

## BEHAVIOUR CHANGE

### STRENGTHENING THE WEAK LINK IN BUILDING A CIRCULAR ECONOMY



**Stephen Bates**

## **ABSTRACT**

In an ideal world, there would be no need for source separation of waste. Instead, residents would use a single bin for all waste with effort, energy and investment directed towards the resources and technology needed to collect this waste, separate it, clean it and recycle it. It is after all, the waste management industry that knows implicitly what can and can't be recycled, why and how. It has the knowledge and skills to turn rubbish into a commodity and how to ensure it is of the highest quality to attract the highest price and deliver the greatest environmental benefits. Why entrust such an important part of the process to 'amateurs' – the public - and often, unwilling ones at that?

Such a utopian state may well be realised in years to come but for the foreseeable future, technical limitations, politics, policy and funding (to name a few) create barriers to such opportunities. At present, source separation is the only viable option to deliver a sustainable, effective and financially sound circular economy at local and national levels and with this, comes the need to educate the public about what they need to be doing and encourage them to do so. The further away from a single bin collection a recycling system goes, the greater the need to engage with those whose actions will ultimately determine the success of these new systems; the public.

There exists today, clear correlation between those areas delivering the highest levels of recycling and those areas where consideration to, and investment in behaviour change is the greatest.

The means of achieving behavioural change are proportionally, amongst the cheapest components of modern waste management but arguably, the most critical element in ensuring success. You can invest in the latest advanced treatment technology, smart new bins and a fleet of the latest collection vehicles but if people don't use the services provided properly, all that investment will at best, never achieve its full potential and at worst, be wasted.

This paper provides an overview of the strategic position of Behaviour Change planning in modern waste management and seeks to empower waste managers to firstly gain financial support to the level required to implement Behaviour Change strategies and the tactics needed to deliver them as well as the ability to make better use of that funding and deliver the maximum level of participation across their regions.

The insight from which this paper has been written has been drawn from experiences both in the UK and Internationally including low-income and emerging economic regions and as such, applies to any location around the world.

**Stephen Bates**

## 1. STRATEGIC BEHAVIOURAL CHANGE

### Defining the role of Behavioural Change

It can be argued that the term Behavioural Change has become interchangeable with other actions believed to mean or achieve the same thing. Awareness, education, public outreach, stakeholder engagement, communications and many more besides, are all used in the same context, despite them doing very different things in very different ways. It is important to establish an understanding of the essence of behavioural change; that of it being the core strategic objective when waste management requires the public to act differently in how it deals with rubbish.

Behaviour change is a strategy and its inclusion in the early development of waste management planning can yield both operational and cost benefits;

- The need for the tactical communication methods needed to deliver behavioural change are identified further upstream in the planning process and the budgets needed to deploy them identified earlier. This provides the opportunity to reconsider complex services if the budget or ability to communicate them is not available. It would be a waste of time and money to deliver a scheme that fails to realise its potential if there is no money available to educate the market on how to use it and encourage them to do so.



**Fig 1:** The further away from a simple, single bin system, the greater the need for communications to stimulate behavioural change. If the budget needed is not available, then the complexity of the system should be adjusted to fit the budget that is likely to be available

- All too often, waste strategies and systems are developed in isolation from the influencing factors that can impact on their success, most notably consideration of the ability for the public to participate. When this happens, awareness campaigns are developed that have to try to ‘sell’ a system to the market first, rather than simply encourage diligent participation. That takes longer, costs more and success is less certain so the financial and political risks are higher.

By embracing behavioural change as a key strategic objective even to the point of placing this ahead of the development of waste strategies, waste policies can be developed that stand the greatest chance of success without the need for overly onerous communication budgets.

*Key action*

- *Participatory planning, be it for an entirely new collection system or adaptation of an existing system, should be undertaken with greater consideration to the ability of the public to participate and what is required to stimulate that participation. Systems are thus designed that suit the market (the public) not just the operational requirements.*



**Fig 2:** Complex containment systems such as this nine-container example from Newcastle-Under-Lyme in the UK may provide operational advantages to the logistics of waste management but are questionable as to their ability to capture the highest levels of recycling and maintain resident satisfaction of council services.

## **2. THE FOUR COMMON FACTORS OF BEHAVIOURAL CHANGE**

For the provision of waste services, it is often said that there exists no 'one-size-fits-all-solution'. Each country, region, community, street and home, has varying and unique requirements that create enormous challenges when planning what has always to be regionally, a largely homogenous service.

With communications, at a tactical level, the same is true. The messages that will stimulate the market in one part of town will be different to another and conventional marketing wisdom shows the more targeted and relevant a campaign to the target audience, the more effective it will be. At a strategic level though, it is possible to apply some homogeneity by identifying four common, social denominators that apply in relation to behavioural change, regardless of demographics, location or any other accepted social differentiators. These are:

1. People are lazy
2. People do not like change
3. People do not trust government
4. People want to improve their lives.

Let us explore each of these further.

### **People are lazy**

Human beings are programmed to preserve energy. If there are two options of attaining the same goal with one being slightly easier than the other, it will always be the easiest option that's taken. We see this being capitalised on in the commercial sector and a good example is car insurance.

Each year, shortly before a policy is due for renewal, the insurance company will write to the policyholder advising of the renewal date and a quotation for a further 12 months cover. This letter will say that unless the company hears otherwise, then the policy will be renewed automatically and payment recovered in the same way as previous years. Thus, in order for that company to retain the business of the customer, the customer has to do precisely nothing.

In a waste context, it is important to understand this 'laziness' in behavioural change strategies. For example, Figure 3 shows a recycling bin in Nicosia, Cyprus. It contains a detailed graphic of what can and can't be put in. However, despite this, there were significant problems with contamination. The reason was that whilst local residents were made aware of the bins and the recycling service, it wasn't until they approached the bins that they knew what materials were accepted. Very few people would therefore be prepared to stand beside the containers, particularly on hot days (which are plentiful in Cyprus), sorting their waste and instead, simply placed all waste in one bin or besides them. Information needs to be provided before people arrived at the bins. A simple leaflet delivered to homes explaining the system would be a very cheap way to solve a very expensive problem.





**Fig 3.** A recycling bin in Cyprus containing information about what the bin can be used for but few people would be prepared to stand by the bin to sort through their rubbish. Information needs to be given so people can act upon it at the point of generation.

Even the highest recycling performing authorities are still able to capture more material by understanding the “lazy phenomenon”, highlighted with what can be referred to as the ‘Bathroom Bin Syndrome’. Households typically use a number of smaller bins around the home, lined with an old carrier bag that gets removed when full, tied and placed into the rubbish bin, regardless of its content. Additional effort is required to re-sort the waste into recycling streams and the thinking “*it’s only couple of shampoo bottles*” often applies. A simple advertising campaign can have a great impact on people’s thinking to shift behaviour in this respect.

Tackling the issue of laziness is a particular challenge in high-rise and multiple occupancy properties where people are required to take their recycling to communal bins. In 2010, bin manufacturer, Taylor Bins undertook research<sup>1</sup> under the direction of Professor James Baird at the Caledonian Research Centre, part of Glasgow Caledonian University, amongst residents in North Lanarkshire, to throw new light on the potential of increasing recycling yields in high and low rise flats. Amongst the outcomes of this research was the link between the design of the bins, their placement in terms of convenience to residents and communication in driving up recycling. The outcomes of the trials that formed part of the study was that 67.5% began to recycle compared to almost zero prior to the actions being taken.

It can be suggested that to achieve behavioural change, one must aim to make the desired behaviour the easiest option; the action that requires the least effort.

#### Key actions

- Consider schemes in the eyes of the public, not from a waste manager’s perspective. Are you providing a scheme that requires the least effort possible?

<sup>1</sup> Taking Recycling to a new Level. Taylor Bins 2010. <http://taylorbins.co.uk/wp-content/uploads/2014/12/High-Rise-Report.pdf>

- Consider why participation and capture rates are poor in relation to the effort required of the population. Are you simply asking too much of people?
- In accepting that source separation requires additional effort, consider how you can reposition the alternative (non participation) to require even greater effort. Make non-participation more difficult than participation.

## People do not like change

Human beings are creatures of habit, they take great comfort in the status quo and can become exceptionally vociferous should this ever be challenged. As an example, consider the level of public anger when something as socially inconsequential as a confectionary brand changing its name (Opal Fruits to Starburst, Marathon to Snickers, etc.). Pressure groups are formed, MPs are lobbied and campaigns run to muster support.

Behavioural Change is sometimes referred to as Change Management for which a great many models exist, the most common being the Kübler-Ross model<sup>2</sup>. Originally titled 'The 5 Stages of Receiving Catastrophic News' these stages are: Denial, Anger, Bargaining, Depression and Acceptance.

We all go through this (or a similar) process numerous times a day. A dead car battery, the loss of a parking space, a wrong phone number, the loss of a pet or a new waste collection system. On the latter, let us put this into the context of a council introducing a new material stream for recycling (food waste):

<u>Denial</u>	“There’s no way I’m having a slop bucket in the house!”
<u>Anger</u>	“Bloody council! – why am I doing the work I pay them to do?”
<u>Bargaining</u>	“OK, I’ll give it a go but only dry food. I’m not having smelly leftovers go in the bin”
<u>Depression</u>	“This is ridiculous – like I haven’t got enough to do!”
<u>Acceptance</u>	“Well, it’s not too bad once you get used to it”.

### Case study:

*In 2015, the London Borough of Bexley announced that to save the council money, the garden waste collection service then provided as part of the full waste and recycling package to all 77,000 homes would be withdrawn. For those wishing to retain this service, a one-off payment followed by an annual subscription, both modest amounts, was required. The argument was that only about 50% of households actually used the garden waste service so those households not using the service were effectively subsidising the services being used by others. Whilst the basis of this change had merit, the council recognised that many people would object to having to pay for a service previously provided at no extra cost.*

*The council first announced this change through a leaflet delivered to all affected homes and supported this with a team of doorstep advisors, visiting households to explain the arrangements in more detail and encourage subscriptions. The timing of these two components of outreach initially run so that on the first day, the leaflet would arrive and on the day following, the Advisors began to call on households, with the*

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<sup>2</sup> [https://en.wikipedia.org/wiki/Kübler-Ross\\_model](https://en.wikipedia.org/wiki/Kübler-Ross_model)

*advisors following the routes of leaflet distribution. During the first few days of the campaign, the time between the leaflet landing and an Advisor knocking was no more than one or two days and the response from people was highly negative, in some cases, people were very angry. Approximately 75% of people during this period responded 'Very negatively' to change.*

*However, as the project progressed, the leaflet distribution continued at pace faster than the Doorstep Advisors so creating a greater period of time between receipt of the leaflet and an Advisor calling. The greater this period of time, the less angry and negative people were when speaking with an Advisor. As the campaign drew to a close, the number of people recorded as being "Very negative" had fallen to less than 20%.*

*A sample of the houses visited at the beginning of the campaign where very high levels of negativity were recorded were re-visited. The outcome of this showed that their attitudes had changed since the first call with around 20% being recorded as being "very negative".*

This is an example of the Grief Cycle in action. The early calls were made close to the point at which the information was first received so people were in the 'denial' and 'anger' stage, which is evidenced in the high levels of negativity. However, once some time had passed, people had become used to the idea and progressed through the 'bargaining' and 'depression' stage so that by the time an Advisor called, they were much more ready and willing to accept the change.

A key task of behavioural change communications is to deal with denial, anger, bargaining and depression before a scheme is introduced so that by the time of launch, people are ready to accept it. It's also important understand the reasons why people may be averse to accepting change as this can then be used to drive elements of the communication process that overcome these issues much earlier on.

#### *Key actions*

- *Understand that different people react differently to change but that all people will react.*
- *Establish the reasons why there may be a resistance to change as early as possible. This will enable the messages to be adapted to deal with this and lead to a more rapid acceptance of new systems.*
- *Consider carefully how you use the word 'change'. 'Evolution' or 'development' can mean the same thing but convey something far more progressive and positive and something that more people are willing to be part of.*

## **People do not trust the government**

According to a survey conducted by Edelman Trust in 2012 across 25 countries, just 43% of people have trust in those who govern them. That figure rose in 2014<sup>3</sup> to 48% driven largely by improvements in India's governance and similar improvements in Asia and parts of Europe. In the UK, according to a survey carried out by Ipsos Mori<sup>4</sup> in 2013, just 11% of Britons trusted the national Government; a figure that has remained a constant for many years and shows this not to be a party-political issue.

Waste is the one government service that impacts directly on every single person, every day. Because of this the efficiency and quality of waste services are directly correlated to the perceived efficiency and

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<sup>3</sup> <http://www.scribd.com/doc/252750985/2015-Edelman-Trust-Barometer-Executive-Summary>

<sup>4</sup> <http://www.theguardian.com/local-government-network/2013/mar/01/people-trust-local-government>



quality of the council that is providing it. Hence, whilst waste management may not be the biggest vote-winner, it has the capacity to become a definite vote-looser.

Behavioural change and the communications used to bring about change can have a profound effect on people's attitudes towards local politics. If the public are aware of why recycling schemes have been introduced, know how to use them, are provided with the appropriate means to participate and thanked for doing so, then they remain contented and retain a sense that the policy and politics behind it are good. This has significant, positive knock-on effects when the council seeks to bring about changes in other areas of local life. It would not be inappropriate to consider a local waste and recycling service to be a barometer for politics and governance at a local and regional level. Consider the following two statements in this respect.

*"The council provide a brilliant recycling service so I have every faith in them"*

*"The council can't even provide a decent recycling service so why would I think they could manage anything else?"*

If we accept that all recycling and waste collection schemes are good, then the only issue where they are considered as being poor is one of perception and perception can only be addressed with stronger consideration given to behavioural change and the communication needed to achieve change.

In many parts of the world, governments (national and regional) have sought to de-couple waste management from government control and by default, government responsibility. For example, in Baku, Azerbaijan, the government established a Joint Stock Company called Tamiz Shahar to manage all aspects of the city's waste services from collection to disposal and treatment. The company's presence is highly visible and has been successful in positioning the company as the body responsible for waste in the city. This has only worked because the quality of services that Tamiz Shahar provide are a vast improvement on those previously provided directly by the municipal works department (even though they are, operationally speaking, effectively the same). If the quality of service were to drop, then both Tamiz Shahar and the Government would suffer reputational damage as people still see the ultimate responsibility for waste and sanitation resting with them. You can never fully de-couple the two.

In developed parts of the world, it is common to find private sector waste companies delivering local waste and recycling collection services and many are also responsible for local waste related communications. Despite high visibility of the company name on the side of vehicles and contained within public literature, research into the perception of who is collecting and treating waste shows consistently that the public still consider it to be the local council.

Even when private sector companies provide a brilliant service, a paradox exists in that the government is then unable to take full credit for this and so unable to benefit politically.

#### *Key actions*

- *Accept that ultimate responsibility for the provision of waste services will always rest with government.*
- *Understand the political landscape and consider what effect this will have on people's attitudes to new schemes or changes to existing schemes*

- *Ensure that elected members are aware of the ramifications of reduced or poorly deployed communications in relation to political stability*

## **People want to improve their lives**

Human evolution is marked by the constant desire for improvement. Individually, we want to improve our lives – be better educated, wealthier, healthier, live longer, be happier, get a better job. Collectively, we want to be safer, more united, and more stable. We want cleaner air to breathe; more space to play..... the list is endless.

Improvements to waste management and increased recycling can positively impact on many of these individual and social desires and as such, behavioral change should be positioned in such a way as to facilitate one or more of these life-improvement goals and use these as the core, driving foundations in the communication activities.

A key challenge here is that the range of desired improvements can vary considerably. What people in a wealthy part of a town may consider being worthy aspirational desires are going to be very different to those living in lower-income areas. Finding common aspirations that can be linked to behaviour change surrounding waste and recycling can yield exceptional results.

### **Case study:**

*The London Borough of Hounslow is a district to the west of the Capital. It is a highly diverse area, ethnically and challenging from a waste management perspective with many different types of properties and a high transient population. In 2011, like many local authorities across Europe, Hounslow were facing major cuts in public spending which the population were worried would impact on services that many relied upon.*

*Waste disposal costs in London are amongst the highest in Europe so recycling is a way of reducing costs to the council, savings that can reduce and in some cases remove altogether, the impacts that public spending cuts would have on other key council services. The challenge for Hounslow was that the recycling systems provided could not be changed so in order to drive up recycling, communications were needed to encourage people to recycle more.*

*Up until this point, almost all recycling awareness campaigns in the UK had focused upon the environmental benefits of recycling as a motivational tool to do more. However, with the worsening economic climate at the time, this was having less effect. Hounslow invested in a campaign that linked recycling to cost savings and the positive effect this has on services such as libraries, parks and education.*

*The outcome lead to the largest increase in recycling across the borough that equated to an annual saving of over £170,000.*

London Borough of Hounslow

**"I RECYCLE**  
because it helps  
support Ellie's  
**pre-school"**

Madinah and Ellie,  
Hounslow residents

It costs £93 to send a tonne of waste to landfill but on average £17 to recycle it.

The more you recycle, the more money Hounslow saves.

This helps us invest more to improve other social services including supporting Ellie's preschool.

**RECYCLE AND SAVE MONEY!**

**recycle**  
for London

For more information on how to recycle more visit [www.hounslow.gov.uk](http://www.hounslow.gov.uk)  
EMAIL [recycling@hounslow.gov.uk](mailto:recycling@hounslow.gov.uk) or CALL 020 8583 5555

**Fig 4.** An advert from the London Borough of Hounslow campaign that linked recycling with the positive impacts the cost saving has on other council services.

#### Key actions

- Consider how people in the target area want to improve their lives and then consider how the waste and recycling services provided can contribute to that aim. Then incorporate this into the communications.

### 3. THE BEHAVIOURAL CHANGE CURVE

Behavioural change is not a single-step process but a path along which individuals travel to arrive at the required behaviour. Understanding this and knowing where people are on this path is critical to developing communications that are appropriately targeted containing the right message that signpost the correct route forward. We can define this as the Behavioural Change Curve with three key sections:

**Behavioural change** – the first step towards the desired behaviour

**Behavioural development** – moving further towards the desired behaviour

**Behavioural maintenance** – arriving and then maintaining the desired behaviour

Let's look at an example of this in the context of someone giving up smoking:

**Behavioural change** – Cut down the number of cigarettes smoked

**Behavioural development** – Cut down further, use nicotine Mobiusment therapies

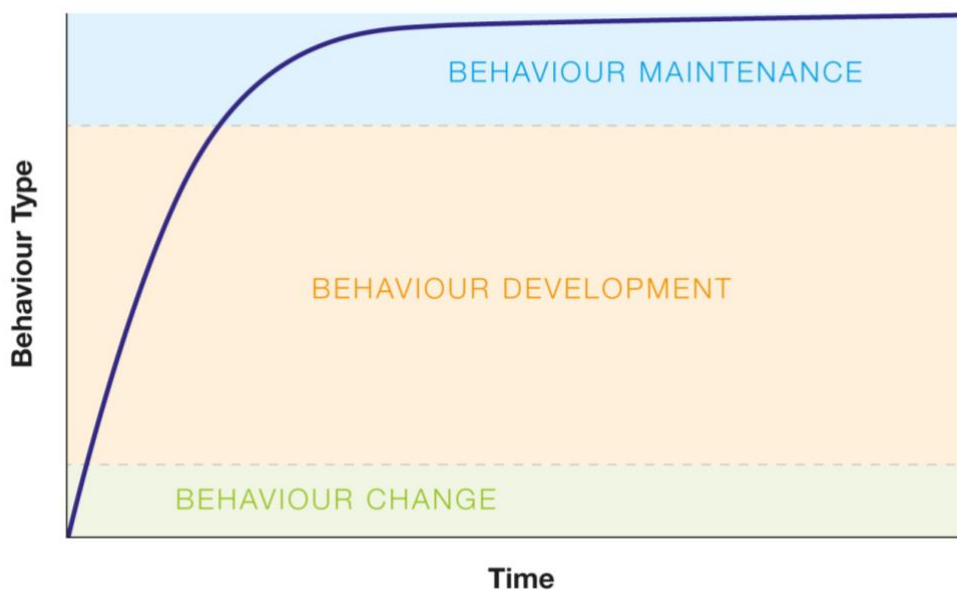
**Behavioural maintenance** – Stop smoking and become a non-smoker

We can apply this also to a waste management scenario, looking at the introduction of source-separated recycling;

**Behavioural change** – Start recycling a few things

**Behavioural development** – Recycle more, more frequently

**Behavioural maintenance** – Recycle as much as possible as often as possible



*Fig 5: The Behavioural Change Curve*

The biggest challenge is stimulating the first step; that initial behaviour change. Once this is achieved, the process becomes one focused upon nudging people further along the curve to the point where their behaviour reaches the desired level at which point, ongoing support and encouragement is needed to maintain that behaviour permanently.

From a communications and engagement perspective, the greatest required intensity and thus cost is required to overcome change aversion to stimulate that initial behaviour change. Once that has been achieved, intensity and costs reduce but it is important to note that neither can be totally dispensed with.

It is a common to consider that when the desired behaviour has been achieved, no further engagement or outreach is required. This is rarely the case. Consider Coca-Cola; the world's most recognisable brand that has been around for over 100 years. Despite its familiarity, the company continues to spend over \$1billion annually advertising it. When they have tried to reduce this spend, sales suffer.

Looking at the smoking example, we know that for smoking cessation, maintaining cessation is a bigger challenge than stopping smoking in the first place. Figures published by the Smoking Toolkit Study in April 2015 showed that in England, just 18.5% of people who quit smoking remained non-smokers for the 12 months following cessation.<sup>5</sup>

We see the same trends in recycling. Following the initial introduction of new kerbside recycling services, recycling rates increase rapidly as these new services are enthusiastically embraced by the population, fresh with the information needed to recycle properly. As time passes though, some of that information is forgotten and the ever-changing priorities of day-to-day life, coupled with the 'lazy factor' discussed earlier, often leads to the quantity and quality of recycling dropping in the months and years following introduction.

It is therefore important to maintain communication with residents on a permanent basis, not just at the outset of a new service.

Knowing where people are on the behavioural change curve has two distinct benefits:

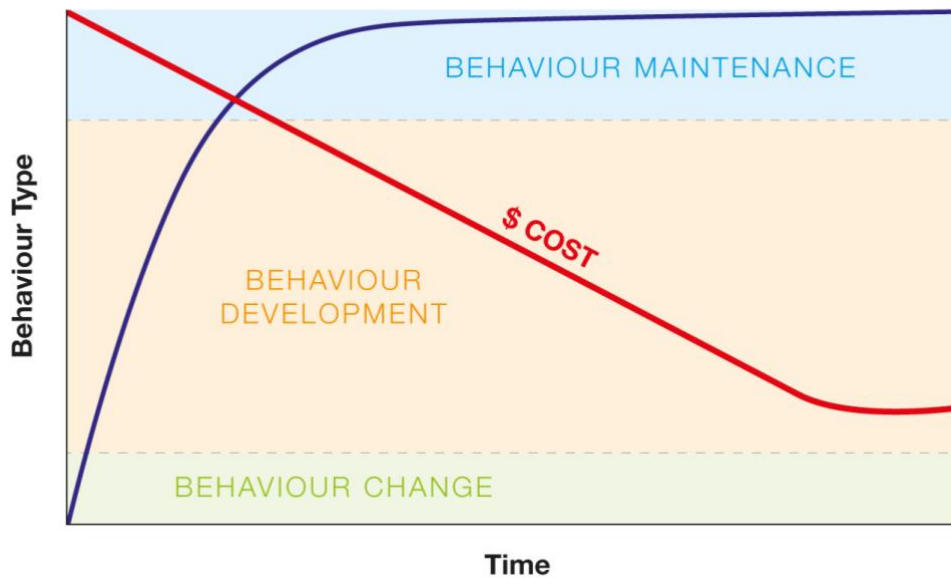
1. Communications can be better tailored with a message appropriate to where people are on the curve and so deliver greater impact and outcomes.
2. Communications can be more accurately targeted and so deliver better value and cost savings

On the second point, you can see from the graph below that the cost of stimulating behavioural change is greatest at the very beginning of the behavioural change curve and reduces as behaviour draws closer to the desired behaviour. However, when behavior levels drop, the line of the curve reverses back over its original path so the costs increase to bring behaviour back in line. As such, investment in behavioural maintenance is essential to avoid this.

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<sup>5</sup> <http://www.smokinginengland.info/latest-statistics/>





**Fig 6:** The Behavioural Change Curve showing the comparative cost level to stimulate and support each phase of change

For communications to work effectively in stimulating and supporting the progression of people along the behavioural change curve, there must be recognition that the way in which change is communicated needs to change depending upon the stage people are on the curve. For example, to stimulate initial change, gaining local press coverage, advertising and leaflet distribution might be effective but during the development phase, it may be better to engage directly with people through doorstep visits.

There are many tools available to achieve behavioural maintenance. One that has emerged over the past 10 years in the US, UK, Europe and parts of the Middle East is the use of incentive schemes, rewarding households for recycling through the allocation of points that can be spent on numerous goods and services, funded through the increased revenues gained through the sale of recyclate and/or the savings in disposal costs. These, though can be complex initiatives to set up and manage and often, a simple letter of thanks to households with details on the amount that has been recycled is sufficient to keep people recycling.

*Key actions*

- Consider where people are on the behavioural change curve and tailor and target communications accordingly.
- Recognise that different people will be at different positions on the curve at any one time.
- Continue to invest in communications to support behavioural change maintenance.

## 4. SUMMARY

If we were to draw one primary conclusion to the dissection of behavioural change strategies it would be the absolute need to segment the target population. Doing so enables the ability to position these segments on the behavioral change curve so that communications can be better tailored to achieve better results. This also means that more can be achieved with less investment.

Investment in behaviour change is itself a major subject and one that will be covered in a separate paper due for publication in Spring 2016. In the meantime, we can conclude this paper with the following key points

- *Waste is a fundamental part of everyday life for everyone. Its ubiquity means that it can become “invisible” in terms of its overall impact and the role (or civic duty) of the individual upon its management.*
- *People will only adapt to new or changing requirements if they are aware of the reasons, the ramification of non-compliance and given the means to change (both cognitive and physical).*
- *Behavioural change needs to identify the motivations and habit drivers that need to be understood and accessed in order to bring about a positive shift in actions (the 4 social common denominators).*
- *A common mistake is to view behavioural change as simply raising awareness. It is a strategic tool, not a tactical one. It is an essential element in the overall planning process that needs to be deployed at the earliest stage possible.*
- *Behavioural change is not a single step process but a path through which people travel and a path that needs constant guidance and support, delivered through communications.*
- *Behavioural change strategy drives tactical delivery (advertising, public outreach engagement, etc.). This requires appropriate budget allocation that is correlated to the extent of the change required. The more complex the systems that people are required to use, the greater the extent of tactical communication required and thus cost.*
- *Recognise that communications budget is an investment, not a cost. A reduction in communication activity due to budgetary constraints is a false economy, which will lead to much higher costs in the medium to long term.*

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### About Mobius Insight

Mobius Insight is a thought leadership programme offered by Mobius, one of the world’s leading providers of behavioural change communications for the waste and resource recovery sector. Working globally across many varying regions enables us to gain first-hand experience of how behaviour change can best be used to achieve social gains and economic improvements. Our aim is to share this learning and experience with the wider, global waste management community through published papers available on our website, conference participation and commissioned studies.

### About the Author

Stephen Bates is one of the world’s leading experts on behavioural change for waste management and the development of communications needed to stimulate change. In the UK, he has worked with over 130 local authorities and is the strategic architect behind some of the most effective campaigns and initiatives of their type. Internationally, he has worked for governments and donor institutions in over 20 countries, particularly in transition economic regions. He is a member of the Collaborative Working Group for Solid Waste Management in Low Income and Developing Economic Regions and is a prolific speaker on the subject of Behavioural Change in Waste Management.

## **Mobius Insight**

*Thought leadership for the International Waste  
Management Community*



### **Conference Content**

This paper is available for presentation at conferences, delivered by the Author.

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