR must consider how to mitigate against this.

1. *Consistency.* Communities are different, residents have different life-styles, working patterns, are different ages, and have different expectations. Not only this but physically, houses, flats, streets, are all different, as are council budgets and local priorities. Coupled with this there is a large body of evidence which suggests that localist approaches actually spur innovation and lead to better outcomes. Despite these realities government is clear that it wishes councils to move to a more consistent waste policy. While we would not welcome such a centrally administered framework, there are potential advantages to the sector pulling together and working more closely. For example, according to a 2015 government report, procuring waste management equipment in isolation has cost councils an additional £70 million a year. The report suggests that simply through better procurement and more standardized processes huge savings can be made. The report suggested potential savings of up to 10% on refuse trucks and more than a third (35%) on bins could be achieved through clearer specification and procuring in larger volumes with other councils.[[21]](#footnote-21)
2. *Energy produced* from bio energy has risen from 3.4% of total energy production in 2005 to 9.2% in 2015. Energy from waste has almost doubled over this period as can be seen in figure one above. WRAP’a figures show the UK now has 60 sites which turn waste material into energy, ranging in size from as small as 0.6 MWe upto 250 MWe. As a key success area for the UK, this could be built on in a post Brexit framework.
3. *Working with businesses and the community*. There is scope to consider an approach councils work more directly with producers and try to understand their needs whilst communicating our own requirements. We may want to consider what the long-term impact on local waste services would be if producers were to play a greater role in funding collection and disposal. EU waste proposals include the adoption of extended producer responsibility although details are not yet clear. Moreover, active work and education within the community has been proven to yield positive results. **Appendix three** illustrates part of a case study in Slovenia. Through a process of community engagement ranging from engaging business to education programmes in nurseries, this regions has seen recycling rates rise from landfilling everything to recycling over 74% in 20 years.

**Are there examples of models of service delivery, including partnerships, outsourcing etc. that might represent a future more efficient approach?**

1. Local government currently uses a range of models to deliver waste and recycling services. The 1980’s saw services being delivered in house. The 1990’s saw a growing trend for tendering. We are now in a mixed market. Some authorities have taken back control of their services from private contractors, others have joined up with their neighbouring authorities to achieve economies of scale and others are still using a combination of these and traditional contracts.
2. The major trend of the last ten years has been to reverse the externalisation of waste services largely through the creation of ‘arms length’ or ‘Teckal’ companies.[[22]](#footnote-22)There have been two broad types; the service delivery company whose main work is for the council itself (or a group of councils) and the commercial trading company, which is able to trade more easily with outside organisation. In the latter model all work has to go out to tender. The benefit of an arm’s length arrangement is that the council can decide how arm’s length it wants to be providing the opportunity for greater flexibility.
3. Ubico, which began trading in 2012, is an example of one arm’s length service owned by a clutch of LAs in the Gloucestershire area – Cotswold, West Oxfordshire, Forest of Dean and Stroud District Councils, Cheltenham and Tewkesbury Borough Councils, and Gloucestershire County Council. However, the services they provide in each area vary. Ubico operates Gloucestershire County Council’s household recycling centres, whereas in Forest of Dean it only runs grounds maintenance services. This model has delivered efficiency savings and greater flexibility without any contractual cost. This means Ubico doesn’t run a one-size-fits-all model. Its services are bespoke to each council. There are now a few of these firms operating around England including Dorset Waste Partnership, Ansa up in Cheshire East and Bristol Waste company, the latter of which took over most of Bristol city’s waste and recycling services after the local authority agreed a mutual termination of its contract with Kier in 2014.
4. Newcastle-Under-Lyme has taken its dry recycling and food services in-house on a traditional direct service organisation (DSO) contract. They are now running their own transfer station, baling and sorting the materials themselves. This has enabled them to make a £500 000 saving and improve the quality of their recycled materials. Sevenoaks Council have kept bin collection in house whilst becoming a financially self-sufficient council
5. However, LARAC Chair Andrew Bird has suggested that whilst these models may be beneficial for individual local authorities, at a macro level it could have a detrimental effect. “Whether there is a focus on recycling in England depends on whether it is financially beneficial to put resources into it and that will depend on individual circumstances. But you look at what the devolved governments are doing, where they have got very clear policy objectives and they know where they are going, whereas in England we increasingly have a fragmented system that will not help the private sector in terms of providing facilities and infrastructure in a more joined up way.”
6. *Models elsewhere:*

Germany – Neustadt an der Weinstrasse has a 70% recycling rate. Residents are only charged for waste which needs to be incinerated. All recycling is free. A separate fee for waste is charged and is not embedded in any local tax. Residents are therefore financially incentivised to recycle more[[23]](#footnote-23).

Vienna - The financing of the collection and treatment of all municipal waste is based on the residual waste fraction in order to create an incentive for separate waste collection. Thus property owners are charged a quarterly waste management fee calculated from the volume of the residual waste containers installed on their properties and the frequency of bin emptying.

Switzerland - Glass and paper are just some of the things the average Swiss refuses to simply throw away. There are bottle banks at every supermarket, with separate slots for clear, green and brown glass. Every town has a free paper collection once a month, and that does not mean just old newspapers; most people recycle everything made of cardboard or paper, from cereal packets to old telephone bills. Then there is green waste. If you have a garden, all the trimmings can be put out on the street (neatly bundled of course) every two weeks, and they will be collected. Aluminium and tin can be taken to local depots, batteries handed over at the supermarket, and old oil or other chemicals deposited at special sites. Plastic PET bottles are the most common drinks containers in Switzerland, and 80% of them are recycled - far higher than the European average of 20 to 40%.

There is a strong financial incentive. Recycling is free, but in most parts of Switzerland throwing away rubbish costs money - each rubbish bag has to have a sticker on it, and each sticker costs at least one euro (60 pence). So the less you throw out, the less you pay. No sticker? Then the rubbish will be left outside your house to rot.

**Appendices**

**Appendix one - Behaviour change**

A 2015 report by 3R on attitudes and knowledge in recycling among households is illustrative in how behaviour change could be targeted: [[24]](#footnote-24)

* Capture: Just under half (46%) of UK households say that on the last disposal occasion they disposed of at least one material in the general rubbish bin that their council collects as part of the kerbside recycling collection.
* Quality: 47% of households are putting at least one material in their recycling that is not intended to be collected locally for recycling. Drinks cartons/tetra-pak and plastic pots, tubs and trays are the two materials most frequently put out for recycling kerbside despite the council not collecting them.
* Looking at both dimensions of capture and quality, similar to 2014, around a quarter of households are ‘completely effective recyclers’, in that they neither place non-targeted materials in their recycling collection, nor dispose of any items in the general rubbish that could be put in the kerbside recycling. Conversely, approximately three-quarters of households could improve their recycling effectiveness in one or both of these respects.
* Those who are confident about what can and can’t be recycled are much more likely to say they have received information about the kerbside collection in the past year. 56% of those who say they are ‘very confident’ say they received information compared to just 23% who are ’50:50’ and 17% of those who are ‘not very’ or ‘not at all confident’.
* There is a significant decrease in the proportion of respondents reporting that they received information in the past year. Just over half (55%) said that they received information on the kerbside collection in 2014, compared to 42% this year.
* Similarly, there is no consensus about whether householders are required to wash, rinse or clean out materials prior to recycling. Actual or perceived cleaning requirements also cause a large minority (41%) of households to not recycle certain materials, suggesting that councils communicating minimum requirements may encourage greater capture.
* Age has a significant bearing on self-reported recycling across materials. Rates of recycling paper, card, cans/tins, aerosols and foil all increase in line with age.

**Appendix two: Examples of Reuse activities**

Two examples of reuse enterprises reported:[[25]](#footnote-25)

**Hull Reuse Shop:** FCC Environment invested £400,000 in a “reuse shop” in East Riding of Yorkshire in 2015, which takes bulky items (from furniture to power tools) from across the Hull area. FCC Environment opened a reuse facility in Suffolk in 2016 with the Benjamin Foundation, and have more reuse shops in Ipswich and Cannock in Staffordshire. At all sites, items are tested and inspected before being presented for resale, with the proceeds donated to good causes.

**Newbury Community Resource Centre:** This social enterprise provides low cost furniture and other goods to support low income and vulnerable households (particularly the elderly and those on benefits). The centre diverts approximately 650 tonnes of waste per year from disposal, and helps around 23,000 individuals and households. The scheme is delivered as part of a 25 year waste services contract for West Berkshire Council, although the scheme is largely self-financing and the council provided only limited initial funding. This project is part of the wider Furniture Reuse Network, a group of approved reuse centres in the UK which is rapidly expanding and offers training and best-practice information for its members.

**Appendix three**

**Vrhnika – Slovenia Trailblazers[[26]](#footnote-26)**

KPV [public waste management body] has based its activities around a coordinated awareness raising campaign, starting with Vrhnika’s youngest citizens – school children. They considered this the starting point for any change in citizen behaviour and attitudes. Schools were provided with bins and discounted waste collection fees for sorting their waste at source. Given the savings this system represents, all schools and nurseries in Vrhnika now operate a source-separation of waste system. KPV has held waste-themed events in schools, such as a waste fashion show, organised tours of the collection centre and held drives to collect specific types of waste in schools. The company also provides educational lectures aimed at 5 different age groups, from nursery school age to university students. These lectures are attended by 1500 children and young people from around Slovenia a year, which, for a country with a population of just 2 million is an impressive figure. In 2006, KPV co-financed a course for primary schools, which included specific training for teachers and special educational materials. The course took a multidisciplinary approach to teaching a range of environmental issues, including waste, thereby harnessing the pedagogical skills of teachers to reach children and their parents. Building on this success, KPV moved to work with businesses. It developed special business contracts for waste management, including consultations on how to achieve savings through separationat-source. Businesses responded positively - some even asked KPV to help them manage their waste flows and organise on-site separate collection. KPV noted a significant decrease in quantities of paper, cardboard and plastic in the residual waste stream. From there, KPV went on to work with businesses outside the municipality with an ISO standard requiring separate waste collection.

KPV also made efforts to change the public’s perception of waste as something dirty, smelly and not useful. It painted trucks white with flower motifs, cleaned bins regularly and created an attractive entrance to the KPV collection centre, with a park featuring lawns and flowerbeds. The nearby landfill site was rehabilitated. In fact, the area was so successfully renovated that when a TV camera crew visited to film a story about the centre, they got lost while looking for a dirty site with rubbish. Instead they found nothing but pleasant parkland and a pond with ducks swimming! The camera crew’s perception of waste changed for the better that day. The waste management company has also worked on more traditional ways of reaching out to the public, with the aim of presenting waste as a resource. The collection trucks themselves are printed with short promotional messages encouraging citizens to sort waste, KPV prints a magazine focusing on waste issues, as well as holding lectures and running thematic campaigns. Information about waste collection is broadcast on the radio, sent through the post with waste collection bills, published in local newspapers and on advertising hoardings. Communication is adapted to specific demographic groups and their particular characteristics.

The awareness-raising campaigns in Vrhnika have been successful in encouraging residents to think and talk about waste issues and the results achieved in the municipality. The positive atmosphere this awareness has created has driven the municipality’s good results and is having a real multiplier effect beyond the district, as Vrhnika residents share their positive experiences with friends and colleagues from other areas.

1. Department for Environment, 2017. Food & Rural Affairs, Local authority collected waste: annual results tables. [↑](#footnote-ref-1)
2. The following LGA reports are illustrative: Wealth from Waste report (2013); Routes to Reuse report (2014); EU Circular Economy position paper (2015); Meeting EU recycling targets (2015). Available at: <https://www.local.gov.uk/topics/environment-and-waste> [↑](#footnote-ref-2)
3. Birmingham, Bristol, Leeds, Liverpool Manchester, Newcastle, Nottingham, Sheffield. [↑](#footnote-ref-3)
4. WRAP and Green Alliance study: Employment and the Circular Economy – Job creation in a more resource efficient Britain. Available at: <http://www.wrap.org.uk/content/employment-and-circular-economy> [↑](#footnote-ref-4)
5. For example Sweden, France and Germany have provision to allow certain uses of incinerator bottom ash to be counted as recycling. [↑](#footnote-ref-5)
6. Based on an Environmental Services Association estimate of 3 million tonnes of incinerator bottom ash by 2020 and an assumption that overall waste levels remain at approximately the same level as 2013/14 [↑](#footnote-ref-6)
7. Policy Exchange, 2017. Going round in circles. Available at: <https://policyexchange.org.uk/publication/going-round-in-circles/> [↑](#footnote-ref-7)
8. Total for waste and recycling collection and disposal 2013/14. [↑](#footnote-ref-8)
9. This figure is based on comparing change in expenditure over 2010-11 – 2014/15 with change in recycling rate. There are a range of technical considerations which it has not been possible to factor in and may affect the figures. [↑](#footnote-ref-9)
10. Policy Exchange, 2017. Going round in circles. Available at: <https://policyexchange.org.uk/publication/going-round-in-circles/> [↑](#footnote-ref-10)
11. NISP. Available at: <http://www.nispnetwork.com/media-centre/case-studies/40-denso-has-its-cake-and-h-eats-it> [↑](#footnote-ref-11)
12. Policy Exchange, 2017. Going round in circles. Available at: <https://policyexchange.org.uk/publication/going-round-in-circles/> [↑](#footnote-ref-12)
13. Policy Exchange, 2017. Going round in circles. Available at: <https://policyexchange.org.uk/publication/going-round-in-circles/> [↑](#footnote-ref-13)
14. Policy Exchange, 2017. Going round in circles. Available at: <https://policyexchange.org.uk/publication/going-round-in-circles/> [↑](#footnote-ref-14)
15. Wrap. A framework for greater consistency in household recycling in England. Available at: <http://static.wrap.org.uk/consistancy/Read_more_about_the_framework.pdf> [↑](#footnote-ref-15)
16. Policy Exchange, 2017. Going round in circles. Available at: <https://policyexchange.org.uk/publication/going-round-in-circles/> [↑](#footnote-ref-16)
17. Policy Exchange, 2017. Going round in circles. Available at: <https://policyexchange.org.uk/publication/going-round-in-circles/> [↑](#footnote-ref-17)
18. Chris Sherrington and Peter Jones, 2014. Pay as you throw away? Five ways to cut off waste at the source [The Guardian]. Available at: <https://www.theguardian.com/lifeandstyle/2014/may/21/pay-as-you-throw-away-five-ways-to-cut-off-waste-at-the-source> [↑](#footnote-ref-18)
19. ## UK Parliament, Food Waste (reduction) Bill [online]. Available at: <http://services.parliament.uk/bills/2015-16/foodwastereduction.html>

    [↑](#footnote-ref-19)
20. The National Audit Office, 2015. Payment by results: analytical framework for decision-makers. Available at: <https://www.nao.org.uk/wp-content/uploads/2015/06/Payment-by-results-analytical-framework-for-decision-makers.pdf> [↑](#footnote-ref-20)
21. DCLG, 2015, Household waste collection: procurement savings opportunities [policy paper]. Available at: <https://www.gov.uk/government/publications/household-waste-collection-procurement-savings-opportunities> [↑](#footnote-ref-21)
22. Will Simpson, The Loop Magazine, Summer 2017 [↑](#footnote-ref-22)
23. The Guardian, 18th March 2011 – A small town in Germany where recycling pays [↑](#footnote-ref-23)
24. Wrap review paper (2015). 3Rs recycling knowledge, attitudes and reported behaviour survey 2015. Available at: <http://www.wrap.org.uk/sites/files/wrap/3Rs%20Recycling%20Highlights%202015%20FINAL%20FOR%20PUBLICATION.pdf> [↑](#footnote-ref-24)
25. Policy Exchange – Going round in circles, March 2017. Available at: <https://policyexchange.org.uk/publication/going-round-in-circles/> [↑](#footnote-ref-25)
26. Zero Waste Europe, 2014, Vrhnika – Slovenia Trailblazers. Available at: <http://www.no-burn.org/the-story-of-vrhnika-slovenian-trailblazers-in-zero-waste/> [↑](#footnote-ref-26)