

Waste: A brave new world





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UK local government waste collection services:
different environments, similar themes, common solutions

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The Association for Public Service Excellence (APSE) is a not-for-profit local government body working with over 300 councils throughout the UK promoting excellence in public services. APSE is the foremost specialist in local authority frontline service provision in areas such as waste and refuse collection, parks and environmental services, leisure, school meals, cleaning, housing and building maintenance and energy services. APSE leads a research programme exploring a range of issues which impact upon both local authority frontline services as well as strategic public policy issues.



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Foreword

The UK's waste policy environment is changing at a fast pace with initiatives in England, Scotland, Wales and Northern Ireland all making greater demands upon how local authorities approach waste and recycling. Whilst there is often a divergence in approach and legislation, there are nonetheless similar strategic issues which are emerging as priorities for local authorities in the delivery of waste collection services, not least the economic climate and the tough future facing local government.

APSE and our member local authorities throughout the UK are concerned by the pace of change and how local authorities will be able to resolve the tension between the reduced availability of resources and the need to meet current (and future) legislative requirements and targets. Whilst councils will make policy decisions based on local circumstances, this piece of research is designed to explore these challenges, identify how local authorities are responding and to look at the future facing waste collection services. APSE hopes that by sharing experiences and learning the lessons of others, this will assist local authorities throughout the UK to embrace the challenges ahead.

The theme of the research is "Different environments, similar themes, common solutions", as it reflects the different policy developments in England, Northern Ireland, Scotland and Wales, while identifying common themes and issues that are emerging. The research looks at the current context including economic and legislative pressures as well as the future landscape. It contains useful case studies from local authorities who have already made headway in tackling some of the harder issues and is designed to assist APSE members throughout the UK to share ideas. It is intended to supplement APSE's other research and activity including the APSE state of the refuse market research and APSE performance networks refuse collection benchmarking results. I hope you find this piece of research helpful.

Cllr Arwyn Woolcock

APSE National Chair 2014-2015

Introduction

There are significant pressures facing local government waste services. At a time when the impact of current spending cuts is deepening, with 79% of APSE members expecting a further squeeze on budgets in 2015, local authorities are facing a complex mix of pressures, including:

- the need to meet the requirements of the EU Waste Framework Directive 2008 (WFD) and the implications for existing recycling collection methods;
- the need to maintain and improve recycling rates and engage residents more, at a time when recycling rates are flat-lining in many areas of the UK;
- the need to respond to the shift in emphasis from quantity as the main measure of performance to the quality of recyclates collected;
- a divergence of policy preferences on the frequency of residual waste collections; and
- local government reform and the impact of re-organisation in Northern Ireland on waste collection services and the potential impact of changes in Wales stemming from the Williams commission, the debate surrounding English devolution and growth in combined authorities, and further promised devolution of powers to the Scottish Parliament

Other broader agendas, including energy, climate change, social value, and local economic development are also playing out more visibly at a local level and are impacting on strategic decision making.

This research is conducted against this context with a view to providing a helpful guide to APSE membership on how they can meet the current and future challenges.

Methodology

The stages of the research are shown in the tables below:

Stage	Type of research	Purpose and details
Stage 1	Qualitative research with key stakeholders	To identify the key challenges facing councils in England, Scotland, Northern Ireland and Wales
Stage 2	Quantitative research via a survey with the APSE membership	Asked members to rank the 17 issues identified from stage 1 in order of importance to identify the most important issues to focus the research on.
Stage 3	Identified the scope of the survey	The top issues were:: <ul style="list-style-type: none"> • Efficiency savings and increased productivity • Improving participation from specific households e.g. low income groups • Household food waste collection good practice • Implementing food waste and dry recycling collections in flats/HMOs • Encouraging participation in trade waste collection services • Co-mingled vs source segregated systems
Stage 4	Literature and policy review	Review of the above issues through analysis of current policy, legislation and research including APSE's state of the refuse market research and APSE performance networks data.
Stage 5	Structured interviews	Structured interviews with senior local authority officers, departmental heads and elected members to better understand how economic and legislative pressures are impacting on the planning, funding and delivery of frontline waste services.
Stage 6	Case studies	Case studies from APSE members on how local authorities are tackling the issues identified in stage 3 above.

1. Executive Summary

As pressures increase upon local authorities the focus in nationwide debates has been on the cost of dealing with a growing older population and the proportion of council budgets which needs to be spent on social care. This is a valid concern but it tends to side-line the issues facing other council services. Areas like waste and recycling have a critical impact on local areas but are often oversimplified in policy debates when in fact the complexity of issues, potential for cost inflation, and reputational risk to local authorities, are issues upon which local elections can be won or lost.

Waste and recycling services should not be segregated from wider policy issues of climate change and landfill costs; the potential for income, from waste to energy schemes and the sale of recyclates, and the environmental impact of a throwaway society. Waste managers are no longer simply experts in considering the best routes for waste collection rounds but are becoming increasingly expert in behaviour change as they seek to minimise waste production and encourage recycling. They are financial modellers, looking to exploit income generation opportunities whilst saving on fleet, fuel and service costs. They are guardians of sensible public policy balancing the priorities of local residents, elected members and the local environment. But they are also often at the back end of the queue in public funding terms. Waste and recycling services as a whole are often taken by residents as a 'given' – albeit the service is one of the most recognised when the public are asked what services they get from their local council, but this does not always translate into adequate funding for the service.

This report therefore calls for:-

- A recognition that waste and recycling services are not only integral to successful council services at a neighbourhood and regional level but also impact upon national and global issues of climate change and public service reform
- That if waste and recycling services are to cope with future demand public policy needs to integrate waste reduction by addressing waste producers, such as retail packaging and manufacturers, not just local residents.
- Whilst new requirements such as TEEP seek to drive up the quality of recycling it needs to be recognised that this may need a shift in the use of new technologies and approaches to collection methodologies in areas like Trade Waste which may require investment at a time when budgets are under severe pressure. In the context of waste these should be viewed as 'spend to save options'.

Conclusions

It is clear from this research that there are a number of pressures on local authorities with regard to waste collection, including policy and regulatory requirements driving higher quality and quantity of recycling at the point of collection, constrained budgets and cuts in resources, mixed messages and inadequate guidance from national government, and wider issues including local government reform.

Managing these pressures while maintaining a service that meets residents' needs and expectations, and encourages participation, is a concern for every council that has been involved in this report and others across the UK, as well as the sector's main professional bodies, organisations and networks. In part, the current landscape embodies the difficult transition the sector is going through as it seeks to provide 'resource' as opposed to 'waste' solutions. It is a journey; while presenting a challenge at this particular point in time, diverting more waste from landfill into high quality recycling does hold real economic benefits for all players in the supply chain, including local authorities. Not all the mechanisms are yet in place and local authorities need to avail themselves of the right skills and knowledge to make this journey, and need to be effectively supported to do so, by all UK wide government administrations and other bodies.

Local authorities are going to have to be strategic, forward thinking and resourceful if they are to meet the challenges ahead. The Ensuring Council provides a blueprint for local authorities to identify efficiencies, generate income, innovate and manage demand and this approach could encompass a number of elements, including:

- Knowledge and good practice sharing;
- A strategic approach to delivering operational efficiencies;
- Exploring income generation opportunities;
- Partnerships and joint working;
- A renewed focus on specific collection issues including contamination, hard-to-reach audiences and challenging housing stock; and targeted communications

To support local authorities, the following recommendations are made:

- Benchmarking, knowledge and good practice sharing are essential in today's challenging environments.
- Local authorities make the best use of existing knowledge and APSE performance networks data in assessing their service.
- Local authorities access and make use of the experience of other local authorities when making changes to services or implementing new collection models, as part of the planning and development stages.
- Waste industry bodies and organisations focus on providing knowledge sharing opportunities and access to appropriate training and learning opportunities.
- The need for evidence-based decision-making is paramount in identifying the likely impact of operational service changes including using surveys, compositional analysis and performance measurement to challenge assumptions.
- Developing joint working and partnership arrangements including a clear business case outlining the benefits to all partners.

To ensure that their waste management services are resilient, local authorities need to:

- Maintain good local governance and capacity over service delivery models to enable future responsiveness.
- Ensure the potential future value of waste and resource management is secured in terms of social, environment and economic benefits to local authorities and their residents.

It is vital for the UK governments to support local authorities in these challenging times through:

- Providing clear messages on government policy and targets.
- Enabling local authorities to make local decisions on how they can achieve national targets whilst providing a convenient and cost effective service to residents.
- Providing guidance and toolkits to examine how their services meet the separate collection and quality requirements as enshrined in national waste regulations.
- Supporting councils in waste prevention and recycling communications, engagement and consultation with the public.
- Ensuring waste services are given high priority given the importance placed on the service by members of the public and the economic and environmental benefits of sound waste management services.
- Ensure measures are put into place to safeguard an appropriate share of the value of materials collected by local authorities can be accessed to support recycling collections and infrastructure at a local level

To continue to support local authorities, APSE will:

- Facilitate the sharing of good practice and learning from efficiency savings and partnership working initiatives through its networks and forums
- Identify new training and development needs for member authorities on specialist skills identified in the research such as contract negotiation and procurement
- Provide performance measures on the collection and treatment of waste and provide analysis on the different methods used and outcomes achieved for local authorities across the UK.
- Continue to develop evidenced based research and the professional network for waste and recycling services through APSE's member authorities on a UK wide basis.

2. The challenges facing waste services

The policy landscape

After a period of relative policy stability between 2000 and 2010, during which time the UK made rapid progress on landfill diversion and recycling, we are now in a period of change. With the devolution of waste management policy, the four UK nations are in the process of developing their own waste strategies and regulatory frameworks.

The common backdrop to these is the EU Waste Framework Directive 2008 (WFD) which is, to a large extent, shaping the future direction of travel by providing the overarching legislative framework for the collection, transport, recovery and disposal of waste. With a revised waste hierarchy at its core, the WFD introduced a number of key measures that impact on local authority waste management services, including:

- a target to recycle or prepare for reuse 50% of household waste (and commercial and industrial waste of a similar composition) by 2020;
- the requirement for the separate collection of “at least the following: paper, metal, plastic and glass”, from the household waste stream by 2015;
- the requirement for national waste prevention plans to be drawn up by December 2013; and
- the requirement for Member States to take measures to encourage the separate collection of biowaste - such as kitchen, food and garden waste.

In transposing the WFD in the UK, however, a number of different policy approaches have emerged, with wider political agendas and ambitions playing a strong role in shaping these. In England, for example, the Government Review of Waste Policy in England 2011 effectively signalled the end of statutory national targets for recycling and composting, opting instead for de minimis compliance with the WFD targets. Departmental budget cuts, coupled with the localism agenda in England, have resulted in a withdrawal by Defra from any significant activity related to waste, while at the same time other English government departments have focused on particular aspects of waste related to the relationship between councils and their residents.

In contrast, the three devolved nations have taken a more ambitious and proactive approach to waste. Setting out strong policy framework and targets, all three have, or are in the process of, putting in place new strategies and regulations to meet them. Northern Ireland Executive’s Programme for Government, for example, has a commitment to achieve a household recycling or composting rate of 45% by the end of March 2015. In Scotland, a target of 70% recycling and maximum 5% to landfill by 2025 for all Scotland’s waste has been set and the Waste (Scotland) Regulations require businesses to present metal, plastic, glass, paper and card for separate collection, as well as food waste in the case of some food businesses.

In Wales, the proposed Environment Bill which is currently out for consultation contains a number of proposals on the regulation of waste segregation and collection. These include a proposal to extend the requirement for the separate collection to include card, wood and food wastes and placing a duty on all waste producers other than householders to present their recyclable waste separately for collection. In line with Scotland, landfill and incinerations bans for certain materials are also under consideration.

Both Wales and Scotland, in particular, have also positioned their waste strategies within the wider resource efficiency and carbon agendas, presenting a clear preference for the value of materials recovered through recycling to benefit the national economy and boost economic development.

Despite these differences between the UK nations, however, similar strategic issues are emerging as priorities for local authorities in the delivery of waste collection services, not least the economic climate and the uncertainty around the interpretation of the requirements in the WFD to set up separate

collection of paper, metal, plastic and glass from the household waste stream by 2015. Operationally, local authorities are also facing a range of common challenges such as optimising collection systems and rounds, and increasing participation in recycling, food waste and trade waste collections schemes.

The quality debate

For more than a decade, policy related to the collection and treatment of municipal waste has been primarily volume-focused, with the core objective of diverting more waste away from landfill into recycling and increasing the number and volume of materials that can be recycled by the householder. Statutory recycling targets have been tonnage-based and there has been a strong emphasis on making it as easy as possible for the householder to engage with and participate in recycling. This approach, coupled with the economic climate, has seen a marked move towards co-mingled recycling collections as a way to meet these twin imperatives.

However, the picture is changing and the issue of quality has moved quickly up the agenda. This shift is complex and has emerged as a result of a number of interrelated factors and developments, including:

- the emphasis on 'high quality recycling' in the EU Waste Framework Directive and in UK waste strategies;
- the integration of waste policy into wider resource efficiency, low carbon, and economic agendas with an emphasis on enhancing and capturing the value of recovered materials;
- the push to increase UK reprocessing capacity and the need to provide the quality of materials required by this domestic marketplace;
- tighter controls on the quality of recovered materials exported for reprocessing e.g. China's Green Fence;
- concerns about illegal exports of poorly sorted waste;
- increased understanding around the economic benefits of resource efficiency and security and the growing focus on the concept of the 'circular economics'.

This drive for higher quality is predicated on realising the maximum environmental and economic value of the materials collected through recycling. In terms of policy, legislation and approach, it is manifesting itself in a number of ways.

Co-mingled versus source separated collection

As alluded to above, there has been a significant shift towards co-mingling over the past decade, either fully co-mingled or two-stream schemes, or some multi-stream schemes which include a selected mix of some materials (typically cans and plastics). Indeed, the phrase 'co-mingled versus source separated' paints far too clear cut a picture to reflect the current situation.

WRAP defines the different scheme types as follows:

- Multi-stream Collection: materials are separated by the householder or on collection at the kerbside into multiple material streams which may include a selected mix of some materials, typically cans and plastics.
- Single Stream Co-mingled Collection: all materials are collected together in one compartment on the same vehicle and require sorting at a MRF.
- Two Stream Partially Co-mingled Collection: materials are collected as two material streams, typically fibres and containers, at least one of which requires sorting at a MRF.
- Single Material Collection: only one material is collected and requires no sorting.

The latest WRAP data on the split of scheme types indicates that over half of local authorities across the UK operate some form of co-mingled collection or collection element. There are variations between countries, the most notable being a higher percentage of multi-stream collections in Wales (55%) and the dominance of fully co-mingled schemes in Northern Ireland (85%). However, the clear trend towards co-mingling highlights how perceptions around cost and convenience have led local authorities down this path.

Uncertainty about whether some co-mingled systems can meet the separate collection requirements for the four main dry recyclables in the WFD is, therefore, causing significant concern.

The judicial review brought against Defra by the Campaign for Real Recycling in 2011 resulted in a rewording of the regulations for England and Wales, but did not put an end to the uncertainty. It appeared that the option for co-mingled collections effectively remained on the table; if challenged, however, local authorities would have to demonstrate that separate collection is not 'technically, environmentally and economically practicable' (TEEP) and that a similar quality of output is being achieved with a commingled collection to fulfill the WFD requirement for 'high quality recycling'.

The focus then turned to what is meant by TEEP and 'high quality recycling'. On the latter, there appears to be a broad consensus between the UK governments that it is about maximising environmental and economic outcomes and is generally represented by closed loop recycling routes. Up until very recently, however, no guidance had been provided to local authorities across the UK on TEEP and other criteria related to the separate collection requirements, although the Welsh and Scottish have both expressed a strong policy preference for source-separation of recyclables. Scottish Government and Defra have also given a clear steer to local authorities that glass should be collected separately (with a preference for glass to go to re-melt not recycled aggregates in Scotland).

“These closed loop applications generally represent the Scottish Government’s interpretation of ‘high quality recycling’ and waste management systems must be designed and operated to prioritise these preferred outcomes” Guidance on applying the Waste Hierarchy, Scottish Government, April 2013¹

This impasse has now ended, however, with the development of the 'Waste Regulations Route Map'² by a joint working group comprising the local authority waste networks (co-ordinated through the Waste Network Chairs), the London Waste and Recycling Board (LWARB), and WRAP (Waste Resource Action Programme). While not to be considered as official guidance, the Route Map addresses the key questions that local authorities will need to consider when assessing whether or not their service meets requirements in the regulations and, where necessary, in assessing TEEP.

1 Guidance on applying the Waste Hierarchy, Scottish Government, April 2013 (www.scotland.gov.uk/Publications/2013/04/7548)

2 Understanding the requirements of the Waste Regulations 2011 (amended 2012), WRAP, May 2104 (www.wrap.org.uk/content/understanding-requirements-waste-regulations-2011-amended-2012)



Official guidance has also now been issued by Welsh Government³. While reiterating that the 2011 Waste Regulations “do not prohibit the use of all co-mingled collections of the four waste materials from 2015” but instead establish separate collection as the “default position”, the guidance does make it clear that co-mingling of food waste with dry recyclables or glass with other materials is unlikely to meet the requirement for high quality recycling. However, it also states that the regulations do not require an “all or nothing approach” and that decision-making about current and future recycling collections should include consideration of what will be practicable and necessary at a future point. As well as providing advice on assessing TEEP, the guidance also includes clarifications about how the regulations will be enforced in Wales and consideration of the contractual (collection or infrastructure) obligations under which local authorities may find themselves.

In Scotland, TEEP is considered to have been addressed by the requirements in the Waste (Scotland) Regulations 2012 for separate collections and the Northern Ireland government has not yet indicated whether guidance will be forthcoming, although councils have called for it strongly.

“It is disappointing not to see official government guidance on TEEP in England. It is not just regular household collections that will be impacted by the legislation. It has implications for already challenging areas of service delivery such as flats and multi-occupancy dwellings and also for trade waste collections which can be an important income opportunity for councils.” John Coates, Head of Waste Services, North Lincolnshire Council

In the interviews conducted to inform this report, a wide range of views emerged with regard to these issues. Because there remains significant uncertainty regarding the implementation of and compliance with the new ‘separate collection’ requirements, many respondents expressed concern about the impact

³ [Consultation on draft Statutory](#)

[Guidance on Separate Collection of Waste Paper, Metal, Plastic and Glass, Welsh Government, April 2014 \(www.wales.gov.uk/docs/desh/consultation/140428draft-guidance-separate-waste-collection-en.pdf\)](#)

on local authorities of having to change collection practices, particularly in Wales and Scotland where there is a strong central government policy preference for source separation. The concerns include:

- the limited ability to change for local authorities tied into long term collection, sorting, treatment and disposal contracts or who have invested in their own sorting (MRF) infrastructure to support the introduction of co-mingled collections;
- the cost of changing collection schemes, including potential replacement of containers and vehicles, internal and operational resources, the ongoing operational costs of a different scheme, and the communications that would need to accompany any change;
- the impact on residents, including perceptions of convenience and engagement with and participation in recycling, and the fact that TEEP makes no allowance for residents' views and satisfaction levels;
- the health and safety implications, including the introduction of different containers and different practices at the kerbside;
- the practical space-related constraints of increasing introducing a greater element of source separation in built-up and densely populated areas where flats and HMOs predominate;
- in Northern Ireland, the impact that proposals to restrict the mixing of food and garden waste may have on the long term investment in in-vessel composting infrastructure to handle mixed biowaste, which is the predominant household collection method currently employed;
- the impact on commercial waste collections where lack of space, low volumes and reluctance of customers to bear the cost of full separation may restrict local authorities' ability to provide a competitive service and generate income; and
- what enforcement action will be taken by the regulators if a local authority is deemed not to be meeting the requirements (a number of these concerns may be allayed by further guidance from the UK governments and consultations expected from appropriate UK regulators in the coming months on how they propose to regulate TEEP).

“Targets are fine and help to focus and drive progress. But councils should be allowed to choose how they meet them – the Welsh Government’s desire to impose prescription over collections not only ignores the cost implications of changing collection methods but also the challenge of delivering locally appropriate services, particularly in urban and deprived areas.” Mark S. Williams, Head of Community and Leisure

Services, Caerphilly County Borough Council

Local authorities operating source separated collection are less worried about the regulations but some are concerned about maintaining progress on recycling rates, particularly in hard-to-reach areas where a co-mingled service could increase the volume of material captured. Others, however, have increased participation by moving to kerbside sort, so there appears to be no hard and fast rule about the performance. Conwy Council in Wales, for example, has introduced a number of innovations to increase the quality of recycling, both on the collections side and in the operation of their own MRF, generating an annual income of approximately £600k from sale of recyclate and achieving a recycling rate of 56%.

The research is equally inconclusive. A report commissioned in 2010 by WRAP (Waste & Resources Action Programme) on behalf of the Welsh Assembly Government (WAG)⁴ suggests that:

- in volume terms, the difference between co-mingled and two-stream collection systems and kerbside sorting appears to be marginal if rejected material at the MRF and at the reprocessing stage is taken into account;
- kerbside sort is likely to offer better environmental outcomes; and
- effective kerbside sort has the potential to offer a lower overall cost.

4 Kerbside Collections Options: Wales (www.wrap.cymru.org.uk)

However, research carried out by WYG⁵ for MRF operator Greenstar in the same year, which also took into account contamination at MRFs, concluded that “co-mingled collections collect 25% more material for recycling than kerbside sort systems, and overall performance has the potential to reach 70% diversion of municipal waste from landfill (by weight) where weekly food waste, fortnightly refuse and fortnightly co-mingled recycling schemes are provided.”

The MRF regulations:

With a view to improving the quality of materials produced by MRFs and market confidence in these materials, and also to reflect the need to demonstrate that co-mingled collections followed by sorting at a MRF can deliver ‘high quality recycling’, England and Wales have recently put in place the new MRF Regulations. These regulations require all permitted MRFs processing over 1,000 tonnes per year of dry recyclates to measure and report on the quality of the input, output and residual waste streams every three months.

The other UK countries are in the process of taking similar measures, Scotland has produced its own ‘Code of Practice on Sampling and Reporting at Material Recovery Facilities’ (March 2015) <http://www.gov.scot/Resource/0047/00472355.pdf>. MRFs in Scotland will now be required to begin reporting details of input and output quality of recyclates from October 2015. Northern Ireland has also committed to consult on a similar proposal, although the initial deadline given for this has passed. According to the English and Welsh governments, the regulations are designed to:

- provide transparency on the quality of incoming feedstock from each supplier (enabling contamination to be tackled at source);
- ensure accurate reporting of contamination rates in material outputs and levels of non-target and non-recyclable material (rejects) to ensure that the genuine recycling levels are reported;
- allow local authorities and waste management companies to establish whether co-mingling systems are capable of delivering high quality recycling.

“It is not always possible to achieve quantity and quality at the point of collection and government needs to recognise this and allow a pragmatic approach to be taken by local authorities based on their local needs. It is not a case of being anti-progress or anti-quality – councils want to be able to provide the best environmental outcomes. However, their ability to do so is also constrained by other equally critical factors including cost and convenience for residents.” Peter Lawrence, Aberdeen

City Council

Transparency around true recycling rates for materials being processed by MRFs and confidence in the end destination of materials is an important part of the move towards both ‘high quality recycling’ and market confidence in UK recyclate. It also ties in with the requirement in Wales for all local authorities to report the end destination of their recycling and their MRF reject rates through Waste Data Flow and the End Destinations of Recycling Charter for English and Northern Ireland local authorities launched by the Resource Association in 2012. Both of these also reflect the need to ensure that residents have confidence in the collection systems they are provided with and are reassured that genuine recycling takes place.

By and large, the regulations have been widely welcomed and by providing access to data on the quality of input and output material streams, they will provide a much clearer picture of MRF performance. However, by putting the spotlight on the issue of contamination in incoming material from local authority collections, as well as on output reject rates, they are likely to increase pressure on those authorities experiencing higher levels of contamination. This will in turn focus more attention on challenging areas of service delivery where contamination is more prevalent, including hard-to-reach audiences and flats and HMOs.

5 Review of Kerbside Recycling Collection Schemes operated by local authorities (www.wyg.com/recyclingreview)

There is also the risk that more accurate recording of reject rates and efforts to address contamination could impact on local authority recycling rates.

These issues are already in the process of being addressed through different routes. WRAP has produced its own guide to help local authorities to reduce contamination, 'Dry Recyclables: improving quality, cutting contamination – A practical guide for local authorities on managing the quality of recyclable materials at the kerbside' (February 2015). <http://www.wrap.org.uk/sites/files/wrap/Dry%20Recyclables%20Improving%20Quality%20Cutting%20Contamination.pdf>

A number of Scottish authorities are exploring communication models to reduce contamination by improving public awareness and encouraging better segregation. Anecdotal evidence also suggests that private waste management contractors are also working with their public sector clients on reducing contamination.

The frequency debate

Further complicating the picture has been the ongoing debate about the frequency of residual waste collections, which has been primarily focused on English local authorities but has had a reported impact on public perception in Wales and Scotland.

Defra's Waste Policy Review for England in 2011 included a commitment to supporting weekly collections of residual waste, stating: *"We will continue to help local communities develop fit for purpose local solutions for collecting and dealing with household waste and work with councils to meet households' reasonable expectations for weekly collections, particularly of smelly waste."*

Although the department has since distanced itself somewhat from this policy steer, it has been pushed strongly by the Department for Communities and Local Government, notably through its £250 million Weekly Collection Support Scheme, set up in February 2012 to help local councils to provide a weekly waste collection service.

The Welsh Government, on the other hand, has expressed a policy preference for alternate weekly collections, and there has been recent media coverage regarding the introduction of the first three-weekly residual collections in Gwynedd, Bury in England and Falkirk in Scotland. Other councils are also reported to be considering three-four weekly collection cycles. In the research, the primary concern about these mixed messages coming out of different Westminster departments are felt to be detrimental to the delivery of the desired outcomes of increased diversion from landfill, quality recycling and efficiency savings. There is concern that messages from the Department for Communities & Local Government (DCLG) are encouraging the public to consider frequency rather than recycling as the most important aspect of waste collection and are encouraging unrealistic expectations around service delivery in tight economic times. By creating a culture of 'blame' around councils who fail to return to weekly collections, there is also the implicit suggestion that waste is someone else's (the council's) problem, eroding progress made to date to encourage a sense of shared responsibility between local government and local residents.

Overall, while there is evidence of a strong commitment to 'high quality recycling', the qualitative research does reveal significant concern among many of those interviewed regarding the tension between delivering quality and quantity and the possible implications with regard to cost, resident satisfaction and recycling rates. Industry commentators are already predicting a drop in recycling levels as these legislative drivers start to bed in and many respondents are hoping for a more constructive dialogue with government to ensure that a pragmatic approach is taken.

“Westminster’s failure to address the tensions between service quality, efficiency and resource outcomes and provide evidence-based guidance for local authorities will impact on their ability to meet the challenges ahead. This ‘leave it to the market’ attitude is not going to deliver the best outcomes.” John Skidmore, Interim Director of Corporate Strategy and Commissioning, East Riding of Yorkshire Council

Local Government Reform

In Wales, the Williams Commission⁶, which examined all aspects of governance and delivery for the public sector and reported its findings in January, highlights the challenge ahead for local authorities.

“We are very clear that public services in Wales face severe and prolonged challenges. The effects of recession and austerity on public-sector budgets will continue to be felt for many years. At the same time, our population is growing, becoming older, and public expectations on the providers of public services are higher than ever before. This creates severe pressures – demand for public services is growing while resources to provide them are falling,” says Sir Paul Williams, Chair of the Commission, in his foreword.

Among a number of far reaching recommendations, the report says that councils in Wales should merge to create between 10 and 12 local authorities rather than the current 22 to “protect front-line services and jobs sustainably and effectively”. The Welsh Government has acknowledged the fact the current local authority structure is unsustainable and is supporting the move to merge local authorities within Wales, although at the time of writing this report no firm decisions at the number of local authorities has been agreed. Meanwhile, local authorities are continuing with their own transformation programmes. The report highlights the need to manage demand due to austerity combined with demographic change and public expectations. As a result, there is emphasis on the preventative agenda and the need to focus resources accordingly.

In Northern Ireland, local government re-organisation in April 2015, has seen the reduction of 26 councils to 11. As part of the country’s drive to improve recycling it has set a statutory target of 60% recycling rate by 2020, a full 10% higher than the European Commission target for the same date.

As well as ensuring that the “new councils will be stronger, more efficient and will deliver more effective services”, the reforms are designed to be focused on meeting the need of citizens and communities.

In England, the approach has been different and less radical. The Localism Act 2011⁷ is designed to devolve greater power and decision making from central to local government. Of particular note in the context of waste is the General Power of Competence (GPC). This gives local authorities the power to take reasonable action as needed “for the benefit of the authority, its area or persons resident or present in its area”. The aim is to enable local authorities “to innovate and deliver better value for taxpayers’ money”.

In Scotland, one of key messages that came out of the June 2011 Christie Commission⁸ report, The Future of Public Services in Scotland, is that reform is needed to ensure that public services are built around people and communities, are constantly seeking to improve performance and reduce costs, and are open, transparent and accountable. It also calls for greater integration and cross sector working. Even in Northern Ireland, where the reform has been implemented, the future impact on local authority waste collection functions is not clear. With the devolution of some powers, there is concern about the future planning and procurement of waste infrastructure and whether this will revert to individual councils, continue to be delivered through the current more collective approach through the three waste management groups or whether the government will opt for a fully holistic approach to benefit from economies of scale. The Department of Environment has commissioned an update of its 2012 Analysis of

6 The report of the Commission on Public Service Governance and Delivery, Welsh Government, January 2014 (www.wales.gov.uk/topics/improving-services/public-service-governance-and-delivery/report/?lang=en)

7 www.legislation.gov.uk/ukpga/2011/20/contents/enacted

8 Commission on the future delivery of public services, Scottish Government, June 2011 (www.scotland.gov.uk/About/Review/publicservicescommission)

Waste Infrastructure requirements for Northern Ireland as a whole and will determine the way forward in light of its findings. The current uncertainty, however, is reported to be crippling the development of much needed infrastructure now which will have a knock on effect on collection services and performance.

Overall, respondents mentioned a range of possible implications including:

- the impact of the cost of reform on local authority budgets;
- the limit on the scope to 'merge' collection and disposal activities, given different contractual arrangements for collection, treatment and disposal and different local circumstances;
- the stronger focus on building collection services around the needs of residents and communities while still meeting overarching policy requirements and legislation focused on other performance indicators; and
- the risk that creating larger authorities could impact negatively on the provision of 'locally appropriate' services.

The economic landscape

It is difficult to deny the cumulative impact of the current spending cuts imposed on local authorities across the UK. In its Tough Times 2012 report⁹, the Audit Commission estimated that 12 per cent of councils were at risk of not meeting their budget plans in the short-term, while 25 per cent were estimated to be a future risk (Audit Commission, 2012a).

The figures make sombre reading:

- in England, local authorities are suffering, in 2012/13, the cumulative impacts of two years of spending cuts equivalent in real terms to £5 billion (Audit Commission, 2012¹⁰), with more to come;
- in Scotland, local authorities will have to deal with a 2.2 per cent fall in real terms in funding in 2013/14 (Audit Scotland, 2013¹¹);
- in Wales, grants to local authorities have dropped by the equivalent of 10.1 per cent per person in real terms from 2009/10 to 2012/13 (Institute for Fiscal Studies, 2012¹²); and
- in Northern Ireland, whilst local authorities are not facing cuts as severe as the rest of the UK at present, the financial impact of the proposed local government re-organisation is not clear; a report by consultants PricewaterhouseCoopers¹³ in 2009 suggested that while the cost of reform would be £118m over the first five years, savings of £438m could be achieved over a 25 year period.

According to APSE's *Refuse State of the Market Survey 2015*, the financial outlook continues to look bleak in the immediate and longer term for local government waste services. 78% of those surveyed expected a further squeeze on budgets in 2016 with a worrying 64% of these expecting a decrease in revenue in 2016 and more than one in three expecting a decrease in capital budgets. Investment levels have been generally low over the past two years, with 70% of councils stating that this had been less than 10%. Over the next five years, the majority expect to see a reduction in service budgets with many expecting cuts of up to 20%.

9 Tough Times 2012: Councils' Financial Health in challenging times, November 2012, (www.audit-commission.gov.uk/2012/11/tough-times-2012/)

10 Tough Times 2012: Councils' Financial Health in challenging times, November 2012, (www.audit-commission.gov.uk/2012/11/tough-times-2012/)

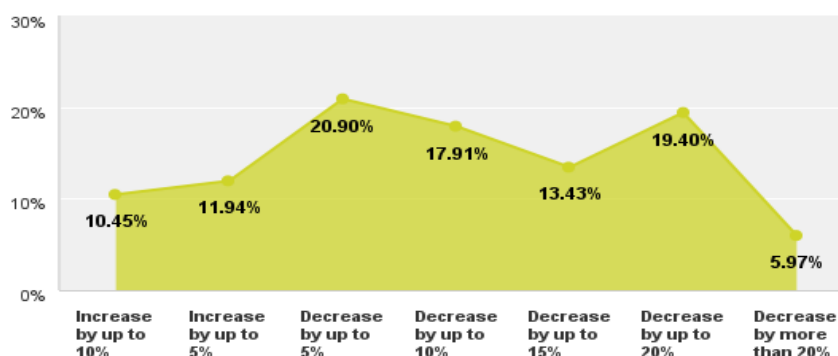
11 Responding to challenges and change: An overview of local government in Scotland 2013, (www.audit-scotland.gov.uk/work/local_national.php?year=2012)

12 Local government expenditure in Wales: recent trends and future pressures, October 2012, (www.ifs.org.uk/publications/6359)

13 PwC Economic Appraisal, 2009, (www.doeni.gov.uk/index/local_government/local_government_reform/local_government_minutes_associated_documents/local_government_service_delivery-3.htm)

Q13 What is your expectation of the level of funding in your service budget in the coming five years?

Answered: 67 Skipped: 37



Representing the third largest local government service in terms of spend, the pressure on waste as a frontline service is likely to continue. Indeed, as further budget cuts hit home, local authorities, it is argued, may not be able to continue to defend core services.

In the interviews conducted for this report, the economic situation emerged as the overriding challenge – both currently and in the future. Between 2010 and 2018, some councils will have seen their budgets reduced by up to 50% and many are of the opinion that the worst is yet to come, with the main impact of the cuts being felt in 2016-18. Other factors such as council tax freezes and increasing landfill tax will also impact on finances; On 1 April 2014, the Landfill Tax rose to £80 - which has meant an £8 rise per year over the last five years.

The tax is credited with reducing waste to landfill and increasing recycling rates, however a floor has been placed underneath the rate so it will not fall below £80 per tonne from April 2014 until at least 2020.

Looking beyond the current budget cycle, there is the expectation that other pressures will also start to be felt, with social care in particular taking up an increasing proportion of the local government pot.

While current efficiency saving measures are delivering results, there is a recognition that services can only be streamlined to a certain point and that more fundamental decisions about the shape of future core services will have to be made in the next 2-3 years. In light of this, one of the most serious impacts of the current situation is on staffing levels, according to many of those interviewed.

A number of respondents reported that the cuts are hitting the waste management function hard, with resource at both management level and in back office functions – including data management, communications, and administration – being substantially reduced. There is concern that the loss of knowledge and experience from in-house waste management teams will limit the ability to innovate and identify the necessary costs and performance efficiencies in the future, and a number of respondents were very clear that it is a false economy to cut back on skilled, professional staff.

With public sector salaries frozen there is also the fear that more skills will be lost as the general economy improves and the private sector job market offers more lucrative opportunities.

“The stripping out of personnel has happened despite waste management being recognised as a critical service in the council’s overall strategy and a 1.5% growth in a waste arisings.”

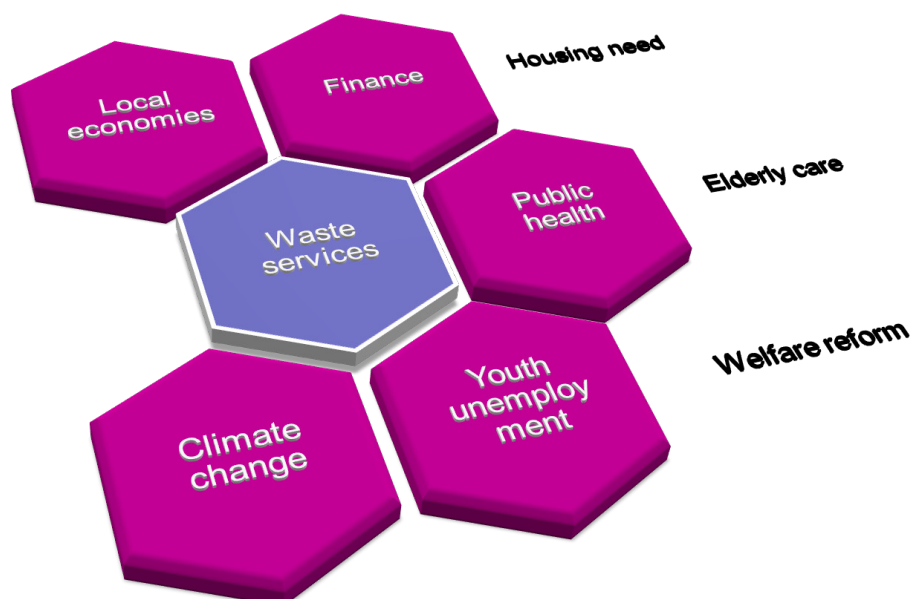
These views reflect the findings in APSE’s *Refuse State of the Market Survey 2015*, in which 35% of councils said they were expecting natural wastage over twelve months, 19% expecting a recruitment freeze, and

35% and 8% respectively anticipating voluntary and compulsory redundancy programmes compared with the same survey conducted in 2013. The 2015 results show that through increased levels of voluntary redundancies and the greater use of recruitment freezes, the expectation of the need to resort to compulsory redundancies has reduced slightly.

3. Responding to the challenges: the Ensuring Council

Ultimately, the pressure is on every UK local authority to respond to these challenges without compromising on the quality of service or outcome. However, there is no silver bullet. The current economic squeeze will have an impact on local government budgets for the foreseeable future, waste collection services will have to continue to improve to meet national and EU targets and quality requirements, and any progress on waste prevention is unlikely to offset the increase in waste arising as a result of population growth.

In August 2013, APSE published a report entitled 'The road to 2020: A manifesto for the Ensuring Council' <http://www.apse.org.uk/apse/index.cfm/research/current-research-programme/the-road-to-2020-a-manifesto-for-the-ensuring-council>, with the aim of providing a new model for the future role of local government and the delivery of effective services. The report acknowledges that local government faces unprecedented financial challenges, coupled with demographic and environmental pressures including local economies, climate change, welfare reform, youth unemployment, public health, housing need and the aging population.



The challenges are shown in the diagram above and those immediately surrounding waste services have a direct relationship with the service; whether it is:

- the impact of the spending cuts and austerity on the service;
- how the public realm has a huge impact on local economies in terms of business and urban regeneration;
- the impact of the quality of waste services on the health of the public;
- long term unemployment among young people virtually tripled between April 2010 and May 2013 – a number of local authorities are addressing this through apprenticeship and training schemes; or
- climate change – through increasing recycling, minimising waste and using more

environmentally-friendly vehicles and equipment, council waste services are reducing the impact.

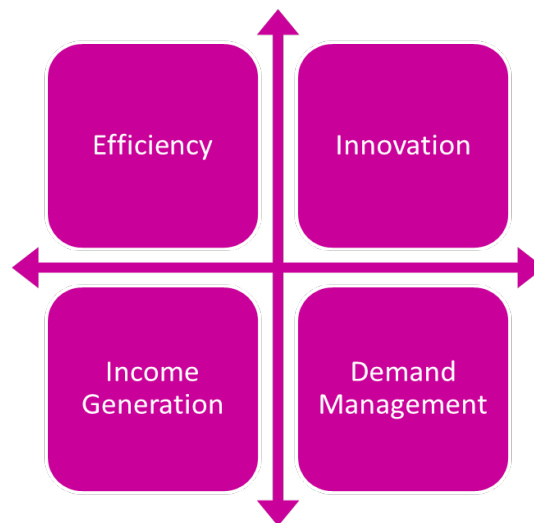
As well as meeting service-specific priorities, spending will need to be shaped to contribute to these wider public policy issues and Local government must be able to maintain the ability to 'ensure' that political, economic and social policy objectives are met within their communities.

The ethos of the 'Ensuring Council' is based around:

Principles	What does this mean in practice?
Stewardship	Ensuring the social, economic and environmental well-being of the local area
Core capacity	Maintaining advantages of in-house services to meet local needs
Municipal entrepreneurship	Opportunities for innovation and income generation
Collaboration	Working with other providers on a collective basis rather than through competition
Politics	Grounding local decision-making in political accountability
Social justice	Meeting the needs of the community

The four pillars of excellence

In order to meet the challenges facing local government service delivery, APSE has developed a model of the four pillars of excellence; ways in which local authorities can meet the challenges by becoming more efficient, generating income, innovating and managing demand.



We will now look at these pillars of excellence in terms of how local government is utilising these pillars to respond to the challenges.

Efficiency, innovation and income generation

With waste management being one of the highest areas of spend, it has inevitably been one of the key areas identified for efficiency savings. In the past few years, innovation in procurement, service design and delivery, and partnerships have demonstrated that significant savings are there to be had for those willing to explore new approaches.

APSE's Refuse State of the Market Survey 2015 found that local authorities are taking a range of service design measures to meet efficiency challenges including changes to collection arrangements and working days, route optimisation/rationalisation, improved vehicle utilisation, strategic reviews of bring bank provision and Household Waste Recycling Centres. A total of 39% had completed a service review, 40% have one under way and 14% will be doing so in the next one or two years. Measures being taken to

meet efficiency challenges through these reviews include the following:

Options	Response Percent
Route optimisation	81.7%
Utilisation of vehicles	68.3%
Service re-design	61.7%
Review of working time/rota's	48.3%
Review of productivity/work study	48.3%
GPS tracking	46.7%
CRM handhelds	41.7%
Using systems thinking techniques	28.3%
Eco drive vehicle monitors	18.3%
Using systems thinking techniques	18.3%

In addition, there has been an introduction of income streams via trade waste collections, charged-for green waste services, developer contributions and maximising material re-sale. More than half of the managers surveyed had income generation schemes from waste services. Of these, the vast majority related to selling recycling materials, while 17% cite renewable energy - more than double the figure for 2013, 14% identify solid fuel recovery and 6% cite anaerobic digestion as income sources.

Partnerships and joint working have also delivered efficiencies and improved performance on a range of scales. Some of the success stories have involved a major strategic shift, such as the Dorset Waste Partnership, which has brought together the waste, recycling and street cleaning services from the seven Dorset councils, as well as the management of HWRCs and the treatment and disposal of waste, and is delivering savings in the region of £2m per year (2013 figs.).

In a similar vein, the East Kent Joint Waste Project (EKJWP), which is part of the Kent Resource Partnership, has brought together five councils with the aim of generating recycling rates of 50% or more while providing savings of almost £4m per year and up to £30m in total.

Focusing on recovering value from residual waste, Prosiect Gwyrdd is a partnership between Caerphilly Borough County Council, the City and County of Cardiff, Monmouthshire County Council, Newport Council and Vale of Glamorgan Council. Together the five authorities are responsible for 40% of the total municipal waste of Wales and the partnership aims to maximise economies of scale by delivering a regional EfW solution to residual waste in conjunction with Viridor. Project management groups have been set up looking at financial, legal, technical, communications and procurement issues, which are then fed into to a management group set up to steer day-to-day business. The management group reports to an elected representative body that is accountable for the decisions. After Welsh recycling targets have been met, the partnership will deliver on average 172,000 tonnes to the facility. All authorities are committed to recycling and composting and meeting the Welsh Assembly Government target of a 70% recycling and composting rate by 2025.

Other examples have focused on specific areas of activity, such as working in partnership to improve the revenue from recycle streams. Herefordshire County Council the ten district and borough councils and which form the Hertfordshire Waste Management Partnership, for example, have adopted a consortia strategy to secure better contracts for paper, packaging, and textiles, generating significant additional income for the partnership.

Examples of joint procurement of vehicles and containers, partnership working with the third sector on bulky waste and other re-use and recycling initiatives are also widespread. The Nottinghamshire Vehicle Consortium, which comprises nine local authorities, has made savings through joint procurement of around £8k per vehicle (2013 figs.).

On a larger scale, there are also initiatives to provide support for local government procurement on a wider scale. Scotland Excel, for example, is a procurement organisation funded by all 32 local authorities and other public organizations in Scotland. It was established in 2008 to lead the development of collaborative contracts and facilitate improved procurement practices within the local government sector and has expanded into areas such as waste. A procurement framework for organic waste treatment has been developed and the organisation is now looking at framework for recycling and residual waste.

The opportunities are clearly there for significant savings to be achieved. In its 2011 report, entitled '10 ways to cut the costs of local authority waste collection'¹⁴, Eunomia Research & Consulting estimated that better procurement, more efficient services and voluntary partnerships have the potential to release annual savings of over £770m if rolled out across England alone. However, there are challenges, both structural and political, that can constrain partnership working, and the learning from both the case studies and qualitative research conducted for this report suggest that success requires:

- shared vision, goals and benefits;
- clear objectives and milestones;
- open and inclusive working to build trust; and
- recognition of each partners' constraints.

Barriers to innovation

In a report entitled 'Implementing sustainable procurement: overcoming common barriers' published by the European Pathway to Zero Waste project in March 2012, the main barriers to implementing sustainable procurement were identified as:

- lack of senior (executive) and organisational support;
- structural and organisational change;
- lack of coherent corporate procedures, systems and approaches;
- lack of time resources, knowledge and capacity; and
- costs, perceived costs and cashable savings.

Overall, the case studies prepared for this report in 2013 highlight a range of proactive measures that have delivered efficiency savings and improved income generation:

- by bringing its trade waste services and HWRC management back in-house, Blackpool City Council has more than doubled its commercial customer base, increased income, and achieved £58k surplus income from its re-use shop at the HWRC;
- East Lindsey District Council has achieved savings in the region of £1.2 million through charged for green waste collections, joint procurement and fleet ownership and collaborative working on collection services with an adjacent council;
- by moving away from a full service contract, North Lincolnshire Council has saved around £1.7 million on treatment costs and improved income streams and data capture from its HWRCs; and

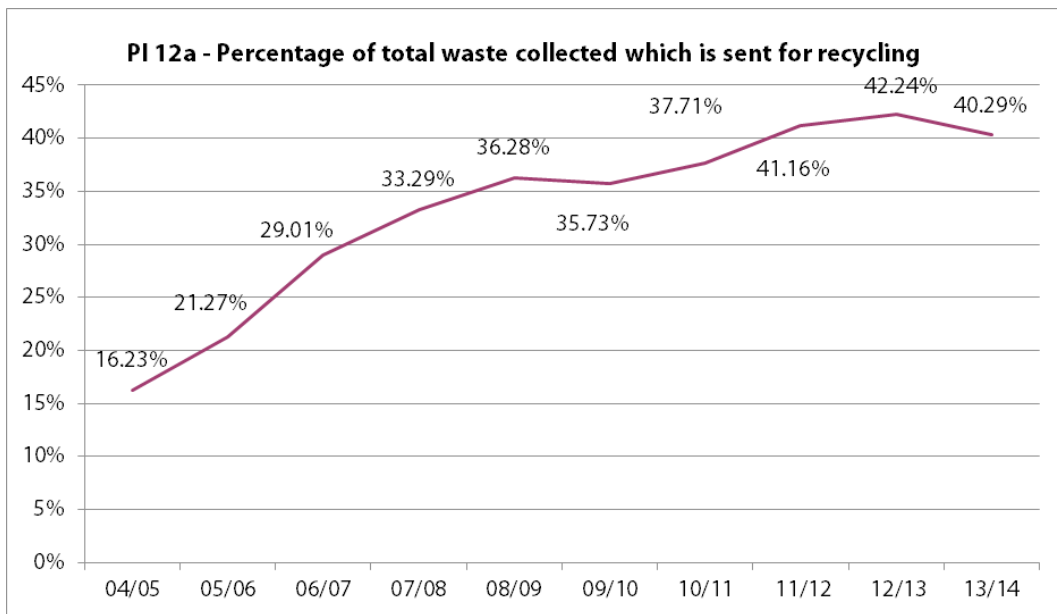
Copeland Borough Council has realised efficiency savings of around £120k through service efficiency measures including service standardisation, a seasonal green waste service, and a review of large bin and assisted collection criteria.

¹⁴ 10 Ways to Cut the Costs of Local Authority Waste Collection (http://www.eunomia.co.uk/product.php/82/8/local_and_regional_government)

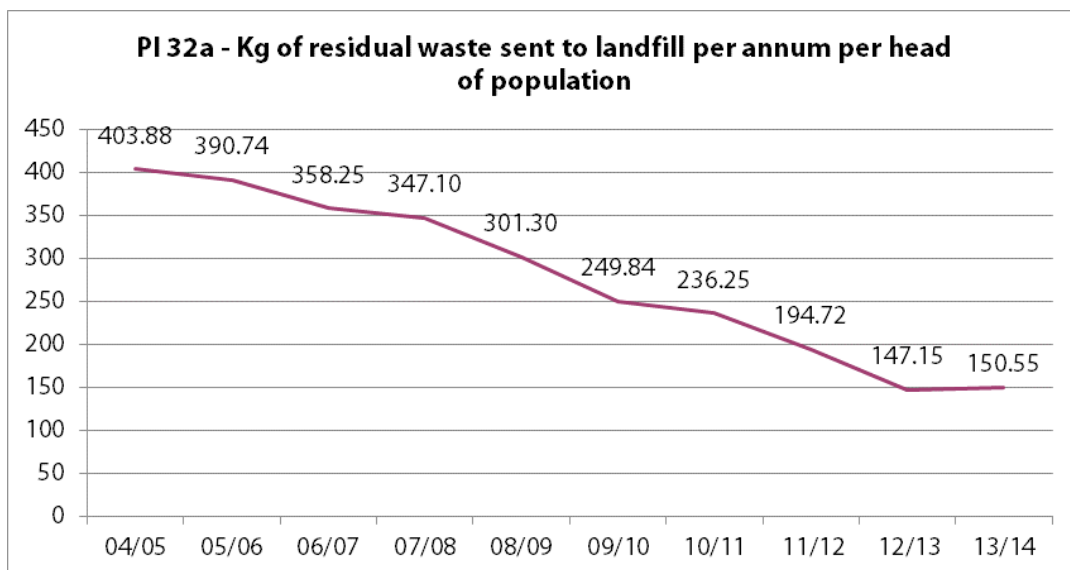
Demand management: service delivery and performance

In the qualitative research conducted for this report, one of the main challenges identified for local authorities collection services, both now and in the future, is the growing tension between the reduced availability of money and the need to meet current (and future) legislative requirements and targets, while at the same time providing services that meet resident' needs and expectation and deliver the optimum environmental outcomes.

The concerns expressed by local authorities are set against the backdrop of the rapid and major progress that has been made over the last 10 years on increasing the volume of recycling. Data from APSE performance networks demonstrates that the average percentage of total waste collected which is sent for recycling has increased from 13% in 2003/04 to over 40% in 2013/14, with some councils now going beyond 60%.



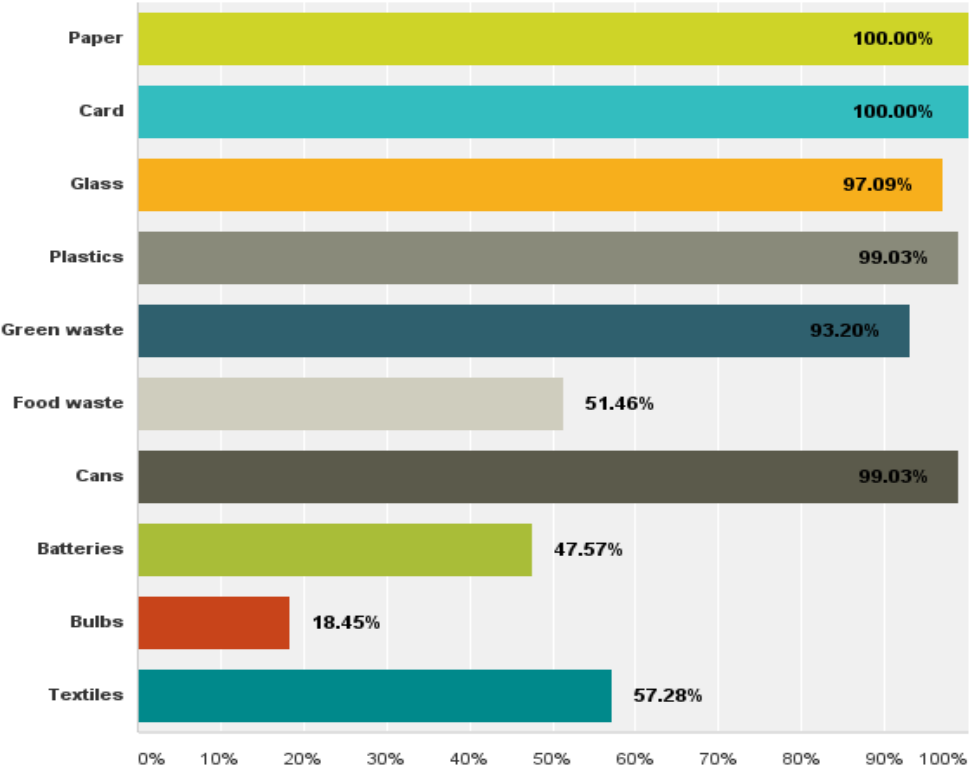
In 2013/14 the amount of residual waste sent to landfill per head of population has dropped to just over 150kgs, under half of the amount sent to landfill in 2007/08.



APSE’s State of the Market for Refuse 2015 found that all councils that took part in the survey are now recycling paper and card, 99% are recycling cans, 99% plastics, 97% glass, and 93% green waste. A total of 57% are recycling textiles- a drop of 13% on 2013, 47% batteries – a fall of 16% on 2013 and 51% food waste, with 18% recycling light bulbs.

Q1 Which of the following recycling activities are you currently carrying out?

Answered: 103 Skipped: 1



55% of respondents expected increases in recycling of other materials, such as textiles, in the year ahead, whilst nearly 60% expected further decreases in tonnages of residual waste collected and reductions in landfill use.

In terms of maintaining progress in the future, however, there are clear challenges ahead which can be grouped into four key areas:

Increased pressure to maintain and improve dry recycling performance, both in terms of quantity and quality

There is growing evidence that recycling is ‘flatlining’ across parts of the UK. Further progress will mean improving performance in more difficult areas of waste collection, including better engagement with harder-to-reach audiences and improved service models and engagement techniques for certain types of housing stock such as flats and HMOs. Evidence from the case studies carried out for this report, including the award-winning roll out of recycling and food waste collections to 55,000 inner city households in Belfast, suggests that detailed evaluation and targeted engagement are important for these audiences, as are flexible and innovative approaches to the provision of containers.

The need for better data and evidence-based decision making is also acknowledged as a priority by many APSE members in developing effective mechanisms to drive progress. Extensive piloting, for example,

allowed East Riding of Yorkshire Council to assess whether changes to the scope and frequency of the collection service to increase recycling and reduce residual waste would be effective – both in terms of resident satisfaction, participation and accurate data. As a result of carrying out detailed compositional analysis of residual waste, other local authorities have found that restricting residual waste through the provision of smaller containers makes the public think more sustainably about what they buy, increases recycling and reduces the cost of residual waste. Monmouthshire County Council achieved 66% recycling in Quarter 2 and 63% in Quarter 3 of 2013 against a baseline of 50% through restricting waste.

While the extent of the impact is not yet clear, the developments discussed earlier with regard to the legislative requirements for the separate collection of dry recyclables could also potentially affect recycling rates, particularly if collection systems have to be changed. In this event, the ‘resident experience’ will have to be carefully managed and investment in communications will be essential to explain the changes, counter any disruption to recycling behaviour and perceived loss of convenience, and to maintain public engagement and confidence.

Contamination rates are also likely to become a higher priority, both as a result of general pressure on recycling rates and quality, the MRF regulations starting to take effect, and growing pressure to roll out collections to harder-to-reach audiences. Evidence suggests that ability to accurately identify contamination hotspots will become more important and a variety of measures are needed to achieve an improvement, including accurate data and effective communications. Wandsworth Council, an inner London borough of 136,000 household with a high density of low and high rise properties and estates, has reduced its contamination levels by 5% in the last two years. With more accurate data on individual rounds from the MRF, the council has carried out targeted door-stepping, as well as implementing operational changes and introduced a ‘Recycle Right’ campaign.

Effective enforcement policies are likely to move up the agenda too, although for English local authorities changes to the legislation that have replaced fixed penalties with civil sanctions may make this option more challenging. However, the qualitative research found very little appetite for enforcement action related to household collections, with most respondents keen only to use it as a last resort.

The debate about the effectiveness of incentives to encourage recycling continues but two recent reports suggest that these may not deliver significant increases. In the interim report for a Defra-commissioned review by Brook Lyndhurst of Defra’s Reward and Recognition Fund, the findings suggested that “improvements in recycling and reuse tended to be linked to better services and promotion rather than being attributable directly to the rewards. Rewards and recognition have the potential to validate, reinforce and, possibly, improve a pre-existing behaviour rather than act as a catalyst for new behaviours.”

And a report earlier this year commissioned by Serco suggested that few incentive schemes appear to be cost effectively increasing recycling. In evaluating other data to identify what other service changes residents believe would encourage them to recycle more, the research also highlighted some interesting findings, with 42% saying that a co-mingled system would, 42% the provision of wheeled bins and 9% clearer information on what can be recycled.

Increased pressure to roll out household food waste collections

With the increased provision of household food waste collections, WRAP research¹⁵ shows that avoidable household food waste has been cut by 21% since 2007, saving local authorities around £85 million in avoided landfill tax and gate fees in 2012. However, UK households are still throwing away 4.2 million tonnes of household food and drink annually; the equivalent of six meals every week for the average UK household.

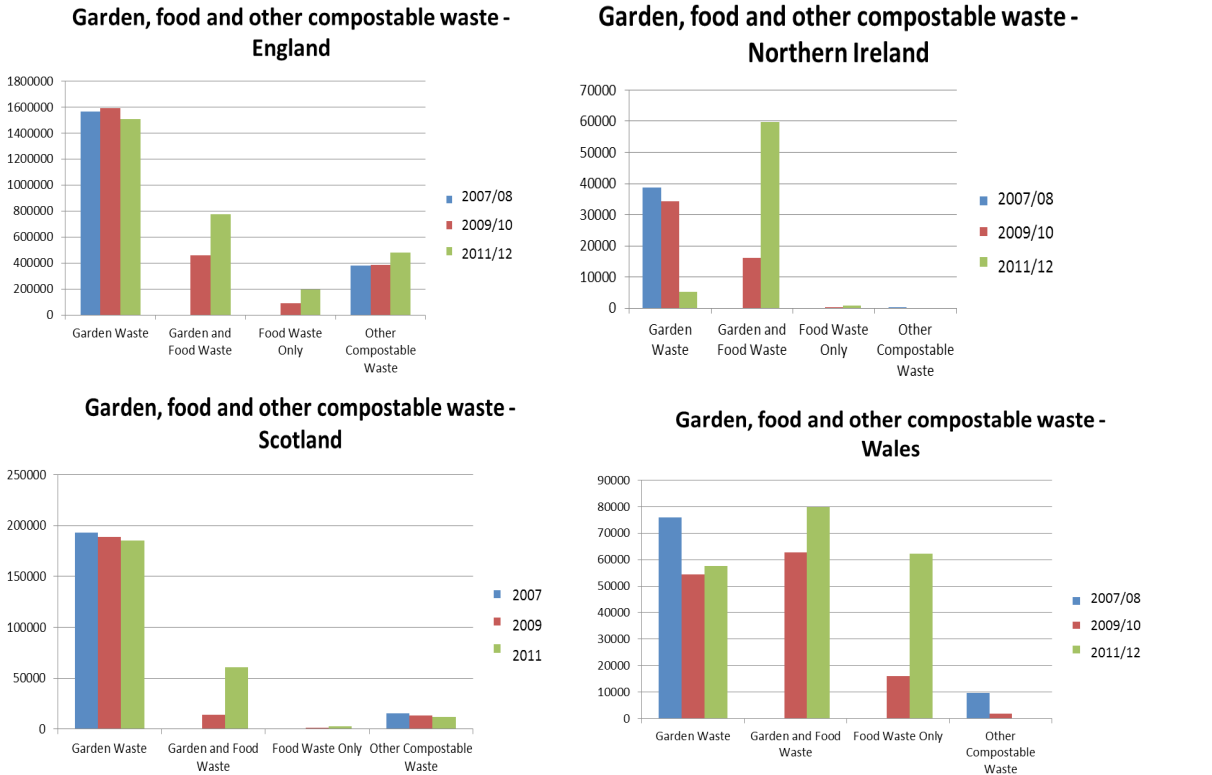
With strong policy direction coming from Europe, the UK governments have all taken action on collections,

¹⁵ Household food and drink waste in the UK 2012, WRAP (www.wrap.org.uk/content/household-food-and-drink-waste-uk-2012)

with both Scotland and Northern Ireland opting for mandatory food waste collections from 2016 and the powers for a similar approach proposed in the Welsh Environment Bill White Paper.

The cost of implementing food waste collections, however, is a critical factor here. In Wales, additional government funding has supported the roll out of food waste to four out of five households. The Scottish Government has similarly provided £20m to help local authorities roll out food waste collections, with over one million households in Scotland now having access to a service. It has also recognised the challenge and moved the deadline back for all Scottish local authorities to be offering this service. Meanwhile, around half of English local authorities currently provide food waste collections, and a significant proportion of DCLG’s Weekly Collection Support Scheme has been awarded to bids involving the introduction of food waste collections.

The analysis below from Waste Dataflow indicates that the policies of introducing grants and financial incentives, particularly in Wales, have influenced biowaste collection and disposal policies around the countries. (APSE Briefing Paper 13-50)



In rolling out food waste collections, both good practice guidance and the case studies highlight communication and engagement as a key element for success. Having introduced a combined garden and food waste collection in 2013, Aberdeen City Council identifies the three key elements to the success of the project as the detailed communication plan, adequate resources and partnerships with roads and housing colleagues. Detailed housing stock mapping and targeted engagement, meanwhile, helped West Oxfordshire to ensure that the roll out of food waste collections to all households, including high rise and multi-occupancy properties, went smoothly and has sustained good level of participation. In West Lothian, involving the collection crews in the preparation for and roll out of household food waste collection meant that the crews have become ambassadors for the service and helped deliver a successful phase 1 introduction.

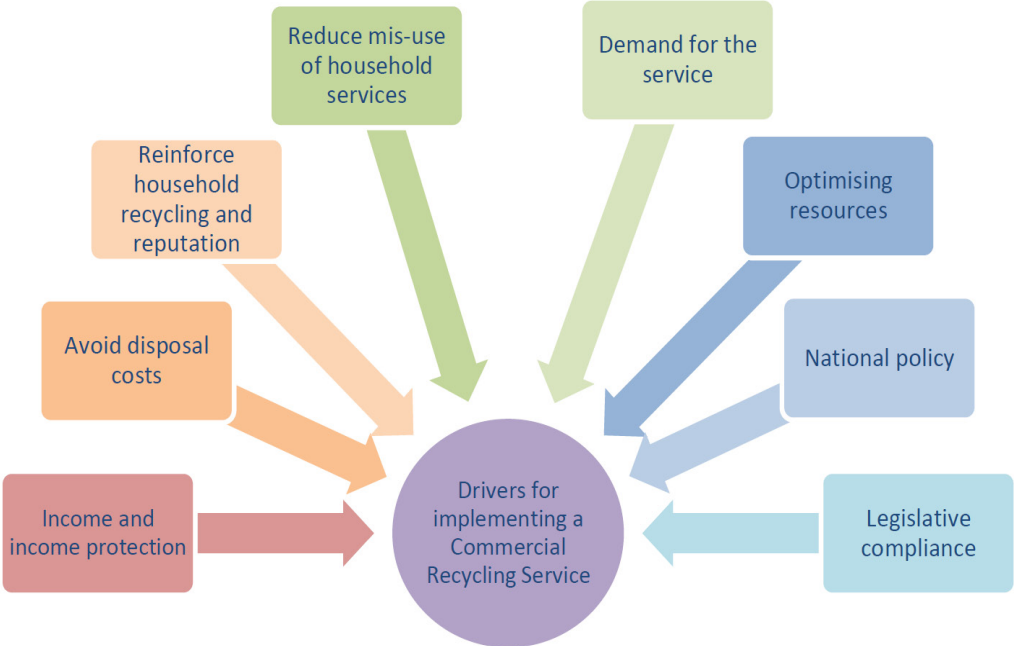
Encouraging participation in trade waste collections

All the UK waste strategies place a priority on providing more recycling services, particularly to SMEs, and in times of austerity, many local authorities have focused on the income generating opportunities offered

by introducing or expanding their trade waste services. Across the UK, the majority of local authorities now offer commercial residual waste and recycling collections; according to WRAP, between 2007 and 2012 the proportion that offered these services rose from 40% to 72%. On average, local authorities have trade waste contracts with 26% of the available market and this ratio has been fairly stable over the past 5 years. Over 50% of councils expect to see an increase in trade waste over the next 12 months.

The Waste Policy Review for England 2011 makes reference to ensuring “that smaller businesses have access to cost effective recycling services” and a Business Recycling and Waste Services Commitment was developed by Defra in conjunction with WRAP, the LGA and other partners, providing good practice principles and a support toolkit. In Scotland, the Waste (Scotland) Regulations 2012 are now providing an additional driver by requiring all businesses to present metal, plastic, glass, paper and card for separate collection from 1 January 2014, as well as food waste if they produce over 50kg per week. Significant funding has been made available through Zero Waste Scotland to help councils provide more recycling and food waste collections.

In 2012, approximately 68% of local authorities in England offered a residual waste collection and 49% provide a recycling service to commercial premises. In 2012, Wales and Northern Ireland all authorities provide a residual waste collection and in Scotland, 31 out of 32 do. With regards to commercial recycling services, the proportions are 86% in Wales, 84% in Scotland and 62% in Northern Ireland, according to WRAP figures.



The drivers for the introduction of a commercial recycling service are shown in the recent WRAP publication ‘Commercial Recycling Collections Guide’¹⁶

Efforts by local authorities to expand commercial waste services and increase participation need to acknowledge the main barriers to business recycling, particularly SMEs, which include lack of awareness of available services, cost, and lack of space to collect and store materials for recycling. In the Business Recycling and Waste Services Commitment, a number of key principles are outlined, including:

- reliable and regular collections;
- tailored collection services to meet the needs of customers;
- clear information about services;
- access to household waste and recycling centres for businesses;

¹⁶ Commercial Recycling Collections Guide, WRAP (www.wrap.org.uk)

- contracts based on best practice principles;
- reasonable and clear fees;
- guidance for businesses on their responsibilities with regard to waste; and
- appropriate and sensible enforcement.

The case studies in this report highlight a number of approaches adopted to improve commercial collection services and increase revenue. Blackpool and West Oxfordshire, for example, have chosen to bring the service in-house, delivering improvements in terms of service and customer satisfaction and increasing their customer base and revenue. Measures including proactive sales, robust enforcement and additional controls on trade waste at HWRCs have been contributed to the improvements. Oxford City Council, in the course of consolidating its frontline services into one entity, Oxford Direct Services (ODS), has developed a highly customer-focused and holistic approach to its commercial waste services, providing a flexible offering that is tailored to meet a range of different business needs, including advice and waste reviews, pest control and graffiti/flyposter/gum removal services, and bin and bin store washing services.

Waste prevention and re-use

With the renewed emphasis placed on the Waste Hierarchy by the EU Waste Framework Directive, and the requirement for member states to develop national waste prevention plans by the end of last year, there has been a strong focus on waste prevention and re-use in recent months. However, despite each of the UK countries having published plans, the role and ability of local authorities to deliver significant progress in these areas is constrained by a number of factors, including:

- lack of money to deliver non-statutory services
- lack of specific targets for re-use to justifying investment in an area where measuring results and return is challenging;
- the relative lack of influence that local authorities have further up the supply chain at the product design and specification stage;
- the decline in third sector organisations and social enterprise partners due to the economic climate and the withdrawal of government funding.

That is not to say that waste prevention is not viewed as important. In the qualitative research, many respondents acknowledged that waste prevention activities will be essential to deliver further reductions in residual waste tonnages and cost in the future. Many continue to be committed to emphasising prevention in communication campaigns, and employing measures including restrictions on residual waste collection capacity and 'no side waste policies', bulky waste and WEEE re-use initiatives, the use of WRAP's 'Love Food, Hate Waste' campaign, home composting and Real Nappy initiatives, the provision of re-use collection points and facilities at HWRCs and support for local re-use networks.

The financial argument for re-use was highlighted recently in the LGA's Reuse Commission 'Routes to reuse: Maximising value from reused materials' report, released earlier this year, which estimated that almost 615,000 tonnes of material is currently disposed of in England that could be reused each year, equating to a £60 million saving to council tax payers if it was diverted from landfill.

The 'social value' of re-use initiatives is also recognised both in the LGA report and by respondents. Lancaster City Council, for example, has worked with a local social enterprise to deliver a high performing re-use service that delivers improved resident satisfaction as well as 70% diversion from landfill and measurable social benefits, including local training and employment opportunities and good quality secondhand items for families in need.

Whether implemented as an efficiency saving measure or to encourage prevention and re-use, the widespread trend to charge for bulky waste and green waste collections is reported to have reduced

waste arisings and other measures, such as the London Borough of Bexley's local 'green points' scheme through which residents earn green points as a community based on any reduction in the residual waste they create and the amount they recycle. These points can then be redeemed online to pay for eco-friendly products.

There is extensive waste prevention guidance and toolkits for local authorities, including WRAP's Household Waste Prevention Toolkit, and the Welsh Local Government Association's Waste Avoidance Toolkit. Based on the work that it did for the latter, Eunomia Research & Consulting has also issued a UK wide Waste Prevention Toolkit which allows the user to model the waste prevention effects, environmental impacts and associated costs of up to 10 specified prevention initiatives.

Although strictly outside the scope of this report, which focuses primarily on collection challenges, waste prevention and re-use is identified in the concluding section of this report as one of the challenges for the future.

Demand innovation by Andy Mudd, APSE solutions

It has been clear for some time that supply side efficiency measures are unlikely to be enough to see us through the next round of cuts. APSE solutions has been exploring the idea of demand management. The idea is to try and change the nature of demand and reduce the cost of services whilst still meeting social policy objectives.

Waste collection has undergone significant change over the years in response to the change in demand away from waste disposal to recycling. The simple, back door weekly collection service that once prevailed is long gone. A typical service now empties multiple bins per household, requiring additional engagement and commitment by the resident to follow a number of requirements with regard to presenting their waste.

But is the service now too focused on meeting policies to divert waste from landfill into recycling rather than demand from service users which might be expected to stress factors such as convenience, ease of use and cleanliness? The key question for the future is whether it might be possible to refocus on meeting the needs of householders whilst continuing to meet critical public policy objectives around recycling and the efficient removal of waste.

Using demand innovation techniques to plot the sometimes conflicting requirements of different interest groups can help to throw up radical solutions. In the case of refuse collection, analysis suggests that a radical move away from individual household collection could be the answer for at least

some locations. Communal bins, carefully sited and preferably underground, avoid the need for multiple bins and deal with the problem of householders having to remember which bin to wheel out on which day. Used across continental Europe, they may also be less expensive to empty, more convenient and cut down on the amount of street litter related to waste collection.

So why do we not have communal refuse collection in the UK? The answer to this question can be phrased in different terms but it ultimately boils down to a perception that people prefer the current approach and would not tolerate a 'reduced' level of service. A demand management approach, rather than simply accepting this, seeks to identify how this resistance to change might be overcome – in other words how demand can be managed and changed, rather than passively accepted. The key is to identify and deal with the genuine issues that some people would have with a communal bin system. Elderly or disabled people could be provided with assistance or better still, incentive schemes could be created to encourage neighbours to provide the help they need. A simple card reader at the bin could facilitate a reward scheme for recycling, for example.

The important thing is to work with local communities on the design of services rather than to impose change upon them. Demand innovation is not necessarily about giving people what they think they want but about working with them to provide something better.

4. Case studies

(It should be noted that any figures are based on 2013 /2014 data when these case studies were compiled).

Blackpool Council: Generating external income and bringing Household Waste Recycling Centres and trade waste back in-house

Blackpool Council's waste collection has been contracted out since 2005 but around the time of the Comprehensive Spending Review in 2010, the service came under pressure to deliver efficiency improvements and savings.

To achieve this, the council looked at ways of disaggregating the wider refuse contract and this resulted in a number of services and functions being brought back in-house, including trade waste collection, wheeled bin stock management and management of the town's HWRC site.

Bringing the trade waste collection back in-house has delivered a number of benefits through a fresh focus on the service and a proactive approach to recruitment of new customers. When the service moved in-house in 2010 it had around 1200 customers and the change involved the transfer of four employees under TUPE and two vehicles.

As a result of significantly lower disposal costs resulting from a new county-level PFI contract, Blackpool was able to offer a very competitively priced service. Following a proactive sales campaign and a tough stance on enforcement, the service now has 3000 customers and is delivering a profit margin of 10-12%. As a result, new vehicles have now been added with in-cab technology (including bin-weighing & 360° CCTV technology) to optimise logistics and improve data capture. Further investment in IT is also increasing efficiency through the introduction of a direct debit system, with 40% of businesses now using this method of payment.

Bringing the HWRC in-house has allowed Blackpool to significantly improve customer satisfaction and provided much more flexibility. The site now caters for 39 waste streams and is delivering a recycling rate of between 66 and 68%. Initiatives introduced since the transfer include:

- a rubble permit which has reduced the amount coming into the site by two thirds;
- a re-use shop, managed by the site staff, which was forecast to make £5k income in the first year but has actually achieved c.£58k surplus, excluding the landfill diversion savings;
- an apprenticeship scheme (which operates across all areas of the the waste services division to deliver local social and employment benefits; and
- Rover, a mobile recycling centre which is provided in partnership with a third sector partner and which collects recyclable material.

The ROVER recycling centre was developed in response to census and equality impact data which showed that over a third of residents in the town did not have access to their own transport and there is only one HWRC in the unitary authority located in the north of the town. The idea was to take a 'mobile tip' out in to the community to make access to services easier for residents who could not drive to the tip and at the same time reduce fly-tipping.

Then in 2012, outside expertise was brought in to conduct a Rapid Improvement Review, which covered the full spectrum of the contract including trade waste collection.

The review assessed what efficiency improvements could be delivered through the contract with the private sector provider and in addition to helping the waste management team to develop better contract management skills, the result was an improvement proposal that included:

- route optimisation and reduction in the number of spare vehicles;
 - improved productivity on collection rounds through longer shifts and rationalised number of rounds; and
 - suspension of green waste collections during winter months, which allowed a reduction in the resources needed to deliver the service, with a total saving of around £18.5k over a 15 week period.

The review also resulted in the enactment of a provision in the contract for a number of households (circa 14,000) to be serviced by a third sector partner. This partner is now providing alternate weekly collections of paper and card in hessian sacks, and has also been tasked with increasing tonnage and participation as the areas it serves are historically very transient and of high deprivation. Other services including wheeled bin management and bag deliveries are also part of the agreement.

In the first year, these changes delivered savings of approximately £340k per annum, representing around 15% of the total contract value.

Learning

“Changing an established contract can be daunting and there was a steep learning curve. The help we received from IESE as part of the Rapid Improvement Review on contract management and negotiation skills gave us the confidence to address some of the challenges involved in bringing some of the operations in-house, including TUPE. It also left a legacy of increased confidence and knowledge in terms of managing the many varied services and contracts associated with a local authority waste service against a back drop of substantial economic pressures,” says John-Paul Lovie.

“We have benefitted from the combination of a committed and enthusiastic team and strong support at a senior management level, with a willingness to innovate and take on-board an element of risk.” John-Paul Lovie, Waste Manager, Blackpool Council

North Lincolnshire: Service redesign and bringing Household Waste Recycling Centres back in-house

Since 2011, pressure for efficiency savings has led North Lincolnshire Council to explore opportunities to move away from the full service contract model they had previously had with a private sector provider and transfer some waste management services back in-house or break them up into individual contracts.

In 2011, the landfill and organic waste streams were tendered separately. The renegotiation of the landfill contract reduced the gate fee to 18% of the previous cost, in part due to the healthy competitive market for landfill in the area. The organics tender produced a low technology treatment solution at a 40% lower gate fee for the now pure green waste stream. Together these procurements saved about £1.7m over the previous arrangement with the single provider.

2012 brought the requirement for further efficiency savings and the council opted to take the management of HWRCs back in-house from November 2012, with the aim of improving performance and customer satisfaction as well as reducing costs. Mainstream recyclable materials were added to the existing recycling collection contract but the move gave the council the chance to explore opportunities to generate more income from lower tonnage waste streams such as metals, batteries and waste oil. Some required infrastructure investment such as storage tanks and risk assessing the financial payback timescale. These have developed into healthy income streams and North Lincolnshire is now trialing arrangements for other materials including hard plastics, mattresses and carpets.

Direct control over the HWRCs has also reduced poor and illegal site practices and improved the customer interface, with site staff motivated to provide assistance to site users to improve segregation. Although

the change has not yet resulted in significantly higher recycling rates (the current rate is 62%), it has provided the council with more robust data regarding tonnages which it feels better able to trust when making strategic operational decisions about service levels and improvement targets.

A service efficiency target to tackle illegal business waste being brought into the sites, estimated to cost the council around £40,000 a year, is also being implemented. To tackle this, the council is changing the permit system with measures including:

- access restricted to twelve visits a year for those with a commercial vehicle or large trailer;
- normal family cars and/or small trailer will not be allowed a permit, but they will still be able to use the HRCs without restriction; and
- the introduction of a new house clearance permit over a weekend when using hired vans.

To support better tracking and enforcement, the service has secured capital investment for the installation of ANPR and CCTV systems.

Following a survey of the local business opportunities the council has also identified that there is a strong enough demand to justify further investment in trade waste collection and is hoping to double the income over the next four years. A number of new initiatives are currently being explored, including servicing the needs of very small companies and sole traders through the HWRCs.

Learning

Responsible for driving these efficiency saving initiatives, John Coates, Head of Waste Services at North Lincolnshire, believes that there needs to be a strong appetite for change, and being able to make the business case for innovation is essential to secure senior management and political support.

“Councils need to invest in skills and training to provide officers with better knowledge to help them innovate and manage the risks associated with change. Bringing all the waste management operations at North Lincolnshire into one team has also made a significant difference to us; it means we all have shared goals and a more joined-up approach to solving some of the challenges. That is the hardest job – changing the often adversarial relationship between client side and operational staff and encouraging them to share a common agenda.”

“With the area being a net importer of other county’s waste into the local commercial landfills, this is a relatively high profile issue in North Lincolnshire and this has meant that we have had good support from senior management and the Members.”

“Taking back the HWRC operation has given us greater control and a direct link with the site staff meaning we can better make them aware and understanding as to why we ask for things to be done a certain way and what we are trying to achieve. Previously we were just the client “being difficult”. We can now trial reuse and recycling initiatives without having to go through the variation procedure which could become a prolonged diversion to what we were trying to do. If things don’t work out then we can change again rather than having to pay compensation to a contractor”.

“With the trade waste we will need to become more customer savvy and understand their needs better. This means we will have to develop a more flexible offering with different marketing rather than provide a one size fits all service. Doubling the turnover within four years is a tough target but I have a team with good skills and knowledge and a desire to make it happen.”

Belfast City Council: Involving hard-to-reach audiences

Over the last 8 years, Belfast City Council has been progressively changing its collection services, introducing increased recycling provision and food waste collections, as well as changing the collection

frequency from weekly to alternate week – starting with around 72,000 households in the city’s suburbs and then rolling out to 55,000 the inner city area. Today, the council now operates two main collection models; outer city neighbourhoods have a co-mingled recycling and trial separate glass collection service for 11,000 properties (with a further 11,000 to be added in June 2014), and a brown bin and caddy for food waste. In the inner city, where the residual waste collection frequency moved to alternate weekly last year, householders have weekly recycling and food waste collections, with twin boxes for the dry recycling service (paper and card is collected separately) which is delivered through a social enterprise partner.

As a densely populated, post-industrial city with a number of other challenges, engaging residents to maximise recycling and food waste collection participation was a priority. An extensive communications campaign accompanied the development and roll out of the new system but increasingly in recent years, the council identified door knocking as the most effective engagement method and currently has a team of eleven Resource Advisors with a target to visit every householder at least once a year. Managed in-house, these advisors have not only provided useful advice and encouragement to residents on all aspects of the service changes but have also played a key role in the roll out of the recycling and food waste collections.

Immediately prior to the new services going live, a separate team of Resource Education Officers also delivered a range of community engagement activities such as road shows and presentations at community group meetings to ensure that residents received information both at home and when they were out and about. Care was also taken to target specific audiences such as the elderly who might have heightened concerns about the changes.



When the twin box recycling system and food waste collections were introduced, all the properties were mapped out and individual assessments were carried out for more challenging housing stock such as communal properties and apartment blocks, which would require closer engagement with the property owners and residents to develop solutions that met their specific needs. Advisors have been visiting the properties during the system changeover and have provided support in a number of areas, including tailoring innovative space saving solutions to suit each property. A range of box stacking systems for dry recyclables have been put in place, providing a flexible solution that can be fine tuned as a more detailed understanding of the volumes of different materials being presented for collection emerges. For the food waste, communal properties and apartment blocks have been provided with 7ltr kitchen caddies, and a range of different sized communal containers. All residents have been provided with biodegradable caddy liners and a range of systems are used to re-supply residents with liners when needed.

The roll out to communal properties and apartments has been testing and the council is still working on a solution for around 20 properties where there is no apparent available space for recycling and food waste collection receptacles to be sited. As with other councils, student and transient population groups have also proved harder to engage with and more work will be needed in these areas.

The council has also been successful in engaging some of the city’s most deprived neighbourhoods, where

participation levels had been low. An area-based, cross-departmental approach was taken, focusing on a range of service and amenity functions including street cleansing, noise abatement, graffiti and waste. To provide local knowledge and understanding, teams of advisors were recruited from agencies local to the particular area for a 6-8 week period to provide a holistic problem-solving approach. The advisors worked to resolve a range of issues and concerns in these communities, from broken street lamps to problem graffiti, as well as providing advice on recycling. What these teams found was that deprivation did not mean that the residents were not engaged with recycling, but it had to be made as easy as possible and to be linked in to a wider sense of community. Monitoring progress since these initiatives were rolled out has demonstrated that participation is holding up and there are no significant issues of contamination, which had also previously been a problem.

Overall, the introduction of the new service has been successful, with a very positive resident response. From October 2013 to March 2014, 1,420 tonnes of food was collected, averaging out at 237 tonnes per month. This performance is continuing to increase as the main roll out of the new services wasn't completed until the end of 2013. Between August 2013 and the beginning of 2014, the city's recycling rate increased by 2.5% to 40%, hitting its 2013/14 target, and average participation rates in the new services topped 70%. The council expects to hit its 2014/15 target of 45%.

Learning

Driving through such significant change in a major city has required a singularity of focus and Head of Waste Management for Belfast City Council Tim Walker admits that delivering one-to-one engagement with householders and tailored interventions in problem areas is resource intensive. However, he believes that this direct approach, rather than a general awareness campaign, has been responsible for the strong increase in recycling. The engagement campaign has a budget of £300k (against a total waste management budget of £14.5m) and when the figures are broken down, the cost averages out at around £1 per person per year.

"Another critical factor has been a long term commitment and strong leadership at a senior level," he adds. "Belfast Council created a time-limited Waste Fund (not part of revenue budget) and has built in money incrementally to deliver the new services and infrastructure. Pushing up recycling will continue to play a key role in delivering savings for the council and now that the schemes and kit are in place, we are looking at further drivers including incentives and other positive engagement measures."

"We are chuffed that all our hard work was recognised recently at the Letsrecycle Awards – as councils strive to improve their recycling performance, further increases are challenging and we are both delighted at the response from Belfast residents and keen to share our experiences with others."

Reflecting the need to continue to develop effective services for flats and multi-occupancy dwellings, the council is also pushing building guidance which it developed several years ago covering the provision of recycling facilities with additional information on appropriate provision for apartment blocks (www.belfastcity.gov.uk/buildingcontrol-environment/wasteguidelines.aspx)

Monmouthshire County Council: Restricting waste

In 2011-12, Monmouthshire County Council reviewed participation and capture of recycling; at this time, they were the lowest performer in Wales on dry recycling but the highest on organic waste, and in particular from the garden waste service. The Council also faced unprecedented financial challenges and needed to save 10% of the budget in 2013-14. So, they needed to make a change.

By analysing and modelling the composition of their residual waste, they discovered that 70% of their residual waste could be recycled; at this time, householders were putting out four black bags for their residual waste per fortnight. Cost modelling had found that if the level of waste stayed the same, the

council could save at least £100k though restricting waste and cost avoidance.

The response by the council was twofold; focusing on waste prevention and recycling through restricting residual waste and moving from a free garden waste service to a chargeable one. The council chose to restrict waste to help reduce waste generation, to make people think more sustainably about what they buy, to increase recycling and to reduce the cost of residual waste. They decided to charge for green waste to help with waste prevention, allowing community and home composting initiatives to be promoted and to reduce treatment costs.

The initiative involved a reduction of residual waste to two bags per fortnight which is the equivalent to less than 120 litres. There was zero tolerance; extra or black bags would be stickered and left. The only exemptions were that households of 5 or more could request an extra bag, subject to them having a visit from an education officer. The council also changed the type of bags used for residual waste from black bags to grey (translucent) bags.

The timescales for implementation were very tight; they needed to complete the entire project within a 3 month period and the changes were to be rolled out on 1 July 2013. During June, they communicated and engaged with residents. Householders were provided with hessian shopping bags containing all the information and material they needed for the new scheme which included grey bags, recycling bags, food bags and leaflets containing information on the changes. The changes were advertised through social media, signage in buses, train stations, BBC on-line, BBC breakfast, BBC Radio Wales, press adverts and road shows.

The scheme was rolled out on 1 July 2013 and the call centre, which was set up for the roll-out, received on average 150 calls per person per day (so 750 per day). They had 6,000 requests for food bins and 3,500 registrations for nappy collections. For those households of 5 or more, the demand was initially high but because the council didn't have the immediate capacity to meet the demand and send an education officer out to all of these households, 400 residents were asked to wait for a month. However, after waiting for the month, 50-60% of these residents found that they had coped with the reduced number of bags and decided that they did not need the extra bag after all.



The results of the new scheme are impressive, with the council achieving 66% recycling in quarter 2 of 2013, 63% in quarter 3 and food waste participation soaring to 75% (from their 50% baseline before the new scheme). After nearly a year into the project, there has been a 40% reduction in kerbside residual waste and although there was a 21% increase of residual waste at Civic Amenity Sites, there has been a 19% reduction in residual waste overall. Levels of contamination in recycling have not been affected by the changes.

Learning

The main challenges included time and resources considering the need to roll out the project within 3 months. The council brought in temporary staff to deliver the kit for the scheme but all staff pulled together with enthusiasm and commitment, which was vital for the success of the project.

Politically, the project had been taken to full council for approval and was extremely detailed, which created great clarity in implementing the project. For example, it was agreed at full council that residents would get extra bags at Christmas and there would still remain a free collection of Christmas trees.

Additional challenges included that the project highlighted low recycling performing areas, which will be targeted in the future. In addition, fly-tipping peaked in July and August 2013 with the roll-out but by September and October, this was back down to previous levels.

The three key elements to allow the council to make the successful change were evidence of the composition of the residual waste, political endorsement of the policies and team work from the staff to deliver the project.

Denbighshire County Council: Moving to a co-mingled collection service

Denbighshire County Council had a kerbside sort recycling collection service, which was contracted out up until 2009. However, at this time their recycling rate was a relatively low 34% and they needed a step change to increase this. At the same time, they wanted more control over the service to be able to make changes and have the flexibility to react to the changing environment and Welsh Government policies. To increase recycling, the council thought that simplicity would be key and therefore proposed moving to a co-mingled collection service and bringing the service back in-house.

The proposals included a 240ltr recycling bin which was supported politically due to its simplicity and was also considered a cleaner and safer option for operatives and residents (less sharps injuries and improved manual handling procedures through the use of mechanical lifts). Other changes included a weekly food collection system and a zoned system of rounds.

Prior to 2009, the Materials Recovery Facility (MRF) market was developing and the council undertook an options appraisal on outlets for the co-mingled waste for the present and for the future. When UPM built a MRF in Shotton in 2011, the council agreed a 2 + 1 year contract to treat their co-mingled waste. The contract worked so well that in January 2014 the Council renewed its partnership with UPM Kymmene, signing a new 10 year contract.



The roll out of the new collection service involved delivery of the new 240ltr wheeled bins, food waste caddies and a clear information booklet and collection day calendar. The collection day information was also made available on Denbighshire's website including an option to download calendars. For a large roll out, the implementation of the new service was very well received by the public and by politicians.

Learning

The key elements to the success of the project were the engagement of all stakeholders, communication with the politicians, market testing the options for treatment, and marketing the service to the public.

The new collection service has been a success with recycling rates profiled to be in excess of 60% in 2013/14. Containers for residual waste have also been reduced from 180 litres in 2006 to 140 litres in 2012. The council considers the collection methods to be advantageous in terms of health and safety and cost as well.

in terms of the next steps, the council is concentrating on wood recycling at Recycling Centres (which has the potential to add a further 4% on the headline recycling rate) and residual waste treatment (recycling of incinerator bottom ash).

Aberdeen City Council: Food waste collections to Multi-storey Blocks and Flatted Properties

In 2010, Aberdeen City Council introduced alternate weekly residual collection. To ensure that as much void as possible within the householders wheeled bin was available, the decision was also taken to introduce a co-mingled garden and food waste collection. The householders affected by the alternative weekly residual collection already had a garden waste collection service and were therefore informed that they could now place food waste in with their garden waste. This required Aberdeen City Council to negotiate with its waste management contractor to provide both bulking facilities to meet Animal By-products legislation and processing facilities for the garden/food waste mix. This service was predominantly offered to the detached and semi-detached properties in the suburbs of the city, which were all provided with an internal food waste caddy and free supply of bio-liners.

The new Waste (Scotland) Regulations 2012 stipulate that by 2016, the council need to provide every household with a food waste collection and it was estimated that there were 54,000 properties which did not have the co-mingled garden and food waste collection service. This total was made up of multi-storey complexes and flatted blocks.

The council applied to Zero Waste Scotland for a grant to roll out food waste only collections to flats and multi-occupancy buildings and they received £1.3 million to implement this. Through researching methods used by other cities for collecting food waste, they decided on weekly communal collections and to roll this out in five phases from spring 2013. Similar to the suburbs, each household was to receive an internal food waste caddy and a free supply of bio-liners.

A communications plan was also put in place to involve all stakeholders. Pre-implementation, communication was carried out with Housing Services, City Wide multi-storey network, residents groups, Roads Services and elected members. Following this, information letters were sent to all addresses that were to receive the service. These were hand delivered to every flat (as opposed to the communal door) to ensure that the information was received by residents. Approximately 2-3 weeks after the information letter, the external bins were sited and the householders received their food waste caddy and supply of bio-liners, together with a leaflet on how the system worked. Again, this was delivered to each flat. Advertising in the press, outdoor advertising and local radio adverts were also undertaken.

It was decided that Phase 1 would focus on multi-storey and easily identifiable buildings with a captured audience which would be the easiest to implement. The communications began in April 2013 and the

collections started in June 2013. The external communal bins were placed at the front of the blocks so as to make usage for the householder as convenient as possible, whilst also taking into account health and safety considerations for the collection crews and pedestrians

The number of bins provided would depend on the number of flats in the block (one bin per 58 flats in a block, two bins per 116 flats in a block and three bins where there were more than 116 flats in a block).



Phase 2 was completed by March 2014 and was focused on areas that have communal bins for residual waste, such as tenements and flatted properties. These communal bins are on the highway and the council decided to provide the food waste bin as close to the existing refuse bin as possible so it would be as convenient for residents to dispose of their food waste as it was their general waste. In accordance with the Environmental Protection Act Section 46, the consent of the Roads Authority on where these bins were being sited was gained. The council has now finished Phase 2 and has delivered this service to 16,000 properties, averaging 0.42kg per household per week, collecting 147 tonnes of food waste from multi-storey properties and have sited 684 external bin containers.

There are now three more phases remaining. Phase 3 will concentrate on social housing with communal bins either off-street or in internal closures. This will be determined by the option that is most convenient to householders and taking into account safety considerations. Phase 4 will focus on privately-owned properties, such as courtyard developments, which have a private car park. The council is keen to gain agreement with private landlords over the roll-out of this phase although there are legal issues to consider due to this being private land. The final phase (Phase 5) will be a 'mop up' stage.

Challenges have included making the change as convenient as possible for residents to encourage them to participate. In fact, sometimes, the service was over-provided; for instance a food bin may be positioned and dedicated to 12 flats, which would be collected on a weekly basis and may only be a quarter full. However, if this was positioned for 58 flats, it may be 100 meters away from some flats and therefore potentially being too inconvenient for the householder to use and the food waste could possibly just be placed in to the first general waste bin passed.

Another challenge that was recognised was that the city's centre gets high footfall at weekends and people passing the communal food waste bins would add litter to the bins and contaminate them. To try and mitigate this, the council procured bins that were not similar to its present litter bins. However it has been the case that some have been removed as litter contamination was severe. Investigation is being undertaken to see if the bins can be provided with a simple lock mechanism with the householders provided with keys.

The council set up focus groups post-implementation to test recall of the communications materials and advertising used during the project and whether these had prompted a change in recycling habits.

Three groups were held – two with service users and one with non-users. The results were that the most frequently recalled communication materials and methods were those received individually by residents such as introductory letters, service leaflets and door step visits. Key facilitators for food waste recycling include the benefits to the environment, service availability and ease of use, and the fact that it removes food waste from the residual bin. Barriers to using the service were identified as the perception of having no, or very little food waste, perceived hygiene concerns, inadequate recycling facilities for other types of materials causing disengagement in food waste recycling, and apathy.

Learning

Lessons learnt included not to underestimate the time and resources required to implement the project. This includes people to carry out the surveys, conduct the door step visits and to respond to correspondence. To date the project has been successful, has exceeded targets and WRAP has indicated that Aberdeen is the best performing Scottish city. The council considers that the three key elements to the success of the project were the communication plan, resources and partnership with roads and housing colleagues. In addition it is also believed that the service has been well received due to the efforts and decision to procure high quality and aesthetically pleasing containers for the householders to use.

The next three phases will be more challenging for the council, including dealing with landlords on private land. The council will need to increase the crews collecting the food waste and will need to identify the correct vehicles that are needed. However, within the current financial climate, funding for vehicles and resources will be ever more difficult.

West Oxfordshire District Council: introducing recycling and food waste services to flats and HMOs and trade waste food collections

From 2007, West Oxfordshire Council commenced planning for the introduction of new recycling and food waste collections and looked at the underpinning information that would be needed for a successful roll out. As a result, the council undertook an extensive mapping exercise using UPRN and followed this up with site visits to the 2,500 high rise and multi-occupancy properties that would be the most challenging. The team then visited every property where a communal collection facility would be needed, establishing a dialogue with landlords and residents to explore their views and to model what options would encourage maximum engagement.

Tendered in September 2009 with requirement for collection frequency flexibility and with funding from WRAP for both the food waste caddies and the communications, the new service comprises a new 180ltr residual bin (with the existing 240ltr bin now designated for green waste), two recycling boxes, and a 5ltr caddy and 25lt external container for the food waste. Biodegradable caddy liners were also provided for the first year. Collection frequency is alternate weekly for residual and green waste and weekly for dry recyclables and food. For flats and high rise and multi-occupancy properties, the main model is weekly, with an option for extra collection should more visits be required. This was to cover any problems with vermin and smells.

The decision was taken to introduce the new service to individual properties first, and roll it out to high rise and multi-occupancy dwellings in a second phase. The objective was to ensure that the necessary time and resource was available to engage with residents and ensure good participation. This allowed the council to engage with all its stake holders, get staff out into the community promoting the service changes with our Community and Neighbourhood Action Groups and complete a full media roll out plan.

Between October 2010 and April 2011, the food waste collection and new recycling service was rolled out to 45,000 households and green waste to 34,000 and residents were given 12 weeks to become familiarised with the system. By moving the previous black residual bin to green waste, West Oxfordshire

saved the cost of purchasing new containers and used an opt-out system whereby residents who didn't want a green waste collection could notify the council to remove the black bin.

In terms of financing the new service, recycling credits for the food waste were not available as Oxfordshire County Council was paying gate fees of £42/tonne for food waste. However, West Oxfordshire is now receiving bonus payments for reduced landfill.

Within the first three years of operating the complete service, the recycling rate increased to over 65%, equating in terms of tonnage to:

- 2009/10: dry recyclables 10,555 tonnes, green waste 3,843 tonnes, residual 27,798 tonnes = 34%
- 2010/11: dry recyclables 11,171 tonnes, food waste 1,400 tonnes, green waste 6,643 tonnes, residual 24,045 tonnes = 44%
- 2011/12: dry recyclables 12,332 tonnes, food waste 3712 tonnes, green waste 14,750 tonnes, residual 15,683 tonnes = 66%

Although West Oxford's recycling rate has stabilised over the past year, diversion rates for food waste continue to be positive with 3,404 tonnes collected in 2012/13, and an average of 260 tonnes per month in 2013/14. Further increases could be achievable, with compositional analysis showing that food waste is still entering the residual waste stream and there are significant variations in residual arisings in different areas, ranging from 2.5 to 5kg per household per week. In 2009, the council assessed the business case and opted to bring trade waste collections back in-house. Initially limited to residual waste, the service was broadened to offer commercial waste recycling, followed up in 2012/13 with the introduction of a pilot commercial waste food waste collection.

Funding for this came from the EDF European Development Fund via the OWP Oxfordshire Waste Partnership. A total of £10k was given but had strict guidelines and controls were in place to ensure the funding was spent in the prescribed way and in line with the project management.

In shaping the pilot service, the A40 corridor was identified as a good trial area and out of the 64 businesses located along the route, a minimum of 12 had to sign up to make the scheme viable. By visiting each of the businesses, a total of 26 signed up to the free pilot service for six months, comprising of pubs, restaurants, butchers, cake making and catering companies. The service, which diverted 42 tonnes of food waste out of landfill, has now continued beyond the pilot stage as a charged for service with 20 paying customers currently on the books and collecting around 3 tonnes per week which now includes a large military establishment.

Learning

"The IT effort that was put in at the start to map the properties being served by the new food waste and recycling service and model the rounds meant the roll-out was extremely smooth and our IT team won an award for best small IT business and then a bigger national award for IT company of the year," says Bob Lightfoot, Environmental & Commercial Services Manager at West Oxfordshire District Council.

"In terms of the food waste elements, we have learnt a huge amount about our local residents and their habits. We can clearly demonstrate now from mapping processes more or less the levels of food waste each property is producing, and which areas need more effort to promote the scheme and increase participation. Obviously this is a massive help to us on our ambitions to reach our objective of zero landfill."

Copeland Borough Council: Efficiencies through service re-design

Although efficiency savings had already been implemented in other areas of waste collection from 2010 onwards, Copeland Borough Council began exploring the opportunities for efficiency savings within its

core refuse collection service. Phase one of this work resulted in the standardisation of the collection schemes being operated across the borough. With alternate weekly collection having been introduced in 2003, this phase saw the remaining 7,000 properties using black sacks transferred to the standard twin bin (residual and garden waste) and recycling box service as the preferred option, with single 240ltr residual black bins where there is suitable storage but no garden, and limited blue sacks for residual waste replacing unlimited black sacks where bins are not suitable.

This transition was completed by February 2012 and established the 'baseline' for the next part of the project, which involved re-designing collection rounds for maximum efficiency and cost-effectiveness.

External waste management consultants were then brought in to carry out a review, which identified that Copeland's residual waste collection service already operated with a good level of productivity. However the review highlighted a relatively small number of options that would enable the Council to realise financial savings of up to £120k per annum (through the reduction of the collection fleet by one vehicle and crew and reductions in fuel consumption) whilst optimising resources and making improvements to service delivery. This has resulted in a number of efficiency measures being put in place to realise the full potential savings identified.

From November 2012, the collection of refuse and garden waste was split, so the crews are now dedicated to either household waste or to garden waste collections collecting from different properties on a two-week cycle. All routes/rounds have been redesigned to operate as efficiently as possible and wherever feasible, collection days have been rationalised so that collections are made on the same day for as many households as possible. This has led to fewer permutations for waste collection calendars and information on the service is much easier to communicate. As a direct response to crews' requests to free up time to enable them to complete the new rounds in the working day, the distribution of blue bags for weekly residual waste collection was also changed from a weekly to an annual basis, which has the added benefit of making stock control easier.

A geographical zoning system has also been introduced with crews collecting black bins starting their week in the south of the Borough and work north, and crews collecting brown bins starting in the north and work south. Operating vehicles in relatively close proximity means outstanding work from vehicle break downs can be managed more easily.

A number of other changes were also implemented following a major three month consultation with residents and other stakeholders. New eligibility criteria for large bins were introduced so that there have to be six people in the household rather than five to be eligible for a large (360ltr) bin. This has reduced the number of large bins that have to be emptied from 1500 to below 500. Tonnage figures also indicate that the change has had a positive impact on recycling behaviour. With collection crews estimated to spend around 8hrs/week on 'assisted collections', the criteria for these were also reviewed, reducing the number from 1,500 to less than 1,000 and delivering a time saving of around 3hrs/week

Copeland is a largely rural borough and, as part of the route optimisation exercise, it was also found that the collection crews were spending approximately two days a week collecting from 'off-route' properties. As a result, collections for around 500 properties that took more than an average of one minute to collect from have been moved to the nearest roadside (as far as reasonably safe and practical to do so).

Finally, the garden waste service has been limited to a single brown bin collection per property from November 2012. The service is now operated on a seasonal basis (1 March to 31 October) with collections suspended over the winter period. This change has realised a further £50k of efficiency savings per annum.

Learning

"It is important to make time for planning," says Janice Carrol, Acting Head of Neighbourhoods for the council. "As a team, we spent two years working on these efficiency improvements and it is not just about the here and now. One of our principle objectives is to ensure that our collection systems are working as efficiently

as possible to keep the costs down in the future too, particularly as we are looking at significant new local development in the borough.”

When looking at route optimisation, the waste management team benefited from strong internal support for the mapping exercise from the council’s GIS department. However, having brought in external consultancy on the routing software to validate the route optimisation, Janice believes that purchasing the software outright would have been a better option.

“Having that in-house capability would have given the team the flexibility to make further modifications as tonnage data from the new collection service became available, as well as develop efficient new collection schemes to meet local development;” she explains.

“Good consultation was also essential because we recognised that some residents would experience a significant change to the service, particularly those with assisted collections and off-route properties. We worked hard to engage with those residents who would be affected and in the case of the ‘off-route’ properties, to develop individually tailored solutions that met their needs.”

East Riding of Yorkshire Council: Scheme re-design and working with communities and residents

In January 2005 the East Riding of Yorkshire Council approved a joint sustainable waste management strategy that sought, amongst other things, to achieve a minimum of 45% recycling of household waste by 2010 and by 2009/10 the Council achieved circa 38% through increased recycling and garden waste collections.

To maintain progress and reach the 45% target, a number of further improvements to the kerbside recycling service were then proposed including:

- the implementation of a co-mingled kitchen, cardboard and garden waste collection through the brown bin wheeled bin system; and
- the inclusion of additional dry recyclables including glass in the blue bin.

In order to explore whether these options would increase the recycling rate and improve the kerbside collection service to residents, a trial was set up involving around 5,500 households. The trial would measure and report on participation rates, public satisfaction levels, operational impacts and financial effects with a view to rolling the system out if it proved successful.

The concept behind the trial was that collecting cardboard in the brown bin would enable glass to be added to the blue bin while keeping collections on a four weekly cycle and achieve over 50% recycling through the promotion of waste minimisation while keeping collection costs to a minimum.

The trial

The trial commenced in December 2009 in two areas (Brough and Elloughton). The collection of co-mingled kitchen and garden waste and cardboard was fortnightly in the existing 240ltr brown wheeled bin and all participating households were provided with a 7ltr kitchen caddy and 150 biodegradable liners. For those properties without gardens residents were given the option to have a 23ltr brown bin for cardboard and kitchen waste only, along with caddies and liners.

The results showed a significant increase in the amount of waste sent for in-vessel composting and a drop in residual waste arisings. Prior to the introduction of separate garden waste collection, the total residual waste collected from the trial area ranged between 11 and 14.5kg/household/week (seasonal variation). After the introduction of the co-mingled trial, the average fell to 10kg/household/week.

Council officers and elected members supported the residents in the trial area through visits, advice

and support. A proactive questionnaire-based survey undertaken in the trial area showed high levels of resident satisfaction with 92% of residents using the brown wheeled bins and 77% using the kitchen caddies. 81% of residents had seen a reduction in their residual bin and 53% said they had become more aware of the amount of food waste they had been throwing away.

Overall, the trial showed low contamination levels with only a small number of brown bins contaminated with items such as sellotape being left on the cardboard. The caddy liners proved to be an important element, with yields from rounds not using liners lower showing lower capture rates. The liners were also felt to be important to reduce contamination by plastic bags or non-biodegradable liners.

Following the food waste trial, the decision was taken to roll the scheme out across the council, followed by the introduction of glass, mixed plastics and cartons into the existing co-mingled blue bin collections, with larger 240 litre blue bins offered to residents who needed extra recycling capacity through an exchange programme.

Initially, the dry recycling collections remained on a four week cycle but as a result of the service changes, residents began contacting the council asking for more frequent blue bin collections now more materials could be recycled, and saying they no longer required a weekly green (residual) bin collection. This was backed up in the figures – 8.7kg/household/week of residual waste was now being collected, compared with 11.6 kg/household/week before the kerbside changes. Based on this resident feedback, a trial of fortnightly blue and green bin collections was introduced - initially to over 7,000 properties on six collection rounds, and then expanded to 20,000 households.

The trial areas were surveyed face to face by door-stepping, using an online survey, and residents signed up to the text message survey were asked to text their feedback. 1,228 residents responded, with only 42 negative comments and the majority saying that the scheme met their needs. The tonnage information collected from the trial rounds also backed up that this system was effective - green bin tonnage had dropped to 7kg/household/week, and kerbside recycling rates topped 60%.

Based on these results, the fortnightly collections were rolled out across the council in 2013, with just 22,000 households left to move onto the service in June this year. The recycling rate for 2013/14 is 58%, and an additional 65,000 tonnes of waste are being diverted from landfill per year compared to 2003/4

Learning

Andy Height, Service Manager Waste, Streets and Grounds for East Riding Council, says that a lot of valuable learning has come out of the extensive the work done by the council over the last decade to deliver cost effective and high performing collection services.

“Larger bins for recycling, a commitment to the ongoing provision of food waste caddy liners and good communications with residents have all played a part in ensuring that these service changes have been well received and have engaged our residents,” he says.

“In addition to introducing an ‘easy to use’ system that is based on robust evidence and resident feedback, the collection service is now standardised and optimised to allow other operational efficiency improvements. We have also worked closely with the contractors and facilities that receive our materials – including monitoring contamination levels closely with the MRFs we use and with the IVC plants, which are producing PAS 100 certified compost.

“We also know that we will need to do more on food waste participation and capture. We are diverting around 11,000 tonnes per year but we estimate that there is still another 20,000 tonnes in the residual bin that we want to collect.”

Lancaster City Council: Re-use of bulky waste for social, local economic and employment benefit

In 2006, Lancaster City Council decided to review its the bulky waste collection provision with the aim of providing a better service to its residents and to increase diversion from landfill. The existing in-house service was carrying out around 15,000 collections a year and all items were compacted and landfilled, with frequent damage to vehicles adding to the cost. With no appointment times given to residents and long waits for service, fly tipping was an issue, and the service also only collected from outside the property, with no facility for those who needed assistance removing larger items from the home.

In considering the options, the council opened discussions with Furniture Matters, a local social enterprise that had been operating since 1999. With 38 paid staff, over 90 volunteers and placement workers, five premises and a fleet of 12 vehicles, the organisation has experience of delivering contracts and service level agreements. It was already carrying out around 5,000 collections a year of household items for re-use, with eight large re-use schemes which included Bulky Matters, domestic appliance re-use, bicycle refurbishment, IT and business equipment re-use and a Community Re>Paint initiative.

In scoping the partnership, Lancashire City Council and Furniture Matters assessed a number of elements including handling of customer enquiries and vehicles to gauge which partner was best placed to deliver each element of service. The aim was to ensure that the Bulky Matters scheme would provide a high quality service to residents while at the same time meeting a number of additional aims including:

- improving the quantity and quality of used and reconditioned furniture and other household goods available at low cost to people in need in the district;
- providing quality volunteering and training opportunities for local people; and
- reducing the amount of furniture, electrical items, and other household goods going to landfill.

The service level agreement reached means that city council retains the relationship with residents, provides the vehicles, and covers the cost of the collections. Furniture Matters delivers the service, provides the storage and returns the income generated through re-use and scrap back to the council. The service is also charged for which helps contribute to the overall cost of the service.

Before the partnership was formed, the council spent an estimated £110k/year on the in-house service with no positive environmental or social outcomes. Now, the service costs £161k/year but the social return on investment is £5.89 for every £1 spent. Through the provision of goods to people on low incomes, the savings to different agencies to date is estimated over £2 million, and in addition to supporting work-based training for socially disadvantaged local people, the partnership has contributed to over 700 people achieving formal qualifications and over 100 people moving to paid employment.

The scheme has collected just over 2000 tonnes to date and now regularly achieves over 70% diversion from landfill with over 60% through reuse, with items being repaired and benefiting other local people.

Resident satisfaction with the scheme is also high, with flexible and pre-booked collection times including evenings and weekends. The council has seen a corresponding improvement in local environmental quality terms and reduced incidents of fly tipping and the model has been used by other neighbouring authorities including Blackpool and Wyre.

Learning

“Engaging an experienced and solid partner was one of main reasons for the success of the initiative,” says Mark Davies, Chief Officer (Environment), Lancaster City Council. “The partnership benefits both parties, providing Furniture Matters with a regular income and expanding their access to bulky items, as well as promoting the other re-use schemes that they operate.”

Promoting the scheme regularly is also important and details of the scheme are included on the collection

calendars and on the council website, as well as taking opportunities to promote it through the local media.

“The tonnage collected has decreased with the downturn in the economy,” adds Mark, “but one of the main concerns moving forward is the extent to which central government support for social enterprises has been cut. However, our partnership with Furniture Matters is still strong and continues to bring significant social, environmental and economic benefits to the city.”

West Lothian: Introducing food waste collections

West Lothian Council serves over 75,000 households, with a mixed rural and urban housing stock. In response to the requirement in the Waste (Scotland) Regulations 2012 for councils to collect food waste from all households by January 2016, West Lothian has just rolled out its first food waste collections for an initial trial area comprising around 20,000 properties (around 28% of the total population).

During the planning stages of the new collection service last year, the council carried out a benchmarking and assessment process to scope aspects of the service design and roll out including communication and vehicle requirements.

As a result, the decision was made to trial the service within a specific geographical area to ensure that good communication channels could be established in the lead up to its introduction, including local road shows, presentations at schools and community groups meetings. An information letter was sent to every household and the local press, council website and council publications were also used to highlight the new scheme. The trial area encompassed a number of towns including in Bathgate, Boghall, Broxburn, Dechmont, Uphall, and Linlithgow.

To ensure a well-co-ordinated and smooth introduction of the scheme, the council recruited seven new collection staff, including a project officer, and involved them fully in the roll out process. The crews prepared and delivered the containers, which comprise a 7 ltr indoor caddy and a 23 ltr outdoor caddy along with an initial supply of biodegradable caddy liners. A full suite of information about what food waste could be presented for collection and where it goes for treatment was also delivered with the containers, which were left at each front door to ensure that households knew the caddies were for them.

Taking this approach ensured that the new crews walked the new rounds before collections went live and has also encouraged ownership of the new service, with the crews acting as ambassadors and advisors to help the scheme bed in.

After assessing the vehicle options, dedicated 7.5 tonne collection vehicles were chosen and procured. The decision was based on the fact that too much dry capacity would be lost from existing collection vehicles if they were modified, ultimately resulting in the need for smaller rounds or more vehicles. With garden waste collections on a monthly cycle, a co-mingled food and garden waste approach was also rejected on frequency grounds. The 7.5 tonne vehicles, however, offer the flexibility needed and West Lothian has opted for a one driver/two loaders crew configuration.

Following a very smooth roll out, the service has been well received by residents and total weekly tonnage is currently around 20 tonnes, collected by the two vehicles. Average participation is between 30-40% although some areas are approaching 90%.

The next phase, which is planned for September 2014 will see food waste collections introduced to another 50,000 properties, involving around another five vehicles and six collection crews. Flats and HMOs will be part of a third phase and West Lothian is currently talking to other councils who have experience of tackling these more challenging property types.

West Lothian received funding from Zero Waste Scotland to introduce food waste collections and as the service is extended across the county, savings of around £60/tonne in disposal costs compared to landfill

will be realised. Plans to build a new transfer station are also expected to reduce transport costs to the in-vessel composting (IVC) plant receiving the food waste.

Learning

It is early days yet, but the team is pleased with the response so far and intend to continue benchmarking the performance of the scheme against other local authorities, particularly on participation and contamination rates.

“Recruiting and involving the new collection crews in the roll out was very successful – and we will be replicating this in the second phase,” says Gary Morrison, West Lothian’s Waste Team Leader.

“There have been a number of learning points, particularly about providing clear information about where the food waste is going and what happens to it. The IVC plant is situated on a local landfill site and we have had to go back and reassure some residents that their food waste is not being landfilled.”

“We also made the decision not to provide additional supplies of caddy liners after the first set-up allocation – the IVC plant has de-bagging equipment and we have explained to residents that they can bag food waste in plastic carrier bags or wrap it in newspaper. However, we will be watching what impact the introduction of a carrier bag tax in October 2014 will have on participation levels.”

Wandsworth: MRF input quality, reducing contamination

Part of the Western Riverside Waste Authority, Wandsworth is an inner London borough consisting of 136,000 households of which two-thirds of the properties are low-rise houses and flats, and a third high-rise blocks and estates.

The council operates a co-mingled recycling service, collecting paper, card, glass, cans, cartons and plastic bottles, pots, tubs and trays. The service is configured as:

- low-rise houses: weekly co-mingled sacks since April 2003, split-back RCVs, 100% coverage;
- high-rise blocks: service rolled-out between 2004-06, communal orange-lidded, near-entry recycling banks, circa 95% coverage; and
- no garden or food waste recycling services, weekly residual collections with unlimited capacity.

Between 2003 and 2011, Wandsworth’s recyclables were bulked up with those of three other boroughs and sent to a MRF in Kent, working to maximum contamination levels of 2% for ‘prohibitives’ and 8% for ‘objectionables’. During the period of the contract, the average contamination levels were 10%, with 2.9% not forwarded for recycling.

In April 2011, however, the borough began sending its recyclables to a new purpose-built WRWA MRF, with different contractual arrangements, contamination thresholds and criteria, and random monthly sampling of individual collection rounds. The result was a significant jump in rejected material, with a contamination rate in the first year of 19.5%.

Gate fees

2011/12

Residual waste for landfill:	£128/tonne
Co-mingled recycling:	£77.50/tonne (regardless of contamination level)
Total disposal cost:	£12.8m
Recycling saves:	£50.50/tonne

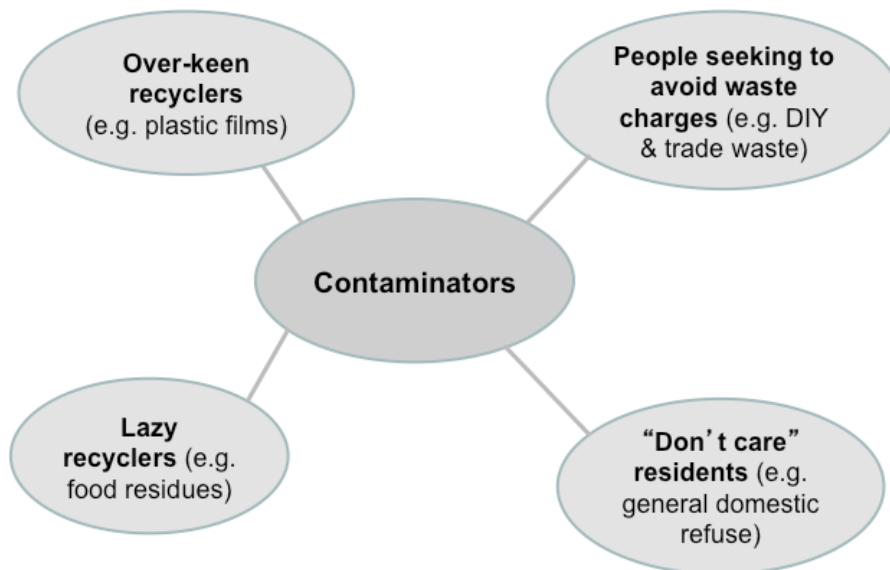
2013/14

Residual waste for EfW:	£145/tonne
Co-mingled recycling:	£24.50/tonne
Contamination:	£145 + £24.50 = £169.50/tonne*
Total disposal costs:	£14m
Recycling saves:	£120.50/tonne

Avoided contamination saves: £24.50 to £169.50/tonne (depending on whether it was waste that would have been collected anyway or not)

*Based on average monthly contamination sampling percentage

Who contaminates (and with what?)



The increased contamination levels had consequences both in financial terms, with WRWA recharging contamination costs back to the borough, and for Wandsworth's recycling rate which fell from 26.7% in 2010/11 to 23.5% in 2012/13. However, random sampling of individual collection round/days provided useful data to assess where the contamination was occurring and highlighted that low-rise premises generated much less contaminated recyclate than high-rise blocks (averaging around 16% and 21% respectively). A series of measures were introduced to bring the levels down.

A new communications campaign was implemented across Wandsworth and the WRWA region using the slogan "Recycle Right" and featuring a recycling hero character and recycling gremlin characters representing different types of contamination. These characters feature on 'Agrippa' panels on the collection vehicles and on new re-usable bags provided for bank users. Other slogans now featuring heavily in recycling related publicity include "If in doubt, leave it out" and "wash, squash, lids off". An

online anti-contamination quiz is also in the pipeline.

Having identified the most contaminated rounds and collection days, door-stepping activities previously targeted at low recycling round/days were targeted at highly contaminated ones instead. Backing this up, new contamination stickers for sacks left uncollected by crews and new, clearer stickers using WRAP icons for recycling banks were fitted. New metal signage funded by LWaRB was also put up at refuse disposal points at directly managed blocks as a permanent reminder of what should and should not be included in co-mingled recycling.

With support from WRAP, crews were also trained and provided with better skills and instructions on how to recognise contamination, and how to decide when contaminated recycling should be treated as refuse (e.g. significant food waste contamination) and when to leave contaminated sacks uncollected (only if presented within a front garden and stickered by the crew). By investing in their skills and confidence, they were also encouraged to act as ambassadors for the service.

Other measures put in place included a move to clear rather than orange sacks to make contamination more immediately visible and slam-locks rather than padlocks (which kept disappearing) for the recycling banks. Funding from the Weekly Collections Support Scheme (WCSS) has been provided to help fine-tune recycling bank locations on estates to ensure residents don't place refuse in them simply because they are the most convenient available container and enhanced facilities for recycling common contaminants are being introduced, such as for textiles and small WEEE. The MRF has also now been retro-fitted with technology to extract small WEEE and textiles at the front-end along with a shredded paper blower to remove this contaminant from the sorted glass stream. More slam locks for recycling banks are now in the pipeline.

To date, these efforts have delivered results, with contamination levels dropping from 19.5% in 2011/12 to 17.2% in 2012/12 and to 14.8% for 2013/14.

Other potential options in the future include:

- crew incentive scheme;
- simpler communications messages (e.g. "Clean dry sheets of paper & card" "Clean dry food & drinks containers");
- mesh-sided banks to help crews identify badly contaminated ones
- additional signage on the bank letter-box flaps;
- a switch back to material segregation on estates; and
- compulsory non-contamination with enforcement.

Learning

"To reduce contamination you first need good data on contamination levels, types and sources. This can then enable a range of effective measures to be put in place including targeted communications (e.g. door-stepping), physical measures to make it harder (e.g. slam locks), crew training and MRF improvements to enable more of what is collected to be forwarded for recycling." says Michael Singham, Waste Strategy Manager for Wandsworth.

"We have worked closely with WRWA, the local waste disposal authority, and with the MRF Regulations now introduced we will be keeping a close eye both on our own contamination data in the future and that of others to allow us to benchmark better. We have also had to accept that addressing contamination can impact on recycling levels and that careful messaging is needed in communications to ensure that we don't lose the focus on quantity as well as quality."

East Lindsey District Council: Efficiencies through service redesign and collaboration

In 2006, East Lindsey District Council brought household waste collection back in-house to improve the quality of service. The three wheeled bin system (residual, co-mingled recycling excluding glass and garden waste) that was subsequently introduced came at a higher cost but was focused on significantly improving recycling performance. Between 2006 and 2012, the district's recycling rate increased from 36.3% to 54.7%, peaking at 59.4% in 2009 before the Council's green waste collection became seasonal.

Since 2012, however, the department has been challenged to deliver significant efficiency savings. As well as moving to a charged-for garden waste collection service, which is targeted to achieve a cost recovery position and deliver £800k of savings (based on 33,000 households opting into the new service), the decision was taken to explore the opportunities for savings through joint procurement and collaborative working.

The first area of collaboration involved changing from contract hire of the fleet to outright purchase with separate maintenance only support. In addition to having a strong capital reserve to support this investment, East Lindsey benefitted from a county-wide procurement process which reduced the purchase cost by around £16,500 or 9%. This saving was supplemented by reconfiguring the collection service to a longer working day and a fixed crew system, which allowed the council to reduce the number of vehicles needed by 20%. In total, the changes delivered further savings of around £300k.

In addition to this, East Lindsey decided to explore collaborative working with Boston Borough Council. A largely rural council covering 700 square miles, East Lindsey's collection depot is in the north of the district, with a 25 mile journey to the southern border with Boston. In the course of exploring different optimisation models, collaboration with Boston on a number of southern collection routes was explored.

This approach involved using Webaspx modelling across the whole of the two authority areas to determine the optimum number of rounds ignoring the district boundary. This modelling identified that seven rounds would be more efficient if operated from the Boston depot. The 'collaborative' approach has provided short-term savings for both authorities and provides future potential for much greater integration. The two authorities have a Memorandum of Understanding which sets out the basis of the collaboration to ensure both partners benefit. The use of new in-cab technology has also significantly supported these changes.

As a result of the collaboration, East Lindsey have reduced their fleet by one vehicle, which has been transferred to operate from Boston. Additionally one of the Boston BC trucks works 60% for Boston and 40% for East Lindsey on any given week. Boston provides the additional crew and the councils avoided any TUPE issues by using vacancy management to deliver the change. In scoping the collaboration, the option for East Lindsey to pay Boston a management fee for the collection service was explored, but it was felt that this would not allow both councils to realise the full benefit of the collaboration. Instead, the cost of delivering the service is paid directly out of East Lindsey's budget and the two councils take a 50/50 share of the resulting £40k savings, realised through fuel efficiency, fleet capacity optimisation and staff cost savings.

Setting up the collaborative working agreement involved wide consultation and negotiation. There is an informal waste partnership approach between the eight local authorities in Lincolnshire and East Lindsey and Boston worked closely with the county council to ensure that any agreement did not have a negative impact in terms of haulage and disposal. And while there were bigger benefits to be had from a more comprehensive joint working agreement, concerns about the reaction of residents to a major change proved a limiting factor at this stage. However, both councils believe that this first step has opened the door to further collaboration in the future.

Overall, East Lindsey expects to deliver efficiency savings in the region of £1.2 million in 2014/15, which

represents over a third of the overall waste management budget. The largest variable in the mix is the charged-for green waste service, which has so far recruited 24,000 households against a target of 33,000. Service design review will be undertaken should the target not be achieved by way of achieving cost recovery.

Learning

The man behind delivering the change at East Lindsey, strategy manager Mark Humphreys, believes that the approach they have taken has ensured that both councils reap the benefits of the collaboration.

"It is very important to be clear about where the benefits lie and to ensure that both parties can buy into and reap those benefits – this provides the motivation for the partnership and supports the business case for change.

"It is also important to recognise and respect the constraints of the partners. Full joint service provision would have yielded more efficiency savings but was too difficult to deliver politically at the time. We also worked hard to ensure that communication messages around the service change focused on the concept of collaboration not integration. 18 months on, however, we are now starting to scope the possibility of a joint waste/street scene service which will deliver further efficiency savings for both councils.

"We have learned some operational lessons too. Although we used a variety of communication channels to tell the 8,000 residents affected about the change, there were still some who were inevitably caught unawares. In retrospect, employing more direct methods such as putting stickers on the wheeled bins on the last collection day of the old round might have been an effective additional communication tool."

Larne Borough Council: Holistic approach to service delivery

In 2010, Larne Council introduced a number of measures to increase the recycling rate to improve recycling performance and to reduce operational costs through diversion of waste from landfill.

The first measure was to invest in a third HWRC to capture the waste from communities previously served by council skips on a weekly basis and sent to landfill. The centre, which opened in 2011, recycled 69% of the 600 tonnes of waste brought to the facility in 2011/12, rising to 80% in 2012/13.

The council then introduced a new glass recycling service to supplement the blue bin recycling scheme, securing funding for two split body vehicles with a separate pod for the glass. The glass is collected separately using insert containers fitted into the existing blue recycling bins and participation in the new collection has been high. Initially rolled out to 5,000 homes in April 2011, the service was extended to the full 14,000 households when the second split body vehicle was procured in April 2012. The cost of the adding the front pod to the collections vehicles was around £30,000 for each RCV which over 7 years life of the vehicle equates to £8,600 per year for the two vehicles; the reduction in landfill costs as a result of diverting the glass into recycling is estimated to be around £50,000 per year

The third step was to take black bag waste deposited in skips at the three HWRC, approximately 200 tonnes/month, to a MRF for further separation of recyclates and production of refuse-derived fuel. The results were a recycling rate of around 40% and a total diversion from landfill rate of 90%. This delivered significant savings compared to landfill in the first year, but an increase in the amount of material being sent to the facility from other councils has seen the gate fees increase to track landfill prices. The overall average recycling rate for the three HWRCs has risen to 86.2%.

As a result of these initiatives, the recycling rate for Larne increased from early 30% to over 50% and the department won the 2012 Award Sustainable Ireland Award for excellence in local authority waste management.

Next steps

The recycling rate in Larne has now levelled off and the council is in the process of tendering a new MRF contract for the material from the blue bin recycling collection with the aim of extending the materials that are collected and boosting recycling by another 3-4%. Plans are also underway to recruit and work with community 'recycling champions' to improve participation rates and engagement. Incentives including community-based rewards are also being explored.

In terms of efficiency savings, Larne has teamed up with 10 other councils on a route optimisation project which is expected to yield savings of around 10% through less vehicles and reduced fuel costs. An external consultancy has been brought in and an area-based approach is being developed, with vehicles collecting in the same area on the same day to provide contingency cover. A business case for a strategically situated shared transfer station is also being explored.

In the longer term, the amalgamation of councils as a result of local government reform in Northern Ireland will impact significantly on both waste collection and treatment infrastructure, bringing greater efficiencies and consistency of approach.

Dorset Waste Partnership: Efficiencies through collaboration and scheme redesign

Officially launched on 1 April 2011, the Dorset Waste Partnership brought together the waste, recycling and street cleaning services from the seven Dorset councils (not including Bournemouth and Poole), as well as the management of HWRCs and the treatment and disposal of waste.

One of the first county partnerships to deliver an in-house waste collection and cleansing service, the creation of the DWP emerged following the Pathfinder project and was underpinned by the adoption by all seven councils of a new Joint Municipal Waste Management Strategy for Dorset in 2009. The strategy recognised the need not only for efficiency savings but also for a more holistic and joined up approach to improve performance, meet future challenges and deliver a better service to Dorset residents.

The creation of the partnership through an Inter Authority Agreement (IAA) is financed through a cost-sharing arrangement between the partner authorities. During formation the partnership all received an additional £400k of support from Defra for the set up and resourcing of the management structure and the underpinning research and business case development. A capital budget of £3.1m provided by the County Council to pump prime was also available for the operational requirements including new vehicles and containers.

During the crucial planning, assessment and formation stage senior personnel were brought on board, including Steve Burdis (Head of Waste Management for the County Council – Now Director of the DWP), Lindsay Cass (East Dorset District Council) and Bill Davidson (Purbeck District Council, now DWP Head of Strategy), and an independent project manager Lesley Rowan to help drive the process forward. The partnership was also supported by a Member shadow advisory committee, a Chief Executive Sponsor (Steve Mackenzie, Purbeck District Council) and a senior officer board.

When the Partnership went live in April 2011, waste staff from district and borough partners TUPE'd over to the County Council as the host organisation for the partnership and all budgets were also transferred across.

The DWP is governed by a Joint Committee, consisting of two elected Members from each of the partners. The committee operates on an equal basis and makes decisions on the day to day running, but formal agreement of all the partners is required for major decisions e.g. setting the budget and agreeing the new collection service. A Management Board, attended by a Senior Officer from each partner, also helps to ensure that partners' interests are safeguarded and ensures ongoing engagement and buy-in.

Recycle for Dorset

At the outset, 12 different collection systems were being operated across the county, but in January 2012, all of the partner councils in the DWP agreed to introduce a standardised, countywide recycling and refuse collection service, called the 'recycle for Dorset' service. The new service model comprises:

- weekly food waste using a 23ltr lockable bin and a 7ltr kitchen caddy;
- fortnightly collection of dry recyclables using a 240ltr wheeled bin and a box for separate glass collection;
- fortnightly collection of residual waste in a 140ltr wheeled bin or limited blue sacks issued by DWP; and
- an optional garden waste collection service for £40 in a 240ltr wheeled bin.

Collections in early tranches were carried out in a single pass using split body vehicles with separate compartments for dry recyclate, glass and food waste.

This service is being introduced through a phased programme. To date around 135,000 Dorset households have moved to the new system, with a further 50,000 due in October 2014 and the remaining 18-20,000 in July by 2015. Resident engagement has been very positive, with good levels of food waste participation and exceptionally high resident satisfaction levels. Recycling performance has increased significantly across the county to over 60% in those areas with the new service (54% overall). In their 5 year Business Plan, DWP has set it itself a recycling target of 68% by 2019, which is reported to be the most ambitious set by any English council.

In financial terms, the partnership approach has allowed the pooling of costs and incentives and the sharing of risks through the cost-sharing agreement. This, coupled with the efficiencies offered by the single, unified collection service, has yielded savings in a number of ways including:

- cross boundary collections and associated route optimisation;
- sharing of depots and vehicles;
- joint purchasing arrangements, for equipment, containers, fuel etc;
- optimised vehicle and staffing to deliver high recycling;
- greater sale and receipt of income from recyclate rather than ongoing high disposal/treatment costs (the key part of the business case);
- the introduction of a chargeable garden waste service (30,000 customers so far);
- increasing trade waste collection in some areas; and
- waste minimisation activities.

In year one, the Partnership delivered £1.4 million of savings, and remains on track to achieve a further £2 million of efficiency savings per annum compared to the do nothing costs when the new service roll out is complete.

The partnership continues to explore further joint working opportunities in fleet management and waste treatment, including a strategic partnership with Bournemouth Borough Council to develop and own a Material Recycling Facility, which is due on line in 2015. Also, in letting its own waste treatment and disposal contracts, the DWP has allowed for other neighbouring authorities to access those contracts which could drive further efficiency savings in the future.

Learning

"It has been essential to approach this with a partnership ethos – working together to overcome political, structural and operational constraints in an open way," says Steve Burdis. "Developing trust and creating a strong sense of ownership by all the partners was an early priority, as well as developing a management and decision-making framework that engages all the stakeholders, from elected members through to operational

staff.”

“We were lucky to have some leaders with real vision and the will to drive this through, including a number of Elected Members across the partners and Steve Mackenzie from Purbeck District Council, who is the Chief Executive Sponsor for the Partnership. We have also maintained a strong focus on the objectives of the partnership and the shared benefits that are being realised, both from an efficiency perspective and in terms of performance and resident experience and satisfaction.”

“While partnership on this scale may not be replicable everywhere, we believe that the DWP has clearly demonstrated that it is possible for non-unitary local authorities to come together and innovate in the delivery of both waste collection services and waste treatment and realise very real benefits for both residents, partners and the public purse.”

Oxford City Case Study: improving commercial waste services

In 2011, facing ongoing reduction in central government funding, Oxford City Council embarked on an ambitious change programme. The overarching objective was a 20% reduction in expenditure and a 20% increase in performance by creating a ‘One Council’ approach, rationalising and ‘sweating’ assets, and implementing modern and flexible processes and working practices.

A key element of this strategy was to consolidate frontline services into one entity, Oxford Direct Services (ODS), and encourage it to provide commercial services to local organisations and businesses. The capacity to provide the commercial services came from increasing the efficiency of both frontline and back office staff and the revenue and margin generated contributed to overheads thereby reducing unit costs and making services more efficient.

The executive board of the Council gave approval to the proposal to increase external income in September 2011 and a project plan was developed to consider all aspects of the move, including risks, legal requirements, mobilisation needs and practical issues such as pricing, marketing and sales. A light Prince 2 project management approach was used and a board was established to support and guide preparation activities including:

- development of sales, marketing and communication strategies and collateral;
- communications with staff and trades unions;
- a detailed analysis of cost base by service team and development of a pricing policy;
- mapping and agreeing basic internal process responsibilities (e.g. pricing and quoting);
- obtaining transformation funding to support a sales professional; and
- developing the tools and information to underpin an effective tendering capability.

With preparations complete, ODS was launched in March 2012, and by September 2012 turnover from new customers alone was £330,000. Today, the business continues to grow its core services successfully and the projected turnover for fiscal 2013/14 is £6,000,000. In addition there is now a plan to further increase income by offering back office services such as procurement and legal etc. to business on a commercial basis.

In commercialising the services, the most significant step changes have been a change in culture, with staff having to think and act differently, and the development of a customer-focused approach. The success of the commercial waste and recycling service exemplifies the new approach.

Building on an already successful service, ODS have developed an offering that meets the needs of a busy city which is home to both a major university and a thriving tourist destination. Flexibility has been essential in building the service, which operates six days a week including an evening sack collection in the city centre. Covering residual, dry mixed recycling, food waste and bulky waste, ODS offers a full range

of containment options, and tailored solutions including pre-paid sack collection labels for cardboard collections from premises with limited space.

Building on the ethos of integrated service delivery and added value, ODS also now offers its customers pay by weight, advice and waste reviews, pest control and graffiti/flyposter/gum removal services, and has also recently introduced bin and bin store washing services. Other capabilities are also marketed as part of the complete service, including fleet and vehicle maintenance, grounds maintenance and landscaping, and food hygiene advice. One of the next steps being explored is the development of a food waste accreditation scheme for local businesses to help them promote their environmental credentials at the same time as promoting uptake of food waste collection.

The service is also promoted strongly as a local service provided by staff who live in and care about Oxford. With the slogan 'Local First: your city, your business, your service', ODS emphasises the employment of 90% experienced local labour, as well as the use of local recycling and treatment facilities.

The service now has over 1,300 customers and has set itself a target to increase this by 10% in this financial year. With the key to on-going success and growth, particularly in a relatively small city like Oxford, being the quality of delivery and associated reputation, close monitoring of service standards, customer feedback, and levels of repeat business is undertaken. With a commercial team of one business sales officer and two service development officers, ODS has also introduced an account management system as a proactive approach to quality, and also to add value to customers by cross selling services to improve the customer experience as well as maximise opportunities.

Learning

According to commercial manager Martyn Buckley, the successful launch of ODS relied on the co-operation of all the staff to provide the savings and efficiencies necessary at the outset to make it work.

"It is a partnership based on providing effective and cost efficient services in return for investment and increased job security, and successfully meeting the needs of commercial customers has required a level of culture change across the organisation.

"Almost two years on, we have transformed the way we interact with our commercial customers and they have responded to our focus on providing a package of cost effective, high quality and responsive services. Our teams are passionate about what they do and have embraced the new approach, which is also benefitting the quality of our services to residents. As we move forward, our commercial approach is becoming the norm and is increasingly embedded in all our management processes and systems.

"And it is not just about providing an effective collection service; getting it right means that the council can make a genuine contribution to improving Oxford's performance in terms of resource efficiency and carbon reduction. And while increased income generation is not a panacea for all the challenges faced by local government at the moment, it does allow the council to invest in high quality services and support associated social policies such as local employment and economic development." Contact: mbuckley@oxford.gov.uk

North London Waste Authority: targeting communications

North London Waste Authority (NLWA) provides a recycling and waste disposal service for approaching 1.9 million people in London managing the waste which is collected by the inner boroughs of Camden, Hackney and Islington, the outer boroughs of Barnet, Enfield and Waltham Forest, and Haringey which is some way between the two.

The area is characterised by a growing, diverse, relatively young and mobile population. Between 2006/07 (the baseline year for the North London Joint Waste Strategy) and 2012/13, the population of the NLWA's area has increased by 11.5% and population density has risen from 57 people/hectare to 64 people/

hectare. Despite a good level of recycling service provision with 100% of households receiving a door-to-door, near entry or communal collection of dry recyclables, the area's recycling rate of 32% (at the end of 2012/13) is some way below the jointly agreed target of 50%.

Following some initial WRAP-supported research in 2010/11 to build the business case for partnership working to deliver joint communications and maximise cost efficiencies, NLWA's councillors agreed to include circa £250,000 in the Authority's budget for the financial year 1 April 2012 to 31 March 2013 for a joint recycling communications campaign across the area in support of borough collection services. It was also agreed that further segmentation and research would be carried out within the year with the aim of assessing whether a more targeted approach to communications delivery channels and messages might have greater impact and could be used in the subsequent year.

M-E-L Research was commissioned to undertake a piece of research into the motivation for and barriers to recycling, to inform future communications approaches. This research was unusual in that it explicitly sought to validate current theoretical approaches to influencing residents' recycling habits and use qualitative research to understand the role communications and engagement could play in influencing behaviour, alongside other levers such as service or policy changes.

The first part of the research aimed to understand how WRAP's national 'recycling competence' segmentation (set out in the Barriers to Recycling at Home report, 2007) applied on the ground to north London residents, and this unearthed a profile distinct from the national profile. A quantitative telephone survey with 1,200 residents was conducted using WRAP's standard 'committed recycler' questions to assess recycling competency, as well as to ask key driver questions on housing, household composition and knowledge of waste services to assign respondents to different segments, ranging from 'Recycling Unaware' to the 'Complete Recycler'. Cross-referenced with A Classification of Residential Neighbourhoods (ACORN) data, analysis of this data produced 'hotspot' maps, indicating the likely prevalence of certain segments across the seven boroughs.

The second part of the research engaged residents from different segments in 11 highly interactive focus groups. While the subject matter of the discussion guide was rooted in exploring how residents approach everyday tasks such as making dinner and clearing up afterwards, its structure was developed with reference to the Institute for Government's MINDSPACE behaviour change framework (Messenger, Incentives, Norms, Defaults, Salience, Priming, Affect, Commitment and Ego). This enabled researchers to probe participants' reaction and responses to a broad range of factors known to influence behaviour, while the discussion remained focused on their everyday behaviours, not theoretical and abstract. In addition, in-depth interviews were also carried out with key hard-to-reach groups within north London, with the Jewish, Somali and Turkish communities and with north London students, using a similar discussion guide. These interviews were able to unearth specific barriers/enablers to recycling which could be used to engage residents at a local level. The research provided strategic direction which NLWA and the seven boroughs would then be able to use in the second and subsequent years of the communications campaign in order to optimise targeting, planning, implementation and evaluation of activities in future years, as well as providing insight to develop communications activities for 2013/14.

The findings showed that the barriers to recycling vary across demographics, and that tailored communications and engagement activity could help overcome some of them. The results suggested that the 'Aware but Inactive' and 'Contemplated but not Engaged' segments could be usefully grouped together (Group 1), whilst the 'Intermittent' and 'Trying their Best' could form another group (Group 2). The research also concluded that boroughs were best placed to communicate with the Group 1 residents, who needed face-to-face communication and step-by-step advice delivered at a very local level. NLWA could add value by communicating slightly different messages through different channels with the Group 2 audience.

The research also highlighted a number of other behavioural factors, including:

- Some residents, particularly those living in flats, felt their intention to recycle was impeded by perceived barriers imposed by the local recycling service such as access and security.
- Perception of neighbours' recycling habits was also a key driver; residents who had the perception that others were not recycling properly were more demotivated and those seeing positive recycling behaviour in neighbours or groups similar to themselves were more likely to participate.
- For those in the lower recycling competence categories, only one person in the household is typically responsible for recycling or 'policing' others' recycling behaviour, whereas in more 'competent' participants everyone in the household is more often involved.
- Organising and managing the collection of recycling within the household is a particular issue; higher competence recyclers were more likely to have a self-established 'system' to store recycling in the home prior to collection, while those in lower competence segments were more likely to simply put items straight out into external recycling boxes, or collect items somewhere such as the kitchen counter.
- A surprising finding was an association between recycling and clean and well-kept neighbourhoods; pride of place was a theme that ran across all the groups, as did a perception that a litter-free environment and effective recycling go hand in hand.

Particular implications were noted for the 'split of responsibility' for communications between waste disposal authorities (WDAs) such as NLWA, and collection authorities such as the constituent boroughs. Group 1 would benefit from 'simple and direct' communications reinforced over an extended period of time, with information being locally specific and practical. Individual boroughs are best placed to carry out this 'on the ground' engagement work with the Group 1 audience.

For Group 2, the research suggested communications on increasing capture rates should be used, coupling motivating messages with directional imagery and practical tips with a 'positive' tone, reinforcing residents' existing efforts to recycle. It was recommended that the more broadcast area-wide approach to motivation and practical advice required for Group 2, was more suited to waste disposal authorities such as NLWA.

These conclusions informed and shaped NLWA's 2013/14 communications campaign which focused Group 2 recyclers and dealt with perceived barriers and gaps in their knowledge about recycling. A series of mini campaigns were undertaken concentrating on different issues such as 'in-home' recycling systems and understanding plastics recycling which was identified as a particular area of confusion and resulting poor capture rates. These mini-campaigns also provided practical tips and advice as well as information and feedback on performance backed up by messages harnessing residents' affiliation to their local area and their community. Although the campaign used a common branding throughout the area, borough logos and specific borough recycling containers were shown in the advertising and local Members and residents were featured in press copy and media releases. This compared to more generic NLWA-wide information that had been used in 2012/13.

For 2014/15, the work is being taken further and officers have mapped recycling competencies across the area by using a combination of known recycling performance and ACORN socio-demographic information. This work has identified areas where there is likely to be a greater prevalence of Group 2 residents. The aim is to target NLWA communications in specific geographic areas as well as continuing with area-wide communications.

Evaluation of this new approach will take a longer-term view, with an annual survey playing a key role alongside monitoring of recycling tonnage and contamination. Work to evaluate the 2013/14 campaign has just been commissioned so it is too early to say whether the more targeted approach has been effective. However, the methodological approach that was used has already benefited NLWA and its constituent boroughs. By improving understanding of the breadth of influencing factors and different behaviours, it

has allowed NLWA to identify priority segments to target using their limited communications budget and to strategically divide up responsibility for delivering communications between themselves as a central body and the individual constituent boroughs

5. Future landscape

The future landscape

The overriding theme that emerged from the interviews conducted for this research is the extent to which local authorities are increasingly caught between conflicting pressures. There is growing concern about how local authorities will be able to resolve the tension between the reduced availability of money and the need to meet current (and future) legislative requirements and targets, while at the same time providing services that meet residents' needs and expectations and deliver the optimum environmental outcomes.

Asked to rank the different pressures in terms of their impact on the decision-making process about waste services in the future, the majority of interviewees identified efficiency savings as the top priority followed by the drive for higher quality recycling, including the separate collection requirements and associated issues around TEEP. However, this ranking did not, in many cases, reflect their opinion of where the primary focus should lie. Recycling rates ranked higher among interviewees in Wales, Scotland and Ireland, where recycling targets are embedded in national waste policy, than for English respondents. With regard to the development of regulations related to MRF performance, the view was that the effectiveness and impact will not emerge for some time, however a number of respondents did highlight the likely increased focus on contamination levels in the future and also the need for an effective enforcement regime.

While councils in Wales and Scotland have benefitted from more direct and targeted government funding and support to enable them to deliver against the national waste policy requirements, the expectation that the pressure on budgets will continue leads many to predict a more direct and visible impact on the levels of service that can be provided in the future. This is not expressed as an abdication of responsibility; the importance of efficiency savings is recognised and they are seen as an essential measure in the fight to balance cost and performance. However, the general consensus is that there is a limit to what can be achieved without putting core capability at risk, and that as budgets continue to tighten, there is the very real potential that some services will be scaled back or withdrawn completely.

“In seeking to meet both financial and performance imperatives, the room for manoeuvre is becoming tighter and it is increasingly difficult to stand still let alone make progress. No councils want to go backwards but some will potentially reach a position where they are forced to scale back to the minimum standards of performance required by law.” Steve Didsbury, Head of Waste & Recycling Services, London

Borough of Bexley

Recycling rates emerges as one of the most likely casualties, at least in the short term. There are of course, differences of opinion between local authorities working across the UK countries; where the approach is target-led and political support is underpinned by a strong policy framework, recycling rates continue to be a high priority. Wales, in particular, has continued to show strong growth in recycling rates. However, elsewhere, there is concern that recycling performance is not only 'flat-lining' but is starting to fall in some areas, which could ultimately put the UK's compliance with EU targets at risk.

The impact of the financial constraints on staff resources and communications budgets, the lack of national targets in England, and the potential impacts of the realignment of the policy focus from quantity to quality, are all cited as contributing factors to this 'flatlining'. A number of respondents also said that budget constraints may reach a point where they simply can't afford to subsidise further expansion of recycling provision and services, particularly for harder-to-access materials.

Another factor highlighted is the ability of local authorities to realise the financial benefit from recycling to support performance improvement. In June of 2013, the LGA published the findings of its review of

local authority waste management practices and one of the key messages was that local authorities need access to a higher proportion of the value of the recovered materials they collect.

The LGA's Wealth in Waste* report, published in June 2013, recommended a freeze on landfill tax, with tax receipts returned to local authorities to invest in recycling infrastructure, as well as an overhaul of the PRN and WEEE producer responsibility systems to provide more direct benefit for councils. It also calls for local authorities to receive a larger share of the revenue generated by the recyclables they collect. An increase to 40% from the current level of around 28% to 40% would, according to the review, provide additional income of over £820 million by 2019/20.

* Wealth from waste – The LGA local waste review, June 2013 (www.local.gov.uk)

Future trends in waste arisings may exacerbate the issue of recycling performance. While arisings have dropped over the last few years, a number of respondents reported that they are now on the increase again. A recent survey of 25 councils carried out by the Association of Directors of Environment, Economy, Planning & Transport (ADEPT)¹⁷ found that 16 had seen an overall increase in waste arisings of 0.8% in the first quarter of 2013/14 compared to the same quarter the previous year, with one council reporting a 7.5% increase in residual waste tonnage. However, with nine of the 25 surveyed experiencing a reduction in arisings, it is clearly too early to say if there is an overall growth trend emerging.

If waste arisings are on the increase, the pressure will not just fall on recycling to avoid higher disposal costs but also on waste prevention. The majority of respondents interviewed feel that waste prevention should be a priority but that it is slipping in the face of current pressures. Most use the resources available to them to promote activities including home composting and food waste (e.g. the 'Love food, hate waste' campaign), as well as initiatives to encourage re-use, and see waste prevention initiatives as important in delivering longer term behaviour change.

However, with the pressure and focus elsewhere, waste prevention is not high on the agenda. There is little resource for a stronger push and the most effective points of intervention and action are considered to be farther up the supply chain. In this context, the waste prevention plans developed by the UK governments' are described as 'weak'. Re-use activities are seen as useful to get the wider message about reducing waste across but significant effort is often required for a relatively small return. In addition, in many councils support roles such as waste prevention and awareness officers have been lost as a result of the budget cuts.

The future toolbox

In seeking to identify the challenges ahead, there is no doubt that a daunting picture emerges; but the research also found a strong willingness to engage with and meet these challenges. Asked to identify what measures are needed to empower local authorities to deliver services that meet all the necessary performance and outcome imperatives, a number of common themes emerged.

Common goals and collective responsibility

The value of and desire for collective working on a number of levels emerged clearly from both the interviews and the case studies, with respondents expressing a strong belief that working in 'silos' is counter intuitive in the drive for greater performance and cost efficiency.

While recognising that partnerships and joint working initiatives have to respect political considerations and boundaries and work in tandem with existing local government structures, there is strong support for more collective and collaborative approaches at a number of levels:

- sharing of operational good practice on all aspects of waste collection;

- sharing of learning from efficiency saving and partnership working initiatives;
- pooling of resources between adjacent councils in areas such as communications and back office functions;
- a renewed focus on collaboration and sharing at a larger-than-local (regional) level, for example data sharing and forecasting, and collaborative work on procurement and infrastructure;
- a sector-led peer review initiative to encourage good practice and provide a forum for sharing knowledge and learning; and
- a common pool of resource for the specialist skills such as contract negotiation and procurement that could be accessed by councils as and when needed rather than having to bear the cost of bringing or maintaining these skills in-house.

Evidence-based and pragmatic policy-making

English government policy comes under criticism for a lack of leadership, clarity and consistency across a number of policy areas including frequency of collections and appropriate guidance, particularly at a time when service delivery is caught between conflicting priorities. A number of respondents felt that stronger policies and mechanisms to encourage diversion of material from landfill, particularly food waste, are also needed. With regard to the development of future treatment infrastructure, many also expressed the view that the 'leave it to the market' approach will not work and could result in the UK failing to meet its obligations under EU legislation.

While there was support from English respondents for the more prescriptive approach and clarity on the desired outcomes that characterises waste policy in Wales and Scotland particularly, the views from these two countries offer some stark contrasts. While the target-led approach is broadly supported, this needs to be coupled with flexibility at a local level to allow local authorities to decide how to deliver the required performance. Local authorities operating co-mingled systems and those tasked with rolling out additional services in challenging urban and rural areas are concerned about the future implications of the strong policy preference for source separation and how this will play out in the future in terms of cost, enforcement and future government funding for local authorities.

“The uncertainty about future waste policy and governance is restricting the development of much needed infrastructure. Current procurement is predicated on certain level of residual tonnage – political decisions about waste policy and targets need to be grounded in reality, be evidence-based and taken with proper industry consultation.” John Quinn, Chief Executive, Arc21

Overall, most respondents wanted to see a range of actions from government including more evidence-based guidance on meeting separate collections requirements, including cost versus outcome models for different approaches. While the collective initiative being taken by a number of industry bodies to produce more information and guidance in this area is welcomed, many felt that Defra should not walk away from this area of policy given the potentially significant impact it may have on collections in the future.

UK governments also have a central role to play in creating more effective mechanisms to distribute the costs of recycling more fairly across the supply chain, directing more of the value back to where the costs of accessing that value are incurred and supporting investment in recycling. Changes to the Producer Responsibility regime were cited as one way of addressing this market failure, with some respondents commenting that the Packaging Recovery Note (PRN) system is too remote and does not encourage transparency and more direct access into material loops.

Communication and awareness is another area where national governments are seen as having an

important role to play. Clear, national level messages are needed to support local authority efforts in more challenging areas, such as waste prevention and energy recovery from waste, as well as to reinforce the recycling message to harder-to-reach audiences and encourage greater participation in food waste prevention and diversion.

The need for better data and forecasting to underpin future strategy, planning and infrastructure provision was also highlighted – with many respondents stating that any drive to improve recycling quality requires an integrated approach to both collection and treatment infrastructure – one cannot deliver without the other. Local authorities in both Scotland and Wales quoted the lack of sufficient and appropriate infrastructure as a potential future barrier to delivering the desired policy outcomes.

Improved skills and knowledge

The research identified the need for a new breed of ‘waste management professional’, with a broad range of skills and understanding across the spectrum; strategic, technical and commercial. These ‘generalist’ skills need to be complemented by improved skill sets in a number of specific areas including contract negotiation and management, risk management and strategic planning. More commercial knowledge to support income generation will also be important if local authorities are to maximise revenue from recycling and from other collection activities such as trade waste services.

“Although specialist skills will continue to be important, the challenges and complexity mean that there is a greater need for waste management professionals with a good understanding of all the issues - technical and strategic and commercial. This could be a positive development for the industry and encourage the availability of more waste management training opportunities and qualifications.” Peter

McCafferty, Waste & Environment Project Officer, Dundee City Council

A number of respondents felt that there is a need for more, and better, training and learning opportunities – both formal and informal. For broader understanding and benchmarking, better access to good practice and knowledge sharing opportunities is also important; despite pressure on time and budgets, many felt that staff should still be supported to attend conferences, seminars and networking events.

6. Conclusion and recommendations

“We all know that we have to do more with less and the waste management challenges ahead require a change in mindset and a shift in focus from waste to resource. In the future, councils will need to be able to identify and extract maximum value from waste, and need to be supported in doing so.” Clare Whelan OBE

It is clear from this research that there are a number of pressures coming to bear on local authorities with regard to waste collection, including policy and regulatory requirements driving higher quality and quantity of recycling at the point of collection, constrained budgets and cuts in resources, mixed messages and inadequate guidance from national government, and wider issues including local government reform.

Managing these pressures while maintaining a service that meets residents’ needs and expectations and encourages participation is a concern for every council that has been involved in this report and others across the UK, as well the sector’s main professional bodies, organisations and networks. In part, the current landscape embodies the difficult transition this sector is going through as it seeks to provide ‘resource’ as opposed to ‘waste’ solutions. It is a journey; while presenting a challenge at this particular point in time, diverting more waste from landfill into high quality recycling does hold real economic benefits for all players in the supply chain, including local authorities. Not all the mechanisms are yet in place, however, and local authorities need to avail themselves of the right skills and knowledge to make this journey and need to be effectively supported to do so by national government and others.

Local authorities are going to have to be strategic, forward thinking and resourceful if they are to meet the challenges ahead. The Ensuring Council provides a blueprint for local authorities to identify efficiencies, generate income, innovate and manage demand and this approach could encompass a number of elements, including:

- knowledge and good practice sharing;
- a strategic approach to delivering operational efficiencies
- exploring income generation opportunities;
- partnership and joint working;
- a renewed focus on specific collection issues including contamination, hard-to-reach audiences and challenging housing stock; and
- targeted communications

To support local authorities, the following recommendations are made:

Benchmarking, knowledge and good practice sharing are essential in today’s challenging environments. APSE recommends that:

- *Local authorities make the best use of existing knowledge and performance networks.*
- *Local authorities access and make use of the experience of other local authorities when making changes to services or implementing new collection models, as part of the planning and development stages.*
- *Waste industry bodies and organisations focus on providing knowledge sharing opportunities and access to appropriate training and learning opportunities.*

The need for evidence-based decision-making is paramount in:

- Identifying the likely impact of operational service changes.

- Using surveys, compositional analysis and performance measurement to challenge assumptions.
- Developing joint working and partnership arrangements including a clear business case outlining the benefits to all partners.

To ensure that their waste management services are resilient, local authorities need to:

- Maintain good local governance and capacity over service delivery models to enable future responsiveness.
- Ensure the potential future value of waste and resource management is secured in terms of social, environment and economic benefits to local authorities and their residents.

It is vital for the UK governments to support local authorities in these challenging times through:

- Providing clear messages on government policy and targets.
- Enabling local authorities to make local decisions on how they can achieve national targets whilst providing a convenient and cost effective service to residents.
- Providing guidance and toolkits to examine how their services meet the separate collection and quality requirements as enshrined in national waste regulations.
- Supporting councils in waste prevention and recycling communications, engagement and consultation with the public.
- Ensuring waste services are given high priority given the importance placed on the service by members of the public and the economic and environmental benefits of sound waste management services.
- Exploring measures to ensure that an appropriate share of the value of materials collected by local authorities can be accessed to support recycling collections and infrastructure

To continue to support local authorities, APSE will:

- *Facilitate the sharing of good practice and learning from efficiency savings and partnership working initiatives through its networks and forums*
- *Identify new training and development needs for member authorities on specialist skills identified in the research such as contract negotiation and procurement*
- *Provide performance measures on the collection and treatment of waste and provide analysis on the different methods used and outcomes achieved for local authorities across the UK.*

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