NLGN
NEW LOCAL GOVERNMENT NETWORK

Transforming Universal Services

Transport, libraries and environmental services beyond 2015

Daria Kuznetsova and **Tom Symons**

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Contents

Acknowledgements **4**

Introduction Simon Parker, Director, NLGN **5**

Chapter 1 Environmental services **10**

Part 1 The current state of environmental services 11
Part 2 Environmental services beyond 2015 20

Chapter 2 Transport services **33**

Part 1 The current state of transport services 34
Part 2 Transport services beyond 2015 46

Chapter 3 Library services **61**

Part 1 The current state of library services 62
Part 2 Library services beyond 2015 74

Conclusion **89**

Appendix 1 Local authority statutory environmental duties **91**
Appendix 2 Local authority statutory transport duties **92**
Appendix 3 Methodology and research **94**
Appendix 4 Bibliography **95**

Partners **98**

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Daria Kuznetsova and Tom Symons
October 2011

Introduction

Libraries as we know them – big buildings full of books for loan – are under immense pressure for change. The service is expensive: in some boroughs, it would literally be cheaper to buy each reader the free book of their choice than to lend it over a library counter. Granted – this comparison does not take into account that libraries offer other services in addition to book loans, such as reference books, Internet access, and a community space, to name a few. But it still remains a striking finding. High costs per issue also reflect the fact that patterns of library use are changing dramatically. Book issues are falling, but use by children is increasing, as is the use of libraries as community space or for facilities like the Internet.

Councils across the country are currently in the midst of reviewing services like libraries, seeking out to draw on technology, engage the public and find new ways to deliver more for less. This report is NLGN's contribution to that debate.

Our three chapters examine not only the future of libraries, but also that of other services such as waste collection and transport. Drawing on detailed reviews of the evidence and seminars with experts in each area, we pull together the key trends driving change and then examine what they might mean for the future. What links this motley collection of services together is the fact that they are all universal. Everyone uses them, and this creates some distinct challenges that are not found in higher profile personal services like social care.

The first common challenge is that universal services are bearing the brunt of the cuts. Councils want to protect the vulnerable and this means that social care has been protected by most authorities – indeed, adult social care spending is predicted to increase in 2011/12. That means that universal services have to take the strain. Highways spending is being cut by around 20%, culture by nearly 10% and environmental services by around 3%, albeit off a much larger starting budget.

While cuts are ramping up the pressure for change, all of these services needed reform well before the 2010 Spending Review. In many local areas transport suffers from well-established problems of under-investment and

car overuse, while the landfill tax has been tightening the screw on waste for years, and the challenge will become even more acute when fines rise in 2013.

But because these services are universal, it is much harder to apply the standard toolkit of public service reform, which tends to focus on markets, personalisation and competition. It would be absurdly inefficient, for instance, to let each household choose their own waste management service. A personalised budget for a library would simply be superfluous – users can already choose to use a different service if they want to.

The final link between these services is the fact that they have not seen a great deal of disruptive innovation over the past decade. While social care is undergoing the personalised budget revolution, and back office services are being shared and reformed, bins and libraries are recognisably the same service as they were a decade, and perhaps even a generation ago.

That is not to say that professionals working in those services have not delivered major improvements or implemented good new ideas. It is merely to say that systemic change has proved elusive, perhaps because stakeholders object to ideas like road user charging, or because politicians refuse to allow changes in bin collection patterns.

If universal services face some common problems, might they also benefit from some common solutions? It would be a mistake to try and impose an overarching analytical framework on these chapters after the fact – the truth is that each service was reviewed in its own right and this is reflected in the diversity of ideas you will find in this collection.

But during the research process, some broad themes have emerged. Perhaps the clearest is the idea that we need to create a new bargain between citizen and state. Communities and individuals are going to have to accept significant budget cuts, but in return they should be given new opportunities to influence those cuts and to take action themselves to mitigate the impact. Those bargains are easiest to negotiate locally in the first instance, building on the solidarity of local communities and businesses, rather than relying on the ‘all or nothing’ nature of national negotiations.

So if businesses accept localised cap and trading of waste across a city region like Greater Bristol, they should get a share of the savings and council help to refurbish and trade things like office furniture that might otherwise end up in landfill. Communities faced with a downgrading of their library service should be offered new forms of access to eBooks and bookswap schemes, or the chance to take over the assets as a community trust.

Behaviour change also emerges as an important theme. The most powerful incentive is usually financial – for instance, moving to a 'pay as you throw' system for waste or road user charging. But for obvious reasons, these schemes can be unpopular. New forms of community activism and nudging also have a role to play in persuading the public to contribute to better public services.

New technology is also an important part of the answer. Electricity from waste offers a practical alternative to landfill, while the development of social media businesses like ZipCar – a business that scatters cars across the city and allows people to rent them by the hour – promises more efficient road use. Ideas such as straddling buses which travel above motorway traffic might take longer to materialise, but much of the necessary technology is already with us.

These opportunities for change – along with many others – contribute to our suggestions for future services. Before summarising our service reviews, it is important to be clear about what these chapters are, and what they are not. Our approach could be summed up as 'disciplined imagination'. We have grounded our analysis in high quality evidence, including in-depth discussion with people currently running these services in local government. And even though we recognise current legal and political concerns, we have not allowed them to constrain our thinking unduly.

The result is three approaches to public service reform which we believe to be credible, but which also tend towards a 'blue skies' approach. While we have produced ideas that could be implemented by 2015, we recognise the reality that most of our thinking could take much longer to realise. It is also important to emphasise that these essays are not NLGN prescriptions or recommendations. They are suggestions for how things *could* be. As localists, we know that services have to be reformed and tailored to meet a myriad of different circumstances. Instead, we hope that this report will be seen as an attempt to promote debate and raise ambition.

For **waste**, we envisage a system where councils try and create a 'closed loop' system which radically reduces the amount of waste going to landfill. This would require a 'pay as you throw' scheme, with households facing lower bills if they can minimise the amount they send to landfill. Businesses, which generate a high proportion of local waste, would operate under a localised cap and trade scheme, where city regions like Manchester or Birmingham require businesses to buy landfill space with tradable waste credits. The additional cost of buying the waste credits might be offset by business rate reductions.

The business rate could also be used to create incentives for local companies to refurbish and reuse old equipment such as office furniture and computers – perhaps donating these to charities. In an era of constrained capital finance, councils might also introduce a form of green micro-bond, which would allow local business to invest in electricity from waste plants and take a share in the savings that would accrue in terms of energy and landfill costs.

For **highways and transport**, we found ourselves being forced to reach for national policy levers to drive change. It is hard to imagine how we can create a manageable transport system without some recourse to road user charging, which would replace vehicle excise duty. This would be supplemented by a wide range of local action designed to encourage much more efficient use of the road network.

Congestion charging could incentivise night time deliveries, while smartly designed workplace parking charges could be used to encourage people to drive lower-emission vehicles. ZipCar style car rental and sharing schemes plus municipal cycle hire schemes would help reduce the number of vehicles in use – especially if councils create more dedicated lanes for people who use sustainable transport.

Finally, for **libraries**, we envisage a future service that has been transformed by eBooks. The physical library would remain at the heart of its community, but councils would recognise the falling demand for physical book issues. About 10% of the current print book stock would remain on the shelves – focusing on children's books and the most popular adult titles. The rest might be moved into shared warehouses and either stored as eBooks or made accessible on a Google books style platform, accessible through touchscreens in the library itself.

Customers would be able to borrow books through library vending machines scattered around communities and through deliveries of monthly book boxes. The library itself would become a centre that promotes learning and reading, with some librarians becoming 'bibliotherapists' offering consultations about what people should read, and encouraging literacy (including digital and media literacy) in children and adults.

We recognise that there are significant barriers to much of this change happening. National politicians say they want service transformation, but their support becomes decidedly lukewarm whenever they face angry headlines or community campaigns. A number of high profile judicial reviews of council spending cuts also highlights the real risks involved in innovating against the wishes of highly motivated activists who may or may not represent local public opinion. The public itself often tends towards a mildly conservative view of public services. There is little that local government can do to counter these barriers – they are simply the rules of the game.

What councils can do is strive to create their own internal culture of open innovation. Local authorities that have experience of using participatory budgets and service design techniques know that the public can be persuaded to back change, but only if they can see the need for it and if they have been involved in the redesign process. Politics matters immensely in this process of innovation, because ultimately councillors have the power to veto change. We need to find new ways to engage them more fully in ripping up the rule book.

We do not expect everyone to agree with the suggestions in this report, and we certainly do not expect every council in the country to implement these solutions. But at this critical moment of change in local government, we hope this report will contribute to an open and vibrant debate about how universal services can respond to the most challenging period of change that councils and communities have ever faced.

Simon Parker
Director, NLGN

Chapter 1

Environmental services

Environmental services are arguably one of the most high profile areas of local government spending – everyone relies on the council to collect the bins and clean the streets, and these services are often defining of the way a local authority is perceived by the public.

These services are currently under strain. Councils need to maintain public satisfaction and recycling rates, while simultaneously cutting budgets dramatically. Future trends – rises in landfill tax, a growing population and increasing consumption – will only compound the situation, placing further demands on councils to deliver more with less resource. Local government first emerged from the need to make cities cleaner and healthier, therefore to continue fulfilling that historic mission, councils need a radical rethink of the way they deliver these services.

The first part of this chapter briefly explains the current role of environmental and waste services before setting out the key trends that are driving change in this sector. Given the economic and political changes as well as the new social and technological tools local government will have at its disposal over the coming years, the second part of the chapter describes what the future of environmental services might look like, with a particular focus on waste management.

In our proposal for a service beyond 2015, local government would gain new powers to incentivise individuals and businesses to make better decisions regarding waste and environment. A combination of local cap and trade for waste, adoption of Extended Producer Responsibility – requiring companies like supermarkets to take responsibility for the whole product life costs of the waste they produce - and creation of local markets for recyclables will lead to both new duties and opportunities for businesses. Investments in Energy from Waste and new sorting facilities will contribute to the creation of a 'closed loop' approach to waste, where as much as possible is recycled and reused. For households, the introduction of a 'pay as you throw' system, combined with better feedback about the amount of waste each home is producing, would encourage recycling even further. Taken together, these changes could create environmentally sustainable localities, with business and communities actively taking part in keeping their places clean and green.

Part 1

The current state of environmental services

The role of local government in delivering environmental services

Before establishing what local government can do in the future, it is important to review what councils are already required to do by law. Local authorities are responsible for a myriad of services relating to the environment. They have a statutory duty to collect domestic and commercial waste in their areas, provide civic amenities for the disposal of waste and guarantee the safe storage of controlled waste.[1]

As well as providing these services, there is a duty to keep areas free of waste, which includes the provision of litter bins and consultation on reducing the amount of waste produced.[2] The Waste Framework Directive sets local authorities a household recycling target of 50% and a duty to provide separate recycling collections for paper, glass, metal and plastic by 2015.[3] The Local Government Act 2000 obliges local authorities to develop a Sustainable Communities Strategy, setting out a long-term view of economic, social and environmental well-being and sustainable development.[4]

Drivers of change

Although there have already been stark improvements in local waste management in the last few years, rising economic, political and demographic pressures will require local authorities to be more radical if they want to hit their targets and meet the demands of a growing population.

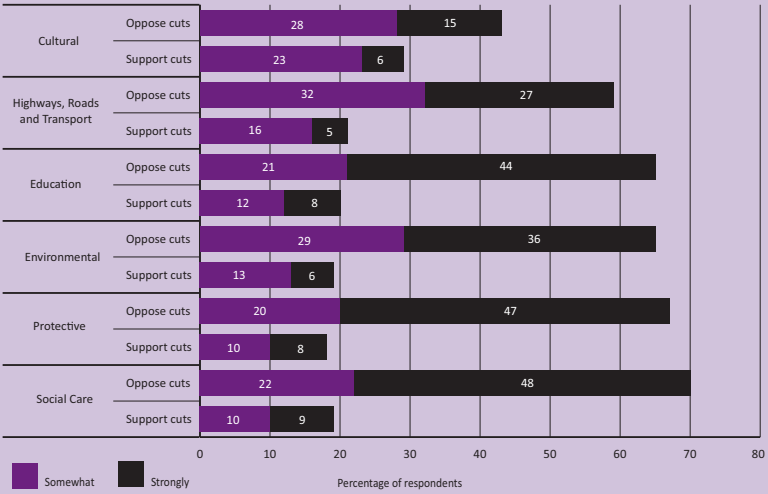
The coalition government has been strongly pushing the green agenda. In June 2011, ministers published a review of waste policy, setting out their ambition to move towards a zero waste economy. The focus of the report was twofold: to promote a more sustainable approach to the use of materials and improve service to households and businesses.

1 Environmental Protection Act 1990, Waste of Land, Collection, disposal or treatment of controlled waste , Part II, and Section 45; Refuse Disposal (Amenity) Act 1978 (RDA), Section 1; Refuse Disposal (Amenity) Act 1978 (RDA), Section 1; Environmental Protection Act 1990 Part II, Section 34.
2 Litter Act 1983.
3 Household Waste Recycling Act 2003.
4 Local Government Act 200, Sections 4(1) and 4(3).

At the same time, the localism and big society agendas are pushing councils to devolve more control over public services to communities and individuals, empowering them and boosting community involvement. The Coalition Government is also devolving fund-raising powers. Under current plans included in the Local Government Resource Review, local authorities could retain growth of their business rates, providing them with incentives to attract new businesses. But most importantly, the Localism Bill includes proposals that would allow councils to offer business rates discounts – a tool that could be used to drive change in businesses' behaviour.

Increases in landfill tax, significant budget cuts and the opportunities offered by a wave of entrepreneurial green businesses are also among the key drivers behind environmental services reform. These services are under increasing budget pressures. Some authorities are facing reductions of over 17% to their overall spending power in the next two years alone.[5] Based on council changes in net expenditure between 2010/11 and 2011/12, environmental services will see reductions of 3.2 %. However, environmental services are one of the areas facing strong opposition to cuts from citizens.

Figure 1 Levels of public support and opposition for cuts to service areas



Polling Question: There has been much speculation recently about how the next Government will reduce Britain's deficit, and possible cuts to public services in order to save the country money. Please read the following list of services provided by your council and for each, say whether you would support or oppose cuts to this service.

5 Comprehensive Spending Review 2010.

The EU continues to exert a strong influence on regulation in waste management and the policies set in central government. For example, member states must establish waste prevention programmes by 2013, according to the Institute for European Environmental Policy (IEEP).[6] The EU targets are outlined in the Landfill Directive below:

The Landfill Directive (1999/31/EC) requires that the amount of biodegradable municipal waste sent to landfill is reduced to 75% of 1995 levels by July 2010, by 50% of 1995 levels by July 2013 and by 35% of 1995 levels by July 2020. It requires improvements to landfill management; bans specified hazardous, corrosive and clinical materials from being landfilled together with other waste; requires the pre-treatment of all waste before landfill, and sets progressively tighter limits to restrict the amount of biodegradable waste that can be sent to landfill. If national annual targets are missed, the Government has proposed to pass on considerable fines from the European Court of Justice to those Waste Disposal Authorities that fail to meet their local targets.

The costs of sending waste to landfill are now rapidly escalating. The standard rate will increase by £8 per tonne each year until at least 2014. As such, we will see the current cost of £56 per tonne of landfill rise to £80 per tonne from April 2014 until 2020 and it could increase further after 2020.[7] The landfill tax has been a key driver in waste minimisation and will continue to strongly encourage the reduction of waste in localities.

At the same time, there is a growing market for low carbon and environmental goods and services. The UK green sector is the sixth largest in the world – and identified as a vital part of future national prosperity.[8] To further expand the market, the government plans to increase the use of green taxation. In a recent green economy strategy, the government pledged to increase the proportion of tax revenue accounted for by environmental taxes targeting measures to

6 Institute for European Environmental Policy, *Final Report – Supporting the thematic strategy on waste prevent and recycling service* (2010), p.40.

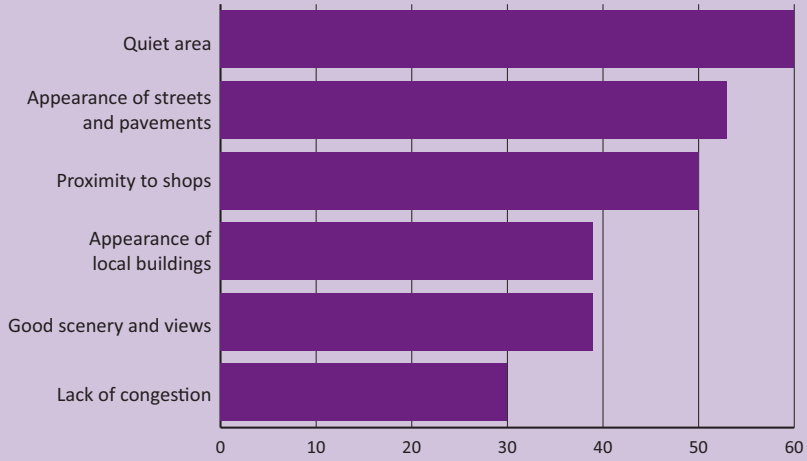
7 HM Budget Review, 2010.

8 Deputy Prime Minister's speech on the Green Economy at the Climate Change Capital on 23 May, 2011.

maximise opportunities for green growth in the UK.[9] Local authorities will be able to take advantage of these new opportunities to create economically and environmentally sustainable localities.

There are a number of social factors such as population growth and changing attitudes that could dramatically shift the demand for environmental services in the next five to ten years. First, the UK population is growing and the number of one-person households is increasing.[10] This is likely to lead to additional challenges of responsiveness and higher demand. As population density increases, the local environment and streetscene is becoming increasingly important to residents (see Figure 2). In fact, there is a correlation between street cleanliness and overall satisfaction with services indicating that councils will need to maintain investment in environmental services to retain satisfaction and trust.[11]

Figure 2 Thinking about the area where you live in your opinion, which of these, if any, are important in making your area a pleasant place to live.



[12]

9 DEFRA, *Enabling the Transition to a Green Economy: government and business working together* (2011)

10 DCLG data. Scenario Planning evidence.

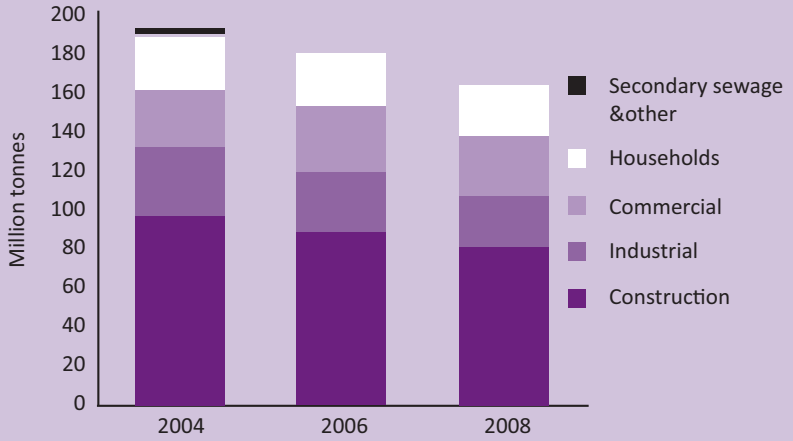
11 Giorgia Iacopini, *The Word on the Streetscene* (NLGN, 2009)

12 Giorgia Iacopini, *The Word on the Streetscene* (NLGN, 2009)

Furthermore, changing attitudes to climate change illustrate that localising environmental concerns will prove essential to citizen engagement. Most people (71%) tend to agree or strongly agree that it is their responsibility to help do something about climate change,[13] however, only 10% considered individuals and their families as mainly responsible for taking action. An additional challenge is that fewer people believe in or are concerned about climate change than previously: in 2009 78% of respondents considered that the world's climate is changing (15% did not), compared to 91% in a 2005 survey. These factors and shifts will make it difficult for local authorities to mobilise their communities to act on global environmental grounds, but in turn will put a stronger emphasis on the need to promote the local environment and sustainability agenda.

In the past decade there have already been significant improvements in waste collection and waste reduction. However, the UK still lags behind other countries and will need to use new policy levers to accelerate waste minimisation. Households, commercial and industrial businesses and construction created a total of 165.1m tonnes of waste in 2008. More specifically, households generated 23.4m tonnes of waste in the year to September 2010. [14]

Figure 3 Waste in England



[15]

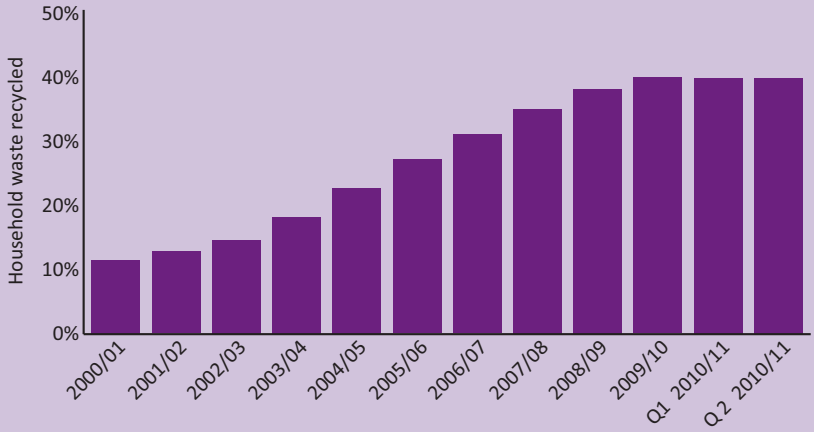
13 Ipsos. http://www.ipsos-mori.com/Assets/Docs/Polls/climate-change-public-perceptions-of-climate-change-report.pdf.

14 Defra, *Government Review of Waste Policy in England* (2011).

15 Defra, *Government Review of Waste Policy in England* (2011).

Local Authorities have increased their recycling rates as well as reduced the per cent of waste that goes directly to landfill. Around 40% of waste from households is currently recycled, a great improvement on the figure of 11% in 2000/01.[16]

Figure 4 Recycling in England



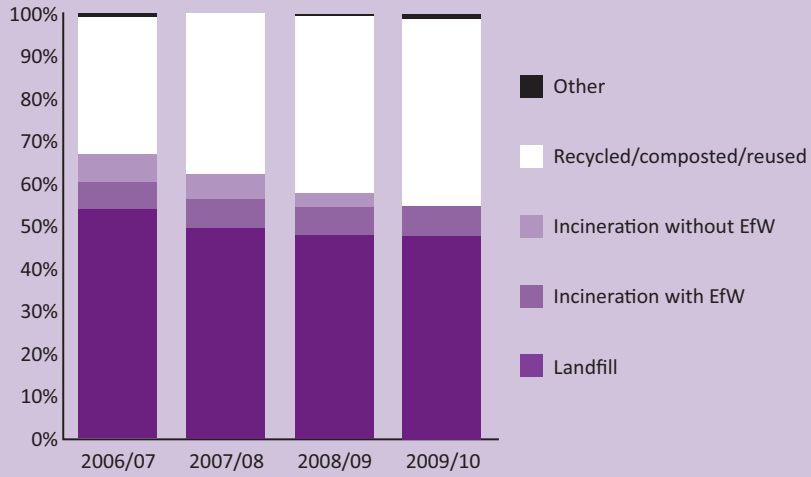
[17]

Economic drivers have also increased investments into new technologies designed to reduce waste. Although technological improvements are notoriously difficult to predict, they have enormous potential to revolutionise environmental services. Tracking technologies using radio frequency identifiers (RFID tags) have multiplied in recent years and may have beneficial application in waste re-use, re-cycling and charging. There are also significant developments in Energy from Waste infrastructure with gasification facilities and anaerobic digestion becoming more commonplace in EU countries.

Technological innovations, changing behaviours and increasing economic pressures on waste have led to improvements in Local Authority waste management.

16 Defra, *Government Review of Waste Policy in England* (2011).
17 Defra, *Government Review of Waste Policy in England* (2011).

Figure 5 Management of Local Authority collected waste

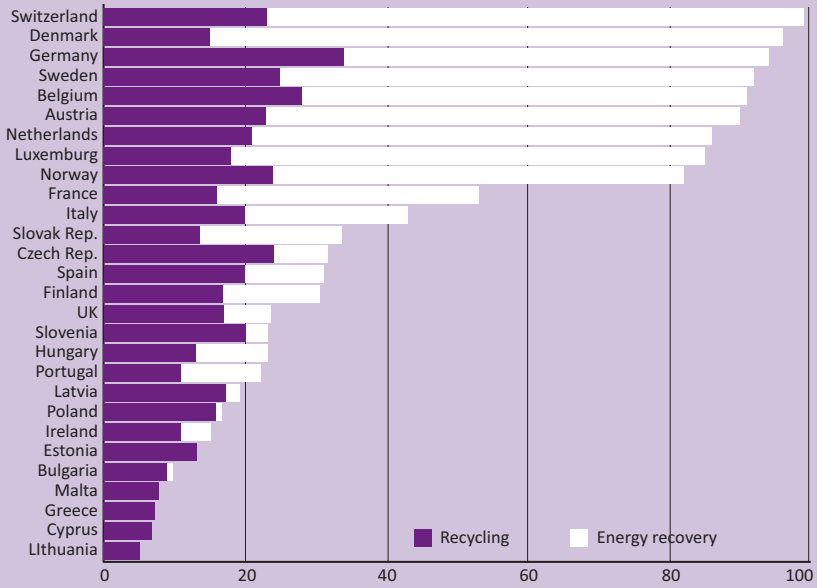


18

Although the UK has reduced the proportion of waste sent to landfill and the proportion processed with Energy from Waste, it is in the bottom half of European countries for recycling and energy recovery rates (See Figure 6).

18 Defra, Municipal Waste Data Surveys (2006-2010)

Figure 6 Rates of mechanical recycling and energy recovery as wasted management strategies for plastics waste in European nations)



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Policy levers

The trend in environmental services reform has been to focus on reducing the amount of waste going to landfill while investing in new technologies to make waste management more efficient. EU and national policy directives are pushing strongly for more sustainable localities through a range of tax policy, legislation and devolution of new powers to local areas. Given the national policy direction and the new powers set out in the Localism Bill, local authorities now have much more choice about how they use both carrot and stick to create sustainable localities as well as to reduce long terms costs of waste disposal. At the same time, bringing services closer to

19 Future of Environmental Services: Hopewell J et al. Phil. Trans. R. Soc. B 2009;364:2115-2126

the user will empower citizens and encourage them to actively improve their local areas.

There are a number of ways in which local authorities can pursue these objectives to change behaviours and create sustainable localities. The next section of this chapter focuses on four particular policy levers:

- **Financial incentives:** Encouraging individuals and businesses to bear the financial costs and benefits of their environment decisions.
- **Market management:** Introducing incentives to create a market for recyclables as well as redesigning commercial contracts.
- **Investment in new technologies:** Investing in new technologies would create long term savings given the changes to landfill tax.
- **Community based solutions:** Co-designing services and promoting an active role for communities in service provision.

Part 2

Environmental services beyond 2015

Given the socioeconomic and political trends, we suggest that the future of environmental services would be one where households and businesses internalise the costs and benefits of their environmental actions and live within the limits of sustainable waste production. Local areas would follow the principles of industrial ecology, where there are no items of waste but simply raw material for reuse. There would be a number of strategically placed positive and negative incentives to nudge households to reduce waste and improve their local environment.

Local authorities would need to create an interconnected cycle of improved decision making. Business would no longer be a passive user of local services, but would become an active participant in creating a zero waste local economy. Companies would be encouraged to dramatically reduce waste in offices through a local cap and trade scheme.

Business rate incentives would be offered to embrace Extended Producer Responsibility. With the use of payment by result contracts in environmental services, waste management providers would not only collect and dispose of waste but would use innovative ways to reduce it. This new approach could create enormous opportunities for businesses to expand into new markets and provide new types of services.

The culture around waste would change as households become more aware of their waste footprints in the community and actively try to reduce them. In exchange, local government would provide communities with greater say over the use of savings from locally reduced waste – with part of the savings turned into a neighbourhood budget to be spent at a community's own discretion. Households would also see reduced energy and product prices through an expansion of the reusables market and greater investments into energy recover from waste.

Financial incentives

Financial incentives are often considered to be the most effective mechanisms in nudging individuals to make smarter choices. The future of environmental services could see households rewarded for reducing waste consumption and facing financial penalties for excessive waste use. Through increasing transparency and awareness, households could also face social pressures to improve their waste behaviour.

There are a number of technological developments which would become mainstream in measuring and monitoring household waste. A 'pay as you throw' fee for waste disposal would drive households to internalise the costs of their waste – the less they put in the bin, the less they pay. In the long term such fees would change households' purchasing behavior and encourage them to buy goods with less packaging or packaging that is easily recycled.

Local councils would have an option of either using a payment by weight or a payment by volume approach. The technology for weight-based charging utilises a system in which the weight of the collected waste is measured with the help of a weighing device integrated into the mechanism which lifts the bin into the collection truck. Volume-based charging usually relies on a number of fixed sizes for waste bins, or buying tags per bag of waste.[20]

Blaby District Council have adopted the UK's first 'variable charging' scheme that involves charging for the collection of waste above a baseline. Residents are provided with a certain number of bins free of charge and need to purchase additional bins if they exceed the limit for their household. Similarly, in Ireland, payment by weight has been implemented for several years and has been highly effective in driving down waste.

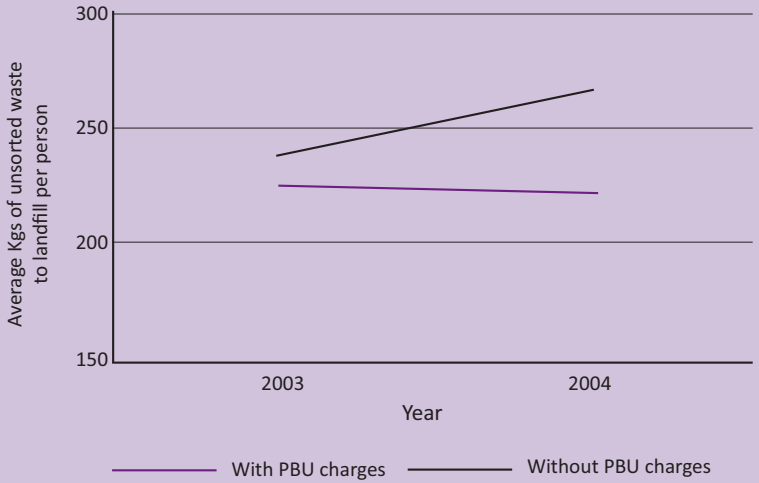
20 Dunne et al (2009) An investigation into waste charges in Ireland, with emphasis on public acceptability

Case study

Payment by weight approach in Ireland

An evaluation of the success of payment by use (PBU) charging schemes for waste collection in Ireland indicated that these schemes had a significant impact on demand. There has been a general decrease in the amount of waste produced in local authorities that introduced PBU, whilst those without PBU saw an increase in waste presentation. Nevertheless, there have also been criticisms that this approach has simply redirected demand, with people resorting to burning rubbish and dumping in other people's bins.

Figure 7 The trend in annual average unsorted waste presentation rate in kilograms per person in local authorities with and without pay-by-use (PBU) in Ireland



[21]

New technologies are readily available for variable charging. More and more municipalities around Europe are using the Diftar system to encourage a

21 Nick Hope, *Communities in Charge Decentralisation and differentiation of charges and fees* (NLGN, 2011).

'polluter pays' systems. Such systems would allow councils to register the number of waste containers, volumes and waste IDs for each household. The IDs and containers have an embedded chip recognised by sensors in household waste vehicles. A computer on board the vehicle is able to register the weight, volume and frequency of waste containers for each household.[22]

Information gathered from variable charging would increase awareness and further drive behaviour change. To ensure individuals are more aware of the waste they are producing, waste smart meters could be installed in each household connected to the chips within the mixed household bins. These could present the information about household waste in non-conventional ways. For example, households could see what proportion of a football field their waste took up over the course of the year.

A step further would allow households access to others' waste data. In Norway tax authorities publish details about individuals' income and wealth allowing the public to search through the database and make interactive charts.[23] A similar system around waste could be implemented in the UK – an ultra low cost option would be to issue each household with a quarterly 'waste statement', setting out how much they have produced and comparing them to other houses in their street. This would encourage a positive form of competitive spirit.

Information on household waste weight available online or in a visible outdoor area would ensure there are not only financial costs but reputational costs associated with excessive waste. Furthermore, improvements in local computer data management systems could see waste data processed and analysed, trends evaluated and future capacity needed for waste management modeled. Such plans, however, could be viewed as an infringement of privacy and may encounter resistance from the community.

While household waste is important, most of the waste produced in local areas comes from the private sector in the form of packaging. For example, a Local Government Association (LGA) study on packaging found that 5% of the weight in shopping baskets was made up of packaging.[24] The OECD has

22 http://www.gmt.nl/uk/gmt-europe/solutions/per+area+%252f+theme/diftar.
23 http://news.bbc.co.uk/1/hi/business/8319054.stm.
24 LGA, *War on Waste Food Packaging* Study (2009).

recommended the implementation of Extended Producer Responsibility (EPR). EPR is an environmental policy approach in which the producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle. The OECD provides guidance on some economic instruments to take the scheme forward such as advanced disposal fees, deposit-refund, a combined upstream tax/downstream subsidy and standards.[25]

Countries in Europe are already undergoing changes in allocating financial responsibility for product disposal. For example, Belgium has an industry funded take-back and recycling scheme for batteries and Finland has industry funded schemes for paper and card board.[26] Similarly, Canada has been one of the key promoters of EPR and product stewardship.

Case study

Canadian Product Stewardship

Prominent examples of products dealt with through these schemes are beverage containers, tires, and electronic products. Retailers register with an overseeing body which receives an 'eco fee' and provides funds from it to companies who deal with that type of waste. For example, British Columbia's tire fee and recycling is dealt with by Tire Stewardship BC who state that 90% of the fee paid by tire purchasers in the province goes directly 'to the processors and haulers to collect, transport, and recycle the scrap tire.[27]

Encorp Pacific (Canada), a federally-incorporated stewardship body specialising in beverage containers, report year-on-year increases in both the proportions of materials sold through their stewardship programmes (from 72.4% in 2006 to 80.4% in 2010) and the total weight of materials recycled. Moreover, a nationwide survey found a 10% increase in recycling and composting between 2006 and 2008.[28]

25 OECD *EPR Policies and Product Design: Economic Theory and Selected Case Studies* (2006).
26 Financing Municipal Waste Management, Eunomia Research & Consulting LTD (2005).
27 http://www.tirestewardshipbc.ca/tirerecyclinginbc.php.
28 Statistics Canada, *Waste Management Industry Survey: Business and Government Sectors* (2008).

The addition of an extra cost to products is likely to be unpopular initially, but the system has potential in the UK. A similar network of local bodies organising collection and processing could be developed, working with local authorities and retailers to use the stewardship surcharge for recycling infrastructure, promotion and operation. Such a scheme in the UK would promote sustainable waste disposal and encourage innovation in the sector.

To ensure that businesses are internalising their waste decisions, councils could work together across counties and city regions to introduce a localised cap and trade system. In such a scheme, businesses would be allocated a certain number of waste credits based on industry, turnover and number of employees. As mentioned earlier, a system similar to Diftar could be put in place to monitor, record and track business waste outputs.

Through an online marketplace and instant waste data availability, businesses would be able to buy waste credits for waste produced above the cap and sell waste credits for under spent waste credits. The cap for each business category would see a yearly decrease to ensure that the cap and trade system is efficiently reducing the total level of waste. Through an establishment of a direct relationship between waste and net expenditure, senior executives would need to find new ways of passing down the responsibility of waste reduction to every level of the organisation.

Carbon emissions trading has been implemented in the EU and lessons from the scheme should be used to inform the implementation of the waste cap and trade. One of the problems experienced by these schemes is the lack of contingency planning for unused credits.[29] In the localised waste cap and trade system, if businesses reduced total annual waste output they would subsequently be allowed to sell their excess credits back to the local authority. The local authority would still be saving money as long as it buys back waste credits at a rate higher than the cost of waste processing and landfill tax. If the number of total waste credits available on the market exceeded the annual quota, credits could be purchased from the local authority by the businesses that have exceeded their allocated waste output.

29 http://www.guardian.co.uk/environment/2010/may/26/eu-carbon-trading-pollution.

Councils that went down this route would need to reassure households and the business community that these new waste reforms are not simply ways for town halls to raise more revenue. Local authorities might therefore promise to make the new schemes revenue neutral, or even to return any overall savings from waste services to local people through reduced council tax and business rate bills. In this scenario, local government would effectively just be switching the burden from property rates to green taxes, and citizens would only pay more overall if they produced disproportionate amounts of waste.

Market management

In the future, paying for waste to be sent to landfill when there are other options of processing available will become a very expensive option for councils. The UK is behind other countries in its capacity to sort mixed plastics into separate polymer streams and is unable to compete with low cost manual sorting abroad. We exported almost 90% of our plastics to China in 2009 for reprocessing.[30]

The benefits of expanding mixed plastics recycling in terms of resource efficiency, diversion from landfill and emission savings, are very high. It is estimated that in the UK there are over one million tonnes per annum of non-bottle plastic packaging in comparison with 525,000 tonnes of plastic bottle waste.

Investments into R&D and development of sorting infrastructure in the UK could only be successful if there is local demand for recycled materials. A 2010 WRAP report showed that the demand for food-grade recycled plastics has increased in recent years as retailers are looking to increase the recycled content in their products. To meet that increase in demand, businesses have been importing recycled plastics from the EU.[31]

This clearly shows that there are substantial opportunities in creating local mixed plastics recycling markets. Local authorities could help establish these markets with tax incentives for businesses that purchase materials from Plastics Recovery Facilities (PRFs). Furthermore, they could facilitate direct partnerships between PRFs and large businesses similar to the Canadian example of product stewardship.

30 WRAP, *Plastics Market Situation Report* (2010).
31 WRAP, *Plastics Market Situation Report* (2010).

Local authorities will need to work with social enterprises to scale up initiatives involving reusables. A study from Northern Ireland found that the amount of bulky household waste in the province is approximately 80,000 tonnes per year, 28.8 % of which could realistically be reusable.[32] A number of social enterprises across the UK are working to reuse items without any additional technological investments and such initiatives need to be scaled up. Green Works is just one example of an initiative promoting local sustainability.

Case study

Green Works

Green Works is a social enterprise recycling old furniture and donating it to small organisations. Around 500,000 tonnes of furniture are sent to landfill every year in the UK and this figure has gone up over the last few years with an increasing office turnover. Green Works has already diverted 60,000 tonnes of furniture from landfill. Furthermore it has saved over 5,000 organisations £2.5m by selling recycled or remade furniture.[33]

A few councils might be inspired to go even further and introduce a 'closed loop' dumping system along the lines of that used in Denmark. Residents who want to dispose of items at some local tips can only do so if they also take something away with them – encouraging people to reuse or swap their waste items.

Local authorities could also realign incentives in waste collection disposal. Organisations responsible for collecting and disposing of waste are not directly impacted by the landfill tax. To ensure that waste management organisations have a stake in waste minimisation, local government contracts could be redesigned so that companies work with households to change their waste behavior patterns. Payment by results contracts could become the gold standard in waste management leaving providers free to innovate around waste elimination.

32 WRAP, Reuse of bulky waste in Northern Ireland: Opportunities for growth (2009).
33 http://www.green-works.co.uk/pages/what-we-do-and-why.html

Investment in new technologies

Decreases in landfill space, increases in landfill taxes and concerns over energy sustainability also highlight the need for investments in new Energy from Waste (EfW) technology. Local authorities should not only move towards a zero waste economy, but also to an economy that derives positive value from its waste. EfW simultaneously resolves two problems facing Local Authorities: waste management and sustainable energy production. As we have already seen, councils are becoming more reliant on EfW: there are currently 35 new EfW projects in the pipeline in the UK, which are forecast to cost £4.7 billion to construct and generate of 1.5% of UK's current grid capacity by 2015.[34]

There are a number of options for EfW in the UK, each of which has a number of benefits and drawbacks. The most commonly used method is incineration which has a number of disadvantages such as pollution, cost, time it takes to obtain planning consent and the inefficient loss of energy during operation. Other EfW technologies include advanced thermal treatments and anaerobic digestion.

The first full-scale UK gasification plant was commissioned in the Isle of Wight in late 2008. The start up cost of the plant was around £10 million, but the project was meant to generate 2.3MW of electricity, powering more than 3,000 local homes. Having used equipment from a closed down incinerator, the costs were kept minimal.[35] Anaerobic digestion (AD), commonly utilised for processing sewerage sludge, has only recently been successfully used to the solid waste industry.[36] In the government's Waste Review, anaerobic digestion was endorsed as the future for EfW in the UK. However, these newer, more efficient EfW technologies are struggling to find investors due to high risk, short term funding pressures and uncertainty in central government policy.

Local authorities will need to develop new financing mechanisms to invest in breakthrough technologies if they want to achieve local sustainability. The

34 http://www.cleantechinvestor.com/portal/bioenergy/2378-energy-from-waste-set-to-attract-investment.html
35 http://biomassmagazine.com/articles/2921/msw-spells-self-sufficiency-for-isle-of-wight-residents
36 http://www.biogas-info.co.uk/

idea of green bonds has been suggested in recent years with a wide range of options such as green gilts, green retail bonds, green investment bank bonds, green infrastructure bonds and others.[37] Green bonds have been used around the world and by development organisations to promote environmental sustainability. For example, since 2008 the World Bank has issued over $2bn in green bonds through 41 transactions and 16 currencies.[38]

Similar bonds could be developed for local authorities looking to invest in EfW. Due to increases in interest rates for borrowing the Public Works Loan Board, councils are already exploring a number of ways of issuing bonds to finance infrastructure.[39] Using similar financial instruments to municipal bonds in the United States, local residents could use London Exchange new retail bonds to make small scale investments into EfW. Repayment periods would be from 5-10 years. Additional income generated through the cap and trade scheme and household variable charge could be used as a source of funding. Powering entire localities through the waste produced would close the loop on consumption of both energy and goods. Rising energy prices is the biggest financial issue facing consumers, with 89 per cent saying energy bills were a concern.[40] Investments in EfW would ease those concerns and allow residents to benefit through reduced energy bills and local authority spending targeted elsewhere.

Food waste is a particularly important element of waste where technological innovations could facilitate the reduction of food volume going to waste. Some 90% of consumers are completely unaware of the amount of food they throw away. Once attention is drawn to it, however, people are surprised and keen to take action.[41] Smartphone apps could be made available to scan the barcodes of all the products in the refrigerator as well as the purchase date to keep individuals updated on the foods available upon arrival home and the products about to expire.[42] Refrigerators with clear doors could be another technological tool to keep better track of food products.

37 http://www.guardian.co.uk/environment/cif-green/2011/jan/11/what-are-green-bonds
38 http://treasury.worldbank.org/cmd/htm/WorldBankGreenBonds.html
39 NLGN *Localist Capital Finance: The challenges ahead* (2011)
40 http://www.which.co.uk/about-which/press/press-releases/product-press-releases/which-magazine/2011/06/as-energy-bills-soar-consumer-confidence-remains-low-says-which/
41 http://www.guardian.co.uk/environment/2007/nov/02/waste.greenpolitics
42 http://www.fastcompany.com/1714429/an-app-to-end-moldy-strawberries

Community action

Communities have a large role to play in reducing waste in their local area. By localising responsibility over services and giving local people greater say over decisions affecting their area, councils can significantly reduce waste and improve livability. As we have shown, individuals greatly value the livability of their neighborhood and hence recognise the need to work collectively to keep it clean.

A number of councils are already planning to integrate waste, street scene and other services at neighbourhood level, often with the intention of allowing ward councillors and citizens greater influence over what is delivered. In some cases, budgets will eventually be devolved to neighbourhoods which could effectively buy a customised package of services. By reducing waste expenditure, neighborhoods would free up money to buy additional services provided by the council, such as subsidised access to leisure facilities. Through community pressure and greater transparency of individual actions, citizens would be encouraged to take greater responsibility for improving livability.

Case study

Barnet Council

Barnet council has used a 'green champions' scheme to shift resident behaviour in a way that may have quite wide ranging application for environmental services. Local volunteers visited households in six streets in West Finchley and helped introduce the residents to new kinds of green behaviours – for instance showing them thermal images of their homes and offering smart meters. Meetings in school halls and an online portal were used to sustain the discussion.

Crucially, residents received personal feedback about how much energy they had saved and posters provided data on how much carbon each street was saving. This fostered a healthy sense of competition. It is easy to see how something similar could be achieved to persuade residents to recycle, drag their bins to a collection point at the end of the road, or clear paths.

To further nudge communities into reducing waste, local authorities could increase the visibility of waste as well as provide better access to information. Bins and skips could be marked on iPhone apps so that individuals know the closest location to throw away their rubbish. A further use of iPhone apps such as My Council Services, would allow individuals to instantaneously report incidents to the council and more efficiently keep their streets clean.[43]

Furthermore, there has been research stating that colourful bins encourage individuals to recycle.[44] For additional community involvement, community members could apply to paint and decorate a bin in their locality, further encouraging awareness around waste.

Conclusion

Future rises in landfill tax, growing population and increasing opportunities in the green sector will make it essential for councils to radically reform the way they deliver environmental services. As environmental services are directly related to individuals' satisfaction with their council, it will be crucial for councils to improve quality whilst reducing costs. Our proposal for a service beyond 2015 would devolve more responsibility to service users and empower citizens to have a positive impact on their environment. By internalising the costs and benefits of environment decisions, households and businesses would be making smarter choices around waste and their local streetscene.

Financial incentives would encourage individuals to reduce household waste. Through the spread of payment by weight technology, individuals would receive rewards for reducing waste and would have to pay fines for excessive waste output. Waste smart meters would be provided to increase household awareness of waste consumption as well as provide data to the council to better understand trends in waste output.

A localised waste cap and trade would incentivise businesses to reduce waste or bear the costs. A certain number of waste credits would be allocated to

43 http://www.guardian.co.uk/money/2011/aug/02/my-council-services-consumer-app
44 http://www.cbsm.com/cases/using+a+uniquely+designed+waste+recepticle+as+a+prompt+to+control+litter+in+a+shopping+mall+in+blacksburg+virginia_100

each business representing their limit on waste output. Businesses would be encouraged to reduce waste as there would be opportunities to sell excess waste credits to other businesses who have exceeded their limit or back to the Local Authority if the total waste output has been lower than that set by the council in previous years.

Supermarkets would be encouraged to supply stock from companies participating in Extended Producer Responsibility (EPR) through business rate rebates and other positive incentives provided by local government. Following from countries that already have industry funded recycling schemes, the UK could see substantial reductions in packaging waste.

The market for recyclables would expand in local areas, and less plastics would be sent abroad for processing. Beyond 2015 most products purchased by households would contain a high proportion of recycled material. By increasing the demand for recycled materials, local governments would boost investments into the sorting technology needed to improve mixed recycling efficiency. Local areas would also come closer to resembling a closed loop system around bulky waste ensuring that less is sent to landfill and more is reused by neighbours or resold at discounted rates.

Green bonds would be used to finance investments into Energy from Waste Projects. Expansion of such projects would allow Local Authorities to not only reduce waste send to landfill, but sustainably power their communities with the energy produced.

To bring environment services closer to individuals and communities, powers over environmental services would be devolved to neighbourhoods. Citizens would be able to choose packages of services to represent their preferences and needs. Through community pressure and greater transparency of individual actions, citizens would be encouraged to take greater responsibility for improving livability.

As service users are brought closer to their services, their stake in service improvement would be strengthened with potential for real innovation. Beyond 2015, environmental services would see cleaner streets, more sustainable waste disposal and more responsible service users. Local authorities, residents and businesses would all play their part in achieving true local sustainability.

Chapter 2

Transport services

Transport services have a profound impact on the lives of all citizens. They can determine everything from an individual's daily work or leisure timetable, decisions about employment, the locations and growth of businesses, the health of the environment, and they can be a lens through which individuals perceive the limits of their world.

Transport services are also under severe strain. Government funding cuts, energy supplies, climate change and the need for economic growth all demand that we re-address how the state intervenes in the realm of transport. At such a crucial juncture, we must ask how a total transformation could be achieved. Piecemeal and uncoordinated change may have some positive impact. But what would it mean for transport services if we were to radically re-think policy in every area of the state's involvement?

In this chapter the remit of local authority transport services, and the pressures and strains the service is currently under, is discussed. Following this, a series of core objectives for transport services are established along with the policy levers that are available to help local governments pursue these. In Part 2, the options available to local authorities under each of these policy levers are established, concluding with a vision of how a transport service could look beyond 2015.

Part 1

The current state of government transport services

Local government's statutory transport functions

Councils have multiple responsibilities for transport, covering a wide range of areas and types of provision. Importantly, councils have a number of statutory transport responsibilities that must be met legally. Appendix 2 summarises the key statutory duties that local authorities hold with regard to transport. Broadly, these duties can be broken down into four categories:

Direct service provision	Provision of transport for children with Special Educational Needs, children who live over a certain distance from school and elderly and disabled persons
Capital investment and maintenance	Street lighting, pot holes, coping with hazardous weather, general road maintenance
Enforcement and Traffic Management	Parking restrictions and fines, traffic management
Policy and strategy	Local Transport Plans, promoting road safety, provision of information about public transport, promotion of sustainable transport

Councils perform multiple roles in the local transport framework. They are direct providers, strategic co-ordinators, managers and enforcers, builders and constructors. The now widely-accepted need for greater collaboration between service areas – breaking down vertical barriers between discreet services – applies as much to transport as any service. It is clear that there are many inter-relationships between these services. Reducing the total

quantity of car journeys means less wear and tear on the roads, reducing the capital maintenance burden for the council. Similarly, strategic capital investments in roads may reduce accidents, ease congestion or make non-car transport use more prevalent.

However, transport policy over recent decades has resulted in fragmented and uncoordinated services with complex decision-making processes. Previous NLGN research has demonstrated that challenges such as congestion cannot be met by approaching transport through professional departmental silos.[45]

The current government's emphasis on localism looks to deliver 'solutions developed for the places they serve, tailored for the specific needs and behaviour patterns of individual communities.' A Local Sustainable Transport Fund has been established to help fund targeted local schemes that will improve choice, sustainability, and local growth and carbon emissions; these are expected to be developed by local authorities in partnership with the private and voluntary sectors.[46] It is important, therefore, to consider all of these different transport functions, along with emerging policy trends when designing a new service settlement.

Transport – emerging trends and pressures on the service

Government spending cuts

Any changes to transport services will come at a time of substantial cuts in departmental public spending. The 2010 Comprehensive Spending Review outlined a 6.25% cut in the Departmental Expenditure Limit (DEL) for the Department for Transport, from £12.8bn to £12bn by 2014-15. This includes a 2.60% cut to the Capital DEL (from £7.7bn to £7.5bn) and 13.73% in the smaller Resource DEL (from £5.1bn to £4.4bn). Included in these cuts are a 28% reduction in local government resource grants and a 20% reduction in bus subsidies.[47]

45 Nigel Keohane and Matthew Clifton, *Politics of Traffic: a local route to reduced congestion* (NLGN, 2007), pp. 10-11
46 DfT, *Creating Growth, Cutting Carbon* (2011)
47 HM Treasury, *Spending Review 2010* (October 2010), pp. 44-47.

In spending plans published by the Department for Communities and Local Government in 2011, the first stages of transport cuts have emerged.[48] The 20.7% cut in overall local government spending on Highways and Transport in 2011/12 constitutes a reduction of £1.46bn. Over half of that cut comes from an £817m cut in London, while the North West sees a £568m cut; at 27% and 46% of the previous year's spending respectively. In most areas the median change in budget shows a bigger reduction in spending than the overall regional mean average, suggesting that there are deeper relative cuts in many districts, counterbalanced by smaller reductions and often increases in spending for fewer local authorities.

Concessionary fares funding has been maintained at roughly similar levels. An average cut of 3% belies significant variations though, with West Midlands funds falling by 4.4% (£55.6m) and three others by more than 2% compared with increases in funding for London, the North East and Yorkshire and Humber. The median local authority cut of 9.7% suggests that more local authorities are seeing substantial cuts than increases or smaller cuts.

Cuts to Highways and Transport budget 2011/12 (N.B. positive 'cuts' are budget increases)[49]

	Total		Support to operators		Concessionary fares		Co-ordination	
	%	£m	%	£m	%	£m	%	£m
East of England	7.28	28.5	19.53	9.3	14.40	11.5	9.46	1.2
East Midlands	10.53	35.4	34.61	19.7	8.37	5.9	37.96	2.6
London	27.10	817.8	39.92	765.4	-26.61	-63.1	36.89	159.1
North East	-5.10	-14.5	49.17	27.5	-59.06	-47.5	-644.37	-24.9
North West	46.11	567.5	32.05	83.7	25.85	47.0	88.66	420.9
South East	5.68	29.6	16.32	10.3	21.20	27.3	7.93	0.8
South West	13.83	47.7	6.83	2.6	21.66	19.4	-73.40	-5.7
West Midlands	-8.40	-34.9	-147.14	-69.7	43.55	55.6	44.93	10.2
Yorkshire and Humber	-2.67	-13.9	-5.00	-7.9	-16.36	-18.7	-23.67	-7.1
England	20.71	1,463.3	31.79	840.8	3.36	37.4	55.74	556.9

48 Calculated from 2011/12 Local Government Budget forecasts (source: DCLG website). The figures are aggregates, with increases in funding in some areas offsetting cuts elsewhere in the total figure.
49 Ibid *(NB:The total budget includes other areas of Highways and Transport, so the total given here is not simply the total of the three Public Transport funding categories detailed in the table.)*

In the budget forecasts for 2011/12, cuts in transport spending have been among the greatest in both absolute and percentage terms. Only Planning and Development (32.6% or £669m) has seen greater forecast cuts in percentage terms and Education (6.45% or £2.9bn) more in absolute terms.

Spending areas in local government 2011/12[50] (N.B. positive 'cuts' are budget increases)

	% cut	£m
Education	6.45	2,960
Social Care	-1.65	-344
Housing	15.10	418
Culture and related services	9.97	338
Environment and Regulation	3.12	172
Planning and Development	32.64	669
Transport	20.70	1,463

These cuts come at a critical time, as the need for private sector-led growth demands greater levels of investment in new transport infrastructure. To compound this, there remains a pressing need to invest more in the general maintenance of the road and public transport networks. The increasing numbers of pot holes in the nation's roads - contributing to a maintenance backlog it will take an estimated 10.5 years to clear - brings into sharp focus the scale of the challenge facing local authorities. [51]

The shift to cars

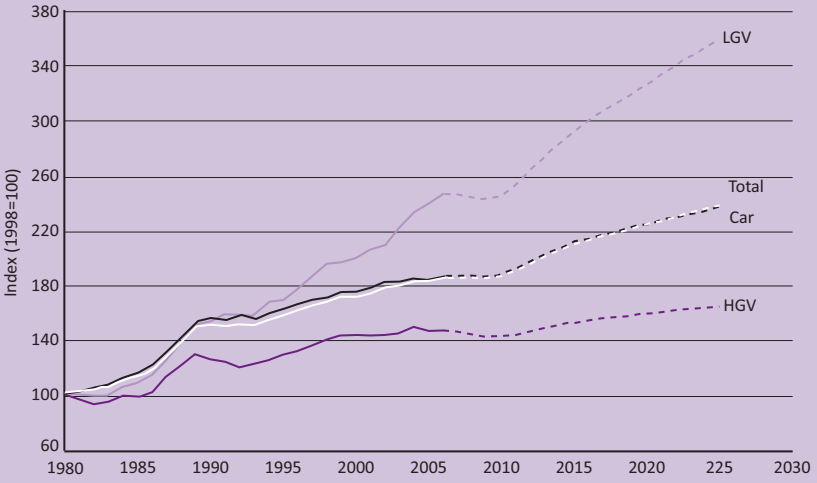
The use of cars has increased by 50% since 1980, and is predicted to increase by another third by 2030, along with a comparable increase in congestion.[52]

50 Calculated from 2011/12 Local Government Budget forecasts (source: DCLG website).

51 Asphalt Industry Alliance Annual Local Authority Road Maintenance (Alarm) Survey 2010

52 Stephen Glaister, *Governing and Paying for England's Roads* (RAC Foundation, 2010); *Road Transport Forecasts: Results from the Department for Transport's National Transport Model* (2008).

Figure 8 Forecast traffic growth by vehicle type



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This places considerable strain on the road network. Of particular concern is the proportion of short journeys (under five miles) taken by car. Department for Transport figures show that more than three quarters of journeys of between two and five miles are taken by car, more than half of journeys between one and two miles and an even greater proportion of longer journeys. Nearly two in five people said that they make three or more car journeys of less than two miles in a week. Many admit that these short journeys could have been made by other means, particularly by bicycle and walking.[54]

The under-consumption of public transport[55]

The car is, by far the most commonly used form of transport. While in 2010 64% of journeys were made by car – as either driver or passenger – only 2% were made by surface rail and 7% by local bus. As car use has been

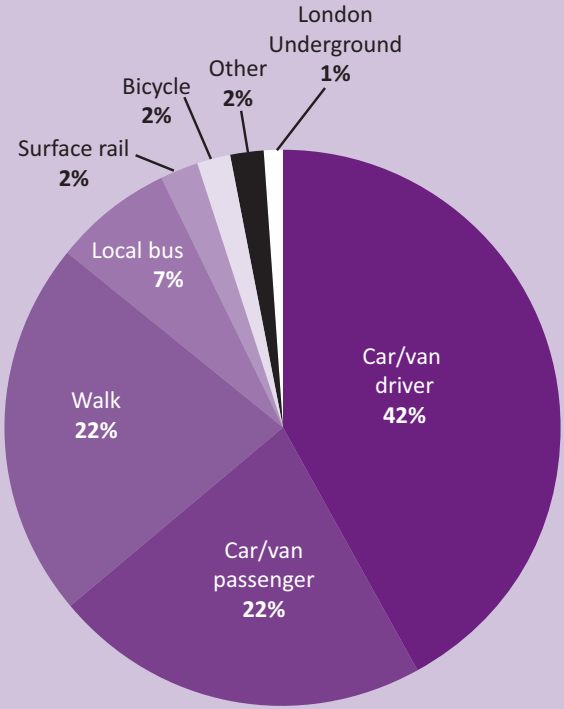
53 DfT, *Transport Trends 2009*

54 Department for Transport, *2010 British Social Attitudes survey: attitudes to transport* (2011) Males more likely to agree that they could just as easily have cycled (i.e. that driving was not essential) than females: 49% to 37%. People over 65 were more likely to disagree.

55 Unless otherwise stated, statistics in the section are drawn from DfT, *Transport Trends 2009*; DfT *Public experiences and attitudes towards bus travel* (2009); and DfT, 'Public experiences of and attitudes towards rail travel: 2006 and 2009' (2009),

increasing, there is evidence that public transport use has plateaued (in absolute terms), and in some instances decreased.

Figure 9 Journeys by main mode of travel



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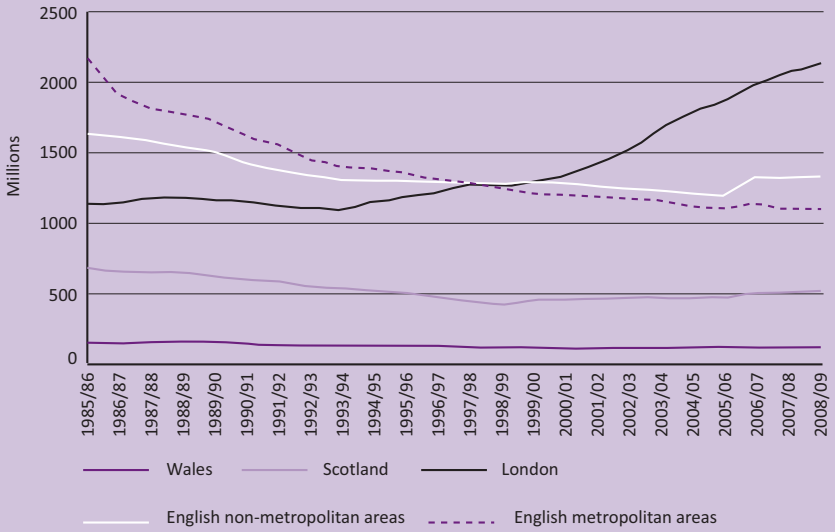
The decline in public transport use has not been uniform across types of transport or across regions. Travel on London buses and London Underground has increased markedly since the early 1990s, as has national rail travel. On the other hand bus journeys elsewhere have fallen, notably in English towns and cities.[57]

56 DfT, Average number of trips (trip rates) by main mode: Great Britain, 1995/97 to 2010
57 DfT, *Transport Trends: 2009 Edition*, Section 3: Public Transport.

Figure 10 Local bus journeys by area



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Beyond the general quality of service received, the reasons for not using public transport fall into three categories: cost, convenience and information.

Cost of public transport

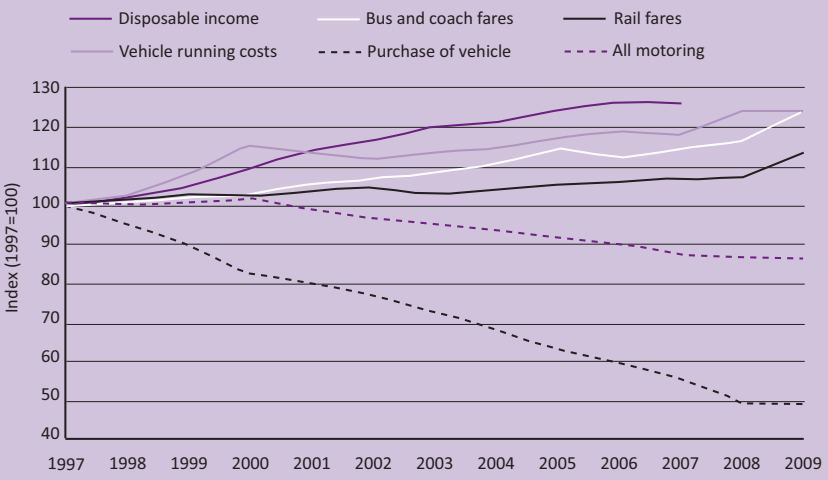
While the last 30 years have seen a decrease in the costs of car usage, there has been an increase in the costs of using public transport. Transport takes up more of households' average spending than any other category.[59] Although the majority of this spending is on motoring (over 13% of household expenditure compared to 2.3-2.6% on fares and other travel costs[60]), the cost of motoring has fallen compared with public transport.

58 DfT, *Transport Trends, 2009, Section 3: Public Transport*. http://www2.dft.gov.uk/pgr/statistics/datatablespublications/trends/current/section3pubtran.pdf

59 Office for National Statistics 'National Statistics Online – Family Spending' (http://www.statistics.gov.uk/CCI/nugget.asp?ID=284).

60 Office for National Statistics, *Family Spending: A report on the 2009 Living Costs and Food Survey* (2010); the latter figure reached 3% in 2008 but otherwise varied within the stated range.

Figure 11 Changes in the real cost of transport and in income



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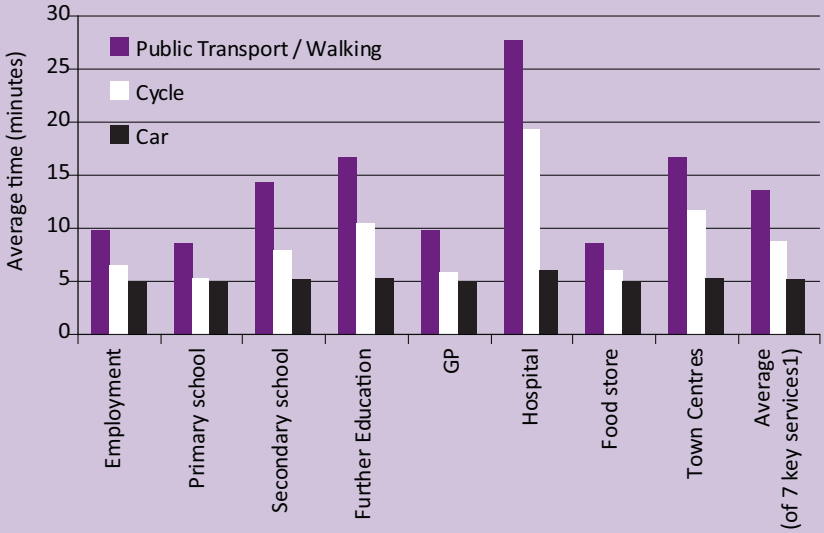
Decisions over whether to use public transport or a car will often be based on the up-front, marginal costs of a specific journey, rather than the underlying costs of owning and running a car all year round. Public transport needs to be seen as value for money if its use is to be increased. Only a third of bus users and a quarter of short-distance train users rated fare costs positively, and that rating was lower still among non-users.

The relative convenience of using cars rather than buses and trains was the most commonly stated barrier to the use of public transport. Statistics from the DfT show that accessing key services using a car is quicker, in some instances considerably more so, than cycling or using public transport. On average across these different service areas, using public transport takes twice as long as driving. It would be unrealistic to expect citizens to use public transport more while it remains demonstrably more inconvenient and time consuming.[62]

61 Transport Trends, 2009, Section 3: Public Transport. http://www2.dft.gov.uk/pgr/statistics/datatablespublications/trends/current/section3pubtran.pdf

62 Department for Transport *Average minimum travel time to reach the nearest key services by mode of travel, England*, 2010

Figure 12 Mean transport journey time (2010)



63

Besides fares, 'availability of information about bus fares before journey start' was the single worst-rated area of bus services among users and non-users in the DfT's survey, while 'realtime information at stops' was the only other category with less than 50% satisfaction among users. Information was similarly poorly-rated among short-distance rail users and non-users alike.[64] Among rail travellers lack of knowledge about the range of tickets available was a major information problem. Only a minority, among the most frequent users, and a quarter or less of those travelling monthly or less frequently, felt that they fully understood the ticket types available to them.

Implications

The continuing growth of car use and consequent congestion has serious economic, health and environmental costs. Congestion, emissions and road

63 DfT Statistics, Average minimum travel time to reach the nearest key services by mode of travel, England, (2010)

64 Passenger Focus, 'Bus passenger priorities for improvement', (2010)

traffic accidents all cost money to the UK economy. Congestion is estimated to cost the UK £7-8bn and accidents a further £19bn.[65] Forecasts in the 2006 Eddington Transport Study found that unchecked congestion 'will increase costs to businesses and freight by over £10bn a year, and a further £12bn of wasted time for households in 2025'. The proportion of journeys on congested roads would by then have increased from 8% (in 2003) to 13%, including a fifth of urban journeys and a third of those in London; a 5% reduction in travel times could potentially save £2.2bn, or 0.2% of GDP.[66]

Emissions from road transport contribute significantly to air pollution in London and other urban areas, including 69% of particulate matter emissions and 42% of nitrogen dioxide in the capital.[67] This pollution has implications for healthcare costs in the short term with 'increased hospital admission and use of medication [and, over the long term,] reduced lung capacity, higher rates of lung cancer and heart disease, contributing to an average reduction in overall life expectancy of 7-8 months per person';[68] the annual cost of particulate pollution is estimated at between £5-10bn.[69] The contribution of motoring emissions to climate change is a further, well-documented matter of concern.

Principles of a transport service beyond 2015

In re-designing transport services we must look for ways in which councils can continue to meet all of their statutory duties, while simultaneously pursuing a number of core objectives we have developed for our future case study council's transport service. As discussed in the previous section, there are three main pressures that can be said to influence local authority transport services:

- reductions in central government grants to local authorities
- increasing use of transport choices that are relatively more harmful to the environment

65 IET Institution of Engineering and Technology and ITS (UK) *'More for Less' Can we really do more at less cost with the UK road network?* (April 2011), p. 3.
66 Sir Roy Eddington, *Eddington Transport Study* (2006), pp. 30, 100, 2.
67 Cabinet Office Strategy Unit, *An analysis of urban transport* (2009), p. 30.
68 IET Institution of Engineering and Technology and ITS (UK) *'More for Less' Can we really do more at less cost with the UK road network?* (April 2011), p. 3.
69 Cabinet Office Strategy Unit, *An analysis of urban transport* (2009), p. 30.

- under-consumption of public transport

The main objectives of our future transport service must therefore be to tackle these pressures. Our case-study of a transport service beyond 2015 is one that has the following objectives:

- provision of the transport service costs the council less money but leads to better outcomes
- the service leads to transport consumption patterns that are more environmentally and economically sustainable
- the service leads to public transport options that are more time and cost efficient for citizens

In addition, transport services must continue to meet objectives in line with statutory duties, such as increasing road safety and providing transport for specific groups.

Transport policy levers

Local authority transport services cover a diverse range of interactions with citizens and interventions. There are a number of policy levers that councils can operate when pursuing objectives in transport policy.

Policy Lever	Description
Pricing and taxation	Using fiscal measures to influence transport consumption decisions. Councils can set parking fees and fines, use tolls and road pricing and have wider tax raising powers through council tax and business rates.
Community based solutions	Harnessing latent social capital to bring citizens and communities into an active role in service provision.

Behaviour change/nudge/ choice architecture	Designing the way choices are presented to encourage individuals to opt for the most socially and personally optimal options, while allowing individuals to retain the power of free choice.
Emerging technologies and improving infrastructure	Finding more environmentally friendly, or fuel efficient technologies for transport (public and private).
Integration/improvement of public transport	Making public transport form a comprehensive and seamless network for travel – making it comparatively more convenient than the car.
Improving ICT and increasing information and awareness	Using ICT and other measures to reduce demand for travel, or to make use of transport more efficient. Public information provision and awareness efforts to ensure that individuals are making fully informed decisions about their transport consumption and the implications of these decisions.
Land-use planning	Shaping the pattern of development to ensure the location, scale, density, design and mix of land uses reduces the need to travel, reduces the length of journeys and makes it easier for people to access jobs, shopping, leisure facilities and services by public transport, walking and cycling.
Transport management	Optimising transport networks to achieve better traffic flows and increased quality of public transport e.g. traffic calming measures, parking restrictions, prioritisation of lanes and traditional and urban traffic control systems.

Part 2

Transport service beyond 2015

Tackling the pressures on transport services means utilising all the policy levers available. There is no one 'silver bullet', and it is only through a range of interventions, some large and some seemingly minor, that the full scale of the challenge can be met. It is the cumulative impact of these measures that is of primary importance. Taken together, these interventions will comprise the vision of a new council transport service for 2015 and beyond.

Broadly speaking, the starting point for much transport policy is a response to a series of market failures and externalities. The social, economic and environmental harm caused by current patterns of transport use, specifically relating to cars as outlined in the previous section, is not reflected in the price of transport consumption. The result is that in many areas transport is consumed in a sub-optimal way and causes damage to the environment, leads to congestion and produces other harmful outcomes. As this is an instance of market failure, it is a problem that demands at least some degree of government intervention. However, the current selection of state interventions is clearly not providing a combination of incentives and disincentives that would yield an economically, environmentally and socially sustainable selection of transport consumption choices.

Achieving our stated policy objectives requires addressing these dynamics. Our future case-study aims to target these market failures and externalities using a range of different policy mechanisms. These interventions can be broken down according to 7 policy levers set out in part 1.[70]

Fiscal measures

Road pricing

The scale of the problem faced on England's roads demands a response that can match up the costs of excessive car use with the price of driving. Fuel,

70 The 8th policy lever 'Transport management' is a lever that cuts across all of the other 7 levers.

vehicle and road taxes currently do not provide this link and taxes designed to mitigate the externalities of motoring are considered inadequate on a number of counts. Fuel duties have been effective in encouraging the manufacture and purchase of more fuel efficient cars, but have had little impact on the total quantity of driving that takes place.[71] Vehicle Excise Duty (VED) is effective in varying taxation according to the carbon emissions of a car, but is not able to factor in the quantity of driving in its pricing mechanism.

A solution proposed by many transport economists is to replace, supplement or add a form of road pricing to these existing taxes. This is essentially a 'pay-as-you-go' model of taxation whereby a charge is levied per mile driven. It is argued that this represents a more efficient, effective and equal system of taxation that will help to reduce the amount of cars on the road. A benefit of this approach is the flexibility of its implementation. Assuming adequate technology exists to monitor road usage, governments are able to tailor the policy to ensure a more efficient and equal intervention. For instance, efforts can be made to maximise 'vertical equality' through ensuring that the tax is targeted in a way that means individuals pay at a rate they can afford. 'Horizontal equity' can also be achieved by designating some or all of the revenue towards spending on road improvements. Road pricing can reflect not just the amount of driving that is done, but also the negative externalities of driving. The pricing can incorporate the carbon emissions of the vehicle, the time of driving as well as how congested the roads being travelled on are. For example, the policy can be targeted at specific problem roads, leaving rural areas with few public transport options unaffected.

As the two tables below demonstrate, just over 20% of taxation income from cars and motoring is directed back as funding to improve the road network and for maintenance. VED raised £5.74bn and fuel duty £33.1bn in total. Yet, only £4.8bn is spent on improving the road network, and a further £5.0bn on maintenance – a total of £9.8bn from the £48.2bn collected across the range of car and motoring taxes.

71 Social Market Foundation *Road Pricing: a road map* (2007)

Table: Taxes collected from road user

	£billion
Fuel duty	26.2
VAT on fuel	6.9
Vehicle excise duty	5.74
VAT on care sales	7.2
Company car tax	2.2
Total	48.2

Table: Government budget for roads

	£billion
Network improvements	4.8
Maintenance	5.0
Total	9.8

[72]

Implementing road pricing could be revenue neutral, or very close to it, for the government. It would be possible to scrap VED and replace it with road pricing, with the pricing set at rates that would yield the same level of taxation. The income from the tax could then either be distributed in the current way, or could be used to form a designated road improvement fund combined with other taxation revenues. The benefit in doing this is that by changing the taxation mechanism, policy makers would be altering the financial relationship drivers have with car use. Car users would now have a direct financial incentive to drive less. Unlike fuel duty, it would not be possible to purchase different cars to circumvent these pricing mechanisms - lower emitting cars would pay a lower duty, but would still pay on the basis of usage.

If the rates were set at the right level, future decreases in car transport would not cause a problem in terms of lost taxation revenue as this would be at least counter-balanced by the net gain of lower emissions, less wear and tear on the roads, less congestion and fewer accidents. Conversely, any future increases in car transport would be adequately compensated for. The result would be a transport system that has far greater levels of efficiency.

72 Road Users Alliance, *Road file* (2010)

Introduction of such a scheme is likely to be unpopular, at least initially. Polls suggest that 65% of the population oppose pay-as-you-go charging. However, 46% of people would support the idea if it was accompanied by the abolition of VED, and an increase in the amount of money that is spent on the roads. Importantly, 58% of people surveyed agreed that the introduction of pay-as-you-go charging would make them think about how much they drive.[73]

Though this is a measure that can only be implemented centrally, it would improve the ability of local authorities to tackle the problems facing transport services. Councils should therefore be able to exempt or include specific roads where there is an evidence base for it. Local authorities would also be the direct beneficiaries of the impact of road pricing, and would be best placed to determine how the income from the scheme should be spent to maintain the roads and improve the network.

Working Parking Levy

While it would be important for the public to see the revenues generated by road pricing directed back into the road network, there are other fiscal measures councils could introduce to help generate funds to improve public transport. Recently some councils have proposed the introduction of the Working Parking Levy (WPL) as a means of discouraging car usage and raising funds for investment in public transport.

Case study

Nottingham City Council

Nottingham City Council has sought to finance local transport improvements through a Workplace Parking Levy. The scheme involves charging organisations with more than 11 car-parking spaces for employees £1 per space per day. It is left to the discretion of organisations whether the cost is passed on to employees.

All money raised will be used for public transport improvements; two

73 All statistics from the Road User's Alliance Road File (2010)

more tram lines, supporting the Link bus network to assist commuters and the redevelopment of Nottingham railway station into a 21st Century transport and business hub.

Nottingham calculates the scheme will raise £14m per year when it starts in 2012. Though it is highly controversial, the scheme is a clear reflection of the need to improve transport infrastructure and reduce carbon emissions without access to the revenue supply needed to support such investment.

Like road pricing, a Working Parking Levy is likely to be unpopular with motorists. Implementing it would require strong political will, transparency over the uses of the revenue and a clear dialogue with residents. The size of the problem presented by increasing use of the car means that councils will increasingly have to take difficult decisions such as these. Without such measures, it is unlikely that market forces alone will reduce the level of car usage, such are the negative externalities involved. A WPL would be most effective if the income was used to support improvements in public transport, in particular expanding the reach of the network and increasing capacity of the system during the busiest periods. If public transport was already of sufficient quality and scope, the revenue generated by a WPL could be used to subsidise fares.

Parking charges that reflect emissions

Councils also have control over parking charges, and can use this lever to further discourage the use of high-polluting cars. Lambeth council has implemented pricing structures for parking charges that vary according to how much carbon the car emits. The model works by implementing a progressive scale that makes parking permits free for cars emitting under a certain amount. For all other cars there is a scale, with permits progressively more expensive depending on the amount of carbon the car emits. There can be special dispensation arrangements for large families with a household income below a set level to prevent the policy being a financial imposition on large families that are not able to pay. The scheme should encourage individuals to consider the carbon emissions of the vehicles they purchase. When combined with emission-linked road pricing and existing fuel duty, these interventions should

heavily incentivise the purchase of low-emitting cars, which reduces the level of negative externality produced by motoring.

Community Based Solutions

Councils can harness the latent potential of their communities to help improve the sustainability of transport consumption.

Car and bike sharing

Councils can take an active role in promoting car sharing schemes across their whole authority. Under a peer-to-peer sharing scheme participating members could use a credit, debit or pre-paid card to access cars that are placed on streets around the authority. Car owners could rent out their cars when they are not using them, and up-to-the-minute information about location and activity would help members locate the nearest car share scheme. For a set per-hour fee and petrol costs, users have use of the car, and are able to drop it back at a different location. A similar scheme could operate with cars owned by the scheme's administrator. So called 'zip car' schemes do not require members to own a car in order to join. Whereas the petrol costs would be equivalent to those of owning a car, the benefits of membership could include no taxation, insurance and parking permit costs. Members of a car sharing scheme, assuming certain usage levels, could also be exempted from road pricing, congestion charging and parking fees.

Lift sharing

In addition to car sharing, councils can also play a key role in facilitating lift-sharing. This encourages individuals to make empty seats in their car available to other people for journeys they take on a regular (i.e. daily) basis. A lift-share scheme could be incorporated into a 'time bank' that the council operates. By offering lifts, drivers could accrue credits which could then be exchanged for a range of different services, such as to off-set parking permit fees, or to pay for council gym memberships. Alternatively, it could be used to 'buy' services from other citizens, such as gardening, baby-sitting or journeys from other lift-share participants. Specific groups, such as the

elderly or disabled, could be given a set quota of credits each month to access lift-sharing.

'Nudging' towards more sustainable lifestyles

Councils will need to take an active role in the promotion of sustainable lifestyles and in encouraging individuals to shift away from the car. With minimal difficulty, councils can start with their own staff. Councils can implement Workplace Travel Schemes, which encourage home-working and make information readily available about alternative transport options. These could have extensive links with the council's lift-share scheme, car pooling and zip car schemes.

Councils could designate lift-share stops in car parks next to major employment hubs and in suburban areas. Sign posts could be used to encourage drivers with spare room in their vehicles to collect passengers at the 'lift-share stop' on their way to and from work. Akin to an organised form of hitch-hiking for professionals, the lift-share scheme would help to reduce the number of cars on the road, and would offer a sustainable alternative to public transport.

The council could also work in partnership with the Driving and Vehicle Licensing Agency (DVLA) to implement nudges to discourage heavy driving. By piggybacking on the technology needed to enable road pricing (and which therefore keeps an accurate record of all the miles driven by every single car), the council and the DVLA could use this information when drivers are renewing their tax discs. For drivers who have driven over a certain number of miles, the tax disc they are given could be red. For intermediate road users the disc could be orange, and for those who have minimal car usage the disc could be green. This would create a social incentive to drive less.

Case study

Smarter Transport Sutton

Sutton council and Transport for London have been working together on producing more sustainable transport in the borough, funded by £5m from TfL.

'The project aims to […shift] journeys away from the car to more sustainable modes such as Public Transport, Walking and Cycling. […] by helping schools, businesses and individuals in Sutton find out more about the travel options available to them.' This has included: free personal travel advice for residents; workplace travel plans for businesses, including cycle racks, lockers and showers; travel advice for schools; car-sharing schemes; events themed around the environment and reducing car use. Sutton has recorded an impressive 75% increase in the level of cycling (a more substantial increase than the general recent London trend), a 3% increase in journeys undertaken entirely on foot, and a 6 % point fall in journeys by car.[74]

Increasing the convenience of public transport

Using fiscal measures to discourage driving can only be part of the solution. As seen in Part 1, the car is generally the most convenient form of transport available. This places a non-financial cost on using public transport for the majority of people and this must be balanced out if councils want to see a genuine modal shift away from cars. On busy roads that are frequently congested councils could implement priority lanes for public transport, bikes and cars participating in car and lift sharing schemes. The Highways Agency has already begun trials of priority lanes for 'High Occupancy Vehicles'. Early evidence suggests that these have resulted in an 8 minute time improvement during morning peak hours for car sharers, and a 5 minute improvement for other car users.[75]

Encouraging cycling

In Bogota, Colombia, the city government instituted 'no car days' to encourage the take up of cycling. These prohibit cars on certain days, usually the weekend, from driving in specific areas. This helps to encourage people to use bikes, as many of the dangers associated with bike use are created by cars. By giving individuals this opportunity, a proportion will be likely to carry on cycling even when there are no car days. In Seoul, drivers are encouraged

74 Third Annual Report of Smarter Travel Sutton http://www.sutton.gov.uk/CHttpHandler.ashx?id=13359&p=0 (in percentage point measurements the changes in 'mode share')

75 The Northern Way, Early Win Transport Schemes, http://www.thenorthernway.co.uk/page.asp?id=389

to leave their car at home one day a week through insurance discounts, reduced price parking and tax-breaks. The scheme has resulted in 10,000 fewer cars using the road each day.[76]

The introduction of 'Boris Bikes' in London has also demonstrated that councils can operate a cycle hire scheme, which is accessed through credit or debit cards. The scheme in London offers a range of pick-up and drop-off points across the authority. The scheme is free for under 30 minutes use, with a flat-rate thereafter. Docking stations are restricted to Zone 1, but there are plans to expand the scheme out into Zones 2-6.

Councils can also be proactive about creating cycle lanes and cycle friendly routes. There are currently websites that map journeys for cyclists according to which roads have least car traffic on them. If a council was to take a heavily interventionist approach, it could analyse which roads are used least by cars and then map out how these could be worked into a route between major suburban areas and employment hubs. Councils could close these roads to cars, causing minimal inconvenience to drivers as they are the least used roads, and open these up as cycle highways. These would enable cyclists to travel more quickly, and more safely, encouraging more people to choose alternatives to the car.

Direct service provision

For the services the councils provide directly, predominantly transport for Special Educational Needs (SEN) children, those who live over a certain distance from school and elderly and disabled people, councils can implement total personal budgeting approaches. These enable the individuals to continue accessing the service as they would have done before, but is weighted to offer financial incentives to use cheaper forms of transport or forms of transport that are more environmentally friendly. This is based largely on the pilots run by iMPOWER on transport for SEN children. These have provided a financial incentive for service users to find cheaper and more sustainable transport options, such as lift sharing.[77]

76 Forum for the Future *Mega Cities on the Move* (2010)
77 Nigel Keohane Changing Behaviours (NLGN, 2011)

Nudging businesses

If there was to be further devolution of powers to alter business rates at the margins councils would have the ability to encourage companies to promote more sustainable transport. For instance, councils could offer businesses discounts, albeit small, on their rates if they replace car parking spaces with cycle sheds and install lockers and showers to make cycling to work easier. It may be necessary to demonstrate usage of these facilities to be eligible for the discount, but it would be a helpful additional incentive to promote more sustainable transport.

The rise of internet shopping has increased the amount of home deliveries that are required. In 2010, £58.8bn was spent online, putting further strain on the road network through the need for purchases to be delivered. Traditionally, councils have not engaged heavily with business in efforts to alter its transport patterns. However, there are levers available to councils that would help them to do this.

By implementing road pricing or congestion charging, and allowing councils some discretion over the time periods for charging, councils may be able to influence the delivery patterns of private business. Councils could exempt delivery vehicles from congestion charging outside of main rush-hour periods. Alternatively, cash rebates could be offered to delivery firms who schedule their deliveries for the night-time. This would help alleviate pressure on the roads during the busiest periods, benefitting other drivers who have less flexibility about when they travel.

To make such a scheme work, councils may have to assist in establishing neighbourhood drop-off points for goods deliveries, so that the delivery firms are not tied to delivering during conventional office hours. These could take a variety of formats, from being a new use for corner shops or civic buildings. Alternatively, they could be dedicated high-tech drop-off points, such as Tower24 in Dortmund, Germany, which enables residents to collect their parcels 24 hours a day.[78]

78 Todd Goldman and Roger Gorham Sustainable urban transport: Four innovative directions (2006)

In addition to these, councils could facilitate setting up co-operative local distribution and logistics centres. This could be state run, with municipal vehicles making all deliveries from a centralised depot, as happens in Bremen. Alternatively, private companies can be encouraged to form voluntary co-operatives to co-ordinate deliveries. Councils could offer discounts in congestion charging or financial incentives to firms that use sustainable transport to deliver or which exceed minimum loading standards.[79]

Infrastructure and technological Improvements

With capital budgets taking a disproportionate share of the cuts alternative approaches to funding new transport infrastructure will be needed. Where major new roads, tunnels and bridges need to be constructed, councils could move to a system of using toll-fees to pay for these. Recent examples, such as the Tyne and Wear tunnel in Newcastle demonstrate that the toll income can make such schemes self-financing. It is important that citizens still have a choice to use non-toll roads and tunnels, and that the price of the toll road represents the increased quality and quicker journey times it offers.

The lessons from the Total Place and Total Capital initiatives, and plans for Community Based Budgeting, indicate that there is potential for councils to take a more integrated approach to financing transport infrastructure across a locality or sub-region. Councils could lead on the creation of a new capital fund with, for instance, the specific aim of reducing road accidents. Using funding pooled from the police, the NHS, the fire service and the council, the fund could modify the sections of road where accidents were most frequent. The fund could begin with an initial tranche of borrowing, with repayment based on hypothecated future savings. Each agency would be required to calculate the expenditure it incurs through accidents, with a proportion of the projected savings accrued through having to deal with less accidents earmarked to repay the initial borrowing.

Emerging Technologies

There are also technological developments emerging which could transform public transport. In Beijing, work is set to begin by the end of 2011 on the

79 Ibid

creation of a 'straddling bus'. This is a Bus Rapid Transit system without the need for additional road space. The bus has two floors, with the bottom floor functioning as a tunnel, with only two sides, enabling the top floor to straddle the road. Cars can therefore continue to use the road as usual, driving under the bus. The top floor can seat 300 passengers. It can run either on rails or on auto-pilot following white lines. Uses of the straddle bus may be limited to particularly busy roads, but for major routes into large city centres it could have a significant impact.

Councils can also be proactive in the installation of electric vehicle charging points. New semi-electric bikes can make cycling a more realistic opportunity for many citizens. New innovations in technology mean in the near future it could be possible to introduce semi-electric bikes for hire in city centres. The bikes offer the option of being used as electric scooters, or by pedal power. If used as a bike, the effort generates and stores energy for later use as an electric scooter. The bike can also be folded up and used as a bus seat. The energy stored in the bike can then be used to pay for the cost of the journey. When not in use, the bikes are stored in the roofs of bus shelters where they generate energy through solar cells.[80]

Fully integrated public transport systems

It is now widely accepted that public transport systems need to be fully integrated. There are a range of organisations councils can work with to do this, including in some areas Integrated Transport Authorities and Passenger Transport Executives. Fundamental to the integration of transport is the introduction of single payment systems for all public transport across a place. The success of London's Oyster card, which even works on national rail services, demonstrates the feasibility and impact of the concept.

Improving ICT

Improving information technology can also help reduce the demand for transport. There are currently funding streams open through DCMS to roll-out access to high-speed broadband across 100% of the country. This would

80 Forum for the Future *Megacities on the Move* (2010)

help to reduce the need for face-to-face meetings in both the council and externally in businesses, with the emergence of tele-conferencing and tele-presence. High-speed broadband can also make it easier for people to work from home, decreasing the number of car journeys and reducing the strain on public transport during rush hours.

Lift-sharing and peer-to-peer car sharing schemes could also be factored into public transport planning websites. The Transport for London (TfL) website enables citizens to plan journeys on public transport across all possible modes. If the success of lift and car sharing was great enough, this could also be included on such websites.

The council could also encourage or work with developers to create a public transport app for the smart-phone market. The app could provide real-time information about transport options. Simply using GPS co-ordinates the app would be able to provide up-to-the minute information on the transport network. A map could show live information of GPS-tracked buses, so citizens would be able to judge for themselves when the next bus will arrive. The app would be designed to take out much of the uncertainty about public transport, making it much easier to access.

Land-use planning

Councils can also take much more consideration of transport in land-use planning. For instance, councils could merge their transport planning teams with their economic development and planning units to ensure that land use planning can help to reduce the need for transport. Though this is a relatively long-term solution, councils would be able to design new developments so that it is easier to access amenities without using a car, and where there is straightforward and quick access to public transport. Developer contributions, such as Section 106, Community Infrastructure Levy in addition to the New Homes Bonus, could also be geared towards public and bike transport rather than cars. For instance, new developments could be required to have specially designed cycle sheds to residents to leave their bikes in.

A transport service beyond 2015

Beyond 2015, we envisage a transport system in which will offer a much more level playing field in terms of the costs associated to different transport options. The costs of driving, particularly in cars which produce high carbon emissions or on heavily congested roads, would have increased to better reflect the externalities that are produced. In contrast, the convenience of using public transport or cycling would be improved. This would increase the transport options available to every citizen, with distinct financial, social and environmental benefits incentivising the use of more sustainable options.

Beyond 2015 owning a car is likely to be cheaper than today, assuming current trends continue. However, the operating costs of a car would no longer be so advantageous in comparison with other modes of transport. The introduction of road pricing would mean that the marginal costs associated with each additional journey increase, encouraging individuals to rethink driving habits and drive less. This new dynamic should reduce the levels of unnecessary car journeys without altering the ability to use cars where it is genuinely essential. Altering parking charges to reflect emissions would encourage a gradual move towards more environmentally friendly vehicles. The widespread introduction of car sharing, car rental and lift sharing schemes would also make it easier for individuals to reduce the number of cars owned.

New technologies and approaches to transport management would make public transport a better choice for citizens than it is today. The introduction of priority lanes for buses, or even new technologies such as ‘straddle buses’, would make using public transport quicker than using a car. Full integration of payment methods for public transport would make usage cheaper and easier. Channelling investment from new Working Parking Levies and other income streams, as well as a more coherent use of capital funding across the public sector, into improving the quality and reach of public transport networks it would help to make public transport a viable option for individuals for whom currently car use is the only realistic option.

Businesses would also play their part. Delivery companies would be heavily incentivised to change their working practices so that they do not coincide

with other rush-hour traffic. This would reduce the number of cars on the road during peak times, alleviating congestion and making essential car journeys quicker and easier. Businesses would also have a role in taking responsibility for the transport habits of its staff. The Working Parking Levy would incentivise businesses to promote public transport use with staff. For new businesses, locating next to public transport hubs would be more cost-effective than locating in more remote areas which may be cheaper but only allow access by car.

Beyond 2015 the choice of how to make the daily journey to work, to the shops or for leisure would no longer be so heavily weighted towards use of the car. Individuals would have a much wider selection of choices, and much more information with which to make these with. Each policy change we recommend would have its own discreet benefit but importantly, cumulatively, these would create a virtuous cycle, leading to more sustainable transport choices.

Chapter 3

Library services

Libraries fulfill an important role in local communities. They offer information resources, provide a community space, and help encourage literacy.

But the combination of deep public sector cuts, changing user preferences, and technological advances are putting pressure on library services' traditional business model, which is now in danger of becoming outdated. With threats of closures, libraries are now under the spotlight and have become a point of national tension and passionate debate.

But rather than making small cuts and one-off closures, this challenging context provides an opportunity to go back to the drawing board and rethink the way we deliver these services.

We start by reviewing the role of library services, and some of the trends that are driving change in their business models, including spending cuts, changes in user preferences and technological advances. Based on this analysis, Part 2 explores how library services might change in the future, and concludes by providing a vision for library services beyond 2015. We suggest that libraries will need to become more efficient in their use of space and employees as well as reclaim their relevance in society.

Part 1

The current state of library services

Setting the scene: the role of library services

Before analysing the trends and thinking about how to radically redesign libraries, it is important to establish the basic statutory requirements of a library service. Broadly speaking, the purpose of a library can be separated into two main functions: resource provision and encouragement of literacy. This dates back to the Public Libraries and Museums Act 1964.

Minimum requirements of a library service

The Public Libraries and Museums Act 1964 outlines four key areas that a comprehensive library service must deliver:

- Securing and keeping a wide range of free resources, including books and other printed matter, sound recordings, films and other materials, to browse and borrow in sufficient number, range and quality.
- Meeting the general requirements (and any special requirements) of both adults and children living, working or studying in the local area.
- Providing free independent information and advice.
- Encouraging the use and participation of the service, for example, through clear and easy ways to join, access, shape and influence the service. The precise scope and size of the service is not specified and the legislation does not set specific minimum service standards.

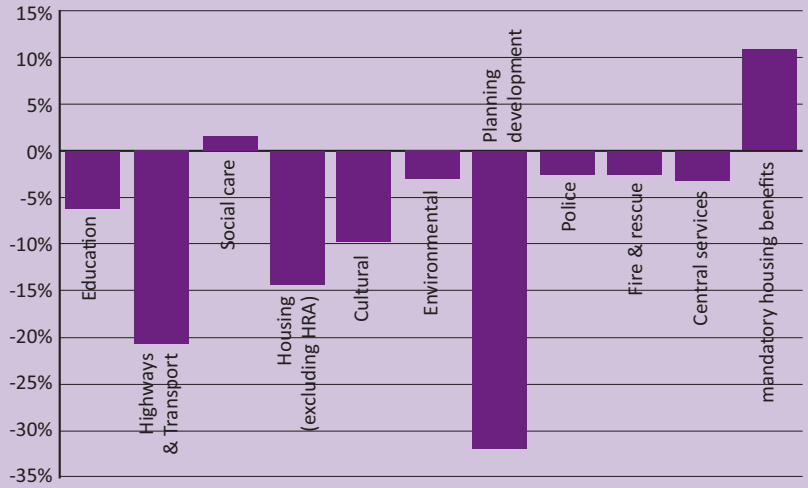
Libraries – emerging trends and pressures on the service

There are a number of trends putting a strain on library services as we know them. We have identified three key drivers of change: budget pressures, changes in users' preferences, and technological advances.

Budget pressures

Local authorities are facing funding reductions of 28% in central government grants over the period of this parliament, and cultural services are particularly vulnerable to cuts. An analysis of projected council budgets for 2011/12 suggests that cultural services are facing a cut of nearly 10% (See Figure 13), and that libraries specifically will see cuts of around 8.5%.

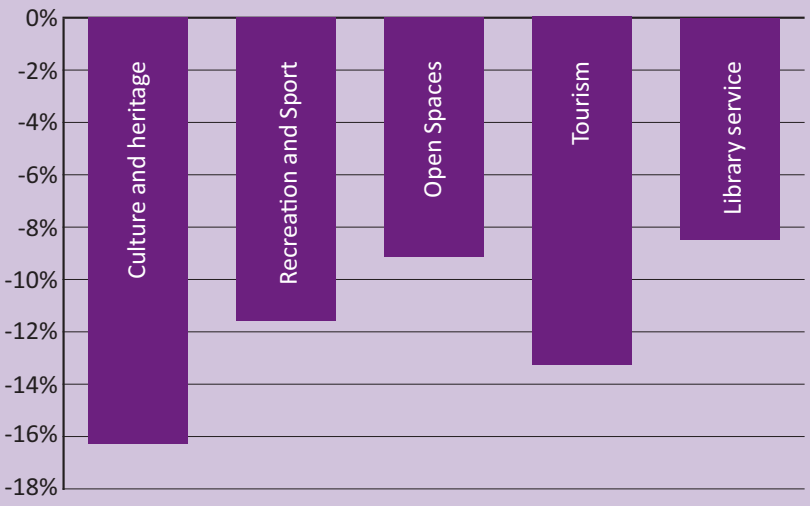
Figure 13 Size of spending cuts 2011/12



81

81 Calculated from 2011/12 Local Government Budget forecasts (source: DCLG website).

Figure 14 Percent changes in net expenditure within cultural services between 2010/11 and 2011/12



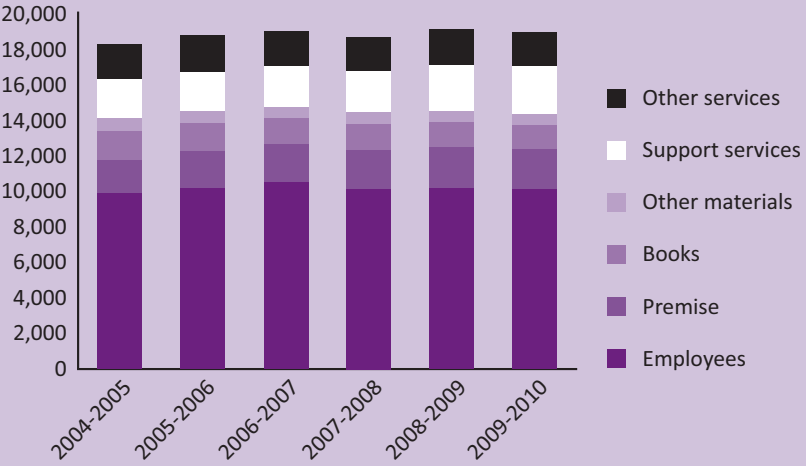
82

The cuts to cultural services are relatively modest when compared to dramatic cuts in areas like planning, but they do go against the considerable community attachment to libraries and to the services they provide. In the last year, with more than 360 libraries and nearly 30 mobile services in England under threat of closure,[83] major local and national campaigns have been launched to defend council libraries. In February 2011, 100 events opposing local closures took place on Save Our Libraries day.[84]

By cutting library services in the local area, councils are looking to make substantial savings in their budgets. Library expenditure statistics reveal that in 2009/10 local authorities in the United Kingdom spent a total of £1.185m (excluding capital charges) on libraries.[85] Although there is some variation in the business models that different local libraries have adopted, the majority of the library budget is spent on employees (53.8%) with premises (11.9%) and support services (13.8%) in second place.

82 Calculated from 2011/12 Local Government Budget forecasts (source: DCLG website).
83 http://www.bbc.co.uk/news/uk-england-12239388
84 http://www.guardian.co.uk/books/2011/feb/15/library-protests-councils-rethink-cuts
85 CIPFA public libraries statistics 2009 -2010

Figure 15 Components of library expenditure for England between 2004/05 and 2009/10



86

There have not been significant changes to components of library expenditure between 2004/05 and 2009/10 but there have been gradual reductions in book expenditure and reductions in staff numbers. Between 2005/06 and 2009/10, the total number of full-time equivalent staff employed by libraries dropped by 6.6%. The number of professional staff has decreased much more drastically (15.1% reduction since 2005/06) than the number of other staff (4.3 % reduction)[87], and the number of volunteers has increased by 10.4%. These figures demonstrate that the upkeep of the library by non-skilled staff is one of the key components of expenditure and hence strategies to make libraries more efficient should consider this aspect of the library business model.

86 CIPFA public libraries statistics 2009 -2010. Expenditure statistics exclude capital charges.

87 CIPFA Public Libraries Statistics 2009 – 2010. Professional staff includes those who hold a formal qualification in librarianship or computer science or those who have completed their qualifying examinations. All other posts include administrative, clerical and general duties as well as those involved in the general upkeep of the library.

Even though expenditure on libraries has remained roughly constant, issues of books have decreased by over 13m since 2005/06. Annual issues per person per year stood at 5.01 in 2009/10 compared to 5.37 in 2005-06.[88] As usage of traditional library services declines, costs per book issued and per visit climb proportionately. According to LAMPOST figures[89] the average cost per issue of a print book and AV material in 2008/09 was £3.48, up 70 pence from costs in 2003/04.[90]

There is significant variation in cost per issue across the UK with some libraries in Waltham Forest and Leicestershire reporting costs as high as £8 per issue. These costs are comparable to new books sold in high street bookstores and are increasing over time as a result of increases in running costs and decreases in book stock.[91] Few changes to expenditure and a dramatic decline in book issues suggests that the current library model is no longer efficient.

Understanding user preferences

The government has ambitions to modernise public libraries, reflecting changing usage patterns which call into question some of the traditional roles of community libraries. Citizens, including many non-users, do still see the library fulfilling a vital function for the community (See Figure 16). However, from 2001/02 to 2005/06, there has been a noticeable drop in those citing "books" as their reason for visiting a library (from 70% to 65%) and an increase in the use of computers/internet and a place to "sit to study/work/read (from 6-9% to 14-19%).[92]

88 CIPFA Public Libraries Statistics 2005 – 2010.

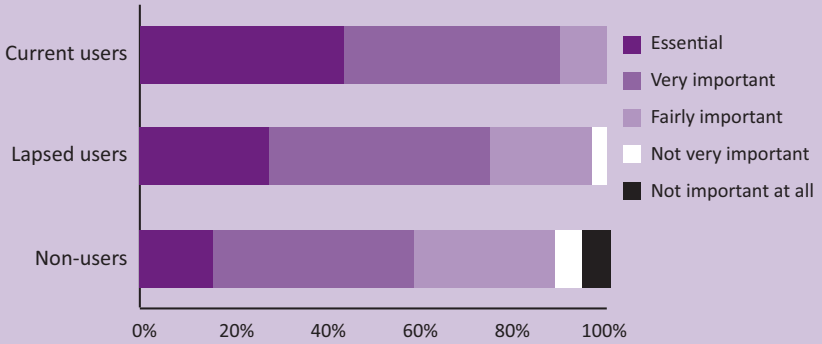
89 http://www.lboro.ac.uk/departments/ls/lisu/lampost.html

90 Note that this does not control for inflation.

91 Waltham Forest, Review of the Library and Information Service, July 2011; CIFPA Public Libraries statistics. Cost per issue is calculated as the controllable cost per library divided by the total annual issues.

92 MLA, *Research Briefing 3: Attracting library non-users: what have we learned so far?* (2008).

Figure 16 How important or unimportant do you think public libraries are as a service to the community? (Public Poll)



[93]

Despite some increase in visits to libraries in the early part of the last decade, usage has decreased significantly in the last five years. 2008 data shows that 48.5% of adults in England had visited a library at least once in the past 12 months – almost a 5% drop compared to 1997/98[94]. Not only is the number of people visiting libraries decreasing significantly (Figure 17), but most of those who visit only do so up to four times a year.

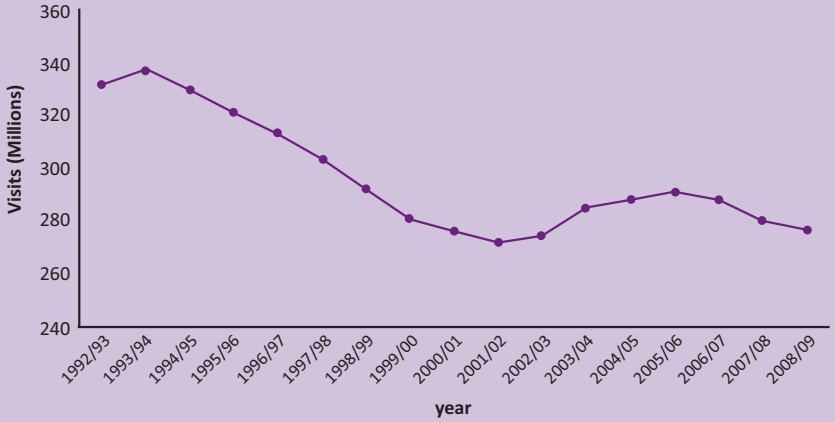
Specific variations should be noted. First, library visits in the North East and the East Midlands have remained stable over the past five years.[95] More generally, although evidence is limited, the figures indicate that whilst visits are falling off from adults, the opposite may be the case for children. In fact, a look at the profile of library users shows that children in particular are frequent visitors to libraries.

93 MLA, *What do the public want from libraries? User and non-user research - full research report* (2010). Note that a user was defined as someone who is a member of a library, who considers himself a user of library services and who has used library services in the last year. A lapsed user was defined as someone who is a member of a library but has not used any library services in the last year. They are of particular interest because the MLA is keen to understand why members of libraries may have stopped using them. A non-user was defined as someone who is not a member of a library, who does not consider himself a user and who has not used any library services in the last five years or has never used them.

94 MLA Research briefing: Participation in Libraries and Museums at the Local Level: Summary findings from Active People Data. 18th December 2008.

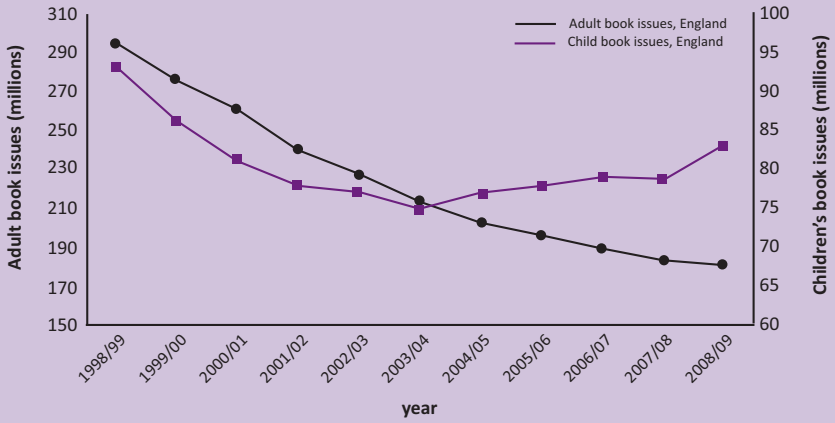
95 DCMS, *Taking Part – Statistical Release Taking Part: The National Survey of Culture, Leisure and Sport Adult and Child Report 2009/10* (August 2010).

Figure 17 Visits to library premises, 1992/93 to 2008/09



96

Figure 18 Issues of adult and children's books from public libraries 1998/99 to 2008/09

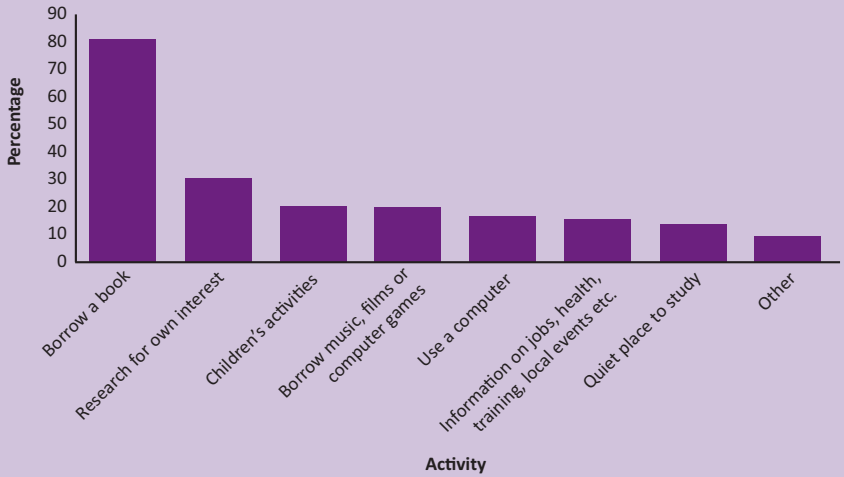


97

96 DCMS, *The modernisation review of public libraries: a policy statement* (2010).
97 DCMS, *The modernisation review of public libraries: a policy statement* (2010).

To further understand the value libraries offer their communities, it is important to look the drivers behind changes in usage. Libraries are not only valued for their book service, but also for the public space they offer.[98] Importantly, the public rarely recognises the distinction between the physical asset or building and the actual library service, suggesting that it may be difficult to re-engineer a service which has no physical component.

Figure 19 Activities undertaken in libraries



[99]

Existing evidence suggests that there are a number of factors that could lead to an increase in usage. These include a coffee shop on site, children's activities, longer opening hours and improving the IT offer (See Table on the following page**)**.

98 MLA, *What do the public want from libraries? User and non-user research - full research report* (2010), p. iv

99 DCMS, *The modernisation review of public libraries: a policy statement* (2010).

Table: What would encourage you to use libraries more often? [100]

Current users (base: 631)	Lapsed users (base: 308)	Non-users (base: 162)
Coffee shop on site (31%)	Coffee shop on site (35%)	Coffee shop on site (30%)
Longer opening hours (29%)	Longer opening hours (27%)	Children's activities (26%)
Children's activities (28%)	Children's activities (26%)	Improving the IT offer (18%)
Range/quality of books (27%)	Improving the IT offer (20%)	Specialist services (18%)
Being able to reserve or renew books online (19%)	Better information on what libraries offer (19%)	Classes for adults (15%)
Source: Ipsos MORI. Respondents were read a list of options and asked to say which two or three would most encourage them to make more use of libraries.		

In addition, other factors underpinning customer satisfaction and incentives for library use include the quality and range of books on offer, how helpful and friendly the staff are, and the location and accessibility of the library.[101] Reference was also made to libraries as 'sanctuaries', peaceful public spaces.

The reasons for not using the library service, many stem from external factors. The top two reasons for not using libraries were a preference to buy books online and being too busy. The preference in buying books from a shop/online could either indicate an inconvenience associated with a library or dissatisfaction with the book range.[102]

But while usage patterns are changing, libraries remain an extremely valuable service. Compared to other cultural activities, they are a powerful social leveler, with adults from different socio-economic background using their services: adults using libraries had the most even distribution of mean

100 MLA, *What do the public want from libraries? User and non-user research - full research report* (2010). See footnote 15 for a definition of different users.

101 MLA. *What do the public want from libraries? User and non-user research - full research report* (2010)

102 MLA Research briefing: Participation in Libraries and Museums at the Local Level: Summary findings from Active People Data. 18gth December 2008

income compared to adult participation in other cultural services.[103] The fact that BME adults are far more likely to use library services than those with a white background and this divergence is increasing, further supports the library's role in social mobility.[104]

To sum up, users are demanding new services and libraries will need to respond to users' changing needs to ensure libraries do not become outmoded, while retaining their distinctive value to communities.

Technological advances

Some of the underlying challenges to the traditional library model are rooted in the fast changing technology available to readers. Household internet access in Britain showed an increase from 58% in 2003 to 70% in 2009.[105] The internet has transformed the way in which we access and browse information. It has challenged the near monopoly of free information and knowledge that libraries used to offer. Remote access has given the internet a comparative advantage over other media given the busy lifestyles most people have. Users often find online reference and data to be more comprehensive and easier to access than printed knowledge in library reference sections.[106]

EBooks are emerging quickly as a new market, with sales rising by 20% to £180m.[107] Technology is developing more reader-friendly screens and additional capacity – a kindle is able to hold 1000 books. In May 2011 Amazon.com announced that its kindle eBook sales have surpassed its sales of printed hardcover or paperback books.[108] The PA Statistics Yearbook 2010 reports that total consumer digital sales (including consumer eBooks, downloads and audiobooks) showed the most rapid growth, with an increase

103 DCMS, *Taking Part – Statistical Release Taking Part: The National Survey of Culture, Leisure and Sport Adult and Child Report 2009/10* (August 2010)
104 MLA report, *What do the public want from libraries?* (2010)
105 Oxford Internet surveys 2009.
106 http://sethgodin.typepad.com/seths_blog/2011/05/the-future-of-the-library.html
107 Guardian http://www.guardian.co.uk/media/2011/may/03/ebook-sales-amazon-kindle
108 iWab http://iwabs.com/content/amazon-reporting-down-trends-printed-books

of 318% since 2009, from £4m to £16m.[109] In June 2011, Google and the British Library announced a partnership to digitise 250,000 books.[110] The mass availability and convenience offered by eBooks is slowly bringing print books closer to the antique status vinyl records now hold.

Re-imagining library services: Principles and policy levers

So far we have identified a number of trends that will shape future library service provision. These include funding pressures, declining adult visits and increasing use of children services, attachment to the library as a community space as well as increasing internet access and development of an eBooks market.

These trends will undoubtedly shape library services in the future. To survive, libraries will need to:

- Provide new, cost-effective ways of providing the service – better outcomes for less money.
- Promote readership by offering innovative children's and adult services reflecting changing trends in users' preferences.
- Ensure library services continue to provide a community space and offer innovative children services.

There are a number of ways in which local authorities can pursue these objectives, shaping services and changing behaviours. In particular, the next part focuses on four distinct policy levers: [111]

- **Improving technologies:** Adopting new technologies would provide innovative ways of delivering the service, and encourage new kinds of literacy.
- **Re-organisation and shared services:** Reducing premises and sharing storage facilities, councils can promote efficiency savings.

109 http://www.publishers.org.uk/index.php?option=com_content&view=article&id=1755:the-publishers-association-reveals-accelerated-growth-in-2010-digital-book-market&catid=503:pa-press-releases-and-comments&Itemid=1618

110 http://digitaljournal.com/article/308227

111 The transport chapter provides a comprehensive list of levers at local authorities' disposal. Here we selected those more relevant to shaping the future of library services.

- **Localisation of services:** Bringing libraries closer to the user by offering more convenient ways of service use.
- **Big Society/Community based solutions:** Co-designing services, promoting an active role of communities in service provision, and fostering new models of ownership.

Part 2

Library services beyond 2015

In this part we describe a vision for what a library service could look like 2015 and beyond. Libraries have always played a role in encouraging reading and should continue to do so. However that role does not necessarily hinge on the provision of physical books, which as we have seen can be a costly activity. Radical shake-up of the business model and the services libraries provide will be essential to ensure value for money.

In the future the service could resemble a fully digitised service with remote eBook provision as well as stationary eReaders for browsing in libraries. Aside from a selection of the month's most popular titles and children's books, all the books from the public libraries would be transferred to a warehouse shared between different local authorities.

By reducing premise and employee costs, libraries would be able to concentrate resources on encouraging reading and providing a space for learning. Some of the services libraries would be able to facilitate are book vending machines in public buildings and high streets, and book boxes delivered to people's homes.

Libraries can continue to be a centre of learning but need to do so in a way that reflects new realities and trends. A range of policy mechanisms – technology improvements, service re-organisation, localisation of services and community-based solutions − are discussed below together with relevant case studies.

Improving technology

We are expanding our conceptualisation of literacy – digital and media literacy is just as important as more traditional definitions of literacy. We need libraries to have the capacity to encourage these different types of skills. Further, it is important for libraries to ensure that individuals who are not IT illiterate are able to catch up with the majority.

In the future, library services are likely to become fully digitised as a result of technological advances as well as changing user trends in information seeking. Use of Wi-Fi and library computers has been rising over the last decade.[34] Library services in the UK have already introduced eBooks into their standard service provision and others have set out plans to do so in the near future.[112] Stationary eReader portals could be made available in every library based on the average number of readers of those particular libraries. This would ensure that owning an eReader does not become a requirement to benefit from a library's services – indeed, many libraries might begin offering opportunities to rent or borrow eReaders.

The current model of eBook provision in libraries is based on a limited number of users being able to access the eBook at any given point in time. But in the future, eBook provision could become a tool to redesign libraries in a way which increases public library visits and use of all library services. Although there has been some speculation that eBooks might reduce the use of libraries in general, a survey of eBook use in US libraries has shown that individuals believe that if any, eBooks will have a positive effect on overall use of libraries.[113]

Similarly, a questionnaire conducted on eBook users before and after purchase of an eBook has demonstrated that the majority (41%) have increased their use of library borrowing of books/eBooks and a similar proportion (40%) has seen no effect on their library use. [114] When eBooks were initially offered by UK libraries, the number of members surged in a matter of a few days.[115]

The UK is lagging behind the United States in eBook take-up in public libraries. Whilst 72% of US libraries offer eBooks,[116] in the UK only 34 libraries offer eBook services.[117] The UK would need to follow lessons from the case of the United States, where library eBook purchases were driven by patron

112 MLA list of libraries to introduce eBooks (2010)
113 Library Journal, *Survey of Ebook Penetration & Use in U.S. Public Libraries* (2010), p. 72.
114 http://ebooksinlibraries.blogspot.com/2011/04/does-ereader-ownership-hurt-library.html
115 http://www.telegraph.co.uk/technology/news/6417660/E-books-helping-surge-in-library-members.html
116 Library Journal, *Survey of Ebook Penetration & Use in U.S. Public Libraries* (2010), p. 31.
117 MLA, *List of Library services in England offering eBooks*

demand. Libraries regard eBooks as a way of developing their vast collection, rather than as a one-off purchase.[118]

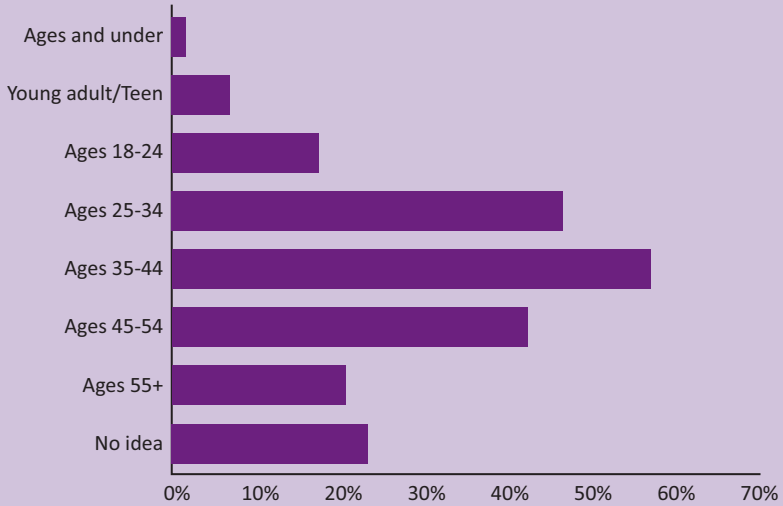
The introduction of eBooks will not be without its challenges and costs. The eBook market is still in development and could see a substantial transformation in the next few years. The variety of books on offer is currently limited as many publishing companies have expressed a hesitation with library eBook provision.

Furthermore, none of the eBooks can yet be accessible on the Kindle, one of the most popular eReaders. Currently the costs of eBook provision are substantial and include a set up fee, annual maintenance, and a charge per download as well as the cost of each eBook title being provided. These costs will be a considerable obstacle during a time of cuts in library budgets, but very considerable purchase power of libraries gives the sector the power to reshape this market over time. Early music download technology was expensive and heavily controlled by publishers. However, the market has since become highly innovative and liberalised, with services like Spotify, for instance, streaming music for a small monthly subscription. We might expect something similar to happen with eBooks.

Additionally, as there are specific demographic trends related to eBook usage, it is important to consider the impact the shift from print to eBooks would have, particularly on children and the elderly (Figure 20).[119]

118 Library Journal, *Survey of Ebook Penetration & Use in U.S. Public Libraries* (2010), p. 65.
119 Library Journal, *Survey of Ebook Penetration & Use in U.S. Public Libraries* (2010), p. 44.

Figure 20 If possible please identify the age groups you perceive to be the most active eBook users in your library - All public libraries (multiple responders permitted)



Interestingly, the initial Derbyshire experience with eBooks has shown that digital services have potential to appeal to all age groups.

Case study

Derbyshire County Council Library

Derbyshire launched an eBook service on July 25th, 2011. The service has seen immense popularity within the first 48 hours, with more than 200 new users registering on the website. In the first month of operation 637 people have registered for the service.

A book can be borrowed for up to 21 days. When the loan period is up, a 24 hour warning comes up after which the eBook deletes itself from the device. Introducing such a service in the library has increased new registrations from 20 per month to 100. Registrations were from people of all ages:

Age	Registered eBook users	New or returning Library members
Under 18	32	7
18-59	413	98
60+	178	56
Unknown	14	5

Derbyshire is launching the service in two phases. The first phase sought to ensure that all aspects of the service were working correctly. It was anticipated that the adoption of the service in this phase would be by people who were already technologically savvy and would therefore require less support with eReaders from staff in libraries. The second phase seeks to introduce the service to people who may be more hesitant in using eBooks and require more help in using eReaders. There will be further training with librarians so they can deliver training sessions for the public on eBooks and eReaders. [120]

Libraries are valued for the communal space as well as for the books and resources they offer. Using technological adaptations such as touchscreen technology would enable libraries to increase the space available for communal areas without reducing the availability of books, allowing people to browse books on interactive screens rather than real book shelves.

As well as a different, and potentially more efficient, use of floor-space, a touchscreen 'interactive bookshelf' could enable browsers to access information about the physical and virtual books on offer, including reviews and recommendations. More practical information could also be given that would be obvious when browsing a real-world bookshelf, including the size of the book, samples of chapters, and its availability for lending – with the added feature that unavailable books could be electronically browsed and a physical or electronic copy ordered.

Using touchscreen bookshelves in libraries themselves would allow people to order books from local storage in book stacks and to order books for

120 Case study received from Derbyshire county Library (2010)

future pick-up at that library or via a book box. The technology could also facilitate extensive browsing by users accessing the library at unconventional locations, such as supermarkets or other buildings providing council services.

A model for this kind of provision could be either a small number of large screens used by multiple browsers at once, replicating real-life bookshelves, or a larger number of small screens where users would log in individually, which would enable further personalisation by offering suggestions based on lending history or stated preferences. Individual book shelves could be arranged according to personal preference, by genre, author name, rating, and availability.

Libraries have often used physical visits as an outcome measure for their performance and although across the UK physical visits have deceased; the number of online visits have more than tripled in the last five years.[121] In 2008/09 there were 274m physical visits to libraries and 56m visits to library service websites.[122] With the full scale digitisation of services imminent in the future, local authorities are going to have to refocus their energies on increasing website traffic as well as getting individuals through the door. Furthermore there is scope for libraries to collect better data to fully understand their users. In the same way Amazon recommends what books you might like, libraries will be able to digitise both book and event recommendations for loyal users.

Driving cost-effectiveness: re-organisation and integration of services

As we have seen, 54 % of public library expenditure was spent on staff in 2009/10.[123] A recent survey indicated that the percentage of volunteers who contributed time specifically to libraries was very low, even though the readiness to contribute within the wider culture, arts and sports sphere remained high. This suggests there could be scope to increase the use of volunteers. Although replacing librarians with volunteers could help mitigate immediate cutbacks triggered by fiscal pressures, a transformational change in the role

121 MLA, *Research Briefing 9: Trends from the CIPFA Public Library Service Statistics from 2004/05 to 2008/09* (2010)
122 CIPFA Public Library statistics 2004-09
123 LAMPOST figures

of librarians needs to be considered. With self-service machines becoming more widespread, library staff have stopped being book stampers and are now better able to refocus their energy on organising activities to encourage and support reading in children and adults.

Cost of premises represents a significant proportion of libraries' expenditure. To free up the premises and reduce employee resources spent on facilities, the print books currently stored in public libraries could be transferred to large warehouses shared between different councils.

Only the top read books would be kept in print form in the new library buildings based on conjoined data for eBook downloads (we explore this further below) and print checkouts. Due to the increasing use of the children's section as described in Part 1, this area of the library would be maintained.

Interesting lessons can be drawn from the book storage facility built for the Bodleian library in Oxford in 2011. Extensive data analysis revealed that only 200,000 of the 8m books would be requested online from readers each year.[124] Public libraries could follow a similar approach, identifying low use tittles as well as those that would be available on eBooks. Following this model, books in shared storage facilities would be transferred to smaller community libraries via daily shuttles vans and would be available within 24 hours.

Other than daily journeys into the smaller library hubs, a model similar to Netflix[125] could be put in place. Print books could be sent to individuals' homes at a discounted rate. The packaging would double as a pre-paid return envelope. As described in Part 1, two of the three largest components of public library costs are premise costs and non-professional staff costs for the upkeep of the library. In reducing the size of the premises and the size of the collection, the number of administrative and upkeep services would most likely decrease, as more would be done automatically through new technology.

124 http://www.total-logistics.eu.com/logistics-clients/logistics-case-studies/bodleian-case-summary.html

125 In the Netflix model, a subscriber creates an ordered list of movies to rent. The movies are delivered individually via mail from an array of regional warehouses.

Hub and spoke models of library service provision are not new. A national library network already relies on a hub and spoke library model of a large national library with smaller branches of different size and type. Questionnaires regarding library budgets filled out by 156 local authorities have demonstrated that there continues to be a concentration of services in larger libraries.[126] Oxfordshire County Libraries are conducting a public consultation on a "Tesco model" of library provision with distinctions being made between Core Libraries, Community Plus Libraries and Community Libraries.[127]

Children's services are a vital element of the library to be improved in the future. As we have seen, over a quarter of current, lapsed and non-users stated that children's activities would encourage them to use libraries more. Due to reduced administrative burdens around print books, libraries would be able to redirect time and resources towards facilitating a myriad of activities to encourage reading in children and adults. Creative ways of attracting parents to bring their children to the library through both space and activity design will be essential in the future.

In the future, younger children could have a range of interactive games and exercises to encourage kinesthetic, visual and auditory learning. Children would also be taught how to use computers, kindles and navigate the touchscreen technology.

Case study

Edmonton Public Libraries in Canada

Edmonton libraries won a literacy award for their pre-school and early learning initiative Read. Talk. Play. This includes a free board book for children under 2 enrolled in their libraries; there is also a booklet for parents, '100 Great Books to Read Together' (divided into age groups); and their website has a range of advice, resources and links on online games.

126 LISU, Materials fund and budget survey (2007/09)
127 Oxfordshire County libraries consultation document

Bringing services closer to the user

To make up for reduced premises and respond to growing demand for new ways to access library services, particularly in rural areas, there could be an increase in mobile reading rooms and temporary libraries set up in vacant properties and spaces. A large proportion of local libraries run mobile library services, that is, scheduled visits of a library van to communities without easy access to library buildings. In 2009/10 there were 548 mobile libraries open to the public.[128] Furthermore, a number of libraries run a housebound delivery service to those with restricted mobility. Through the Richmond Housebound Library service individuals with restricted mobility are visited once a month at a regular time by a volunteer who delivers 6-8 books.

Mobile reading rooms would go beyond simply providing books, with other library services such as information and IT resources potentially available; they could also provide space for reading and events, with outdoor seating. A project in the US is producing a portable, purpose-built structure that combines book storage and the physical apparatus of a reading room, with the structure reconfigurable for other uses (such as showing films) and parts of it convertible into seating and tables. Its flexibility means that it can replicate many of the functions of a library beyond the provision of books.[129] The same group previously ran the Storefront Library in Chicago. This used vacant shop-front space to create a small, temporary library offering books, classes and resources.[130]

Both of these schemes have the capacity to bring library services to communities not usually well-served. Visits from a portable library extend the benefits that a mobile library can bring to rural communities, as well as offering a way to promote the diversity of library services by displaying them in public. The store-front library model can help to bring resources, classes and communal activities to deprived areas.

Libraries could also offer a book recommendation service for readers, supplying them with a month's worth of new books. The model is similar

128 CIPFA library statistics 2009 -2010
129 http://www.libraryjournal.com/lj/home/891436-264/using__the_cube_to.html.csp
130 http://www.bostonstreetlab.org/projects/storefront-library/

to vegetable boxes, where people have a selection of vegetables delivered to their doorstep every week or fortnight; they do not order the items in advance but receive a selection of local, seasonal vegetables. A comparable book scheme could see people collecting (or possibly having delivered) four or five books per month, based on their reading preferences; books could be selected on the basis of previous borrowing or a statement of favourite books, authors or styles. These could be delivered directly from the shared warehouse facilities discussed earlier.

This type of service is already offered to the aged and housebound by most UK library services. Broadening the service out to other library users could offer an opportunity for libraries to interact with readers. They could be linked into other interactive elements, such as book clubs and online review/discussion forums.

To reduce the inconvenience of going to a library to obtain a print book, local authorities could make books available at places where people might want them at short notice: at train, tube or bus stations. With this scheme, books could be collected by library-card holders from vending machines at convenient locations. Books could be borrowed for a single journey and returned at the other end in a similar machine; they could also be made available on short-term loan, to be returned to the machines or a standard library. With millions of people using the London Underground, tube users with registered oyster cards could use these to access books from vending machines and return them at the end of their journey or within a few days. The oyster-card system means that late or non-return fines could easily be taken from people's oyster balances.

A subsidiary idea to this is to turn machines at stations into pick-up points for books that people have reserved online from their local library. This could serve to increase the use of online book reservation. Improved online access (especially through smart phones) would help with this, so that people could order books and be informed of their arrival at the pick-up point. New titles or recommendations could be advertised through smart-phones and 'virtual shopping' posters that allow the user to order a product by scanning a code.[131]

131 http://www.dailymail.co.uk/sciencetech/article-2021064/How-buy-groceries-virtual-supermarket--train-platform.html

The same model could be used for books to be made openly available or pre-orderable for pick-up at supermarkets and other locations that people frequently visit. Stations, shops and other public spaces could also act as temporary libraries. In the US, the King County Library System in Washington State runs a 'Take Time To Read' scheme, a multi-year project providing "quick reads" and reading chairs in different types of public space.[132]

Case study

Vending Libraries around the Globe

Book-vending machines are not a new idea: books on the go have been around in Paris since 2005 and a Book-o-Mat was on the market back in the 1940s. However, linking vending with lending by allowing library-card holders to borrow books from vending machines is a relatively new innovation. Lending machines come in a variety of guises, from the traditional glass-fronted vending-machine style, with a small but visible range, to units more akin to cash machines holding larger numbers of books.

Machines placed in Ottawa community centres have dispensed up to 20 books per day this year, "a tiny fraction of what even a small library would lend out, but at a tinier fraction of the cost." Machines at transport hubs have been successful in Contra Costa County, California: a survey of users found that most read the books solely on their commute and for 73% the machine was their main library 'branch'. Between 25 and 30% of the 400 books in each machine were on loan at any time.

Big Society/Community based solutions

A 'Big Society'-style alternative to conventional library lending services could see readers exchanging their own books with one another. Book swap schemes already exist, but libraries could divert resources to actively promote these activities, host a website through which people can exchange books and provide a convenient space for them to do so.[133]

132 http://www.libraryjournal.com/lj/home/890760-264/library_of_the_year_2011.html.csp; http://www.kcls.org/taketimetoread/

133 *Financial Times*, '"Big Society" book-swap plan under fire' (28/03/2011).

Case study

Sutton Bookshare

In April 2011, the London Borough of Sutton (a 'Big Society pioneer' council) launched an online book-sharing service for residents. Users provide details of books they are willing to lend and can search for books they would like to borrow. When they find a book to borrow they contact the lender and arrange the book exchange between them. The Bookshare website is free and the council hopes that it will encourage community feeling between book lenders and readers as they interact in the scheme.

The scheme is similar to the website Read It Swap It (http://www.readitswapit.co.uk/), in which readers can swap books they no longer want and get a feedback rating. Both offer the opportunity to exchange books, but there is a notable difference between which books are available and which are wanted, with a disproportionate presence of certain authors (notably Dan Brown) in the former category.[134] *As the service becomes more popular this mismatch could be minimised.*

Another option for book swaps is the provision of 'mini-libraries' in communities, working on the 'take a book, leave a book' basis. These schemes already exist in cafes, hospital waiting rooms and other public or semi-public places. The US has mini-libraries that work on the same basis, which could also function as places to meet and discuss books.[135]

The community space of the library is one of the key elements of libraries. With budgets reduced significantly, a number of authorities are working with their communities and social enterprises to take a greater part in maintaining the space. This may mean community groups being encouraged to take

134 Readitswapit's 'books with the most copies' chart is dominated by Dan Brown (http://www.readitswapit.co.uk/TheLibrary.aspx?CategoryID=MostAdded&ResultsToGet=0), while the 'most requested' is not (http://www.readitswapit.co.uk/TheLibrary.aspx?CategoryID=MostPopular&ResultsToGet=0). Oxfam similarly list their top donations and sales, Dan Brown appears on both lists but there are substantial differences (http://www.guardian.co.uk/books/2011/jul/04/dan-brown-oxfam-least-wanted-chart).

135 http://www.libraryjournal.com/lj/home/891507-264/in_pursuit_of_andrew_carnegie.html.csp

responsibility for managing and running a community library. Although co-location was recommended as a key strategy to preserving the space by a report published by the Local Government Association (LGA) , co-design with users will be key in ensuring libraries' success.

Transferring a community asset and responsibilities contains significant challenges, including the level of liability that is handed over. As a recent report from the MLA has set out, community libraries may be included in the local area's statutory provision or excluded from it (i.e. from the legally-prescribed provision of services in libraries). Those outside statutory provision are not necessarily less successful, but risk missing out on wider social benefits. While there is no fixed model of a successful community library because they are dealing with different needs and capacities, public sector support, 'co-location, asset transfer or ownership, specialist staff support, and a clear sense of social purpose' are common characteristics of successful community libraries. A genuine partnership with the local authority is central to success.[136]

Case study

Buckinghamshire County Council: County and Community Libraries

Several Buckinghamshire County libraries opened as self-managed Community Libraries in 2006/07. The council held a 12 week public consultation from November 2010 to February 2011 around developing a strategy to ensure the sustainability of libraries in Buckinghamshire.

The consultation was focused on a proposed model for nine county libraries and fourteen community partnerships. The 'community' part of the model involves introducing new ideas and ways of working with the local communities to make library services more comprehensive and efficient. The 'county' part of the model involves maintaining library services in areas of high population, and ensuring excluded residents have access to services through home and mobile library services. The model, if put in place, would be supported by an

136 MLA, *Community managed libraries* (2011)

extended digital infrastructure network, not only in Buckinghamshire but across a number of partners in the South East.

This helps deliver online reference services, and reservation of material across the whole South East partnership. This network consists of a multi-authority partnership for book procurement and up to date book stocks across the county. This service will be available to the public across the county through mobile services, the internet, home library service, town centre libraries and community partnerships.

Conclusion: a vision of library services beyond 2015

In our vision of a future library service beyond 2015, users have the opportunity to engage with and access library services in a far more varied way than they can today. Libraries continue to be community hubs, but access and use increases across the population through the introduction of new and more tailored library portals, and services are delivered in a more cost-effective way.

The physical space of a library is transformed. There are a myriad of desks and seating spaces with stationary eReaders surrounded by virtual bookshelves. Touchscreen technology allows the user to browse through the collection available electronically and in print. Browsing via touchscreen helps the user make a decision between titles. Available at hand are book reviews and automatically updated user ratings.

Most of the physical books have been relocated to warehouses shared between different local authorities. Print copies are available to order from the local warehouse and are delivered within 24 hours. Using visitor data more efficiently, local libraries are able to stock the top 10% most checked out books in print as well as the new releases.

As the space libraries offer is an important element to individuals' attachment to the service, communities are involved in redesigning the space in a way suitable to the locality in question. Some of the existing libraries would go even further and are entirely owned by community groups and organisations. Each model is tailored to the individual community and responds to local needs as appropriate.

A part of the library is composed of children's services designed and decorated by children. Children have an opportunity to come do their homework and receive help from one of the assistants. Younger children have a range of interactive games and exercises to encourage kinaesthetic, visual and auditory learning. Children are also taught how to use computers, kindles and navigate the touchscreen technology. As the conceptualisation of literacy has been expanded to include digital and media alongside the more traditional definitions of literacy, libraries are now promoting readership through more innovative ways.

Books are brought closer to the user to encourage readership. Mobile reading rooms are set up in previously vacant spaces. Mobile reading rooms do not simply provide books but are also involved in other library services such as provision of local information and IT resources. Users can also sign up to have book box deliveries once a month as well as access books through book vending machines at tube or train stations. Books can be selected and checked out with a swipe of an oyster card.

Although a library service beyond 2015 looks quite different to the one we see today, its ability to fulfil its function does not. Libraries are and will remain a community space, a resource for information and a catalyst of literacy.

Conclusion

Beyond 2015, we expect universal services at a local level to look markedly different to how they do today. On the one hand, there are financial, environmental and social pressures that will mean there is no option but to make radical changes. On the other, a raft of new technologies and innovations will help to bring about improvements and cost savings, and alter fundamentally the way that citizens engage with these services.

Across all of these services, there are common themes of transition. Services will become increasingly more localised and responsive. In our scenarios for future libraries provision, citizens would be able to access book lending in many more ways than they are currently able to, from book vending machines at train stations to online management of book deliveries. Neighbourhood budgets would give communities greater responsibility over the environmental and waste services they receive, and similar budgets for the transport services councils provide would give individuals greater control while also incentivising more cost effective choices.

Transformation will also be driven by the increasing use of financial incentives and nudges to change individual behaviour. Our scenarios for future waste collection and transport services suggest a range of measures, from payment by weight waste services, to pay-as-you-drive vehicle taxes, that would incentivise individuals to choose more sustainable patterns of consumption. The cumulative impact of such incentives could bring about a substantial shift towards more sustainable living.

Councils will also need to develop new relationships with businesses. By altering or bringing in new financial measures councils could change businesses' behaviour. Local 'cap and trade' systems for business waste, or phased congestion charging to encourage night deliveries, would make it financially beneficial for businesses to change their working practices in ways that have a wider social and economic benefit. These measures would not only encourage businesses to move to more sustainable practices related to waste management and transport, but would also help create a greater sense of their integral contribution to the environment and economy of a place.

Finally, new technology will provide greater levels of information – helping to promote more efficient decision making – and better ways of delivering services. In the future, eBooks could potentially reduce libraries' costs, and more effective Energy from Waste and recycling facilities could decrease landfill quantities and produce sustainable sources of energy. New transport technologies, such as council run electric bike hire schemes, could also make it more convenient and easier to use sustainable transport options.

Transformation of universal services will, in some instances, be non-negotiable. The scale of the challenge means tinkering around the edges may not result in services that can meet the demands of a new financial, environmental and socio-demographic context. The scale of the challenge calls for a more fundamental rethink of the way universal services are currently delivered. We are not suggesting all of the ideas included in this report will be suitable for all authorities, and some of the interventions proposed will require a longer time horizon to be implemented. But we hope that this report helps to start these discussions in councils grappling with a period of unprecedented change.

Appendix 1 *Local authority statutory environment duties (selected)*

Theme	Act	Duty
Accountability	Local Government Act 2000	Creating a Sustainable Community Strategy "for promoting or improving the economic, social and environmental well-being of their area in a way and contributing to the achievement of sustainable development in the United Kingdom."[1]
Waste	Environmental Protection Act 1990	Provide a waste collection service to domestic premises and (if requested) to collect non-domestic/ commercial waste.[2] Providing collections of at least two types of recyclable household waste.[3] Keeping highways and land clear of litter and waste.[4]
Waste	Clean Neighbourhoods and Enforcement Act 2005	Enforcing laws against unauthorised dumping of waste and clearing land of illegal waste.[5]
Waste	Household Waste Recycling Act 2003	To reach target of recycling 50% of household waste, duty to provide collections of paper, glass, metal and plastic by 2015.[6]
Waste	Litter Act 1983	Maintaining and emptying litter bins.
Environmental Protection	Air Quality Standards Regulations 2010	Monitoring air quality and planning action for improvement. Includes reviews and assessment of air quality against objectives.[7]
Environmental	Transport Act 2000	Preparing a Local Transport Plan, taking into account central guidance on climate change and protection and improvement of the environment.[8]

1 Local Government Act 2000 Section 4(1) and 4 (3)
2 Environmental Protection Act 1990 Part II, Section 34 - Duty of Care as respects waste, and Section 45,
3 Environmental Protection Act 1990, Section 45 A,
4 Environmental Protection Act 1990, Waste of Land, Collection, disposal or treatment of controlled waste , Part II
5 Clean Neighbourhoods and Enforcement Act 2005, section 47 Local Authority Waste Collection Disposal
6 Household Waste Recycling Act 2003
7 Environment Act 1995, Part 4,
8 Transport Act 2000 Section 108

Appendix 2 *Local authority statutory transport duties (selected)*

Theme	Act	Duty
Public Transport	The Transport Act (1985)	Secure the provision of such public passenger transport services as the council considers appropriate to meet any public transport requirements which would not otherwise be met[1], with "regard to the needs of elderly or disabled persons."[2]
Public Transport	The Transport Act 2000	Produce an annual Local Transport Plan, taking into account any government policy and guidance issued by the Secretary of State Determine what local bus information is made available to the public and in which format Ensure eligible people (the elderly and disabled) are provided with a permit for free transport upon request[3], and that public transport providers are compensated for this free service provision.[4]
School transport	The Education Act 1996	Publish an annual Post 16 Transport Policy Statement which "must set out the arrangements for the provision of transport, and for financial assistance towards transports costs."[5] Produce a yearly plan outlining a strategy to encourage the use of sustainable modes of travel.[6] Provide free home-to-school transport for; those who live beyond statutory walking distance (two miles for pupils below the age of eight and three miles for those aged eight and over), those with mobility problems/special needs and who cannot walk to school as a result, those who cannot walk to school due to specifics of their route, and those in low income families.[7]
Maintenance	The Transport Act 1968	Maintaining bridges over railways and inland waterways, to ensure that they are safe for use.
Maintenance	The Highways Act 1980	Maintain highways that are maintainable at public expense[8] Ensure that safe passage is not endangered by snow and ice[9] Remove accumulations of snow, soil etc. from the highway[10]

Maintenance	The Road Traffic Act 1988	Prepare and carry out a programme of measures designed to promote road safety Carry out such studies into accidents arising out of the use of vehicles and take measures to prevent or reduce such accidents.
Planning	The Local Government Planning and Land Act 1980	comply with an effective connection notice and carry out works to connect private streets to the highway
Traffic Management	The Traffic Management Act 2004	manage their road network with a view to the expeditious movement of traffic on the road networks

1 Transport Act 1985 Section 63(1)
2 Transport Act 1985 Section 63(8)
3 Transport Act 2000 Section 145A
4 Transport Act 2000 Section 149
5 Education Act 1996 Section 509AA
6 Education Act 1996 Section 508A
7 http://www.education.gov.uk/schools/leadership/governance/b0065507/gttl
8 Highways Act 1980 Section 41(1)
9 Highways Act 1980 Section 41(1A)
10 Highways Act 1980 Section 150

Appendix 3 *Research methodology*

This research project sought to analyse current trends driving change in universal services delivery and imagine what these services might look like beyond 2015. We used a combination of different research methods:

1. Desk based analysis, which included a literature review and quantitative analysis of expenditure and service data for each of the three services (Libraries, Environment and Transport).
2. Three research seminars – one on each of the universal services under study. Seminars were attended by a range of stakeholders including council staff, service providers, social enterprises, community groups, and academics. Participatory methods were used. Attendees were split into groups and asked to design an innovative future local service based on specific policy levers.
3. A selection of case studies drawn from our Innovation Network and from international best practice also informed our work.

Appendix 4 *Bibliography*

Asphalt Industry Alliance, *Annual Local Authority Road Maintenance (Alarm) Survey* (2010)

Cabinet Office Strategy Unit, *An analysis of urban transport* (2009)

CIPFA, *Public libraries statistics 2009 -2010*

CIPFA, *Public Libraries Statistics 2005 – 2010*

CIPFA*, Public Library statistics 2004-09*

DEFRA, *Enabling the Transition to a Green Economy: government and business working together* (2011)

DEFRA, *Government Review of Waste Policy in England* (2011).

DEFRA, *Municipal Waste Data Surveys (2006-2010)*

Deputy Prime Minister, *Speech on the Green Economy at the Climate Change Capital* (23 May 2011)

DCMS, *Taking Part – Statistical Release Taking Part: The National Survey of Culture, Leisure and Sport Adult and Child Report 2009/10* (August 2010).

DCMS, *The modernisation review of public libraries: a policy statement* (2010).

DfT *Public experiences and attitudes towards bus travel* (2009)

DfT, *Public experiences of and attitudes towards rail travel: 2006 and 2009* (2009)

DfT, *Transport Trends 2009 Edition* (2009)

DfT, *Average minimum travel time to reach the nearest key services by mode of travel, England*, (2010)

DfT, *2010 British Social Attitudes survey: attitudes to transport* (2011)

DfT, *Creating Growth, Cutting Carbon* (2011)

Dunne et al, *An investigation into waste charges in Ireland, with emphasis on public acceptability* (2009)

Eunomia Research & Consulting LTD*, Financing Municipal Waste Management (2005)*.

Financial Times, *Big Society book-swap plan under fire* (28/03/2011).

Forest,W., *Review of the Library and Information Service* (July 2011)

Forum for the Future, *Mega Cities on the Move* (2010)

Glaister, S, *Governing and Paying for England's Roads* (RAC Foundation, 2010)

Glaister, S, *Road Transport Forecasts: Results from the Department for Transport's National Transport Model* (2008)

Goldman, T. and Gorham, R*., Sustainable urban transport: Four innovative directions* (2006)

HM, *Budget Review* (2010).

HM Treasury, *Spending Review 2010* (October 2010)

Hope, N., *Communities in Charge Decentralisation and differentiation of charges and fees* (NLGN, 2011).

Hopewell, J. et al, 'Future of Environmental Services'. Philosophical Transactions of the Royal Society, 2009; 364:2115-2126

Iacopini, G., *The Word on the Streetscene* (NLGN, 2009).

Institute for European Environmental Policy, *Final Report – Supporting the thematic strategy on waste prevent and recycling service* (2010)

Institution of Engineering and Technology and ITS (UK), *'More for Less' Can we really do more at less cost with the UK road network?* (April 2011)

Keohane, N., *Changing Behaviours* (NLGN, 2011)

Keohane, N. and Clifton, M, *Politics of Traffic: a local route to reduced congestion* (NLGN, 2007)

Library Journal, *Survey of Ebook Penetration & Use in U.S. Public Libraries* (2010)

LGA, *War on Waste Food Packaging* Study (2009).

MLA, *Research Briefing 3: Attracting library non-users: what have we learned so far?* (2008).

MLA, *Research briefing: Participation in Libraries and Museums at the Local Level: Summary findings from Active People Data.* (18th December 2008).

MLA, *What do the public want from libraries? User and non-user research - full research report* (2010).

MLA, *Research Briefing 9: Trends from the CIPFA Public Library Service Statistics from 2004/05 to 2008/09* (2010)

MLA, *List of Library services in England offering eBooks* (2010)

MLA, *Community managed libraries* (2011)

NLGN, *Localist Capital Finance: The challenges ahead* (2011)

OECD, *EPR Policies and Product Design: Economic Theory and Selected Case Studies* (2006).

Office for National Statistics, *Family Spending: A report on the 2009 Living Costs and Food Survey* (2010)

Oxford Internet Institute, Oxford Internet surveys (2009).

Passenger Focus, *Bus passenger priorities for improvement*, (2010)

Statistics Canada, *Waste Management Industry Survey: Business and Government Sectors* (2008).

Sir Roy Eddington, *Eddington Transport Study* (2006), pp. 30, 100, 2.

Social Market Foundation, *Road Pricing: a road map* (2007)

WRAP, *Reuse of bulky waste in Northern Ireland: Opportunities for growth* (2009).

WRAP, *Plastics Market Situation Report* (2010)

Legislation

Clean Neighbourhoods and Enforcement Act (2005)
Education Act (1996)
Environmental Protection Act (1990)
Environment Act (1995)
Highways Act (1980)
Household Waste Recycling Act (2003)
Litter Act (1983)
Local Government Act (2000), Sections 4(1) and 4(3)
Refuse Disposal (Amenity) Act (1978)
Transport Act (2000)
Transport Act (1985)

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Looking at some possible innovations local government could take on, the report sets out future scenarios describing what these services might look like beyond 2015. Using a number of policy levers such as behavioural incentives, new technological tools and different ways of organising services, the report suggests ways in which councils could foster new relationships with users and create more sustainable localities.

At this critical moment of change we hope this report contributes to an open and vibrant debate about how universal services can respond to the most challenging period of change that councils and many communities have faced in a generation.

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