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Llywodraeth Cymru
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Welsh Government

Towards Zero Waste One Wales: One Planet

Detail of Responses to the Consultation
on a Waste Prevention Programme for Wales

December 2013

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Introduction

This document covers the responses received from the public consultation and feedback from several workshops held throughout Wales during the consultation period.

The consultation questions were split into 4 sections: household waste; industrial and commercial (business) waste; construction and demolition waste; other general and technical questions. Respondents were asked to answer as many questions as they felt relevant. This section shows each response provided to the questions; where the respondents have not indicated which questions they were responding to, the Welsh Government has allocated them to the most appropriate question. Other relevant comments, including summaries of issues and priorities, are included in the general, open question (G3).

The Welsh Government also facilitated a number of workshops during the consultation, targeting specific sectors:

- The Construction and Demolition sector to look at overcoming barriers in: design; damage to products in transit; over ordering and excess on site; demolition and refurbishment waste.
- Eco-innovation in the manufacturing sector in Wales specifically targeting Advanced materials and manufacturing and life science sectors to look the barriers to eco-innovation in Wales and potential solutions, focusing on resource intensive products which have the potential for resource reduction through product design.
- Small and Medium enterprises and supporting organisations.

Notes from these workshops can be found at the end of the response document after the consultation questions have been addressed.

Details of responses to the consultation questions and consultation workshops

Questions about Household Waste

Consultation Question HW1:

We throw away a lot of food waste each year. It accounts for around a fifth of all household waste in Wales. An average household throws out £480 worth of food each year, and it rises to £680 for households with children.

Would you be interested in knowing more about reducing your food waste? We need to communicate with everyone about how they can reduce their food waste too. What do you think are the best ways for us to do that? For example, local newspapers, from a person you know in your community, through clubs such as sports clubs.

Responses:

Blaenau Gwent County Borough Council

We agree that we need to communicate on how food waste can be reduced and from monitoring carried out in Blaenau Gwent where household participate in kerbside food waste collections the yield is relatively high in comparison to the average yield on such collections.

Evidence from Waste Compositional analysis also suggests that there is still a significant level of food waste present within residual waste collections within Blaenau Gwent.

BGCBC currently tie in the Love Food Hate Waste Campaign along with the Corporate Health activities both internally and externally to the Council. This includes attending community groups and organisations already in existence. We also engage with public facing activities e.g. cookery demonstrations to promote the Love Food Hate Waste message.

It is our experience that face to face communications yields the greatest results in relation to engagement with our residents and traditional marketing communications methods yield limited results.

British Heart Foundation

Simple steps to improve knowledge of reuse opportunities at a local level would be to ensure all relevant municipal waste services staff are aware of the opportunities for reuse in their area and can communicate this to residents. This would include call centres, operational employees on collections and HWRCs as well as those traditionally tasked with putting across messages on reuse and recycling, for instance through local radio, publications and signposting through the council website. These are the people that are likely to be in contact with residents with items to dispose of but a lack of knowledge on alternative options.

Across Wales there are services which most of the population could access and therefore should be made aware of. For instance the British Heart Foundation has 29 shops and 7 dedicated furniture and electrical stores in Wales offering free collection of a range of reusable goods to a majority of the population.

British Soft Drinks Association

BSDA agrees that the amount of food waste the consumer generates is a serious issue and believes that more needs to be done to avoid this waste in the home.

One of the key issues with food wastage is that consumers often do not understand or recognise that the packaging is instrumental in protecting the product and extending its shelf life. Education and improving public awareness of recycling and reducing waste is very important and there needs to be a consistent message to consumers. Products are packaged in such a way as to minimise and prevent damage to the product within it.

Caerphilly County Borough Council

Yes, we are interested in knowing more about reducing food waste. However, our concerns are that prevention of food waste may have a knock-on effect on our food waste recycling service. The impact on the overall tonnage we collect and a reduction in the number of residents participating in the service.

We must ensure that we meet the Welsh Government recycling/composting targets of at least 58% by 2015/16 and a duty to meet the minimum tonnage agreed with our contractors for recycling/composting. A reduction in food waste may have a significant impact on our ability to achieve this.

It is also important that during events we keep food waste prevention and food waste recycling information separate to avoid confusion of residents as this does sometimes cause some issues with mixed messages.

The communication and promotion of food waste reduction/prevention may best be achieved by:

- Local and National events
 - TV/radio advertisement
 - Social Media – YouTube, Facebook, Twitter
 - Local Media and Authorities own publications (circulated to all residents)
 - Websites
 - Community Groups
-

Cardiff Council

- Cardiff Council feel there is already a significant food waste campaigns targeted at the householders on a local level. More needs to be done at businesses and industry to raise their awareness nationally. Local Authorities provide support at local level, but national and UK based messages are required to householders in a range of mediums.
 - The source of the problem for waste minimisation comes from global markets and multinational suppliers. Householders have little control or interest in reducing packaging.
-

CIWM Wales

CIWM Wales believes communication on food waste in a household situation might be best undertaken through the local authorities. They have the duty to collect wastes produced by households, requirements to reduce biodegradable wastes to landfill through the Landfill Allowances Scheme (Wales) Regulations 2004, and to increase the amount of wastes recycled, including food wastes through composting or anaerobic digestion, under The Recycling, Preparation for Reuse and Composting Targets (Monitoring and Penalties) (Wales) Regulations 2011. Councils can use local media to engage with their residents and frequently engage with residents through their own publications such as a local paper circulated to all residents. They can also engage with their residents through their waste collection service. Welsh Government might seek more unified co-operation from the councils in Wales in this respect as it helps the councils make financial savings if householders minimise the quantity of wastes they produce. There is also a role for messages on buying, storing, and preparing food to minimise waste to be delivered through retailers, community centres, education services, etc. Use should be made of local social enterprises in getting the message across to the local community, working in '**Co-Production Partnership**' with local government at all levels; and those already directly involved, such as Fareshare Cymru, WRAP Cymru, Cylch, Resource Cymru and others.

Cyfoeth Naturiol Cymru / Natural Resources Wales

You may wish for consideration to be given for communication on food waste in a household situation to be undertaken by local authorities. This may be an option as they have the duty to collect wastes produced by households and requirements to reduce biodegradable wastes to landfill through the Landfill Allowances Scheme (Wales) Regulations 2004. They also have an additional role to increase the amount of wastes recycled including food wastes through composting or anaerobic digestion under The Recycling, Preparation for Reuse and Composting Targets (Monitoring and Penalties) (Wales) Regulations 2011. Councils use local media already for their own publications to engage with their residents and also directly through their waste collection service. Consistent branding and messages such as those from the 'Love Food, Hate Waste' campaign has proven effective previously. An organisation such as WRAP or Waste Awareness Wales could play a useful role in supporting local authorities on this. Use of local champions could also reinforce the message.

Welsh Government may wish to consider encouraging this further as the Councils may benefit from financial savings if householders minimised the quantity of wastes they produce. This could also Local Authorities could also look at their waste service provision and participation uptake. by encouraging source separation of food waste and separate collection (i.e. not mixed with green waste).

ICE Wales Cymru

I need no further information and agree that communications should be as many and varied as possible.

Tata Steel

Questions HW1 and HW2 are not relevant to our business sector. However, we would question why there is a continued emphasis on expending time and effort on waste prevention strategies involving insignificant tonnages of wastes, and in many cases, with the obvious exception of WEEE, insignificant hazards.

Welsh Local Government Association

It is clear that there is substantial food waste generated each year. Consideration needs to be given as to what are the root causes of this:

- Has too much food been purchased?
- Has the food reached or exceeded its use-by date?
- Has too much food been prepared and not eaten?

Each of the above has been or needs to be addressed and behaviours changed in the two main parties involved: the retailer and the customer/consumer.

Through the Waste Awareness Wales (WAW) programme key customer messages have been identified and delivered:

- Plan meals for the week before going shopping and only purchasing what is required.
- Prepare a shopping list before going shopping.
- Checking the best-before dates prior to purchase.
- Where BOGOF (Buy-One-Get-One-Free) deals are offered –will the additional ‘purchase’ actually be used? – could it be used to replace an item on the shopping list rather than being seen as an extra surplus to requirements.
- Only preparing appropriate size portions to cook for the number of people eating the meal.

The messages are clear and have been communicated before there are more and more people using social networks and WAW is increasingly focusing on these to get the messages over.

The Waste Prevention Programme needs to explore all avenues to get its messages to as many people as possible:

- Working with slimming clubs to ensure that the weight reduction and waste reduction can be linked.
- Local Authority publicity on waste collection should also include issues of waste prevention and how to save money and reduce food waste.
- Healthy eating programmes through schools which as well as highlighting eating the right things should highlight the benefit of reducing the food waste we throw away.

Work through the Retail Sector Plan needs continue to address key messages with the Retailer:

- To recognise that they are contributing to the high level of food waste being generated by households.
- Responsible advertising.
- Obligation on retailers to contribute to the reduction of waste by consumers.

Welsh Retail Consortium

The retail sector has made considerable progress in food waste reduction. At the beginning of May 2013, food retailers and manufacturers signed up to Courtauld Commitment Phase 3 - committing themselves to reducing food and drink waste by 5% by 2015. If this latest target is met, over the lifetime of the three phases (2005 – 2015), a 20 per cent reduction in UK household food waste will be achieved – a very impressive outcome, especially against a backdrop of increasing sales volumes.

Retailers have already invested significant time and resources into supporting customers to make necessary changes and adopt better practice. These efforts include:

- Change of portion sizes and promotions – retailers have reduced the portion sizes of their products and tailor promotions in such a way so as to discourage people from buying large quantities of food with a short shelf life.
- Storage advice – ‘Best Kept’ stickers on fresh produce, storage information printed on loose fruit and vegetable bags, additional advice to customers at deli counters.
- Educating on ‘best before’ and ‘use by’ dates – there is still confusion among consumers regarding the difference between the two labels. An improved understanding of the labels would help to considerably reduce food waste.
- Providing recipe advice – in particular advice on how to use up leftovers, which are communicated through in-house magazines, social media and on websites.

Retailers are also supporting the *Love Food Hate Waste* campaign which raises awareness about food waste and helps consumers reduce the amount of food they waste by providing practical information.

WRAP Cymru

WRAP has extensive experience and expertise in addressing household food and drink waste through the Love Food Hate Waste campaign and the accompanying behaviour change, technical and evidence programme. We also have extensive research about where people in Wales want to get information on household food waste, how they would like to receive it and what they want to know, primarily through the consumer food waste prevention behaviour and attitude tracker, which runs every 6 months.

There is a range of opportunities to engage with the public directly and through business and community partners in Wales and we would welcome the opportunity to explore these in more detail. There is a real opportunity for WRAP to deliver all aspects of Love Food Hate Waste in Wales including on the ground delivery and engagement, both with the public directly and also through key local partners.

Consultation Question HW2:

There are lots of ways we can reduce how much waste we all create. It isn't just about recycling, there are lots of other ways such as:

- Thinking about the packaging we buy when we're shopping.
- Only buying as much food as we really need.
- Repairing things or getting things serviced, rather than just throwing them away.
- When we no longer want something, we can pass it onto someone else, or sell them.

Would you be interested in knowing more about the ways you can reduce your waste? How can we let you and others know about the actions they can take? Can you suggest any ways we can communicate with others to make them more aware?

Responses:**Blaenau Gwent County Borough Council**

Yes the Authority would like help in the best ways to reduce waste and this could be done through case studies. Whilst we agree with the concepts outlined within the proposed waste prevention programme, the themes listed above are closely linked to consumer purchasing behaviours. The waste prevention messages are potentially in direct conflict with the aims and objectives of commercial organisations.

In order for economy to grow consumers need to continue to purchase products and this inevitably will result in a potential increase in waste generation. It will take time for consumers to distinguish between recycling and reuse and how they act upon this.

British Soft Drinks Association

We welcome the fact that the Welsh Government recognises the importance of packaging in protecting the product.

The recently launched Fresher for Longer communications campaign, which aims to show how food packaging (and the way consumers use it) can help reduce food waste, is a good example of what can be done to raise awareness of these issues. Government-funded campaigns such as Love Where You Live¹, Love Food Hate Waste² and Recycle Week³ are excellent ways to get messages across to consumers about the benefits of recycling and reducing waste. BSDA believes that it is important to change consumer behaviour and raise awareness of the benefits of reducing waste and supports initiatives such as these as the means to do it.

¹ <http://www.lovetheyoulive.org/>

² <http://www.lovefoodhatewaste.com/>

³ http://www.recyclenow.com/recycle_week/rw2011_big_tidy_up.html

Caerphilly County Borough Council

Yes, we would be interested in knowing more about promoting and ways we can reduce household waste. However, as with food waste, our only concern would be the impact this may have on our recycling services. We may see a reduction in the overall tonnages of recycling collected at the kerbside, Household Waste Recycling Centres and Bring Sites. We have a duty to ensure we continue to meet the Welsh Government recycling targets to avoid substantial fines and ensure we remain a top-performing authority for recycling. Guidance on how we can measure the outcomes of waste reduction would be beneficial.

Promote and provide information on the range of opportunities of repair/reuse to bulky items and larger WEEE rather than throwing them away.

The communication and promotion to make people more aware of waste reduction may best be achieved by: Local and National events:

- TV/radio advertisement
- Social Media – YouTube, Facebook, Twitter
- Local Media and Authorities own publications (circulated to all residents)
- Websites
- Community Groups
- Posters

Cardiff Council

Provide local authorities with more intelligent ACRON profile segmentation on peoples' waste attitudes, behaviours and preferred communication methods.

CIWM Wales

Targeting information through the places where people in Wales do their shopping, in particular through supermarkets, would assist with the food waste message. Encouraging the availability of services to enable repair of electrical goods (EEE) and targeting the EEE sector to produce goods that can be repaired or serviced to facilitate longevity could be done in the context of the producer responsibility regime. This is important given the relatively low proportion of electrical goods consumed in Wales that are manufactured in Wales.

Promoting the range of opportunities for passing on goods that are no longer in use would be beneficial – this could be done through the local authorities or directly from the WG website. In association to this local authorities would benefit from more knowledge of reuse opportunities and the WG and WAW websites would benefit from more information on reuse services and would benefit from being regularly updated. Together with **‘Joined-up thinking’** and cooperative work with those groups, social enterprises, cooperatives, private businesses who already exist and are delivering on this and are well placed to deliver ‘more’, in addition to the developing Approved and Accredited Reuse and Repair Networks (as per amended WFD).

Cyfoeth Naturiol Cymru / Natural Resources Wales

Targeting information at the places where people in Wales do their shopping, in particular through supermarkets and other retail outlets may promote the waste reduction and reuse message. Further promotion of opportunities for passing on goods for reuse (by local authorities as above) and by the charity sector should also increase uptake.

It is often very difficult to get electrical goods repaired due to a shortage of skilled repair workers and the high cost of repair versus buying a replacement. Electrical goods are not generally manufactured with repair or longevity in mind. Within the context of the producer responsibility regime, it may be possible to introduce changes to encourage this, especially given the relatively low proportion of electrical goods that are consumed or that are manufactured in Wales.

Dŵr Cymru / Welsh Water

Education has an important role to play – presumably this would come within the “Engage” strand of the 4Es model underpinning your waste prevention programme. Dŵr Cymru has recently launched our “Stop the Block” campaign, which is designed to discourage the misuse of our sewers. Our campaign highlights that, for example, disposing of things like fat, oil and grease down the sink can cause serious problems such as flooding and pollution. Tackling the resulting blockages (we deal with over 2,000 a month) also comes at a significant cost for our company, and thus our customers.

We would like the Welsh Government to give more priority to educating the public on the wider consequences for society and the environment of irresponsible waste disposal practices, rather than referring to European obligations as the main driver.

Friends of the Earth Cymru

A deposit system for drinks cans and bottles would strongly message some of the key points that the Welsh Government has identified to work on around reuse campaigns, sustainable consumption, and household reward schemes, alongside working with retailers and encouraging eco-innovation. It would also reduce the tendency to over-package drinks containers by providing a much stronger incentive to drinks manufacturers to reduce the weight of containers that will be reused multiple times. A deposit scheme would also tie in with extended producer responsibility, a key principle of Welsh Government waste policy.

ICE Wales Cymru

I need no further information and agree that communications should be as many and varied as possible.

Tata Steel

Questions HW1 and HW2 are not relevant to our business sector. However, we would question why there is a continued emphasis on expending time and effort on waste prevention strategies involving insignificant tonnages of wastes, and in many cases, with the obvious exception of WEEE, insignificant hazards.

Welsh Local Government Association

In asking the question whether you would be interested in knowing more about ways you can reduce waste the message needs to be clear as to the benefit of reducing waste. We need to recognise that all stages of production and distribution have an impact on the final consumer. E.g. If the retailers don't use so much packaging then the householder won't have to get rid of it!

In Wales significant progress has been made in getting people to think about packaging and the use and reuse of carrier bags, however the retailers themselves do not always reflect or acknowledge the same approach. Short of 'undressing' the products in the shop we have a limited impact upon the level of packaging – the packaging comes with the product. In addition, when shopping on-line even if the customer specifically states 'no plastic bags' there can be cases where the packer disregards this instruction.

It is understandable that to address waste we need to identify areas where waste is generated i.e. Household, I&C, C&D, and focus on how to deal with it. Consideration could be given to a more balanced approach that targets manufacturers and retailers (building upon progress made through the voluntary Courtauld Agreements), as well as councils and consumers.

We have evolved into a 'throw-away society' where it has become the norm to throw away goods and replace rather than repair and reuse. The manufacturers have encouraged this by making products which are not designed to be repaired and reused.

The social and economic benefit from adopting a repair and reuse approach could improve employment through developing the repair skills.

Certain charities have developed links with major retail chains to provide an outlet for repaired and refurbished household goods which improves the reuse of goods and provides benefits for the charities.

WRAP Cymru

There are certain types of information, which are not readily available to consumers but have a major impact on waste prevention: in particular, how to assess the likely durability of a product. Introducing reliable ways of communicating lifetime (e.g. “tested to meet a five year design life”) or proxies (e.g. a five year warranty) could make a big difference here. WRAP is developing evidence on where this is most beneficial to businesses for growing their business and reducing the rate of costly product returns. Once this evidence is completed, it could provide a platform for industry to collectively improve product lifetimes.

There are a number of issues to consider when looking at food packaging and food waste; these must be taken into account when deciding how to address the public on this issue. In many cases, appropriate food packaging can actually help to reduce the amount of food and drink we throw away from our homes (see www.wrap.org.uk/fresherforlonger). See also our response to question HW1 above regarding household food waste. WRAP’s programme of cascade training in the community, on consumer food waste prevention, for individuals, groups, businesses and so on would be an ideal, proven method of letting people know about the issue and how they can take action, and at the same time learn how to cascade that message on to others. Messages must be targeted and tailored to the audience and delivered by one of the trusted authorities in their lives (whether that be the council, their faith group, friends etc.). This is why the Love Food Hate Waste model of delivery is appropriate for this area of work.

Reuse is also an effective strategy for waste prevention. WRAP has undertaken several pieces of research to illustrate the environmental and economic benefits of reuse; these are available at www.wrap.org.uk/category/subject/re-use . We would be happy to share our expertise in this area.

Consultation Question HW3:

Packaging serves an important purpose in protecting goods and ensuring that they are delivered in good condition, but sometimes consumers feel that goods are over-packaged; and packaging also comes in a mixture of materials such as plastic, cardboard, aluminium, which can be difficult to separate and dispose of properly.

Have you got any ideas about how we can tackle this? What would help you do more to reduce this type of waste?

Responses:**Blaenau Gwent County Borough Council**

This directly links with producer responsibility and the supply chain management of commercial organisations.

Whilst we can encourage residents to consider the packaging on products that they purchase, it is largely out of their control because it is inevitable that some products will be unavailable with reduced levels of packaging.

Light weighting of packaging to reduce carbon usage during manufacturing has led to packaging products that cannot be recycled- such as cat food pouches which contain various types of materials that cannot be separated / recycled. Further work needs to be done in terms of linking changes in packaging against potential opportunities to recycle.

British Soft Drinks Association

Packaging is essential in preserving food and drink and minimising waste and it is important to emphasise the valuable role packaging plays. BSDA members have already done a great deal to reduce their packaging through initiatives such as Courtauld, and we are concerned that the Welsh Government is seeking views on how to address over-packaging. Whilst we recognise that there may be some products that are still unfortunately over-packaged, in the soft drinks sector, we will continue to explore opportunities to reduce packaging where its many functions are not impaired, but reducing packaging to an extent which results in higher rates of product wastage is the exact opposite of waste prevention. We would therefore advise caution when addressing these issues, as it is important to ensure that any waste prevention/reduction initiatives do not simply move the waste up or down the supply chain, but actually remove it altogether.

BSDA has promoted the on-pack recycling label scheme (OPRL) to its members. This initiative provides consumers with more consistent information on what packaging can and cannot be recycled, in order to help increase the quantity and quality of packaging collected for recycling from the home. A number of BSDA members now use this scheme and it is an effective means of increasing a consumer's understanding of what can be recycled.

BSDA member companies already use reusable, returnable and recyclable secondary and tertiary packaging and have been doing so for some years. There is a continual drive for material reduction from both a cost reduction aspect and from minimising the impacts on the environment. However, inappropriate material reductions can compromise the supply chain performance of secondary packs - a mistake often made in the past. For example, primary packaging that is light weighted too far can result in a large amount of product waste if the packaging does not fulfil its purpose, thereby defeating the aim of waste prevention. In some cases an increase in secondary packaging can actually reduce breakage and losses, and therefore reduces wastage. It is important that the right balance is reached and industry is best placed to make these decisions.

Caerphilly County Borough Council

The producer and legislation must tackle this problem. We can educate people about buying items with less packaging. The producer to use more intelligent packaging to allow more to be recycled, making it easier for the consumer to recycle.

Cardiff Council

Packaging is a global issue and it will be difficult for the WG to tackle this issue without wider support from the UK and EU. Controlling packaging is definitely beyond the control of the Local Authorities and to a certain extent householders have little control of the products they purchase. While it is a good point that must be addressed, the source of the products and packaging should be considered, how much could fall under the control of WG and just how much comes from global sources.

When dealing with packaging from online retailers, the producers are often multi-national companies that again Local Authorities and WG have no control over. Packaging labels are confusing for the public and often give incorrect information.

CIWM Wales

The most difficult area of packaging to deal with is the foil lined plastic pouches that have appeared over recent years. Pet food, soups, and sauces are examples of the products contained within this type of packaging. These typically replace tins or glass jars. This change of packaging may be the result of a perverse incentive to reduce packaging waste quantities generated by the packers and distributors, which therefore reduces the amount of obligation under the packaging producer responsibility regulations. Thus a drive to reduce packaging weight, which could be termed as waste prevention, results in packaging that is not recyclable or at best partially recyclable.

It might be that the life cycle assessment that justifies this move does not take account of the management of the waste materials. This is an area that could be looked at to see if there is a potential mechanism to refine the regulations

that can reduce the tendency, when seeking to reduce the quantity of materials used in packaging, to use materials that are not recyclable? More research (and field trials) is urgently needed to determine alternative packaging materials that identify materials and options that facilitate less need for use of composite mixtures of packaging materials.

Cyfoeth Naturiol Cymru / Natural Resources Wales

The Packaging (Essential Requirements) Regulations is the legislative basis for ensuring the minimum necessary amount of packaging is used. This is enforced by local authority Trading Standards department, but is not well known by the public. Better public awareness of the requirements of these regulations may result in outcomes that can raise the profile of this issue.

One of the most difficult area of packaging to deal with is the foil lined plastic pouches used for pet food, soups, and sauces and typically replacing tins or glass jars. Whilst this results in reduced packaging waste quantities for the packers and distributors, which therefore reduces the amount of obligation under the packaging producer responsibility regulations, such waste prevention results in packaging that is not recyclable. We are not aware of life cycle assessment studies to justify this move (although it is possible that the reduced weight delivers a greater environmental outcome in terms of reduced transport emissions). Such evidence when available, could be considered to see if there is a mechanism for refining refine the producer responsibility regime and discourage the use of materials that are not recyclable. It should also be noted that whilst the use of composite packaging can create problems when trying to identify recycling options, often this packaging is designed this way to ensure that products reach market in good condition, which prevents waste from being generated. Care should be made not to discourage the use of composite packaging where it has a valid purpose.

ICE Wales Cymru

Work with suppliers and producers to reduce over packaging, more publicity.

Tata Steel

With regard to household waste such as composite material packaging that is difficult to reuse or recycle, it must be recognised that products that contain a high recycled content are not necessarily inherently recyclable or reusable themselves. Packaging, where end use dictates it needs to be disposable, should be designed with the waste hierarchy in mind. Packaging design should not be a barrier to recovery; for example, packaging materials made of layered plastic, cardboard and metal may be impossible or difficult to recycle cost effectively, and may cause long-term waste disposal challenges. However, steel packaging can be completely recycled.

A standardised LCA methodology that takes proper account of end-of-life impacts would benefit society through allowing genuine comparisons between different materials and systems.

TH.INC.

Please find following my response with regard to packaging waste issues and in particular section 2.2.3. which outlines the following details:

The focus should be on right weighting, which means designing packaging which uses the minimum quantity of material possible whilst retaining the integrity of the product it contains.

There is also mention of the need to extend to non-food consumer goods, and secondary, tertiary packaging used to transport and store goods and that consumers feel that goods are over packaged.

In 1994 The EU Packaging and Packaging Waste Directive came into force, Article 9 contained the following statement:

*Member states SHALL ensure that, three years from the date of the entry into force of this Directive, packaging may be placed on the market ONLY if it complies with all **essential requirements** defined by this Directive, including Annex II.*

In 1997 The UK Government introduced legislation The Packaging (Essential Requirements) Regulations (PERR) in order to comply with the EC Packaging and Packaging Waste Directive.

I therefore suggest that the most effective route to ensure that packaging is minimised would be the enforcement of PERR, which is entirely in the hands of Local Authorities via Trading Standards Offices (TSOs).

Enforcement - PERR

Compliance with PERR is on the “responsible person”, i.e. the packer/filler, brand owner or importer, who is required, when requested, by TSO’s to supply sufficient technical documentation to demonstrate that they are in compliance with the regulations. Following a request by the enforcement authorities, the responsible party will be given a ‘reasonable time’ to produce the technical documentation – 3 weeks/28 days. TSO’s can make the request for **any** packaging placed upon the market in the UK. It does not require a complaint to have been made by a member of the public. Failure to comply with the TSO request is an offence, details of which are as follows;

Offences and Penalties

- Contravening or failing to comply with The Essential Requirements and Heavy Metal limits, penalised by a fine up to level 5 on the standard scale (£5,000) on summary conviction or an unlimited fine on conviction on indictment.
- **Failing to submit compliance documents at the request of the Enforcement Authorities, penalised by a fine up to level 5 (£5,000)**
- Contravening a suspension notice, penalised by **3 months imprisonment** or fine up to level 5.
- Intentionally obstructing the enforcement Authorities, penalised by a fine up to level 5 (£5,000).

It must also be demonstrated that 'Due Diligence' has taken place.

Due Diligence

- Sitting back and doing nothing is unlikely to be sufficient, it will require a company to take reasonable steps and is likely to involve setting up a system of control that has regard to the risks involved
- Due Diligence means ensuring the proper operation of that system. The operation of the system should be kept under review and be amended as necessary
- Any defence is likely to fail where there was a reasonable step that could have been taken but was not
- In order to demonstrate due diligence you will need to show that the control system actually operates in practice. There will need to be a system of checks to confirm that it is being followed. The system should also be regularly reviewed.

Technical Documentation

What type of technical documentation is required is not specified, however, the regulations are quite clear that the 'responsible person' is required to provide adequate documentation on request from TSO's. If you require an example of the type of documentation that demonstrates that packaging has been minimised in accordance with PERR, I will be happy to forward to you an example together with an explanation on how it meets the minimisation by source reduction criteria laid down in the regulations.

CONSUMER ACCEPTANCE

The two most common reasons given for the lack of prosecutions under PERR are "consumer acceptance" and "product presentation and marketing". The regulations relate to **ALL** packaging placed on the market, **primary and sales packaging, secondary/group packaging and tertiary/transport packaging**. Therefore a request by a TSO for technical documentation relating to a 500ml bottle of table sauce, will require the **responsible person** to supply supporting documentation for **ALL** the packaging used in the packaging chain for that product, as follows:

Primary and Sales Packaging

- 500ml container
- Closure
- Front and Back labels

Secondary/Group Packaging

- 20 X 500ml Carton
- Carton label

Tertiary/Transport Packaging

- Shrink Film
- Pallet label
- Pallet

Claiming **consumer acceptance** for **ALL** the components in the packaging chain would not be acceptable as having complied with the regulations, which State;

For conformity with minimisation by source reduction to be claimed, at least one critical area which prevents further reduction in weight and volume MUST be identified for component, functional unit or packaging system. Details of which MUST be supported by the relevant technical documentation.

There are also the requirements relating to **'Heavy metals'** and **'Noxious and Hazardous Substances'** for which evidence of compliance **MUST** be obtained from suppliers in writing. Claiming **consumer acceptance** for these two requirements would be legally unacceptable.

A way forward

Confirmation that excessive or over packaging does not exist could easily be demonstrated by TSO's requesting technical documentation from:

- 6 major retailers, two packaging items each , one own brand and one brand owner
- 6 packer/fillers , these could be companies in either the consumer or industrial market, The Environment Agency will have a large list of companies who are packer/fillers obligated under the PRO Regulations
- 6 Importers from outside the EU, this is particularly relevant to compliance with the heavy metals requirements for PERR, materials coming into the UK which do not comply and could have an adverse affect on the UK recycling markets.

This would not be a drain on TSO's resources and would when the technical documentation was produced, provide evidence that PERR is being complied with and that issues relating to 'over packaging 'are being addressed.

Valpak

Packaging is a visible form of waste, but it is essential to keep in mind that it makes up only a very small proportion of the overall waste stream. Household packaging waste is less than 3% of waste from all sources (industrial, commercial and household) which is sent to landfill (see Incpen's Packaging in Perspective Report). It also plays an important role in minimising food waste; consumers are increasingly concerned with keeping food fresher for longer as this will save money and reduce impacts on the environment (see WRAP's Consumer Attitudes to Food Waste and Food Packaging Report).

There are already statutory measures in force to minimise packaging waste and increase levels of recovery and recycling. This includes the Producer Responsibility (Packaging Waste) Regulations 2007 which place an obligation on manufacturers, converters, pack/fillers and sellers to financially contribute towards meeting increasing targets for recycling and recovery of packaging and therefore encourage minimisation of packaging, as the producer's financial contributions directly relate to the tonnages they place on the market.

Over the last 10-12 years packaging producers have contributed around £1.5 billion in investment into the recovery and recycling of packaging waste in the UK. This investment will continue to increase as a result of increased recycling and recovery targets that have been published up until 2017 which includes a challenging 5% point increase per annum in the target for plastic packaging. As a result of this we are strongly against any further taxes, charges or levies for packaging.

In addition to the producer responsibility regulations there are also the Packaging (Essential Requirements) Regulations 2003 which prohibit excessive packaging.

As a result of the above we believe that new statutory measures would not be appropriate, however there are some actions that could help, including:

- Better enforcement of the Essential Requirements Regulations,
- Improving the consumer information obligations already included in the Packaging Waste Regulations to help educate consumers to choose products in the type of packaging which suits their requirements, and to support local recycling schemes,
- Designing all packaging to be resource-efficient, and
- Designing packaging for recycling where the necessary infrastructure is in place to collect it.

We would be more than happy to meet with the Welsh Government to further discuss the issues raised in response to this question.

Welsh Local Government Association

Why do the retailers feel that there is a need to have such significant amount of packaging? Could it be that due to the significant logistics and transportation of products over large distances and through several transit hubs the products need to be protected from all the mechanical handling involved?

If retailers could be encouraged to use more local products the need for excessive protective packaging may be reduced this, together with the current trends in oil prices there is an increasingly strong business case for reducing transport and its associated costs.

Welsh Retail Consortium

The achievements of the retail and food manufacturing sectors with regards to reducing household packaging waste under Phases 1 and 2 of the Courtauld Commitment are recognised in the consultation paper. Under the Phase 3 targets, announced in May 2013, retailers have further committed to improving packaging design, while ensuring there is no increase in the carbon impact of packaging by 2015, from a 2012 baseline. This target represents a carbon reduction of 3% relative to anticipated sales volumes.

Retailers are working hard to reduce the carbon impacts of packaging, while optimising its benefits. More re-sealable packaging is being introduced in order to reduce household waste. New packaging technologies are being researched and trialled which would potentially increase the longevity of certain products.

WRAP Cymru

Recent research published by WRAP (see www.wrap.org.uk/fresherforlonger) shows that the more that people know that they can recycle a piece of packaging, the less concerned they are by the packaging in and of itself. It is essential that packaging clearly states its benefits (for example if it has a resealable strip or the packaging will keep the food fresher for longer if kept in it and in the fridge) and WRAP can support retailers and brands and the wider industry to do this through phase 3 of the Courtauld Commitment. At the same time, clear and consistent messages must be used by industry, government, local government and others about packaging, its benefits (where appropriate), how it can be recycled and what it can become. Efficient and effective recycling services, clearly communicated, are of course essential.

Questions about Industrial and Commercial Waste

Consultation Question IC1:

The proposed waste prevention targets for the industrial and commercial waste streams are:

A general reduction of 1.4% every year to 2050 based on 2006/7 baseline for industrial waste, with specific targets for the individual priority sectors

Manufacture of basic metal and metal products.

Manufacture of paper and paper products.

Manufacture of chemicals, chemical products, pharmaceuticals.

Food manufacture.

A reduction of 1.2% every year to 2050 based on 2006/7 baseline for commercial waste.

An implementation plan will be developed to delivery against these targets.

Do you agree with the targets that are proposed? Please give your reasons. What targets should be proposed for the priority industry sectors? Please give your reasons.

Responses:

BOC Limited

In my capacity and experience in setting and monitoring waste and energy targets, I believe there are 2 additional factors which must be considered.

Absolute reduction targets may work in a declining market or during a period of economic recession, however, such a metric does not allow for business growth and therefore a relative metric must be considered as appropriate to the specific industry. The second point is an exemption for abnormal waste generation, i.e. the replacement of older plant with modern plant. This may only occur once every 30 years, depending on the process, but can increase the annual waste quantities by a factor of 10, therefore distorting reduction trends.

British Soft Drinks Association

BSDA does not support the proposal to introduce waste prevention targets. We believe that economic drivers to ensure the efficient use of resources and waste minimisation are more effective than the waste prevention targets proposed by the Welsh Government.

We would recommend, therefore, that a waste prevention programme was developed that takes into account, and builds on voluntary initiatives such as the Courtauld Commitment and the Hospitality and Food Services Agreement, and works with industry to achieve these goals without introducing specific national waste prevention targets.

We believe that voluntary agreements, such as those mentioned above are the driving force in waste prevention and these should continue to be utilised, rather than introducing mandatory targets. Existing legislation is already in place to drive prevention of waste, such as the Environmental Permitting Regulations and Waste (England and Wales) Regulations which, since its revision, places greater emphasis on waste prevention, via the waste hierarchy. Businesses should follow the waste hierarchy as a matter of course, adopting best practice in their waste management regimes.

If however, targets are introduced, BSDA requests more detail on how these targets would be measured. It is not clear that consumption patterns would be measured alongside the proposed waste generation surveys. Therefore evaluating, for example whether waste has decreased due to prevention measures or due to reduced consumption will be difficult if the two are measured independently. We would suggest that any method used to measure waste prevention, should therefore be combined with consumption figures. It is also important to ensure that any data requirements are aligned with what companies may already be submitting to bodies such as the Environment Agency and WRAP, to avoid placing any unnecessary burdens on businesses.

The soft drinks industry is constantly looking at ways to reduce the amount of raw materials used in the manufacturing process. This has been achieved by reducing the amount of material used in packaging, reducing product waste due to unsold stock in warehouses, using recycled PET in their packaging, segregating waste to minimise cross contamination and increasing access to recycle points. Another example of packaging reductions is the use of double concentrate squash. For one company this has dramatically reduced the amount of packaging used with the new packaging format using less than a third of the materials usually required (for every litre drunk), and has reduced the number of lorry loads by over half.

Lightweighting (or optimisation of packaging) is an area where the sector has made significant achievements. Lightweighting results in fewer materials being extracted from their place of origin and the amount of energy used and waste created in the processing are also reduced. As the packaging becomes lighter, transport also becomes more efficient. Today, the average can uses 35% less aluminium than 10 years ago, with steel cans containing 50% less steel and the average PET plastic bottles contains 25% less PET.

Cardiff Council

- We are unable to support until the full proposal is presented. Therefore, we would like to see the implementation plan prior to agreeing to targets.
 - Target may not be achievable as the Local Authorities have limited influence in this sector or business may not support the requirements
 - Are the targets going to be statutory with penalties not met? If so the implementation plan is essential before targets are agreed.
-

CIWM Wales

CIWM Wales notes that although there is no detailed implementation plan available to demonstrate how these reductions could be achieved, there remains the potential for this to occur as a result of changes to industrial processes and the industrial mix that is present in Wales. Previous major reductions in waste production have occurred as a result of significant changes within the heavy industry base in Wales, with the reduction in activity and subsequent closure of Llanwern Steel Plant in South East Wales. The effect of the reduced activity at that plant could be demonstrated through the changes in waste arisings between the 2003 and 2007 C&I surveys and doubtless the final close will carry into the 2012 survey. As a result, there are reductions in waste arisings that happen naturally as a result of changes in the industrial mix in Wales, from heavy industry to more light industry and commercial activities, with a subsequent increase in commercial waste arisings. Avoiding the activity related increase in commercial waste arisings may be more difficult to achieve, but a greater focus of paperless office activity may help and be achievable in the increasing electronic world. Furthermore, using reusable containers for commercial deliveries to retail premises may be an area where innovations developed within the food retail sector could be expanded into other areas of retail. A lot of office reuse could be achieved through joint working with local authorities and reuse organisations, for example these may be opportunities for office furniture, back of store appliances, carpet tiles etc to have some potential reuse in the household context.

Cyfoeth Naturiol Cymru / Natural Resources Wales

We agree with the proposals to implement waste reduction targets across all industrial and commercial wastes. It is difficult to provide specific targets for sectors without a detailed understanding of the potential for the individual industrial plants. This level of detail is not presented in the sector plan, so we feel general targets are adequate for the purpose of the plan. However the achievability of these targets is an area that requires further examination.

The priority sectors you have identified all have sites within them which are regulated by Natural Resources Wales, under the Environmental Permitting Regulations (EPR). The EPR transpose the requirements of the Industrial Emissions Directive into UK law. The Industrial Emissions Directive requires all listed activities to take steps to prevent the generation of waste in accordance with Directive 2008/98/EC (revised Waste Framework Directive). This requirement has been introduced via an EPR permit condition for those sites within scope.

Environment Agency Wales have undertaken some Resource Efficiency work with the permitted sector previously in 2008-2010. Whilst there were clear opportunities for preventing waste in certain sectors, some industries reported back that many of the opportunities for reducing waste had been addressed, and that their processes were as efficient as current technology allowed. It may therefore be prudent for Welsh Government to engage with the priority industries to ensure that any targets set are achievable.

We have been working with your officers to review how compliance with that permit condition is delivered. Where potential improvements have been identified, we will look to implement them as soon as possible. However, the requirements of the IED do not apply to all businesses across the priority sectors. Natural Resources Wales has limited influence on those sites operating below the IED thresholds. These may be subject to regulation by local authorities or out of scope of regulation altogether.

The focus on eco-design, resource efficient business models and green procurement and supply chains appear to be the appropriate areas, but there is no indication of how getting general take up of these principles by industry and commerce will be achieved.

Food and Drink Federation

Waste prevention is not easy to assess particularly as you cannot inherently measure something that has been prevented from arising in the first place. Setting a rigid, yearly waste reduction target for a 30 to 40 year timeframe would be extremely challenging. Account needs to be taken of the continued expected to rise in single person households, population growth and economic growth over the period which are likely to impact material usage.

For packaging, the amount of reduction and prevention already achieved makes it unlikely that further major reductions can be made without creating more food waste. However on-going incremental changes can be expected such as further improvements in packaging design to maximise recycled content, improve recyclability and to enhance product protection thereby reducing food waste.

FDF would therefore propose that any Government sector targets are aligned with existing voluntary targets, such as WRAP's Courtauld Commitment, and are periodically reviewed to keep pace with changing demographics, populations and economic activity.

ICE Wales Cymru

These targets will be difficult to achieve.

Tata Steel

Tata Steel cannot support the adoption of a 1.4% year-on-year waste prevention target for our industry sector, without understanding the basis of the baseline measurement or scope of waste definition for the purpose of waste prevention policy. Any targets must be properly defined, have clear environmental benefit, and not pose disproportionate additional measurement or reporting burdens on producers. It may be more appropriate to take into account pre-existing environmental permit requirements, or waste management initiatives already incorporated into site environmental management systems, such as ISO 14001 systems already subject to third party verification.

There is some confusion over definitions in the consultation document and sustainability appraisal, and also a lack of clarity in the way some of the waste generation statistics have been generated. The issue of waste definition requires some further consideration before defining any best practice or statutory targets for reducing industrial waste generation. In addition, a number of clear distinctions need to be made when defining waste prevention versus preparing for reuse, and the other measures in the waste hierarchy.

Firstly, the issue of the definition of waste could have a large impact both on understanding the baseline for waste generation and in achieving any national waste reduction targets. Redefining certain materials as by-products rather than wastes could substantially reduce waste generation figures. Steel slag should be a priority for re-definition. Unlike blast furnace slag, which is already accepted to be a by-product, steel slag is currently deemed by the regulator to be a waste until such a time as it is recovered. In waste law, a by-product is not regarded as a waste until such a time as its holder intends to discard it. There may be other similar examples of materials that could be re-defined.

Secondly, it is important to clarify how waste generation data are calculated, and to understand that depending on how waste generation is measured, national waste generation tonnages may be subject to substantial variation. Steel production results in the generation of several large tonnage revert streams that are re-circulated and recovered within the process at the production site. These revert streams include the returning of steel scrap to the BOS plant, returning gas cleaning dusts through a permitted agglomeration process etc. It appears that these materials have not been included in the waste generation data, which may have been limited to waste tonnages recorded at landfill sites or incinerators, and possibly at some waste treatment facilities. Any requirement for all production reverts to be 'counted' as wastes for the purposes of measuring waste reduction could have the effect of skewing national waste production data.

Tata Steel operates a number of production sites throughout the UK. Taking into account all of these UK sites (whilst understanding that this consultation exercise applies to Wales only), in 2010/11, our UK production sites generated a little over 5 million tonnes of residue materials. Of this total figure, around 4%, or just over 200K tonnes, went to landfill or for other disposal. Considering the main Tata Steel sites in Wales, these sites generated just over 2.1 million tonnes of wastes and revert materials in 2010/11, of which less than 3% went to landfill or other disposal. The figure of 2.1 million tonnes includes all materials re-used within on-site processes, all materials sold as by-products, and all materials recovered by third parties, in addition to the relatively small tonnage that had no recovery route. The figure includes all process-related wastes, by-products and reverts, but excludes project wastes such as construction, demolition or excavation materials. Given that the consultation document and supporting sustainability appraisal assume that a 1.4% reduction in waste equates to 26,546 tonnes of industrial waste per annum (1.9 million tonnes in 2007), Welsh Government targets are based on an assumed industrial waste production figure less than the potential production figure we have for Tata Steel alone. This highlights the importance of properly defining waste generation scope before determining a metric for measuring waste prevention.

Regardless of the scope of waste definition for the purpose of a waste prevention policy, Government must recognise that in process industries that use large volume raw materials (including ores), some form of waste generation is unavoidable. Although a large proportion of this waste can eventually be recovered in some way, it is often difficult to influence initial waste generation. There is often a conflict between pollution prevention and the minimisation of waste generation in process industries, as pollution abatement operations invariably give rise to waste production. Making gas cleaning systems and effluent treatment plants more efficient or effective in line with permit or other regulatory requirements (for example the introduction of fabric bag filters at a sinter plant), may result in increased waste production, or the collection of a waste that is more difficult to recover.

It must also be recognised that it is not possible in many industrial processes to source raw materials (including various ores) that do not contain some inert or ‘gangue’ content that must be removed from the process at some point, sometimes in the form of waste. The only positive Government intervention that may be possible in this area would be to encourage mechanisms for through supply-chain engagement, so that suppliers and customers could readily share information regarding maximising through yields.

Valero Energy Ltd

The proposed target of a 1.4% reduction in industrial waste per annum till 2050, based on the 2006/7 baseline, seems achievable depending on confirmation of a number of criteria. More information is therefore needed before this target should be accepted. Indeed, it is vital that the introduction of any target must not circumvent or duplicate existing and rigorously enforced waste permits, which Pembroke Refinery already fully complies with.

These existing targets are stipulated by European and UK legislation, and regulated by Natural Resources Wales (NRW) and other statutory bodies. We encourage the Welsh Government to undertake a further impact assessment of these proposed waste reduction targets, and ensure that where already mandated waste permits are in existence for industrial sites – especially within the refining sector – that the proposals in the I&C Sector Plan do not necessarily reproduce or add to such existing permit requirements

With this in mind, Valero would like further clarification on the consultation document’s announcement that the Welsh Government is working to “evaluate how the requirements of the Environmental Permitting Regime could be used to take forward waste minimisation within permitted industries in Wales” and that this “may take the form of increased regulatory scrutiny of operators compliance with waste minimisation requirements, coupled with improved guidance or standards for obligated industries”. This statement does raise a concern that the Welsh Government actions might place a greater burden on Welsh-based industry, compared to operators in other parts of the UK.

Valpak

The overall target of a 1.4% reduction each year based on the 2006/2007 baseline seems reasonable.

We are unable to comment on what targets would be appropriate for each of the priority industry sectors, although it is worth noting that the priority sectors are not clear.

This question identifies the priority sectors as follows:

- Manufacture of basic metal and metal products
- Manufacture of paper and paper products
- Manufacture of chemicals, chemical products and pharmaceuticals
- Manufacture of food

Whereas, in paragraph 3.2.1.2 the priority sectors listed include just

- Office based services, food accommodation and small retailers
- Food manufacturing sector

Manufacturing of metal, paper and chemicals is not mentioned until 3.7. We suggest there is a need for final document to clearly identify a full list of priority sectors which are consistent throughout.

Welsh Local Government Association

The targets proposed should be seen as a minimum – the greater the reduction achieved then the nearer to achieving and being within the ‘One Planet’ target. Although there is a general reduction target of 1.4% every year to 2050 this should not be the goal in itself and if the ‘One Planet’ target can be achieved before 2050 so much the better.

The specific targets for the individual priority sectors are to be welcomed but again there should be the overall goal of the ‘One Planet’ target which should be achieved NO LATER than 2050, the incentive therefore is to achieve a steady progress towards that goal – the more you can achieve sooner perhaps being recognised through incentive measures

Wood Panel Industries Federation (WPIF)

The WPIF supports the Welsh Government’s aspiration of creating a zero waste society and this is supported by industry actions by Kronospan in North Wales. Kronospan is the largest wood recycler in Wales and actively works to ensure that the best possible use is made of wood by processing it into products. The company has invested in waste reduction for many years and is therefore supportive of the Welsh Government’s efforts to make such action a standard feature of industrial operations across Wales.

Although the WPIF supports these waste reduction efforts, the industry has some concerns about the impact of the 1.4% waste reduction target on companies like Kronospan. For companies that have already invested significantly in waste reduction this target could prove to be unfairly challenging. Such investment means that waste levels are already very low and to be expected to continue to improve this by 1.4% every year will place an unnecessary burden and financial pressure on companies that have already put significant resources into waste reduction and continue to do so. There is only so far that a company can go in reducing waste and this previous investment may mean that this point is reached before 2050. It is essential that such an outcome would not see Kronospan and other companies that have invested in waste reduction being penalised for the early introduction of action in this area.

WRAP Cymru

Reduction levels of just over 1% should be achievable in our experience. Delivery activities under the historic Envirowise programme would suggest that a 1% reduction is achievable by implementing changes to processes.

The Collections, Infrastructure and Markets Sector Plan indicated that the sectors that produce the greatest quantities of commercial and industrial waste are food manufacturers, metals industry and supply of electricity and gas. Specific reduction targets, however, have not been set for the supply of electricity and gas sector; further consideration should be given to whether such reduction targets should be set for this sector. Targets should be set in consultation with the individual sectors and supported through actions such as support mechanisms, training and R&D.

Consultation Question IC2:

We have described the priority business sectors and areas for action.

- (a) Do you agree with these priorities? Please give your reasons.
- (b) Is there anything else that we should consider a priority? Why is it important?
- (c) Do you agree with our proposed approach of voluntary action in the first instance, with mandatory measures under review in the longer term? Please give your reasons.

Responses:

British Heart Foundation

In tonnage terms there might be more potential in the manufacturing sector, but high priority should also be given to sectors where there is a clear synergy with municipal services.

Retailers, offices and the hospitality sector produce a lot of waste with a similar profile to municipal, and therefore with potential to utilise reuse infrastructure developed for households. Furniture and electrical items in the workplace are often discarded for aesthetic reasons or due to business relocation/reorganisation and could easily be diverted to reuse if there was a greater awareness of services available.

Yes [*regarding voluntary action*]. Industrial and commercial waste producers have not previously been subject to strategic intervention, and need more opportunities clearly signposted in the first instance, especially for integration with municipal services, before any mandatory measures are introduced.

British Soft Drinks Association

Additional support for office based services, food and accommodation and small retailers and also for the food manufacturing sector would be welcomed. Providing guidance and raising awareness of the benefits of waste prevention (particularly in terms of cost) would be beneficial. It is also important to make recycling as easy as possible for these sectors.

We would support any voluntary action over mandatory measures, and believe it would be worth waiting to see how successful initiatives such as WRAP's Hospitality and Food Services Agreement are before looking at alternative mandatory measures.

Cardiff Council

- Yes we agree with the sectors identified. Individually they are small producers, however, collectively large waste producers.
 - What assistance will WG provide to the regulatory body to enforce this policy?
 - Priority should be given to materials that cannot be easily recycled,
 - However, as with the carrier bags, companies won't take considerable action until they are forced to. How is the 'longer term' being considered until mandatory requirements are met?
 - What are the mandatory measures, who and how will these be enforced to ensure multi-national and local corner shops all comply?
-

CIWM Wales

CIWM Wales does not agree. The sectors have been chosen on the basis of historic waste generation information with no means of addressing whether further actions could achieve the efficiencies sought.

CIWM Wales believes better data on waste production and management would be of great assistance to policy making in this area. Consideration should be given to implementing waste surveys of industry and commerce on a statutory basis. This is the case in Scotland where a mandatory annual survey is undertaken via the post. Currently, waste arisings surveys in Wales are undertaken on a voluntary basis and require a large amount of effort. Therefore this would be much easier to undertake if there was a statutory basis for these surveys, enabling data to be collected via postal surveys rather than the current method. This would enable a better dataset to be available for analysis and more accurate targeting of advice and guidance or legislative provisions.

CIWM Wales supports the proposed voluntary approach in the first instance but feels that without more frequently collected data it will be difficult to evaluate the efficacy of any approach, but mandatory measures would require preparation to avoid alienation of businesses.

Cyfoeth Naturiol Cymru / Natural Resources Wales

There are clearly potential benefits to be made with SME's in Wales. The 2007 Commercial and Industrial waste arisings survey in Wales, managed by Environment Agency Wales reported that 57% of industrial waste and 51% commercial waste produced by companies employing up to 20 people, was managed via landfill.

Natural Resources Wales are managing the latest arising survey for waste arisings in 2012. This is due to report in April 2014 and will provide a more up to date picture. Consideration should be given to putting waste surveys of industry and commerce on a statutory basis. This is the case in Scotland where a mandatory annual survey is undertaken through a postal survey. Currently waste arisings surveys in Wales are undertaken on a voluntary basis and are carried out using telephone surveys and site visits to ensure a representative sample is achieved. A statutory basis for these surveys would facilitate a more efficient data collection e.g. via postal survey or electronic return.

Legacy bodies of NRW have had interaction with SME's on waste issues and the accommodation and food sector but only if they fall within scope of EPR. We may be able to assist Welsh Government in delivery with the sectors we regulate.

Federation of Small Businesses

Guiding Principles

FSB Wales is committed to the three pillars of sustainable development; economic, social and environmental. For this to succeed, development must be encouraged and nurtured in a sustainable way that achieves the goals set out under all three pillars.

Often, the instinct on the part of government is to resort to primary legislation or increasing regulation to deliver change in terms of waste prevention. This can sometimes be the appropriate means to deliver on environmental objectives. However, such action should never be taken lightly and an appropriate evidence base must always support such a decision.

In developing policies to achieve the aims set out in Towards Zero Waste, FSB Wales urges the Welsh Government to consider supporting businesses to play their part in the first instance before examining a regulatory approach. To this end, FSB Wales agrees with comments in consultation question IC2 that a voluntary approach should be utilised in the first instance with mandatory measures only taken on a credible evidence base that achieves the three pillars of sustainable development.

Regulatory impact assessments

Following the referendum on further law-making powers in March 2011, the Welsh Government now has significant legislative powers at its disposal via the National Assembly for Wales. FSB Wales is concerned that insufficient focus has been paid to regulatory impact assessments of legislation created under these new powers.

For instance, in a recent paper entitled '*Regulatory Reform: Where Next?*' the FSB set out numerous actions that could be taken in Westminster to strengthen the regulatory impact assessment (RIA) process via the Regulatory Policy Committee.

Similar work is yet to be carried out in Wales in relation to the National Assembly and Welsh Government; however it is clear that there is no independent process for scrutiny of RIAs relating to Welsh legislation. By way of example, the Regulatory Policy Committee provides a traffic lighting system in England to assess the cost implication to business of regulation and publishes details of its decision for public scrutiny. This means that legislation with a poor analysis of economic impact is 'named and shamed' and passed only in the knowledge that its impact is unmeasured.

Furthermore, the Scottish Government has established a similar independent scrutiny process under the auspices of its better regulation programme with extensive Business and Regulatory Impact Assessments published on all Scottish legislation². This practice is common amongst OECD countries as the FSB report '*Regulatory Reform: Where Next?*' documents.

In this context, FSB Wales is concerned that any further regulation to achieve the Towards Zero Waste objectives would not have a reasonable and independently assessed measure of costs for businesses in Wales. This should be kept in mind by the Welsh Government in developing its proposals.

Suggested measures

In developing an evidence base for future interventions, both the Eunomia and the Amec reports provide interesting reading in relation to SMEs³⁴. Both include a substantial analysis of potential interventions and provide basis on which to make decisions. It is clear from both reports that there are a number of short term initiatives that could be introduced to improve waste prevention and reuse within SMEs in Wales.

It is also evident that many of the suggested initiatives concur with FSB Wales' guiding principles set out above. Of particular interest to FSB Wales is the relatively low scoring of both taxes and legislation as a means of delivering the Welsh Government's aims.

Building on this evidence base, FSB Wales believes there is considerable merit in examining a coordinated programme of interventions to improve waste performance in Wales. For instance, the Eunomia report suggests environmental management systems (EMS) could be encouraged amongst businesses in Wales; however, not without significant barriers to success.

Fortunately, a number of other schemes can help to remove these barriers. Taking EMS as an example, one of the main barriers is the upfront cost of investment to produce the desired outcomes. This could be resolved by creating a loan scheme as suggested in the Amec report (drawing on experiences of the WRAP Waste Prevention Loan Fund in England).

Other measures are also complementary, for example increasing use of innovation vouchers, waste minimisations clubs and fostering green supply chains amongst larger private sector firms could all drive innovation in waste management in the SME sector and potentially add value to business in Wales.

The use of green procurement could also form a useful policy lever in driving this agenda. SMEs are often the most innovative and resilient firms in Wales and will strive to deliver a customer-facing service. Where the customer is the public sector, there is no reason why public procurement policy cannot enact reasonable waste management objectives.

That said this should be done in a way that does not damage local and sustainable procurement with the SME sector, particularly given that the public sector's roughly £4.5bn purchasing power equates to 10 per cent of Wales' GVA. There is a need for a common sense approach that focuses on realistic objectives and targets.

The Welsh Government should ensure that implementation of any of the proposed measures is not done in isolation. A structured programme with a concerted effort to raise awareness of support available is necessary to have the desired impact.

Measures requiring more detailed analysis

Other mechanisms examined by both the Eunomia and Amec reports require further examination before implementation is considered. For example, the principles supporting Direct and Variable Charging (DVR) seem at face value to be sound. Businesses paying for waste collection per receptacle would likely benefit from a charging framework that reflects the waste they produce, thereby producing a marginal incentive to reduce waste. However, any savings by businesses would likely need to be made up by local authorities to cover the cost of collection, which could result in a rise in costs.

Other schemes such as a ban on disposables would similarly need to be monitored, particularly for their regulatory impact on smaller operators. The Welsh Government should carry out more detailed work on these proposals, including an analysis of the cost implication for small businesses before considering implementation.

Conclusion

In conclusion, FSB Wales reiterates that waste prevention measures should focus on voluntary participation and should not seek to impose additional costs on SMEs in Wales. This is reflected in the research carried out by Amec and Eunomia, both of which point to measures that could be implemented in a sustainable way to deliver the results desired by Welsh Government.

Food and Drink Federation

Voluntary targets such as those prescribed under the WRAP Courtauld Commitment, where WRAP own the targets and signatories support their delivery, have helped to deliver the large scale reductions in food and packaging waste and thereby the success of these agreements. The voluntary targets set under the FDF Five-fold Environmental Ambition, which operate in a similar way to Courtauld, have had a similar impact. Clearly such voluntary targets can be helpful in giving companies a steer as to the direction of travel and by providing them a focus for developing their own corporate strategies.

In meeting our landfill target our members' first priority is to prevent food and packaging waste arisings at their production sites and where this cannot be achieved to drive waste up the hierarchy. To track progress we periodically survey our members' food and packaging waste arisings. Our first survey for the year 2006, published in 2008, showed that food and drink manufacturers had prevented some half a million tonnes of food waste by sending food by products to uses such as animal feed. Our second survey covering 2008 and 2009 and published in 2010 showed that in both years over 340,000 tonnes waste were prevented through diversion to animal feed and food redistribution. Overall the results show that over the three survey years FDF members almost halved the amount of food and packaging waste sent to landfill at 9% in 2009 down from around 17% in 2006.

The results for the first two years (2010-11) of the Courtauld 2 Agreement, as published by WRAP, show that FDF member company signatories have helped to achieve a 8.2% absolute reduction in the carbon impact of packaging compared to 2009. Regarding supply chain product and packaging waste these same results show that FDF members along with other signatories have delivered an absolute decrease in of 8.2% by weight compared to 2009, in excess of the three year 5% target.

These results come on top of savings of 1.2 million tonnes of food and packaging waste achieved under Courtauld 1 which ran from 2005-10. As part of Courtauld 1 FDF collaborated with WRAP on a number of waste prevention reviews carried out at FDF members' sites. Many examples of good practice were found during these reviews and these together with the other main findings were written up in a report published by WRAP in 2011 in order to deliver wider benefits across the industry. A copy of this report can be found [here](#).

In addition to measures to reduce waste at source, considerable waste prevention has been achieved by the widespread use of returnable transport packaging such as crates, cages and baskets.

It should also be noted that as far as lightweighting of packaging is concerned FDF members work towards an optimisation approach – striking a balance between functionality and impact. To use a sub-optimal amount would very likely lead to more food waste wiping out the achievements that have been made so far under for example the WRAP Courtauld Commitment especially since the greenhouse gas emissions of food are about 15x those of the packaging according to WRAP analysis.

The Welsh Government's proposal to extend a carrier bag charge to packaging is extremely worrying as it could lead to a major increase in food waste - and its associated greenhouse gases - as businesses are incentivised to reduce packaging beyond the optimum amount needed to protect the product in both reaching the consumer and in extending its shelf-life within the home, not to mention any potential food safety risks that might arise from this. In addition to preventing food waste and safety concerns, packaging has a key role to play in providing consumers with important information on nutritional content, product ingredients and allergy advice.

Increases in costs of producing products, such as through a tax on packaging, would inevitably lead to higher food prices for consumers.

Businesses constantly seek to optimise their packaging and processes because resource efficiency makes good business sense. However it is vital that functionality is not compromised. Interventions such as a packaging tax run the real risk of doing this and may lead to far greater unintended consequences.

Instead FDF strongly urges the Welsh Government to work with industry and bodies such as WRAP to deliver the aims of 'Towards Zero Waste' through a collaborative voluntary approach to optimising packaging and reducing supply chain waste, such as the Courtauld Commitment, which has delivered substantial results to date.

ICE Wales Cymru

- (a) yes, seems reasonable approach
 - (b) no suggestions
 - (c) yes, I agree
-

Tata Steel

The priority business sectors (3.2.1.2 of the consultation document) appear to be office based services, food and accommodation, small retailers, and the food manufacturing sector. The areas for action (3.2.1.1) appear to be working with large retailers, promoting Eco-innovation in Wales, and 'public sector as an exemplar'.

These priorities are not applicable to our business sector. Support should be given to waste avoidance or minimisation initiatives in production industries, particularly for process residues from metal production. It is not clear that generation figures for materials of this type have been considered when assigning priority areas. Material resources are managed as efficiently as is possible by the steel sector, due to their inherent financial value. Control of raw material quality and improvements in yield optimisation are often incremental, and not always straightforward to measure in terms of waste prevention. Materials within iron and steel production processes are re-circulated wherever technically possible. Tata Steel can provide more information on reverts and waste tonnages from steel production in the UK if required.

Tata Steel agrees that voluntary action should be considered before introducing additional mandatory targets. As stated above, further work is needed to better define measurement and reporting of waste generation data before introducing any statutory reduction or prevention targets.

Valero Energy Ltd

With just over 11,000 tonnes or 0.6% of the total industrial waste in 2007 arising from the manufacture of coke and refined petroleum products, we believe that it is right that the oil refining sector has been excluded from the priority business sectors outlined in the consultation document.

Whilst Valero has no strong objection to the outlined priority business sectors, we appreciate that certain aspects of these priority sectors – most notable office based services – are relevant to the waste strategies within our own business. Valero would therefore appreciate further details of the outline programme for the priority business sectors, to enable us to calculate the impact this might have on Valero's waste strategies at Pembroke Refinery.

In outlining the programme for office based services, Valero would strongly recommend allowing those business sectors, such as the oil refining industry, where office based waste constitutes such a minor percentage of overall waste produced, to have greater flexibility in achieving waste reduction targets, compared to other business sectors where it forms the majority or a considerable part of their overall waste production.

Valero believes that, in seeking to reduce the amount of waste produced by the I&C sector, the voluntary and discretionary measures outlined by the Welsh Government are indeed preferable in the first instance. Whilst we await further information on the practical impacts of promoting and implementing the concept of eco-design, Valero welcomes the opportunity for greater Welsh Government investment in research and development, information and awareness raising, guidance documents, financial support (such as grants and loans) and other initiatives.

However, Valero is concerned with the potential impact that could stem from implementing sector specific legislation for waste reduction. We note that the Welsh Government recognises that legislation is not the primary course of action and is “usually an option used only where a market failure has been identified and when other measures have been unsuccessful”. Nonetheless Valero believes any judgement on the success or failure of these voluntary initiatives be taken with a high threshold before legislative proposals are considered. Valero would also seek to understand the Welsh Government’s definitions of medium to long term, when discussing the scope options for introducing legislation.

Any new legislation affecting the industry sector in Wales would take place in a context where the current regulatory burden on the oil refining industry in the UK is particularly acute. According to a recently published report, prepared for the Department for Energy and Climate Change (DECC) and the UK Petroleum Industry Association (UKPIA), the UK’s “intentional obligations and legislative requirements arising from EU Directives and UK Government policies may have the potential to significantly impact costs in the UK refining sector”⁴. With the potential for UK and EU refineries to be put at a significant cost disadvantage compared to their global competitors due to increasing legislative burdens at an EU and UK level, Valero would strenuously recommend that the Welsh Government avoid increasing any mandatory or legislative burden on the Welsh refining industry that might put increased burdens on Welsh refineries in comparison to our UK or EU counterparts.

Therefore, any decision to move from a voluntary approach to one that institutes mandatory measures must be taken with the highest level of consideration and engagement with key stakeholders, particularly those affected in the industrial sectors.

⁴ The Role and Future of the UK Refining Sector in the Supply of Petroleum and its Value to the UK Economy

Valpak

If the priority business sectors are taken not to include those mentioned in 3.7 then the priority actions seem fairly well aligned, although it is not clear why working with large retailers is a priority action, when only small retailers are included in the priority sectors.

Yes, we agree with this [*voluntary*] approach and believe it is important to make mandatory measures a possibility for the longer term as this may help encourage compliance with voluntary actions.

Welsh Local Government Association

Making reference to the comment (HW3) earlier in this document; it has already been highlighted that the major retailers have a significant role in the reduction of waste in all forms, food, packaging etc– reduce the transit distances –reduce the need for protective and excessive packaging.

Promoting Eco-innovation in Wales will help to develop a sustainable future

Public Sector is the largest employer in Wales – by identifying exemplar projects there are multiple benefits:

- Due to its size, the public sector can make a considerable impact upon reducing waste and contributing towards the overall ‘One Planet’ target, and
- If the practices can be implemented in the public sector workplace there is an opportunity to influence the behaviour of their employees outside of the workplace.

In order to progress towards the 2050 targets there needs to be a concerted and focussed effort by all.

WRAP Cymru

The priority business sectors for action are similar to WRAP’s current areas of focus. The metals sector was identified in a recent Defra study as a sector where further improvements could be made. The target sectors include the sectors which create the most waste, with the omission of three sectors:

- wholesale/retail/repair of motor vehicles;
- education; and
- professional/scientific & technical sector.

The overarching target sectors could be expanded to include motor vehicles and professional services sectors (including training and education). There are opportunities within these sectors to reduce and recycle waste through supply chain engagement, green procurement and behaviour change in

particular, creating positive impacts for target materials, including for paper/card, WEEE, textiles, and chemical waste.

We appreciate that the 2007 data that has been presented is the latest available and recognise that the situation could have changed since then. The new survey should help to clarify this in due course.

A voluntary approach can help with implementation as businesses recognise the benefits and are more likely to take effective action if doing it voluntarily, rather than being forced to act by regulation.

Voluntary agreements are extremely useful and positive measures which have been shown to be successful catalysts for change. These could be extended to include the sectors above, targeting the larger players in each sector to effect the most change.

There is much evidence of the value of voluntary agreements in reducing waste, but few such agreements explicitly target waste prevention. A more hands-on programme of support could be offered for the long tail of smaller service providers to improve waste prevention outcomes. This is the approach adopted by WRAP for the Hospitality and Food Service programme.

Within the scope of voluntary action, it's important to include 'collective' action, so that a whole sector changes its behaviour and first mover disadvantage is avoided. One example could be the adoption of voluntary longevity 'standards' for consumer products.

The plan should consider how to use public sector procurement to ensure a structured approach to the provision of goods and services that reduce resource use as well as reducing waste. For example: a requirement for the use of a resource or asset management plan which evaluates the need to procure in the first place; options to extend asset life; the nature of the procurement (purchase/lease/hire, use refurbished assets, etc.) before considering purchase; and which evaluates criteria such as durability, ease of repair and whether an item was pre-owned if purchase is selected as the route.

Work by Zero Waste Scotland/WRAP in Scotland and through the European Pathway to Zero Waste (an EU LIFE+ funded project) highlighted that despite considerable availability of information on sustainable public procurement, there was a significant barrier in terms of implementation. This was addressed in part through the implementation of SP procurement pilots in parts of the public sector including the NHS that demonstrated how to implement the required actions. The Welsh Government should consider the implementation of pilots to exemplify and drive change in public procurement alongside its proposed public sector procurement and sustainable consumption campaigns.

The development of the National Procurement Service should lead on ensuring that waste prevention and resource efficiency more broadly should be considered in the procurement of goods and services to the wider public sector in Wales. WRAP research shows that the lack of a standard form in the service specifications for facilities management services often means there is a lack of data collection around resource use and waste produced. Best practice specifications that result in reduced resource use, waste prevented and cost savings could be mandated, perhaps, to ensure the public sector in Wales takes a consistent approach to waste prevention.

Consultation Question IC3:

It is proposed that the Welsh Government and retailers will build on the success of the introduction of carrier bag charge and UK wide action through the Courtauld Commitment and other initiatives, leading to retailers taking forward actions on:

- Improving the environmental impact of their product portfolio by influencing growers, processors, manufacturers and distributors within Wales and internationally.
- Reducing the waste generated through its own activities.
- Supporting national and local initiatives such as food redistribution schemes.
- Providing clear information to consumers about the environmental performance of their products.
- Providing information and guidance on practical steps that consumers can take to reduce the impact of their products during use and at end of life.

What further actions and initiatives can be taken to enhance our current programme of work, and to support the actions above?

Responses:

British Heart Foundation

Retailers could provide more takeback services for used products in conjunction with reuse service providers and/or signpost customers to these services.

In relation to packaging it is commendable that this is being reduced over time, but it should be recognised that there is a limit and that the overall environmental effect needs to be taken into account. For instance the use of bags to collect charitable donations represents minimal practical packaging and delivers a significant waste prevention benefit, in contrast to largely avoidable single use carrier bags.

British Soft Drinks Association

BSDA agrees that retailers do have an important part to play in taking forward actions to minimise waste, but we do not believe that any further charges on packaging are necessary.

Communication and awareness-raising are key ways to educating the consumer on reducing the impact of their products. As noted above, campaigns such as Fresher for Longer have an important role to play.

A number of BSDA members are signatories of the Courtauld Commitment and have contributed to an 8.8% reduction in grocery product and packaging supply chain waste since 2009. BSDA is also a founding supporter of the WRAP Hospitality and Foodservice Agreement which aims to reduce food and packaging waste in those sectors.

Cardiff Council

- Would suggest that the focus is on materials that are difficult to recycle. The priority should be given to these products first, then move on to the items that can be reused or recycled.
 - How would such bans be regulated without placing excessive burden on the NRW or Local Authorities?
-

CIWM Wales

CIWM Wales agrees with the approach of building on current success (carrier bag charging and Courtauld Commitment) but feels that without more frequently collected data it would be difficult to evaluate the efficacy of any approach. The suggested indicators depend on accurate data on waste production, numbers of employees and Gross Value Added (GVA). CIWM Wales' experience of government data on employment at individual premises indicates that this will be difficult to achieve. Retailer take-back on more products to enable reuse could be helpful, this already works for some furniture and electrical suppliers but is not a standard approach.

Cyfoeth Naturiol Cymru / Natural Resources Wales

We fully support these and any other measures which prevent waste at the point of production.

Food and Drink Federation

Although this question is directed at retailers we would like to comment on this question.

FDF members work with their customers in the retail sector on a number of these aspects to improve the environmental impacts of food and drink products along the supply chain. This includes initiatives to help consumers reduce waste, for example the recent 'Fresher for longer' campaign launched by WRAP in collaboration with FDF and BRC as well as other partners which aims to demonstrate to consumers how, by making better use of the information provided on food packaging and the packaging itself, can help keep food at its best for longer.

Another initiative is the WRAP Product Sustainability Forum where stakeholders in the consumer goods supply chain work together to measure, reduce and communicate the environmental performance of grocery products. An initial assessment of the environmental impact of grocery products was published by the Forum recently.

Lastly, FDF is working with retailers and other stakeholders in WRAP's Food Redistribution Working Group which aims to explore and support ways to increase the amount of surplus food made available for delivery to those in need.

Regarding the issue of information to consumers as far as food and drink products are concerned we believe that voluntary action by all stakeholders within supply chains to identify and address hot spots across the full product life cycle is a much more effective way to improve environmental performance than a consumer driven model based on information about individual product footprints, including in the form of over simplified messages on pack. Such messages will neither benefit consumers nor the environment and would be extremely costly on business to implement.

ICE Wales Cymru

Ensure all retailers and suppliers sign up to these agreements.

Tata Steel

The focus of these measures does not seem to be relevant to industrial waste streams, but on low tonnage, low impact streams of relevance to domestic consumers.

Valero Energy Ltd

Valero appreciates that across the Industrial and Commercial waste sector there are a wide range of interests and company profiles, with a huge degree of varying products, priorities and resultant waste streams. This is particularly the case of the refining sector, which deals with waste streams both common to other members of the industrial sectors, and also more industry specific areas of waste management.

We are also conscious that to achieve the best results of waste reduction and introducing new concepts of sustainability and eco-design, it is in the best interests of all stakeholders to share information and expertise. With this in mind, Valero would recommend that Welsh Government officials liaise closely with the refining sector, to obtain the best possible appreciation of the refining sector's unique requirements when setting sector specific targets. Engagement with the key sector stakeholders is vital to be able to enhance knowledge of waste management and best practice in this area.

Welsh Environmental Services Association

In the case of packaging, a lot of packaging is used which is not recyclable or difficult to recycle. Large food outlets are driving the packaging industry to develop lighter and ever more impermeable containers/packaging, their key drivers being marketing, lightness and shelf life. However, these are often not conducive to recycling or prevention. The packaging industry is being pushed more towards products that meet the narrow demands of the supermarkets and not in minimising material use and maximising recovery/recycling. Ideally, the use of difficult to recycle composite materials is minimised. The same will also be true for packaging. For example, designers should wherever possible avoid using packaging with different materials (e.g. plastic and card) fused together, which makes them difficult to separate during processing. Just as importantly, designers should aim to use as much recycled material as possible in their products, as a substitute for virgin raw materials.

Welsh Local Government Association

WLGA acknowledges that there needs to be commitment and contributions from all sectors if we are to achieve the 'One Planet' targets.

Welsh Retail Consortium

Retailers are committed to reducing their waste, as demonstrated by annual data collected by the BRC through the '*A Better Retailing Climate*' initiative. This data shows that the total waste (in tonnes) produced by signatories (representing 53% of the UK retail sector) has been reduced by 14% relative to growth between 2005 and 2012. In addition, the percentage of waste sent direct to landfill fell to 10% in 2012, down from 45% in 2005.

Examples of retail initiatives to reduce waste and promote sustainability are outlined in the following paragraphs and include collaborative schemes and retailers' own projects.

Product and packaging waste in the grocery supply chain

The consultation paper refers to the Courtauld Commitment target (under Phase 2) to reduce product and packaging waste within the grocery supply chain by 5%. This target has been exceeded and retailers and manufacturers have now committed to reducing product and packaging waste by a further 8% (relative) by 2015.

Some large retailers are members of the Consumer Goods Forum, which has recently launched a Global Protocol on Packaging Sustainability (GPPS). This protocol provides industry with a common language and a standardised way to measure the relative sustainability of packaging.

Most large retailers are donating safe surplus food to charities such as Fareshare, which then distributes it to people who need it most. Additionally, retailers sell food which is close to its expiry date at a reduced price in order to encourage customers to purchase it and prevent food waste. Bakery waste is often converted into animal feed. Chicken and other raw meat products which cannot be sold are being processed into pet food. If none of these options are available, food waste may be sent to an-energy-from-waste facility, thus diverting the waste from landfill.

Environmental performance

Retailers are engaged in reducing the carbon footprint of their products through collaborative initiatives, such as the Product Sustainability Forum (PSF), and through individual projects, such as reporting, analysing and tracking the carbon performance of products to help focus effort where it will be most impactful. Insights from this work are shared with suppliers.

WRAP Cymru

The last two actions listed above focus on communicating environmental information to consumers. We know from research that this tends to be important for only a relatively limited subset of consumers. Other consumers are more effectively influenced by information that appeals to what matters to them most. For example, research tells us that most consumers are more motivated by information on the running costs of a shower, than the specific water use in litres per minute. Likewise, various actions which increase the lifetime of clothing can appeal to consumers' desire for value for money and looking good.

Messages must be targeted at the audience and specific to the actual behaviours you wish people to adopt. Behaviours are not automatically linked to values and attitudes; therefore, evidence based and tested messaging and communications are essential.

Action by retailers can be enhanced by providing them with standard ways of specifying the products they source from their supply chain (particularly own-brand products). In both the clothing and electrical sectors, WRAP aims to agree the key test methods and performance criteria which will enable retailer product development teams and buyers to specify levels of

performance against the key failure modes of major products. In turn, this will enable them to offer longer warranties, maintain a targeted level of quality, and (if they wish) communicate their design standards to their customers.

Further work needs to be taken to promote waste reduction through re-use.

Recommendations include:

- Extending producer responsibility for furniture to encourage re-use;
- Funded business support for the development of re-use networks; and
- A programme to engage the waste management sector directly with manufacturers, designers and engineers, to encourage a broader understanding of end of life issues and eco-design for recovery. The waste management sector is a key element of the value chain, and has a key role in the (development of) markets for recycle by ensuring recover of high quality materials.

WRAP has delivered a number of supply chain initiatives where we have engaged with a large retailer, brand or manufacturing company to assist them to engage with their key suppliers to promote environmental improvement. WRAP is supporting FareShare and Food Cycle to run trials with leading food retailers into the best way to operate back-of-store food re-distribution fit for human consumption. The trials provide an independent perspective and rigour to the process, reporting and analysis. The operation of the trials is between local members of the FareShare and Food Cycle networks who make regular collections from back-of-store and use the food directly through their own charity operations. Final report findings and recommendations are expected in September 2013.

Consultation Question IC4:

How can the Welsh Government encourage business engagement in eco-innovation?

Responses:

Cardiff Council

- Financial incentives
-

CIWM Wales

CIWM Wales suggests making the adoption of eco-innovation principles a prerequisite for any government financial support. We also consider the funding of relevant research and field based trials that are eco-innovative, in order to aid progression of new innovatory processes etc would be helpful.

Cyfoeth Naturiol Cymru / Natural Resources Wales

We believe that a number of measures which can be introduced to drive eco-innovation. Welsh Government could introduce mandatory requirements to drive eco innovation and waste prevention. Article 8 of the revised Waste Framework Directive allows member states to introduce extended producer responsibility requirements, either through legislative or non-legislative routes. Other producer responsibility schemes in the UK (for Packaging, End of Life Vehicles, Waste Electronics and Electrical Equipment and Batteries) have resulted in greater recycling rates and have also driven better design to reduce waste.

The requirements of the Eco Design Directives can also be considered. Adopting eco-innovation principles as a prerequisite for any government financial support should be considered.

Ecodesign Centre Wales

The Ecodesign Centre designed and delivered an Ecodesign Baseline Study for Wales to support the development and implementation of the Waste Prevention Programme (WPP). The research was commissioned by the Waste Strategy Branch, Welsh Government.

This informal response to the WPP consultation uses excerpts from this research to highlight our involvement, the role of ecodesign and eco-innovation in implementing the WPP and crucially how ecodesign and eco-innovation are linked but separate strategies.

The full Ecodesign Baseline Study report can be viewed at:
<http://www.ecodesigncentre.org/en/resources/ecodesign-baseline-study-wales-waste-prevention-programme>

Ecodesign, eco-innovation and resource efficiency

Resource efficiency (i.e. doing better with less) has become a significant business and policy agenda in the last few years and it is a key aspect of sustainable development. The European Commission, through its Horizon 2020 programme, presents resource efficiency as one of the grand challenges and policy priorities facing Europe in the coming decades. Other grand challenges include health, climate change, changing demographics and energy security.

Welsh Industry can contribute to sustainable development and to these wider grand challenges by developing more sustainable business practices and designing more resource efficient products and services. Ecodesign and eco-innovation are two key strategies available to businesses wishing to develop sustainable solutions that are commercially viable.

Ecodesign is an approach to designing products and services that aims to reduce environmental impacts over the full life cycle (e.g. energy, materials, distribution, packaging and end-of-life treatment). While ecodesign and eco-innovation are closely linked they are different. The European Commission's Eco Innovation Action Plan defines eco-innovation as "any form of innovation resulting in or aiming at significant and demonstrable progress towards the goal of sustainable development, through reducing impacts on the environment, enhancing resilience to environmental pressures, or achieving a more efficient and responsible use of natural resources".

Why ecodesign and eco-innovation are important for businesses?

Historically a failure to embrace more sustainable businesses practices has resulted in higher operating costs, e.g. landfill tax, fines, penalties and, most importantly, customers choosing to go elsewhere. Whereas businesses that have successfully implemented more sustainable practices have reduced costs, built a strong brand reputation, attracted investment, driven innovation and created repeat business.

The business opportunities from being smarter with resources are significant. Research by DEFRA shows there are around £23 billion worth of savings per year available to UK companies through simple measures that would pay back in less than a year. This £23 billion of potential savings is unevenly spread across all sectors with some of the greatest savings identified in chemicals, metal manufacturing and construction.

Because of these benefits, innovative companies are moving towards more sustainable business practices such as ecodesign. For example, in June 2012 electronics manufacturers Philips, Electrolux and the Bosch and Siemens Home Appliances Group issued a joint statement calling on the European Commission to harness the potential of existing ecodesign regulations (e.g. Ecodesign Directive) so that products can be designed more sustainably. These businesses are looking to innovate their business models and maximise value through ecodesign and eco-innovation.

While there are positive examples, the current policy and business actions around ecodesign, eco-innovation, circular economy and resource efficiency demand stronger leadership and direction. This approach is required because the significant opportunities available to businesses are not being grasped quickly enough. It is crucial for manufacturing companies in Wales to embrace these innovative approaches in order to remain competitive and relevant in rapidly changing global markets.

How to take these issues forward in Wales

In order to move this agenda forward in Wales, the Ecodesign Centre's Ecodesign Baseline Study report summarises research undertaken by the Ecodesign Centre that aims to identify and rank products produced in Wales in terms of how resource intensive they are likely to be. The report also identifies possible interventions to enable businesses producing those products to invest in ecodesign and to eco-innovate.

The research was undertaken in the context of preparations for the Waste Prevention Programme in Wales. It was deemed crucial to highlight the resource efficiency actions available to business in Wales, such as waste prevention, so that the Welsh Government can work towards creating the right conditions to allow ecodesign and eco-innovation to happen. While this report predominantly discusses ecodesign it is recognised that there is a strong relationship between ecodesign and eco-innovation.

Food and Drink Federation

The food and drink manufacturing industry has a strong track record of eco-innovation, with examples of recycling water for non-food contact uses and recovering used vegetable oils for use as biofuel in our transport. Further examples can be found at:

http://www.fdf.org.uk/environment/casestudies_environment.aspx.

The Welsh Government can provide greater encouragement for industry to innovate further through a combination of demonstration projects and support for advisory bodies such as WRAP.

Industry can be cautious in adopting certain new technologies that have only been trialled or tested in lab conditions. Demonstration projects in industry can help to overcome this uncertainty. For example, FDF has been working with the Carbon Trust on an Industrial Energy Efficiency Accelerator (IEEA) project for the Bakeries sector over the past couple of years. The project aims to identify innovations in equipment, processes and product strategy, trial and test these innovations through demonstrations at manufacturing sites, and then disseminate the findings across industry in order to encourage greater take up of new energy saving solutions.

Funding for this project originally came from DECC but was cut with the Government spending cuts. Through limited funding from the Department of Business Innovation and Skills as part of its Regional Growth Fund, a few of the projects have survived, but there are opportunities for many potential projects that are being missed. Support from the Welsh Government for an IEEA approach to waste prevention would be welcomed by industry.

The momentum made in delivering significant reductions in food, packaging and supply chain waste achieved through the Courtauld Commitment, and the innovative approach to resource efficiency embodied by the Product Sustainability Forum, risks being lost unless funding for WRAP is secured. WRAP is seen as a non-political organisation which can span sectors and the four UK nations. As such, it provides a 'safe place' for collaboration and sharing of best practice across competing companies and sectors. If WRAP did not exist this co-ordination would be much harder to achieve due to the constraints of competition law and commercial sensitivity. FDF hopes that the Welsh Government, and other UK Governments, can continue to provide sufficient funding for WRAP to ensure further progress is made on waste prevention and wider sustainability objectives.

Friends of the Earth Cymru

Consulting on the possibility of a deposit scheme for cans and bottles would be a direct means of encouraging business engagement in eco-innovation. The potential for export of Welsh business and technology would be dramatic because as with the carrier bag charge a successful intervention shows high replicability in other UK jurisdictions.

GoundCover D.B.M. Limited

Far too many household items become waste because a simple plastic component breaks and is not replaceable or repairable. The component could have been made more durable at a cost of a few pence, but the drive to sell everything as cheaply as possible means that items have a very short lifespan. It might take EU agreement, but a compulsory guarantee of a minimum working life for products (2 – 5 years depending on the type of product) would encourage manufacturers to avoid the flimsy component and/or make sure items can be repaired when necessary. Then we would have a new employment sector repairing items, instead of just importing more from around the world.

ICE Wales Cymru

Work with businesses across Wales.

Novamont SpA

The concept of ecoinnovation will have a fundamental role to play in our future, circular bioeconomies, both of which are drivers behind the European Commission's approach to a systemic economy. Europe 2020, the EU Strategy on the Bioeconomy, Horizon 2020, Resource Efficiency, Industrial Policy and Smart Specialisation Strategies are all relevant EU strategies and communications to ecoinnovation.

An example of how industrial policy and regulation has been linked to waste prevention whilst improving recycling can be seen in Italy. In 2011 Italy introduced a law prohibiting the distribution of single use plastic carrier bags for all retail and despite the lack of fiscal penalties (due to be introduced in 2013) saw reductions in consumption of 50-80% across all retail. Prior to the 2011 law, the huge consumption of single use plastic bags not only had an impact in reducing resource consumption and litter – in particular marine litter – but it also led to significant improvements in organic recycling. Plastic contamination at composting and anaerobic digestion facilities has fallen dramatically since shopping bags certified to the European Norm EN13432:2000 became exempt from the ban.

The shopping bag law goes further than the current Wales levy since it considers more than just waste prevention. By enabling the market for compostable bags (still charged at 7-10 €c) through a simple policy, the redevelopment of previously mothballed industrial chemical facilities utilising green biochemistry using locally produced renewable resources has become possible. In turn, this has created thousands of jobs in the new Bioeconomy whilst retaining EU agricultural practices and improving the quantity and quality of composts and digestates. The case of Italy demonstrates that simple measures to reduce waste can help create entirely new economies – the full case study was presented to the European Parliament on 06/03/13 .

Another example where policy has been proved to drive ecoinnovation and reduce waste was at the London 2012 Olympics where the Organising Committee (LOCOG) developed and implemented a novel materials policy. Essentially, if a material was not easily and currently recycled in the UK and if it was likely to come into food then it had to be certified as compostable according the European Norm EN13432. The requirements of the policy drove ecoinnovation such as the production of compostable straws and development of compostable lids for hot cups all based on annually renewable resources. Not only was the materials policy implemented across supply chains it was also a key document within the sustainable procurement policy thereby reinforcing the important role that government approaches to sustainability in procurement plays in driving ecoinnovation and waste prevention.

Suggested policy measures to advance ecoinnovation, waste prevention and circular bioeconomies are:

- Implement a sustainable procurement policy for central and local government which encourages ecoinnovative products based on renewable resources that enable waste prevention through reduced contamination in organic recycling (composting and anaerobic digestion) systems
- Implement a policy requiring all events, venues and established catering businesses to maximise organic waste recycling through the use of ecoinnovative products based on renewable resources
- Follow the example of Northern Ireland and extend the carrier bag levy to 10p and reusable bags whilst exempting certified EN13432 compostable thus reducing the burden on Welsh local government and improving the recyclability of organic waste in Wales
- Encourage the local development and production of ecoinnovative products through a structured reduction in VAT and corporation tax.

Tata Steel

Tata Steel would also like to make a number of comments regarding the contribution the steel industry can make to societal efforts to reduce waste generation rates. Given that product durability is an important part of reducing societal consumption and, by extension, societal waste generation, then Government should not support blanket hazardous substances prohibitions, as hazardous substances are often used to impart durability. This applies to several types of steel product, for example chromates are used for passivation, zinc used in galvanising and nickel used in stainless and other high alloy grades. Many other alloying additions are used to impart particularly desirable qualities and functions in the product; these additions are not usually present in the final product in a form that is associated with significant risk. For example, alloyed nickel in stainless steel does not exhibit the intrinsic hazards associated with various nickel salts. Thus, a risk-based approach, taking into account socio-economic and life-cycle costs and benefits for the use of a given material should be used for the control of hazardous substances, rather than a system based solely upon blanket prohibition.

The materials and manufacturing industries are already, for reasons of their own business sustainability, pursuing significant programmes of work on resource efficiency related to their products downstream of material manufacture. For example, since 2009, Tata Steel, along with several other UK industrial organisations, has been working with Dr Julian Allwood, of the University of Cambridge, to explore product-based material efficiency strategies through the EPSRC funded WellMet2050 project and its follow-on, the UK Indemand Centre. One aim of the work is to identify barriers to a more material efficient society. The research is ongoing and although legislation may be helpful if specific barriers to progress are identified, the nature of

these barriers and the need for (and type of) policy intervention is unclear at the present time.

As well as the strategies outlined above, further possibilities include:

- Using less metal in products, including through light weighting. The steel industry has been pursuing this strategy for many years, notably through the development of advanced high strength steels for automotive applications and in steels that enable the light weighting of steel packaging solutions. There is clearly some scope to take this approach further.
- Improving yield right through the supply chain, for example by materials producers working with customers to supply product more tailored to their needs.
- Diverting manufacturing scrap. Rather than sending manufacturing scrap (e.g. from automotive blanking operations) to be re-melted, there may be possibilities to divert the material to be used in other applications.
- More intense use of products, e.g. using a product more frequently or by using more of its capacity when it is used: the capacity of a car is rarely used to its full potential. Strategies in this category are likely to address the way that products are used and hence would tend to be directed at end users and society in general, rather than being something the manufacturing sector could pursue in isolation.
- Efficiency in supply and recovery of strategically important materials. Alloys are used in steelmaking for many purposes and there may be opportunities to enhance their recovery at product end-of-life.

Further analysis of these strategies reveals some interesting possibilities and some conflicts within too; designing structural steel components with re-use in mind may be at odds with the design of components that are lightweight and optimised for a particular building. Nonetheless, within these strategies, there may be significant opportunities for new product developments and new businesses. There could also be a role for green public procurement, Ecolabel and Ecodesign criteria to encourage these as waste prevention strategies.

Valery Energy Ltd

Valero is encouraged by the Welsh Government's proposals for promoting and implementing eco-design and eco-innovation as part of its programme for waste prevention. We welcome the range of incentives and initiatives, such as increased research and development, financial support for businesses and increased information campaigns to better embed these principles in any national waste strategy. Valero looks forward to greater details on these measures, and other incentives schemes for the I&C sector in Wales.

Valpak

It would be useful to demonstrate the savings a business can expect to make from pursuing ecoinnovation as financial considerations are likely to be the greatest barrier.

Welsh Environmental Services Association

ESA is pressing for action at European level on product design. This is not something that an individual Member State can achieve on its own. European product policy needs to actively promote material resource efficiency.

ESA believes products should be designed to be more durable, repairable and recyclable as 80 per cent of the environmental impact of products is determined at the design stage⁵. They should be capable of being more easily dismantled at the end of life stage, so that important raw materials can be recovered. Eco-labelling should inform consumers about the recyclability of products, and their recycled content, so that they can make informed choices, as they already do about energy efficiency ratings. And those responsible for public procurement decisions should set an example by demanding such products.

In its June 2012 publication “Towards a Resource Efficient Europe”, http://www.esauk.org/reports_press_releases/esa_reports/ESA_Europe_brief_web.pdf ESA called on the European Commission, the European Parliament, and the Council of Ministers to introduce measures to improve product design, and to give the waste and resource management industry an increased role in discussions on that issue so that in future, products are designed with end of life considerations in mind.

ESA is ready to work with other interested parties at European level to define indicators for guiding action and monitoring progress on resource efficiency and waste prevention.

Welsh Local Government Association

There needs to be recognition that there is no ‘one-size-fits-all’ approach towards engaging with business. The larger businesses have different motivation and influence than do SME’s.

Consideration could be given to providing financial incentives or benefits to engage with and implement eco-innovation.

Identify and communicate the economic, social and environmental benefits of researching into eco-innovation.

Forge and facilitate links between industry/business and academia.

5 Cited in German Federal Environment Agency (2000): “How to do ecodesign: a guide for environmentally friendly and economically sound design

In order to improve engagement there is a need to raise awareness with the business communities perhaps through business breakfasts, CBI, FSB and other associations.

WRAP Cymru

Key findings from the REMake project demonstrate that eco-innovation is not just an environmental issue; it also impacts on competitiveness. Businesses need not only to understand the costs savings that can be realised through eco-innovation but also the potential cost and risk to their business if they are slow to adopt eco-innovative techniques, due to increasing material prices and shortages and reduced commercial competitiveness. Through the REMake project a number of suitable tools were identified to improve resource efficiency in manufacturing and stimulate eco-innovation. Such tools need to be promoted not only with businesses, but also with consultancy service providers.

The REMake project recognised eco-design as a key element to improve the resource efficiency of manufactures, alongside single factory level improvements and innovation across supply/value chain including waste recovery/ recycling/re-use. The REMake project identified that there are 4 key eco-innovative dimensions to resource efficiency interlinked across product lifecycle, which must be addressed in tandem for optimum results: raw materials; energy; supplies and waste. Most importantly, these 4 dimensions must be considered when designing resource efficient policies & strategies, developing indicators & benchmarks, and setting up programmes/projects for advanced technologies and resource efficiency measures.

To focus policy measures on industry needs the REMake project recommended:

- Improved co-ordination and correlation between policy areas;
- Better integration of RD&I efforts on resource efficiency, integrated materials and energy efficiency measures given more priority on research agenda and that the 4 dimensions of RE are addressed together;
- Up to date information on materials, products, processes impacts is available and that sector specific impacts/indicators applicable to SMEs are used. Broader dissemination of knowledge, information, and awareness rising;
- Better definition of standards and regulations, harmonised & implemented at regional level for SMEs. Regulations must not restrict RD&I for RE;
- Further development of BATs to integrate RE objectives;
- SME friendly support instruments including:
 - Fast track programme (vouchers);
 - Programme for RE qualifications;
 - Capital assistance; and
 - Co-ordination of EU & national initiatives & best practice exchange.

A number of tools and guidance focused on improving Resource Efficiency have been developed by WRAP. These are available at www.wrap.org.uk/brehub. The online training modules 'On Course for Zero Waste' (OCFZW) are already established and suitable for Welsh businesses. These are already attracting some registrants, but could be promoted more widely.

Initial work was undertaken during 2012 to modify the Defra Waste Hierarchy tool to make it suitable for the situation in Wales. This could be developed further to become similar to a 'take the zero waste challenge' type tool.

Demonstration of eco-innovation by one or more exemplars in each sector is a powerful way of demonstrating to the peer group that the solutions are commercially attractive. Such evidence is important in tackling the perceived risk.

Government also has a role through public procurement in demanding, and thereby creating a market for, innovative product and service solutions. For example, the Government could signal its intention to the market that it will be looking to procure such product and service solutions in the future which will encourage suppliers to develop such products and services. This will help businesses as it will enable investors to invest in such businesses as it demonstrates an unfulfilled market need. However, our evidence from other nations (e.g. Scotland) shows that, in practice, this role can be difficult for procurement practitioners and commissioners to fully identify and implement. We therefore recommend that showing how, as well as why, public procurement can encourage eco-innovation should be an integral part of any public sector SP campaign.

It is also important to create forum opportunities where the pioneers talk about their experiences first-hand.

Consultation Question IC5:

A review of the UK wide and international evidence on the waste prevention barriers and measures specific to your sector can be found at:

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=North&Completed=0&ProjectID=17499>

Do you agree with this evidence for your sector in Wales? If not, why not? What support does your business need to become more resource efficient and why?

Responses:**British Soft Drinks Association**

In terms of the evidence presented in the review (link above) for the Food & Drink sector, BSDA does generally agree with the comments on waste prevention barriers and enablers. We have provided some specific comments below:

Waste prevention viewed as a low priority:

From a BSDA perspective, members have done a great deal in this area and recognise that waste prevention does result in cost savings. Lightweighting, for example, occurred before Government drivers, as it had always been seen as a cost saving mechanism. Therefore, we do not necessarily agree that a significant barrier to waste prevention is the perception that waste has a minimal impact on turnover. The primary function of packaging is to maintain the safety and quality of the product, ensuring it reaches the consumer in the same condition as when it was first produced and throughout its shelf life. Packaging continues to be a major cost for industry, both financially and environmentally. Financially due to the costs of sourcing the materials, manufacturing the product and also potential damage in transportation; and environmentally due to the use of virgin materials and the resources needed to manufacture the packs. Members have historically looked for ways to reduce the amount of packing used and have made significant achievements in this area.

Financial and time constraints:

We would agree that SMEs do not necessarily have the man-power or resources to investigate these issues, which is where initiatives such as the Courtauld Commitment and the Federation House Commitment are very useful.

Once the quick wins have been achieved in terms of waste prevention, the amount of investment required increases, in order to address the more capital intensive actions required to reduce waste. Unless there is a realistic payback period, then money will not be invested by companies in this area. Therefore, we would agree that cost is definitely a potential barrier to waste prevention.

Consumer perceptions and branding:

BSDA believes that this is a hurdle to overcome as some packaging types may be perceived by the consumer as being of less good quality if lightweighting or product design has significantly altered the pack. A barrier would be the fact that companies are unlikely to make significant changes, for example to the shape of their containers, as they need to maintain their brand identity.

The right approach to packaging is to develop packaging technology and ensure that the minimum packaging needed, to do the job of protecting and preserving products, is used.

Commitments and voluntary agreements:

BSDA agrees that enablers such as the Courtauld Commitment and other voluntary agreements have been very successful in preventing food and packaging waste in the grocery sector; and newer initiatives such as the Hospitality and Food Services Agreement are likely to result in similar success stories.

General Comments:

The soft drinks industry does its part in preventing waste through refurbishment and repair of products and materials. Examples of manufacturers' activities in the soft drinks sector include the following:

1. One member has a dedicated equipment refurbishment factory extending the useful life of coolers, vending machines and dispense equipment;
2. Another has a dedicated on-site sortation and repair facility for pallets which has significantly reduced the number of road miles and has reduced costs - the site also has sufficient capacity to allow additional repaired pallets to be supplied to other local manufacturers.

Member companies already use reusable, returnable and recyclable secondary and tertiary packaging and have been doing so for some years. Returnable pallets are universally used in the soft drinks industry and are often hired from logistics companies. These will be repaired (as per above) and this is a good example of a waste prevention measure.

CIWM Wales

CIWM Wales is not in a position to comment on this question as we represent a wide range of sectors. This question is better responded by those sectors and businesses individually. However CIWM Wales feels that in simple terms, Wales' businesses/organisations might need financial and organisational assistance to remove or surmount the perceived barriers.

Cyfoeth Naturiol Cymru / Natural Resources Wales

The range of evidence available does provide information for most sectors.

Food and Drink Federation

Most of the barriers identified are ones we would agree with especially the need to embed waste prevention into the culture and mind set of the whole organisation as part of an integrated resource efficiency approach. We would also support the need for companies to consider setting their own KPIs and associated measurement systems as these can provide the basis for internal targets that will drive change.

Please see answer to question IC4 for support needed by businesses.

ICE Wales Cymru

I agree with the evidence, the second part is not applicable.

Tata Steel

There is little or no information in this evidence document that is relevant to our business sector. The sectors listed are construction and demolition (quarrying and raw material generation specifically excluded), hospitality, retail, automotive, and office-based services. There is no mention of steel or metals production.

Government should intervene to remove regulatory barriers that currently exist to operators wishing to prepare items for re-use. For example, permits are required for washing bulk containers, paint drums etc., and various regulatory requirements (permits or exemptions and potential issues with establishing discharge consents and monitoring procedures) for simple measures such as small scale laundering of work wear and equipment to allow reuse rather than replacement. One way to knock down the barriers would be to take a regulatory position whereby something that the user intends to reuse is actually not even classed as a waste, and thereby doesn't fall under waste regulation. Another option would be to make simpler, standard rules for waste preparation for re-use operations, with lower charges and simpler conditions.

Valery Energy Ltd

Yes.

WRAP Cymru

The sector reports highlight that waste prevention is just one element of overall resource efficiency (albeit sitting at the top of the waste hierarchy), which should offer an integrated approach for business and take into account factors such as water and energy savings, rather than limiting support to waste prevention or waste management issues. This approach is also supported by the findings from the REMake project and is an important consideration when developing actions.

Positive results are reported from the contribution of environmental management systems, but it is recognised that provision of skills training and awareness building is also important for success. These findings differ somewhat to the position stated in the Welsh Government's Waste Prevention Programme and I&C Sector Plan. The AMEC (2013) report cited that EMS shows less promise in respect of waste prevention - as a stand-alone approach, whereas the SME Waste Prevention Policy Report (Eunomia, June 2012) (both of which included in the evidence base for the Programme) identifies EMS as a successful tool for SME waste prevention and recommends the development of a support programme.

The Defra reports confirm that SMEs are difficult to engage, lack resources and skills to address waste prevention issues and recommend that although specialist advice is expensive, sector & supply chain specific support is effective.

The usual barriers that have been identified tend to highlight; perceived costs, lack of knowledge, time restrictions, true benefits, implementation and understanding.

In our experience, the more direct support provided such as site visits and training workshops tend to result in the greatest level of action being undertaken.

WRAP would agree with this finding and the proposed approach to supporting resource efficiency across supply chains and recommends that where adoption of EMS systems, such as ISO 14001 are promoted, for optimal results this should be done in tandem with a programme of skills and awareness building, such as On Course for Zero Waste which offers CPD accreditation to participants to improve the resource efficiency and environmental performance of their business.

Consultation question IC6:

The Welsh Government is looking at how business attitudes and behaviours can be influenced so that businesses can become more resource efficient.

We are using a competency framework approach to do this.

Do you agree that a competency approach is useful to benchmark performance and underpin any interventions? If not, why not?

Do you agree that a competency framework is a useful approach to underpin and target a potential future business support programme for SMEs in Wales? If not, why not?

Responses:**British Soft Drinks Association**

BSDA agrees and supports the idea of a competency framework and believes it could be helpful in shaping the future potential support for SMEs. Any measures that are introduced should not be imposed upon companies, but should take the form of advice and support.

We would only encourage benchmarking if it was to help businesses internally to look at their own practices, not to 'name and shame' and make comparisons between different businesses activities.

Cardiff Council

- we agree with the framework but as there is no legal requirement for it, how can we be sure organisations will use it? However, the WDF reporting requirements have seen an increased burden on Local authorities and increased costs. Such an approach with businesses will lead to low participation due to increased cost and resources. If forced this could drive business out of Wales if not a UK or EU approach.
 - Page 43: if such large volumes of waste are being produced in this sector with the use of environmental permits and waste minimisation plans, clearly they are not effective. Is this a process that needs to be reviewed?
-

CIWM Wales

Yes, CIWM Wales supports the competency framework approach; this would be a good starting method to enable better targeting of assistance. However, CIWM believes that it is Important that more support, guidance and assistance is provided to SMEs; along with closer working and mentoring/leadership from the key stakeholders and operators (including central and local government).

Cyfoeth Naturiol Cymru / Natural Resources Wales

Some further detail on how the competency framework will be used to help drive waste prevention across all business spectrums would be helpful. It will

provide a useful tool for those companies prepared to invest time in waste prevention, but it may not reach those companies who are harder to engage with. In our experience, the initiatives which result in resource efficiency in businesses in Wales are those where a financial saving was anticipated and achieved. Often there are occasions where an associated financial saving is not realised, so in these cases a regulatory requirement may be needed.

The Environment Agency developed a competency based assessment tool for resource efficiency. This system was trialled in 2012 to complement the metric based Resource Efficiency Physical Index (REPI) reporting. Natural Resources Wales would be happy to share the results of this trial with Welsh Government. It should be noted however that this system was developed for use in the permitted sector to help fulfil regulatory requirements. The majority of companies within the permitted sector are bigger than SMEs, and we would expect them to have systems in place to manage waste and resources.

ICE Wales Cymru

I agree.

Oakdene Hollins

Oakdene Hollins supports the competency approach. It is consistent with the language and training frameworks used by leading companies to raise awareness of resource efficiency opportunities and sustainability. Examples of this include the Chronos on-line training programme offered by the World Business Council for Sustainable Development in cooperation with Cambridge University. It has over 40,000 licensed users. A second example is offered by Business in the Community (BITC) which runs a “Seeing is Believing” programme aimed at senior executives so that they can visit other businesses which have achieved resource efficiency outcomes.

In our view, the competency approach is more likely to embed longer-term waste prevention improvements in companies than, for instance, the approach that is being adopted in Scotland through “Resource Efficiency Scotland”. In Scotland, each company will receive a site visit to conduct an audit after which improvement opportunities will be highlighted. This one-off approach was extensively evaluated and its shortcomings identified before funding was curtailed.

Oakdene Hollins has long favoured the implementation of waste prevention targets in commerce and industry through the adoption of Lean Management techniques. Defra will shortly publish research on the uptake of Lean techniques in the food, drink and hospitality sectors and we expect this to confirm the efficacy of this approach. Its main advantage is that staff acquire new competencies and indirectly deliver improved waste prevention. Because these competencies are embedded in systems, the improvements are not one-off events but result in persistent and positive behavioural change.

From a policy efficiency perspective, the competency approach is more likely to deliver larger contributions to the proposed 1.2% and 1.4% annual waste reduction targets. It will also be considerably less expensive to deliver as it will require better coordination between existing delivery mechanisms and not require a new programme directed at individual businesses. In Wales, this is likely to mean better coordination by waste prevention staff with food policy and economic development staff.

Tata Steel

The high value of steel scrap and steel production raw materials, including ore, through the supply chain are a strong driver for waste minimisation, and provide sufficient incentive to make our production processes as materially efficient as possible, without any need for additional legislative drivers.

WRAP Cymru

Competency frameworks are a useful tool for the development of intervention mechanisms and for benchmarking impacts, developments and changes over time, to be used in conjunction with a strong evidence base, clearly defined objectives, key performance indicators and milestone achievements.

The framework above should consider including additional factors such as:

- For individuals, accessibility should be included in the 'contextual', to consider the availability of services, information, and physical considerations.
- For organisations, services/suppliers should be included under 'resources'. Materials and perhaps also energy should be included under 'contextual'.
- For institutions under 'contextual' regulations, spatial factors and business/consumer demographics should factor.

Using a competency approach is a sound way to gain a greater understanding of the barriers to business in adopting resource efficient practices and to identify the right interventions and support to assist business in meeting the challenges.

WRAP research evaluated whether a competency framework could be developed for business resource efficiency (BRE) behaviours in SMEs. It identified a range of competencies that are important for SMEs in terms of behaving in a resource efficient manner, and unlocking potential to improve their level of BRE. Building on this insight, and WRAP's existing knowledge and experience of working with SMEs, WRAP has commissioned a study in Wales which aims to:

- Confirm that the competencies within the Competency Framework for BRE are relevant (i.e. the study is required to identify the competencies that actually make a difference to what the business does and how resource efficient they are in practice).
- Identify the strengths and weaknesses among SMEs across different sectors in respect of relevant competencies.
- Inform the design of a BRE programme for work with SMEs in Wales (for example, should the programme bring low performers to a minimum standard of BRE or should it focus on optimising those that already have a number of competencies or possess them at a higher level?).
- Provide a baseline to measure behaviour change (if any) in future years.

The study will involve in-depth qualitative work with SMEs in addition to a large scale telephone survey (sample size 4000) covering all business sectors. The results of this study should be available early 2014.

Questions about Construction and Demolition Waste

Consultation Question CD1:

(a) Do you agree with the outline programme on construction and demolition waste? Please give your reasons. (b) Should anything else be included in the programme? Please explain what, and the benefits it would bring.

Responses:

Cardiff Council

- Yes we agree with the proposals, although this is more of a statement than an outline of action.

CIWM Wales

(a). For the construction and demolition sector CIWM Wales believes the available data is very much out-of-date, the sector has contracted significantly and it may be difficult to disentangle what changes are actually connected with waste minimisation and what changes in waste production are resulting from industry contraction.

(b). The areas identified within the outline programme were all identified within the 2004-5 construction and demolition waste arisings survey; it may be that these matters will still be issues. CIWM Wales believes the outcomes from the 2012 C&D aspects of the waste arising survey will help identify whether these are still perceived as problems.

Cyfoeth Naturiol Cymru / Natural Resources Wales

It is difficult to comment in detail on the outline programme for the Construction and Demolition sector as the information on the proposals included is limited. However, we agree with the outline actions identified in the consultation, although they represent areas for further work rather than actions to be taken. These areas were all identified in 'Building the Future', the Construction Demolition waste arisings survey 2004-05. These actions should be reassessed using the outcomes of the 2012 waste arisings survey.

The introduction of Site Waste Management Plans in Wales may help encourage waste prevention in the construction sector in Wales, but it will be difficult to assess the potential impacts until the details of the regulations are finalised.

ICE Wales Cymru

I agree with the proposals providing the bureaucracy is not too excessive.

WRAP Cymru

(a) We agree with the outline programme and the issues raised in the Cardiff workshop on 25 April relative to key areas of the programme.

(b) No.

Consultation Question CD2:

A review of UK wide and international evidence on the waste prevention barriers and measures specific to your sector can be found at:

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=One&Completed=0&ProjectID=17499>

Do you agree with this evidence for the construction sector in Wales? If not, why not?

What support does your business need to become more resource efficient and why?

Responses:**ICE Wales Cymru**

I agree, the second part is not applicable.

Tata Steel

There are limited references to steel products in this document. Care should be taken to appreciate the need to re-certify structural steel components before they may be re-used for their original purpose. It is more likely that steel would be recycled, with the exception of the re-use of modular buildings.

Tata Steel do not support the introduction of complex Site Waste Management Plan legislation that would require already permitted sites to pay additional fees obtain separate permissions for construction activities within the existing site boundary. This would introduce costs and delays disproportionate to any environmental benefit.

WRAP Cymru

The review of waste prevention barriers and measures is reasonable although how it is applied depends on a good knowledge of existing practices relative to C&D waste streams in Wales. The existing data from the 2005/06 survey may not be sufficiently up to date for this purpose, making the pending CDEW survey essential for focusing efforts.

The potential for re-use should note the impact of the requirement of the Construction Products Regulations for CE marking of all construction products produced to harmonised European Standards from 1 July 2013. This could make recycling more practical than re-use for certain materials.

The assumption that 10% to 15% of construction waste consists of new materials capable of re-use is open to debate; we would be happy to discuss this with you.

The Environmental Permitting Regulations remain a potential barrier to greater levels of waste prevention for soils, limiting the options for timely re-use in construction.

Other general and technical questions

Consultation Question G1: A Sustainability Appraisal was conducted on this programme, and is published alongside this document as part of the consultation. Do you agree with its findings and conclusions? Please give your reasons.

Responses:

Blaenau Gwent County Borough Council

Yes, we agree that breaking the link would be a reasonable approach. We do not have any further alternatives to propose.

British Soft Drinks Association

We support the Plan's emphasis on resource efficiency and its aim to build on the current Courtauld Commitment by involving smaller retailers, local processors, hospitality outlets etc in Wales alongside the larger companies.

BSDA agrees that the sustainability actions identified in the Sustainability Appraisal do seek to reinforce the important role businesses and households have in preventing their own waste arisings and that the benefits will be felt over the medium and longer term. It is important that Governments do take a longer term approach and not just look for short term gains.

The waste prevention measures will have a positive approach in preventing waste, but BSDA recommends that voluntary initiatives, such as Courtauld, are used rather than mandatory measures and any imposed targets.

Cardiff Council

- Yes we would agree with the findings outlined in the Sustainability Appraisal.
-

CIWM Wales

CIWM Wales believes the sustainability findings and conclusions are somewhat generalised. This sector plan, as with all of the sector plans' sustainability appraisals, do not identify specific actions that have associated locations where the activities will take place, therefore the sustainability appraisal has to be general.

Cyfoeth Naturiol Cymru / Natural Resources Wales

Natural Resources Wales were invited to comment on the Sustainability Appraisal in the context of their responsibilities under the Environmental Assessment of Plans and Programmes (Wales) Regulations 2004, and as advisers to the Welsh Government on the natural heritage and resources of Wales and its coastal waters. A comprehensive response was provided. Below is an extract of the key comments and conclusion.

Key comments

- We are disappointed that none of the points raised in the Environment Agency Wales response to the consultation on the Draft Construction and Demolition Waste Sector Plan - Sustainability Appraisal Report (November 2011), have been considered in this report.
- The most notable issue is that the baseline data has not been updated. The major source of the data in the baseline information table is Welsh Government's State of the Environment report December 2010. When this was used for the Construction & Demolition Sustainability Appraisal in 2011, it would already have been out of date. The baseline data used for this assessment has not been updated to include the more recent State of the Environment reports. The latest State of the Environment report was published July 2012.
- A number of the identified plans, policies and programmes are outdated.
- Identification of sustainability issues and opportunities (page 22). Para 3.2.9: Given the length of time between the identification of 'key sustainability issues' for this plan, the outdated baseline data and the outdated policies, plans and programmes, it is difficult to be certain that there have been 'no changes' to the key sustainability issues.
- We note that mitigation measures for lower magnitude effects are included in Section 6.7 on Page 78-80. Given the importance of mitigation and enhancement measures in mitigating against negative effects and achieving positive effects, we are disappointed to see little reference in this section on how the proposed mitigations will be ensured and there is nothing on the use of best practice.
- As suggested in the Environment Agency Wales response to the Construction and Demolition Sustainability Appraisal, we also suggest additional mitigation measures could be included in respect of sustainable drainage systems, pollution prevention measures and sustainable construction techniques.
- The Waste Sector plans should inform and be informed by:
 - The Wales Infrastructure Investment Plan developed by the Welsh Government
 - the National Development Framework as proposed in relation to the Planning Bill in Wales

Nevertheless, based on the information provided and considering the potential impact of the concerns raised above, we agree in principle that your assessment is correct and that the plan has no significant adverse effects and has the potential for positive effects, if proposed mitigation and enhancement measures are incorporated in the draft I&C sector plan.

Cylch: Community Resource Wales

Cylch CRC fully supports the findings and conclusions of the Sustainability Appraisal and agrees that a Reuse & Repair Network should be central to the Waste Prevention Programme.

'Reuse' is a pre-emptive activity that intercepts products and materials with care to retain their existing utility. The current waste infrastructure, which is geared towards recycling and disposal, does not easily support reuse because once products are damaged, or downgraded, their useful life is ended. It is the 'point of capture', or early interception, of unwanted or discarded items that maximises the potential of products to be prepared for reuse. It is here that efforts to develop a reuse infrastructure should be focused.

Product re-use can follow several paths, such as, the re-allocation of unwanted furniture to help alleviate poverty and support social mobility for the most disadvantaged. Or, redistribution through second-use markets (making products available to buy). In general terms, there is a need to provide better infrastructure for increasing the careful handling and storage of materials with the potential for reuse.

The Welsh reuse sector needs to transform from a loose community network to a joined-up 'reuse and repair infrastructure'.

Cylch CRC recognises the existing collective of reusers in Wales and believes they should be supported to develop an infrastructure of reuse and repair centres that provide consumer confidence, operate to a high level of service and satisfy legislative needs. These enterprises will need to work in partnership with local authorities to build the capacity for reuse across Wales. Local authorities offer an access route to 'waste' materials and the extraction of more reusable material reduces their waste burden and consequent costs to the public purse.

Reused products retain a significantly higher monetary value than if they were downgraded and treated for recycling or disposal.

Cylch CRC's members are already demonstrating that by retaining the existing utility and value of materials, anti-poverty and social inclusion initiatives can be supported at minimal cost to the tax-payer. Where materials are sold back to the public, local enterprise can economically benefit from the return of material to a community, which would otherwise carry a cost in waste transport, treatment or disposal.

Cylch CRC urges the Welsh Government to pursue the opportunity to develop a network of reuse and repair centres supported by local community enterprises with multiple benefits – social, economic and environmental.

Advantages of a Reuse and Repair Network

- 1. Local government partnerships:** Joint-working between community sector and local authorities can create multiple benefits and cross-departmental savings through anti-poverty measures, community education, skills and training opportunities, as well as waste reduction.
- 2. Materials exchange/brokering:** Members offering services relating to specific materials, e.g., wood, paint, carpet, textiles, WEEE, furniture, commercial & industrial, etc will have greater opportunity to exchange materials with other network members. Brokerage schemes might be established to ensure commercial value is applied to materials.
- 3. Sub-regional networks:** creating logistical economies of scale and sharing resources, information and opportunities. By working jointly, it should be possible for several Members within a sub-region to support local government contracts or commercial services which would not be possible by operating alone.
- 4. Increased income:** Each 'reuser' will be able to raise more income from the additional products and materials accessed and handled.
- 5. Shared resources:** There will be more opportunities for members to share resources, 'bulk buy' items and collectively sell products for higher prices to wider markets.
- 6. Social welfare implications:** for example, work placements for long-term unemployed to be given opportunities with the increasing need for employment within the waste and resource management sector. Low-skill entry level opportunities exist to allow people with learning or physical disabilities to find valued work activity within the social economy. The provision of low cost second-use household items can help families struggling on welfare benefits.

Social and economic benefits

Applying the *Proximity Solution* (see below) – i.e. retaining the social and economic value of resources in the locality in which they arose, and reducing the environmental impacts of treating or exporting waste - supports more sustainable and resilient communities. Other social benefits include:

- Increased profile of 'resource efficient' and 'sufficient' messages to the public encouraging consumer 'behaviour change'.
- Increased public understanding of sustainable resource management and inherent value of consumer products – helping to shift the 'social logic' away from product disposal/replacement towards product longevity.
- Improved standards/qualifications support improved performance and consumer confidence.

The economic benefits create both cost savings in resource efficiency and cost benefits in locally retaining the inherent commercial value of reusable materials. Other economic benefits include:

- Micro/SME potential around repair/refurbishment and hire services.
- Savings in waste management costs (less need to bulk, transport, reprocess).
- Value of materials retained in community from where they came.
- Reused materials have considerably higher commercial value in some cases than sending materials for recycling (e.g. textiles resold direct to public have 10 times value of selling on for recycling).
- Cost savings to low income citizens through greater access to usable materials.
- Cost and resource efficiency through Resource Centres/Clusters/Hubs potential.

New markets

The notion of 'utility', or usefulness, is crucial in understanding how markets will develop. Markets are driven by supply and demand and the utility, or perceived value, of a product will determine what route that product takes.

The emergence of online exchange platforms such as *eBay* and *Freecycle* are responses to a public demand for access to products fit for reuse and to a public understanding that products retain value even when they are no longer wanted or needed by the current owner.

Connecting the physical reuse infrastructure with the wider consumer markets will be one of the key challenges for success.

ICE Wales Cymru

I agree.

WRAP Cymru

WRAP agrees with the findings and conclusions contained within the Sustainability Appraisal.

Consultation Question G2:

(a) Do you agree with the Welsh Government's approach to breaking the link between waste generation and economic growth, recognising the opportunities for reducing business and household costs in doing so?

(b) If not, what alternative(s) do you propose? Please give your reasons, and describe how you would propose to measure success.

Responses:

Blaenau Gwent County Borough Council

Yes we agree with the findings and conclusions contained within the sustainability appraisal.

Cardiff Council

- Yes, there needs to be a break in the waste generation and economic growth. However, concerns are raised that the WG are unable to do this in isolation National and international co-operation is required and as well as a cultural shift in peoples attitudes towards waste and packaging.
-

CIWM Wales

CIWM Wales notes that although there are economic policies in place to try to avoid economic contraction, it is clear that a certain amount of contraction is happening. Current reductions of activity in the industrial sector are coupled with increased activity in commercial sectors.

There is a significant risk that this change in activity in the industrial sector could mean the waste reduction achievements are a result of contraction and not actual waste reduction, tied with increases in commercial waste production (as a result of the increased commercial sector activity).

CIWM Wales believes commercial waste production is less easy to target due to the relative size of individual waste production from the smaller companies and, as a result, the financial savings for each company are potentially small. The exceptions to this have been through the food retail sector as a result of the packaging producer responsibility legislation. There are approaches that have been taken, in relation to reuse of transit packaging, which could be rolled out to other commercial sectors and other retail sectors.

In terms of measurement of success, CIWM Wales generally feels the focus does need to be on better data. It would be beneficial to put annual surveys of waste production on a statutory basis, as is implemented in Scotland, than to persist with the voluntary surveys that are resource intensive to carry out.

Cyfoeth Naturiol Cymru / Natural Resources Wales

The approach taken by Welsh Government to try and break the links between economic growth and waste generation is generally sound. Welsh Government should ensure that the proposed absolute reduction targets are both achievable and deliver the resource use reduction required.

The approach taken by Welsh Government to try and break the links between economic growth and waste generation is generally sound. Welsh Government should seek to ensure wherever possible, that the proposed absolute reduction targets are both achievable and deliver the resource use reduction required.

Although there are economic policies in place to try to avoid economic contraction, it is clear that a certain amount of contraction is underway (industrial sector reductions of activity coupled with increased activity in commercial sectors). There is a potential risk of achievement of the industrial waste production reductions as a result of the changes in industrial activity levels and it is worth be aware that this would not be sustainable without a complementary and permanent behaviour or process change.

Commercial waste production is less easy to target due to the relative size of individual waste production from the smaller companies and as a result, the financial savings for each company are small potentially. The exceptions to this have been through the food retail sector as a result of the packaging producer responsibility legislation. There are approaches that have been taken in relation to reuse of transit packaging that could be rolled out to other commercial sectors and other retail sectors.

In terms of measurement of success generally, the focus could be on improved data. It may be helpful to explore the option of annual surveys of waste production on a statutory basis as is currently undertaken in Scotland than to persist with the voluntary surveys that can be resource intensive.

Cylch: Community Resource Wales

Cylch CRC fundamentally supports the Welsh Government's approach to breaking the link between waste generation and economic growth as being in line with its commitment to sustainable development.

Sustainable Development demands the extraction of raw materials and the generation of waste from production and consumption in modern economies to be at levels that the earth can sustain (within ecological limits). Currently, most European countries are over-consuming resources at levels of nearly three times the earth's carrying capacity (according to ecological footprint methodology). At the same time, the gap between the richest and poorest in society is growing wider than ever.

The Waste Prevention Programme for Wales represents a tangible opportunity to change how society values the use of natural resources.

A global consumer-market economy, selling whatever the customer demands (and perpetuating increasing demand for its own growth), services the existing socio-economic paradigm of unsustainable levels of over-consumption. A fundamental problem with the existing social paradigm is the 'disconnect' of the consumer from the producer. There are externalised costs in the production, consumption and disposal processes that the consumer is largely unaware of and does not factor into the 'price' that is paid for commodities. This 'offloading' of costs – environmental and social – is an underlying cause of modern society's slowness to respond to the mounting evidence for a need to move away from traditional economic growth models.

The term '*throwaway society*' also reflects this paradigm, which encourages the purchase, discard and replacement of products, even when they are not needed. It is the engine that drives the modern global consumer-economy. The result of our 'throwaway society' is a rising global waste problem. In short, sustainable development requires a paradigm shift away from over-consumption and social inequality.

De-coupling requires getting more 'service' from less 'stuff'.

Cylch CRC, as membership organisation of community-based enterprises, supports the social economy model as a solution to reducing the overall quantity of waste arising and increasing the quality and accessibility of discarded products and materials for secondary use. In this way, the financial and social benefits of 'wasted' resources are optimised for the benefit of the communities from which they arose.

Reducing resource consumption and supporting social and economic well-being can be achieved surprisingly simply by:

1. applying the *Proximity Principle*, which demands treatment of waste materials as close to source as possible;
2. applying the *Waste Hierarchy* as defined in the European Union's revised Waste Framework Directive.

A missing ingredient in sustainable resource management is the application of the Proximity Principle alongside the Waste Hierarchy.

Waste (discarded 'end-of-life' material) is a physical manifestation of unsustainable consumption. Sustainable waste management, in response, is increasingly moving away from 'linear' to 'cyclical' material flows to include 'closed loop' recycling and reuse. However, recycling tends to operate at a global level, exporting the financial value of the materials as well as the environmental impacts.

By bringing in the notion of 'proximity' and considering retaining the value of reusable products within proximity, the closed loop for reuse is significantly more efficient and pragmatic than that for recycling.

Research shows there is also considerable scope for reducing greenhouse gas emissions by using products for their full intended lifespan, and not disposing of them while they are still useful. So climate change impacts can be reduced through prioritising reuse where it is practicable.

Notions of 'ownership' and 'utility' determine the life-span and route a product takes towards the waste stream. A closed-loop approach to product use, repair and reuse (retaining product utility beyond the first 'owner') is a move away from the consumer paradigm of continuous product purchase-disposal-replacement. Changing behaviour in this way slows down the consumption of 'new' products and the extraction of virgin resources.

Cylch CRC supports community enterprises in developing a *Reuse Strategy* for Wales. Its aim is to build capacity within community businesses that provide reuse and repair services. Many of Cylch CRC's Members are engaged in 'reuse' activity (e.g. furniture, electricals, textiles, carpets, wood), demonstrating the social, economic and environmental value of working higher up the waste hierarchy.

In pursuing a strategic approach to maximising reuse, and by utilising reuse organisations embedded in their communities to capture and prepare the materials, the Proximity Principle and the Waste Hierarchy together offer a *Proximity Solution* for sustainable consumption.

ICE Wales Cymru

(a) I agree but there are severe problems in Cardiff if the local council penalise reputable businesses without any equitable reason.

(b) n/a.

Valpak

Yes, we agree with this approach. The Welsh Government's decision to adopt annual reduction targets should result in decoupling if they are achieved, subject, as outlined in the consultation document, to economic growth being above the rate of reduction.

Welsh Local Government Association

There is an acknowledgment that there is a perceived relationship between economic growth and waste production (as economic growth increases the waste production tends to increase too and as economic growth declines then waste production tends to reduce).

Simplistically the principle of breaking this link could be seen to have benefit to the efficiency of business and reducing household costs however the operational practicalities of breaking the link need to consider the impact this may have on other departments/sectors

WRAP Cymru

The relationship between CDEW generation and economic growth should be considered in two separate elements, C&D waste and Excavation waste i.e. soils. Work done by the Green Construction Board Waste Subgroup and WRAP has shown that arisings of soils behave differently to C&D waste relative to the economic cycle.

WRAP has undertaken a significant piece of work on decoupling waste generation from consumption and growth, and supports the view that this is both necessary and possible. This also links well with the visual framework for sustainable development – shaped like a doughnut – that Oxfam presented for discussion at Rio+20 that they advocate represents an environmentally safe and socially just space in which inclusive and sustainable economic development takes place.

Consultation Question G3:

We have asked a number of specific questions. If you would like to comment on anything else, or raise any issues which you feel we have not fully addressed, please use the space provided.

Responses:**British Heart Foundation**

We realise that this consultation follows on from the overarching strategy 'Towards Zero Waste' and the Municipal Sector Plan, which set out the Welsh Government's priorities and objectives for waste prevention and reuse. As a result the scope of this consultation is limited. The British Heart Foundation however has not been involved in the evidence gathering for previous strategies and plans, while it has become a more significant reuse provider in Wales in recent years.

We estimate that we directly reuse at least 3600 tonnes of furniture, electrical items, textiles, bric-a-brac, toys, books and media (CDs, DVDs etc) per annum through our shops and stores in Wales. The first three categories are priority materials identified by the Welsh Government. In addition to this we send a significant tonnage of goods for reuse or recycling by third parties. Demand consistently exceeds supply for us, and with furniture and electrical (F&E) especially we have considerable capacity – this area has grown by 210% in total over the last five years and is still growing.

Our reuse activities are based on the public's goodwill – donations and volunteers – rather than public money. We deliver services at little or no cost to local authorities, which include regular kerbside collection of smaller reusable items commonly not included in municipal recycling (eg bric-a-brac, textiles, toys, media), free on request collection of a full range of items including furniture and electrical in most areas, and referrals from local authorities (eg Social Fund) and housing associations. We are looking into other models to capture more preventable waste, including at HWRCs and by dovetailing with the bulky waste collection service to provide a reuse-led alternative.

While we do not require public subsidy to sustain and increase our core reuse activity, we are able to achieve more where the savings to the public purse are recognised and we are not burdened with extra costs. Although our shops and stores in England commonly benefit from payment of reuse or recycling credits to recognise the avoided disposal costs for the local authority of what we sell for reuse, we currently receive no reuse or recycling credits in Wales. Our standard shops already cover the cost of recycling or disposal for most of their waste (unsaleable items), and are working towards zero waste, but our F&E stores handle items that incur higher recycling or disposal costs and would benefit from use of municipal facilities.

Nearly all local authorities in Wales where we have F&E stores offer free disposal of unsold items under Schedule 1 of the Controlled Waste (England and Wales) Regulations 2012. However some restrict this, meaning that a proportion of household waste is disposed of or recycled at a cost to the charity. Finally we would be severely limited in our ability to sustain or grow the business if business rate relief was cut back along the lines currently proposed by the Welsh Government.

Moving forward to the strategic objectives of reuse infrastructure development and accredited reuse/repair networks – the British Heart Foundation would be interested in partnership working. In other parts of the UK we have links with social enterprises to maximise the reuse potential of the items we handle. We are happy to meet all reasonable accreditation requirements and already carry out function and safety tests on all electrical items and are working towards PAS141 compliance.

We can demonstrate clear economic, social and environmental benefits from our activities in terms of job creation, volunteer and trainee placements and diversion from landfill. The proceeds from our retail division benefit the people of Wales through funding local heart nurses, support groups, lifesaving CPR training and medical research (eg the Wales Heart Research Institute at Cardiff University).

The British Heart Foundation could play a major role in meeting Wales' reuse targets. Currently only 3% of WEEE is recorded as prepared for reuse, while 6000 tonnes of working electrical items are disposed of in Wales according to WRAP. We are well placed to provide a reuse-led service integrated with responsible, transparent recycling for a significant proportion of the target materials in this consultation and would welcome the opportunity for sustainable growth.

Cardiff Council

- To stress the importance of achieving the right balance. Waste prevention can save money and resources when done correctly. However, without sufficient understanding of the benefits and suitable approaches taken by the sector, imposing minimisation sanctions could negatively impact on the sector and increase their costs at a time when businesses are struggling and hence drive business out of Wales.

CIWM Cymru

CIWM Wales feels that there is a lot of reuse activity happening that is not necessarily being measured. There is a proposal for an accredited reuse and repair network, it would be helpful to all those involved or interested to be brought together to explore the possibilities in a timetabled plan.

Cyfoeth Naturiol Cymru / Natural Resources Wales

General Observations

From 1st April Natural Resources Wales brought together the work of the Countryside Council for Wales, Environment Agency Wales and Forestry Commission Wales, as well as some functions of Welsh Government. Our purpose is to ensure that the natural resources of Wales are sustainably maintained, used and enhanced, now and in the future. Natural Resources Wales is supportive of the actions detailed in the Waste Prevention Programme.

There will be an ongoing need to monitor waste trends in Wales. We hold a number of different waste data sets which may potentially be used in a monitoring role. There may also be a need to periodically collect waste arisings data from the commercial and industrial sectors in Wales. Information on waste generation and management in Wales is beyond what we would normally collect as a waste regulator. We have previously conducted waste arisings surveys on behalf of Welsh Government with specific funding. If Welsh Government intends for Natural Resources Wales to undertake future surveys, we would encourage you to engage with us at an early stage.

Cylch: Community Resource Wales

Waste Management implications from the rWFD and Welsh Policy

Prevention, minimisation and 'direct' reuse are seen in the rWFD as activities that do not directly handle waste materials – they prevent waste arisings in the first instance. This raises critical questions over management responsibilities and budget allocation in addressing these activities at the top of the hierarchy.

Historically waste managers have seen these activities as falling outside their direct responsibility with an indication that consumer behaviour, public education campaigns, producer responsibility, eco-design, reuse and hire/repair services are all areas that 'other' agents have a responsibility for. Waste management infrastructure has been focused on handling the materials that are designated as 'waste' under the WFD and which appear at the lower end of the hierarchy.

The push for materials to be handled further up the hierarchy reduces the volume of material that waste management companies handle – and profit from. This is a tension that any drive '*towards zero waste*' must address, as 'zero waste' will mean a big change in how the agents and businesses responsible will operate. It also calls for cross-sectoral and joined-up working with other consumer-facing bodies if it is to be achieved.

In terms of waste management, it can clearly be seen that there will be a shift away from traditional waste management practices towards resource management activities that support greater reuse and prevention. Consideration needs to be given as to how this is reflected in the allocation of budgets to local authorities.

Behaviour Change

Cylch CRC supports the adoption of the '4 E's' approach in catalysing a shift towards more sustainable behaviour.

The wider recognition of the intrinsic value of products and materials beyond the perceived 'useful' stage of ownership will reinforce the public perception that 'things' are 'too good to waste' with reuse and repair being seen as increasingly preferred options for items no longer wanted or needed by existing owners.

The development of a national reuse infrastructure will support a shift in the current 'social logic' of public perception; away from '*out of sight, out of mind*' towards an understanding that unwanted products can still have significant value.

If public acceptance of what is 'responsible' behaviour shifts towards extending product life span and locally retaining the commercial benefits of potential 'waste', then wider behaviour change towards sustainability should follow.

Conclusion

Sustainable development requires us to get more 'service' from less 'stuff'. As a consequence, waste prevention, reuse and 'preparing for reuse' are climbing the sustainable resource management agenda. Cylch CRC is committed to ensuring that the existing network of community reuse organisations, and the best practice it has developed, is embodied within any Welsh national reuse & repair infrastructure.

Moving beyond planned-obsolescence is essential. In a Circular Economy, product-design, (re)manufacturing, consumption and disposal must focus activities further up the Waste Hierarchy than recycling. Effective sanctions may encourage producers to comply and EU and national legislation is moving in that direction.

Welsh sustainable development legislation demands that resources are optimised for their potential community and economic benefit within Wales and that negative environmental impacts are reduced. Continuing to export the financial value of materials and the attendant environmental problems is neither ethical nor sustainable.

In pursuing a strategic approach to optimising reuse, and by enabling reuse organisations embedded in their communities to capture and prepare the materials, the Proximity Principle and the Waste Hierarchy together offer a solution for sustainable consumption.

The *Proximity Solution* involves maximising economic and social benefits as close to source as possible. By supporting early interventions in the waste stream - as soon after the point of discard as possible - it should be possible to support a local system that creates environmental, economic and social benefits. This *triple bottom-line* is embraced and exemplified by the social economy.

Success will depend upon appropriate business investment that supports and recognises social aims as much as economic ones. This system will require all stakeholders to work together. A co-operative approach between producers, local government authorities and collection and reuse services (such as Cylch Members) is imperative. Construction & demolition waste can also benefit from a collaborative, cross-sectoral approach to resource management. Equally so for commercial & industrial sectors.

Cylch CRC urges the Welsh Government, in the delivery of its duty to produce a Waste Prevention Programme, to consider support for a community-based reuse infrastructure as a key priority. The multiple benefits of de-coupling the impacts of waste from local economic stability and increasing the resilience of communities across Wales (described above), can all be delivered with some carefully considered support to increase the capacity of the community sector in Wales to provide locally-focused reuse & repair services that also educates and shifts social behaviour.

Dŵr Cymru /Welsh Water

Finally, we note that these consultation papers total well over 250 pages and the associated sustainability appraisals add nearly 400 pages. The Welsh Government is also simultaneously consulting on a proposed waste related revision to its national planning policy and associated TAN21. In order to encourage wider participation in developing policy and legislation we feel Welsh Government should consider a more accessible and streamlined process with perhaps opportunities for workshops and better summary information available to assist engagement with the broader community.

EEESafe Ltd

Foreword:

As the founder of EEESafe, I would like to state that my 10 years' experience of working with a local Swansea based Reuse Charity, taught me much about Waste, Reuse, Recycling, Homelessness, Poverty, Business, the Public Sector and Government. I've previously run a £1M business with no funding, but this Sector taught me even more. The biggest lesson being that there were Real People with Real Needs businesses could serve. Having dealt with them in other businesses and jobs in the past it took working in the Charitable Sector to realise that people and their communities were the most valuable asset to them, and us in everyday life. They are the Jewels in the sand of Society and the wind of injustice blows unfairly across them more than I could ever have imagined. Business and Government blinds us to their character, their passions and daily needs which seem covered by the differing politics of well-intentioned people who can easily forget the basics of life.

It is with this view that I write into this consultation. In austere and hopeless times for the huge impoverished and low income groups of our society, it's a priority to meet the basic needs of people. If we get that right, we'll at least oil the people's engine with hope and fire up faith in the mechanics who want to keep society going, steered by sound socially and environmentally conscious drivers at the wheel of Government.

In the ten years at the Charity, I've lost count of the times I was asked for help by support groups, homeless departments, midwives and individuals and had to shake my head despairingly to many unfortunate people. There was a time in the early years when many were able have help, but the advent of the WEEE Directive changed all that. Much of the basic needs of a family, lie around the need for a Washing Machine, Cooker, Tumble Dryer and Refrigerator. When it became law in 2007, we like many other Charities in the UK began to see the disappearance of these items, and had to turn many people and groups away, who formerly relied on these goods to help their clients.

The system interpreted into UK Law, fuelled Producer Compliance Schemes to collect all the items from UK and Welsh Communities, and trade evidence money between each other, as well as earn from reprocessing. Not a crime in itself, as there was areas of safety rightfully identified and monitored by the Environment Agency. The regulations that came to being contained clauses that encouraged working with local Reuse Organisations, but the truth was in my experience in Wales, and that I researched throughout the UK, was that hardly anything was given. In fact I can safely say, nothing Electrical was ever given to the Charity I worked for by any of the two local authorities in the boundary. It was in the contract with the LA, but despite many calls and emails, nothing was ever given. The reason I seriously believe was that there was value to the LA who had not either managed its Waste Budgets well or were insufficiently funded by the Welsh Government. The other main factor in this scenario was that PC Schemes decided they would take product away from local communities via LA contracts, repair them in their own communities outside of Wales, and then sell them back.

This practice still goes on and my input to this consultation is a solution to stop this, and get back to serving the People in the community, and help them through these tough times. It builds a path to the One Wales One Planet strategy, as outlined in your documentation and I hope you will give it serious consideration in your Waste Prevention Strategy.

Most of what I will comment on has also gone to DEFRA in its Waste Prevention Consultation.

Please recognise we do not have enough resource to contribute more than we have. We have read Cylch's submission and fully support the majority of that eloquent communication. It would seem to us that our model is very close to what they want to achieve, but we'll leave that for you to decide.

Robert Alexander. MD & Founder of EEESafe

Here are some basic facts (there are many more), which are likely to be known to you:

- Every year an estimated 2 million tonnes of Electrical items are discarded by householders and companies in the UK of which 40% are Kitchen Appliances.
- When Retailers sell new Appliances, the replaced items are removed to another part of the country or abroad and don't remain in the community to help local people.
- Almost a quarter of the Electrical waste taken to household waste centres each year has a reuse value, which could deliver £220m gross revenue each year, including £15M in Wales (6000 Tonnes)
- Around 35 Companies collect them from Local Authorities to export, shred or repair and sell them to their own communities.
- Research also shows that there is a demand for Refurbished items because people cannot afford a new Appliance. There are as many as 200 refusals per month, to requests for goods in some areas.
- 4 million children - one in three - are currently living in poverty in the UK, one of the highest rates in the industrialised world.
- Average household debt in the UK (excluding mortgages) was £5,971 in April.
- Keeping replaced White Goods in your own locality doesn't only help local people; it cuts carbon output and can help skill up local people looking for future employment.
- Brown Goods are mainly luxury items and we include IT in this although it could be argued, however White Goods are essential items for a stable home and family environment.

We recommend you look at our online Video, targeted at Consumers, to highlight some of these issues and how they can be involved to increase Waste Prevention. You can view it at this Link:

<http://youtu.be/EiyfbmL2VNE>

The Sector and the Independent Trade.

Unlike other service sectors such as Gas, Refrigeration and general electrical work there is no requirement for those working in the domestic appliance service sector to be qualified in any way.

This will probably come as a surprise as it does to most that currently there is no requirement to be 'qualified' or 'registered' to work on domestic electrical appliances – the term used by the HSE and other bodies is 'competent'. Unfortunately customers mistakenly think that those servicing and repairing their appliances have to possess some kind of formal qualification/recognition of ability similar to those that work on Gas appliances requiring to be Gas Safe registered (was CORGI) and for those who work on refrigeration being FGas registered.

Many of those in the appliance service industry would like this situation to change and over the years many have worked to implement a positive change.

For two decades some in the sector helped in the development of a National Occupational Standards (NOS) which were used many years ago to produce a National Vocational Qualification (NVQ/QCF).

Unfortunately due to a restricted budget or more likely a lack of understanding of the White Goods sector it was decided that Brown Goods and Whitegoods servicing was much the same thing so an NVQ/QCF to cover both would be a good idea.

In reality there are many differences between the two sectors the main two being that Brown Goods technicians already had a range of qualifications available to them and without such knowledge could not function effectively and they already had an apprenticeship like structure. On the other hand White Goods repairers essentially had neither of these. Brown Goods don't have mechanical or plumbing elements, therefore the skillset required is very different.

The situation was further compounded by the qualification that was eventually developed not being made a mandatory requirement to work on appliances (unlike GasSafe and Fgas) so few if any working in the sector bothered to go in for it. There were other reasons too such as – to train an independent engineer means taking himself or staff off the road, this can incur direct costs as well as indirect costs to catch up on the workload - the engineer has to feel that the time involved is relevant in order to justify the cost - there has to be a commercial argument to justify the cost – the need to breakdown the "I already know what I'm doing" mentality and provision of 'real work' experience for new entrants etc. Additionally, the cost of Insurance for younger drivers was prohibitive to taking on young entrants because Repairers could and would benefit from sending a Trained individual out on one man jobs.

Sadly this led to most of those that gained the NVQ did so simply by attending a college based course and not actively working in the industry. Most of the NVQ's were issued by Colleges who were attracted more by the Further Education (FE) funding as opposed to providing what those in the industry actually wanted. Such courses generally only provided 'simulation' of real work as opposed to what is required which is 'real work' evidence of skills and abilities.

Due mainly to the low level of take up of the NVQ by those already in the industry and difficulty in complying with real work evidence of those purely attending a College course (i.e. not actively employed) the qualification was changed once again to fit what colleges could more readily provide as opposed to what the appliance service sector actually wanted. This resulted in the original NVQ being transformed into the 1687 NVQ Progression Award produced which better fitted FE funding criteria available for college courses.

More recently the qualification structure has yet again undergone change with the new acronym being QCF (Quality Credit Framework) and the current "Buzz Word" attached to it "Apprenticeship" which once again is primarily designed to fit current government (FE) funding for Colleges.

The result of all this has sadly done little if anything to address the wide range of Whitegoods servicing issues nor attract those already working as Whitegoods service providers to even consider gaining recognition for their skills or even considering themselves in need of one.

Unfortunately being unable to differentiate between the good, the bad and the down-right dangerous in the appliance sector is working against everyone – service providers and customers alike. It's particularly bad as consumers are often overcharged for repairs and then decide to dispose of old appliances and get themselves into debt.

Service providers, especially those in the independent sector can so easily be discriminated against as being labelled "un-qualified" by manufacturers or those who provide work on an agency basis. Interestingly it is not uncommon for manufacturers who have their own service divisions to refer to their staff as being 'Qualified' even when they do not possess the NVQ.

The lack of recognition of skills in the independent service/recycling sectors means that it is difficult for customers to make informed decisions as to who they have to repair their appliance. In addition independent service provided can be easily denied access to technical information by manufacturers who only see their own staff or agents as being 'Qualified' enough to work on their product. The result is a playing field that is far from level for independent service providers and leaves customers with restricted choice.

Manufacturers are pushing the energy efficient reasons for new product to Ministers, but they don't take any account of Embedded Carbon in the making of the goods or the lack of raw materials in the Earth. Equally, they and WRAP appear to believe that leasing product could be a way forward, but there seems to be no recognition that the average household debt stands at £6000 (excl mortgages). There would be increased risk of more debt, particularly as we are in recession and austere times. Manufacturers should show more CSR by working more to get old appliances to Registered Centres, such as proposed in the EEESafe business model.

IS THERE A BETTER WAY – COULD IT BE EEESafe?

Gas Safe and FGAS are well established in their respective trades and with customers so why not something similar for those working in the appliance service/recycling sector

EEESafe – Electrical and Electronic Equipment Safe – or EEE denoting it's link to the WEEE Directive is a genuine proposal set to deliver far more benefits than ever, in a qualification and business model designed for Sustainability.

Unfettered by the need to ensure that a qualification and its content are governed by pressure for it to be able to gain Government / Further Educational Funding for colleges, the priorities of EEESafe are to develop a structure based on what the White Goods servicing providers and the recycling sector want combined with what customers expect, linked closely with environmental compliance of the WEEE directives. In essence EEESafe joins up all the various 'dots' of this somewhat complex service/recycling sector. Already there is support from an Awarding Body to develop an ethical Qualification, fit for purpose, and additionally secured funding to trial a pilot in England only. The awarding body has identified further, an opportunity to operate in many of the 45 Countries it currently operates.

The Business Model

The journey to achieving such a goal has been a long and at times difficult one but EEESafe has already begun to register people and companies to its EEESafe DAT (Domestic Appliance Technician) Register.” This registration is for those in the appliance service industry who are willing to evidence core requirements and practices for a Safe repair environment. Recruitment is shortly to begin for EEESafe DARs (Domestic Appliance Repairer) who are auditable on protocols issued by EEESafe and its steering Council. Registration Cards are issued to give assurances to consumers and will shortly be able to be checked online and Rated by consumers who undertake work from DATs. DAR's will belong to EEESafe Centres and will be given an Online Shop with no Transaction costs as part of their annual fee, currently set at £300 and includes an annual audit by a network of Auditors we will establish in the coming months. Additional Revenues from selling Refurbished Product Warranties that we partner, sales of New Appliances giving commissions and collection revenues from PCS's who wish to work with us.

A national Partner in the Coop has been established to provide new goods but we hope to recruit other retailers who agree not to take away old Appliances. They will be collected and recorded by centres and will form a database of old appliances and where they are located. The Electrical Safety Council (ESC) record 266 Manufacturer recalls in the last 6 years and with only around 20% repair take up, this leaves millions of products in homes with a higher risk of serious accidents or fires. It has been recorded also by the ESC that of all fires reported in homes, half of them are through electrical faults. 85% of that half is attributed to faulty Appliances.

EEESafe are beginning to work with one or two manufacturers who actually support the Standard, but are concerned about wrong parts being put into refurbished products. They inform us that these could cause unnecessary fires and accidents, a fact that we would wish to raise with all Governments in the Waste Prevention Plans and how it decides to progress on its Reuse and Repair strategies. We hope to have this confirmed shortly in writing, but at the time of this response it is not yet with me. We are entering further discussion with an International Manufacturer and propose to find a way forward that will satisfy them on our standards and practices, that we propose to put in place for Refurbished Spares. This will be based on channelling them through the EEESafe Centres whereby extraction of Spares properly tested and recorded, can offer each centre a ready-made market to buy and sell from each other on our online platform.

We plan to recruit after the forthcoming Training Pilot, accredited EEESafe Training Centres where these spares and repairs can be evidenced on our system, and prove Waste Prevention, which is a key objective of the Government and this consultation.

EEESafe Training Centres will be afforded a level of access to Accredited Training Material to help deliver our Qualification. The learning material has been co-developed with Graham Dixon of Dixon Training who is the Author of the Haynes Manuals for Appliance repairs. It is planned to operate an Institute Model so that the materials have the best protection from replication but also to ensure a quality of delivery, backed by a plan to have online Training alongside the Modules.

EEESafe has already gained the support of SME's and major service/repair providers and recycling operations across the UK as well as both trade bodies (DASA & WTA), and some major manufacturers. There is also some interest from Europe and beyond that could eventually make EEESafe internationally accepted.

The Trade & Consumers

The requirements to gain the EEESafe Registration and Qualification will be based on what those in the trade want as well as what customers expect of a service/recycling provider. It will be judged on assessing the knowledge of each applicant combined with factual evidence that such skills and knowledge are applied in their day to day activities. The continued development of the working structure of EEESafe will include representatives from across the whole of the appliance service and recycling sectors.

We believe that if consumers are offered an incentive, such as Local Skills development and Job creation through the Training Programme, availability of more low cost goods, the potential for lower repair costs, diversion from Landfill, carbon reduction through reuse (WRAP), lowering risk of more debt and helping their local community then this will be a great incentive to get involved in the whole model. We believe that EEESafe DATs and Centres will be the consumer choice for these benefits and they will feel a lower risk of any accidents due to faulty or incorrect components and unqualified repairers. Not only can they spend those points at over 300 online stores, but they should get lower cost repairs with the additional knowledge that more low cost appliances will be available to them and their local community. With the average age of an experienced engineer around 56 years (Source, the Trade) the new breed of domestic appliance technicians will rise from the EEESafe Training programme for a Repair market fit to make an extremely Sustainable contribution to the Welsh Government's policies.

Recyclers and Reprocessors

For reprocessors and HWRC sites, we believe they will see much less product reach the Waste shore and greatly increase the tide of reuse and repair. A number of producer compliance schemes have already shown some serious interest, as they seem to acknowledge that EEESafe could impact their business models, but equally, they could pick up some new business collecting unusable spares as well as get involved in the online Marketplace of Spares we are shortly creating. They have a lot of product to bring to the Centres, and obviously will need to subscribe to the Protocols of an EEESafe Centre and its DARs.

Legislation

Currently anyone involved with us, we recommend that they hold the relevant permits or exemptions for carrying Waste. This cost along with T11s and AATF Fees puts many people off of repairing appliances. We have this information from the Trade Association and we are positive many, unknown to us, are fly tipping or selling illegally to Scrap Merchants or exporting illegally and are doing so because of the costs. We believe that if we can achieve recognition and acceptance of the model and standard, then we can aspire to have further exemptions to those companies prepared to register and follow the audited protocols of EEESafe.

Gaining such recognition from the Government, it may be possible to further reduce costs through the reduction of costs associated with monitoring licences and other administrative functions. This would be in line with the Governments' Red Tape challenge that is being covered in the WEEE Recast Consultation. We believe many more entrants would take up this career if there were less Red Tape, without compromise on Safety and vital legislation.

I have written to the First Minister in December 2011, suggesting that as we have law making powers in Wales, we should make all potential WEEE (EEE) enter a number of Hubs established throughout Wales.

If these Hubs were run on the EESafe Centre Model, which included Training Programmes, Online Shops, New Purchase Revenue streams and other benefits, then the Welsh Government could start producing savings very quickly, and a rollout across the nation would be quite easy to do. Generally through this model, with a little assistance you would be able to obtain much more recorded Waste prevention and also help create more jobs through engagement with the existing repair sector and engage with a planned Pre Employment programme with our proposed entry level training qualification. Hubs could become Centres for Spares and storage of goods that would enter a regulated repair network and also help create Community Repairers to registering as DATs. The existing Reuse Network could utilise the shops for other products as well and not be exclusive as WEEE. There is huge opportunity and we could be sure to be maximising the retention of the EEE Resource and other Resource for Community benefit and Training outcomes. The Minister did like this idea and passed it to the Sustainability Department, with whom we've since lost touch.

With the current Recast of the WEEE Directive Consultation of which we are contributors, our view is contained in our response to this consultation. We will cite one part below, but have attached a full copy for you to review, which will of course be sent to the appropriate mail address for Wales.

In response to the Question: Which, if any, of the IPR working group's three options would you like to see considered further and why? We favoured none of these three options outright, but had some leaning towards option one, but since this Consultation seems driven at Producers in the main, we wanted to highlight that Reuse should not be forgotten and that if Waste Prevention were tackled sooner, as it can be with our existing model, then Producers would benefit from lower costs because of prevention, and Public expenditure costs would also reduce because there is less to collect and treat. The three options were:

- A Design for Reuse and Recycling weighting
- Return share based on brand sampling
- Front end payment for WEEE arising

Our Comments were:

We are already beginning to work with a few Manufacturers and if we are successful in the long term aims, then Producers would lower their true costs. We would be sharing evidence of Waste Prevention as previously stated. We recommend that the working group look at this model, which also incorporates a solution for regulating an unregulated sector, whilst delivering Social and Educational benefits. By diverting all EEE into assessment centres, recovery and repair can be optimized for social and educational benefit. Evidence can be retrieved more efficiently and at a lower cost. With WRAP looking at possibly advocating leasing models of appliances, repair will become more important. The Sector Skills council already say that the throwaway society has left a skills gap. The Trade Associations say the average age of a Repairer is 56, so focusing on this now is vital if we are to deliver targets on WEEE, Social and Education of Green Skills. The Welsh Government are looking at HUBs that involve the Community Sector, and it's worth having dialogue with them, particularly as Sustainability is at the heart of its Constitution. Climate change is a big issue and Reuse shows the lowest Carbon output, according to WRAP's research. Michael Fallon has informed EEESafe that the standard could be complimentary to PAS141. DEFRA's Reuse Forum and it's Stakeholders have recently met and there is clear support for a Standard in repair of White Goods and also clear demand from the majority, to obtain more White Goods. It's the Producers Compliance Schemes that are removing them from local communities. With all this evidence, we recommend the group looks closer at EEESafe and thinks out of the box a little bit more. Designing for Reuse has a role to play, but the impacts will take some time to come through, but Design should not be ignored. There is fantastic opportunity through our engagement with Trade and Manufacturers and those who sign up to EEESafe, to have forums that feedback real issues on Design. Some information has already been fed through but there is lack of acknowledgement and action, so we need a clear strategy on how to progress these relationships whilst meeting our Social and Environmental obligations in a Sustainable way.

Finally EEESafe, with its unique Training Programme and Learning Materials, will provide a low cost way for all in the service/recycling/community sectors to show recognition of their skill levels whether they are new to the industry or existing personnel with years of experience. Combining Training Budgets in the process will potentially deliver a much better ROI than the same funding would as a stand alone project.

We should be seen as providing a 'progression path' to Electrical, Plumbing and Engineering at the basic level in the Training Programme. With real training being conducted in real communities, buy in from those communities can only be a positive step to educate Welsh citizens in Sustainability and its benefits. Those who get involved in a full qualification in Appliance Repairs could also work along a possible Apprentice Model with Materials Handling and Recycling Qualifications in the syllabus.

Partnerships with local colleges offer fantastic opportunities and present us with some of the benefits listed below:

- Increased engagement of Welsh Citizens to think and act sustainably
- Increased availability of low cost appliances and potentially lower cost repairs
- Greater chances of employment
- New revenue streams for those already engaged in Repair and Reuse
- Growth opportunities to expand into Training Facilities
- More pathways to further learning and engagement of NEETs
- Training Providers and Colleges who can work with EEESafe Centres to deliver the qualification
- Increased compliance with WEEE regulations
- Better and more efficient Data Collection information on Waste Prevention
- The production of a Recalled Product Database to help Manufacturers and lower their costs
- Increased Repair work for enterprises who sign up
- Consumer confidence on repairers and in the Government if they recommend a standard and divert community EEE into Centres.
- Local regeneration through community interaction and building Community Spirit
- Reduction in emissions as reuse is better than manufacturing new
- Wales can lead through innovation and potential exporting of the model

We commend this report to you and trust that it has been useful in explaining how we as a business are pro-active in Waste prevention. We hope you help facilitate the growth of our operation as you make Policy decisions for a Sustainable Wales.

You can find further details of how the company is progressing at www.eeesafe.com

Food and Drink Federation

This submission is made by the Food and Drink Federation, the trade association for food and drink manufacturing. Food and drink is the largest manufacturing sector in the UK (accounting for 16% of the total manufacturing sector) turning over £76bn per annum; creating Gross Value Added (GVA) of £20.6bn and employing up to 400,000 people.

Our members' first priority is to prevent food and packaging waste arising at their production sites and where this cannot be achieved to drive waste up the hierarchy.

In October 2007 FDF launched a voluntary agreement on behalf of its members known as the Five-fold Environmental Ambition to deliver improvements across five key environmental parameters. Two of these parameters relate to waste and packaging respectively. For waste the Ambition sets a target to send zero food and packaging waste to landfill by 2015 at the latest as well as to make a significant contribution to WRAP's Courtauld 2 target of reducing product and packaging waste in the supply chain by 5% by end of 2012 against a 2009 baseline. For packaging the target is to make a significant contribution to WRAP's Courtauld 2 target to reduce the carbon impact of packaging by 10% by 2012 against a 2009 baseline.

Whilst FDF supports the Welsh Government's focus on preventing waste, we are extremely concerned to read the suggestion made on page 170 that the Welsh Government will investigate a possible extension of the carrier bag charge to packaging. Such an extension would in our view run the real risk of generating major increases in food waste (and its associated Greenhouse Gas emissions) as businesses could be forced to cut the levels of packaging beyond the optimum amount needed to protect the product throughout the supply chain and for keeping it fresher for longer once the consumer takes it home. This would wipe out the achievements that have been made so far under for example the WRAP Courtauld Commitment especially since the greenhouse gas emissions associated with food are about X15 those of the packaging according to WRAP analysis.

Friends of the Earth Cymru

We assume that the justification for excluding glass and metal from the waste prevention messaging is twofold: they are not biodegradable (and do not therefore count towards the Landfill Directive biodegradable municipal waste definition); and they are easily recyclable. However, Friends of the Earth Cymru considers this to be a missed opportunity. Glass is heavy and metal is plentiful in the waste stream and they contribute 4% each by mass to residual waste⁶.

It is difficult to conceive that a deposit system for drinks cans and bottles would not be an "*opportunity for waste prevention [that is among the] greatest*". Dense plastic bottles comprise 2% by weight of municipal solid waste in Wales⁷, glass bottles are 4-5%⁸ and presumably a high proportion of metal cans (2% of MSW) are drinks cans. We would be grateful if the Welsh Government could provide their viewpoint on this and to indicate whether or not a programme of work should be initiated along these lines.

Although a deposit scheme is highlighted here in waste prevention terms, it is worth noting that glass packaging, plastic bottles and metal cans each comprise between 5 and 10% of litter⁹. A deposit scheme therefore has significant litter-reducing potential.

⁶ WRAP, May 2010, *The composition of municipal solid waste in Wales*, page 2

⁷ WRAP, May 2010, *The composition of municipal solid waste in Wales*, page 4

⁸ WRAP, May 2010, *The composition of municipal solid waste in Wales*, page 19

⁹ WRAP, May 2010, *The composition of municipal solid waste in Wales*, page 31

Friends of the Earth Cymru assumes that the omission of a deposit scheme is the result of the finding by the Phase 2 report that:

*“Other measures to reduce consumer packaging – for example deposit return schemes or direct packaging taxes – would likely need UK-wide implementation and could be in conflict with UK-level producer responsibility agreements”.*¹⁰

This statement is simply an unsupported assertion. It is our belief that deposit return schemes would be implementable on a Wales-only basis, in much the same way as the carrier bag charge was introduced separately in Wales, and as deposits vary between US states (some states being without deposit legislation and others having 5c or 10c deposits).

The household waste reduction target of 1.2% of the 2007 baseline each year to 2050 only takes us to a 51.6% reduction in household waste¹¹. Presumably the remainder of the waste would be dealt with through reuse, recycling and composting; if this is not the case, and the Welsh Government has ambitions to be dealing with substantial quantities of waste through landfill or incineration then this should be made clear.

It is difficult to determine the approach of the Welsh Government to disposable nappies. The consultation states that there is *“little potential for reduction”* in the reduction of nappies and clinical waste, despite them being one of the high impact wastes that *“should be the focus for greatest efforts in waste prevention”*. Friends of the Earth Cymru considers this a peculiar dichotomy of approach – the Welsh Government apparently conceding defeat over achieving reductions in one of the highest-impact waste streams.

Evidence from well-resourced Real Nappy Campaigns, indicates that reduction in the use of disposable nappies is an achievable goal and messaging can be tied in with other waste reduction themes. Yet the consultation later (p.17) refers to ‘real nappies’ campaigning as one of the waste prevention work streams. If there is little potential for reduction, what is the purpose of a campaign? There is also a case for examining whether or not a levy should be introduced on disposable nappies to account for the waste management problems they cause.

We are disappointed that the Welsh Government’s aspiration is limited to: *“identify ways to maximise the effectiveness of measures already in place, rather than find additional new measures”*.

This appears to be a particularly unambitious approach to the top of the waste hierarchy, which is acknowledged to be the point at which interventions have most impact.

¹⁰ BrookLyndhurst, July 2012, *Waste prevention in Wales*, page 71

¹¹ Unless the reduction is cumulative, in which case the consultation’s term “absolute reduction of 1.2%...” is misleading

The consultation notes that while progress on recycling targets and waste reduction is maintained, *“there is no need for charging [for waste collection and disposal] to be introduced”*. It would be helpful to have clarity on the criteria which will be used to determine whether or not such charges will be considered.

Mailed items are among the items that contribute to preventable paper and card waste. The principal Welsh Government resolution for this appears to be a ‘say no to junk mail’ campaign. However, there are substantial elements of junk mail that it is currently impossible to ‘say no’ to – those addressed to “The Householder” or “The Occupier”. The Welsh Government should press the UK Government for action to remove the legislative loophole that allows these unsolicited items to remain uncaptured by the Mailing Preference Service opt-out, and examine the scope for Wales-only legislation.

Section 4.1.2.2 states that:

“construction output in Wales... has remained significantly below the UK average since [2008]”.

However the graph used to justify this apparently uses one point in time as the baseline and is not therefore a credible indicator. Statistically it is good practice to use an average of, say 2 years’ worth of UK and Wales output as the baseline.

GroundCover D.B.M. Limited

Our business provides an on- site service which treats soils and ground materials so that they can be re-used instead of being sent to landfill as waste. Specifically, we deal with Japanese Knotweed which is a widespread invasive weed that affects land throughout the UK and is expensive to treat. We could do much more to prevent waste IF we were allowed to operate the same process on a network of treatment sites, so that soils could be brought to us for treatment and recycling, because on many smaller projects there is not enough room on the affected site for us to operate the equipment. We are unable to obtain the necessary Environmental Permit because of a complex web of waste regulations which were not drawn up with our operations in mind. We accept that, but find that the approach from Natural Resources Wales and Environment Agency is one of rejecting the idea unless we can fit into one of the existing regulatory boxes, rather than saying ‘that sounds a good idea – what do we have to do to make it happen?’ We don’t expect the rules to be changed overnight to suit us, but if there was a will to help us through the rules and take a pragmatic approach to a fairly low-tech problem, then we could do more to meet other Government objectives in reducing waste and landfilling.

It is very likely that other companies in other sectors find the same problem exists – if you don’t fit into an existing box then it is very difficult to make an idea work.

Oakdene Hollins

Oakdene Hollins has been contracted to Defra for more than five years ago to manage the EU Ecolabel in the UK. This work is led by Paul Vaughan. You are most welcome to contact us to answer the technical issues raised in the consultation document about the procedures and completeness of the criteria used to award Ecolabels.

The EU Ecolabel is one of several Tier 1 labelling systems. Their role in waste prevention is to highlight the best performing products within specific categories. Eco Design is reflected in all Tier 1 labelling systems. They can be most useful in simplifying green public procurement objectives. For example, specifying that cleaning products used in a contract should carry an Ecolabel will avoid inserting extensive and complex technical specifications.

It is disappointing to read in the consultation document that Tier 1 Eco Labels including the EU Ecolabel are not understood.

The approach to EMS is also disappointing, as the bridge between the proposed competency approach and that of EMS development has been overlooked. There is extensive published evidence that companies adopting EMS generate less waste than competitors in the same sector that do not adopt EMS. Just as adoption of Lean methods can deliver long-term improvements to waste prevention practices, adoption of EMS has similar impacts.

David Grayson and Jane Nelson at the Doughty Centre at Cranfield School of Management have highlighted a five stage maturity index for companies beginning with “Denier” in Stage 1 to “Champion and Transformer” in Stage 5 (*Corporate Responsibility Coalitions*, 2012). In our view, the adoption of EMS is typical of Stage 4 organisations. These companies will be the benchmark organisations around which competency development can be developed. To dismiss the EMS frameworks by which companies in the higher stages of maturity signal their improved systems seems to us a remarkably ill-considered position to have adopted in the programme document.

The Packaging Federation

We welcome the opportunity to comment on this Consultation. Most of the questions refer specifically to operations based within Wales and we are not in a position to comment on the specific views of those of our members who have such operations. Responses will be provided directly by such companies and/or the sector trade associations who represent their interests.

However, we do wish to respond to the comments on “Funding and Financial measures” on page 170:

Funding and financial measures: Taxes, Charges and Levies

The Silk Commission recently reported its findings on the devolution of fiscal powers. The key recommendations are that certain tax raising powers that meet the policy objectives in devolved areas (such as Land Fill, Stamp Duty and the long haul rate of Air Passenger Duty) should be devolved; and that the Welsh Government should share responsibility for income tax. There is general consensus that the recommendations should be taken forward. The Welsh Government will investigate the opportunities for improving environmental sustainability (including impact on waste prevention) by obtaining responsibility for the taxes suggested in the report. It will also investigate the opportunities and benefits that could be derived from building on the success of the carrier bag charge by extension to other products and packaging. There is no intention to introduce any new charges in the short term, but if they were deemed necessary after assessing the impact of voluntary measures, they may be considered in the medium to longer term.

We believe that the imposition of taxes on business to “improve environmental sustainability” is deeply flawed. The provision of products to consumers is an inevitable part of a free market economy since all demand is created by consumers’ desire for the provision of goods and services. Any targeted imposition of taxes on a particular product stream would be highly likely to distort competition and breach EU rules on the freedom of markets.

Sustainability is not just about the environment but also encompasses social and economic impacts and any attempt to single out specific products and/or packaging would clearly interfere with the competitive process. In particular, we would strongly oppose any suggestion that seeks to impose charges on packaging in isolation. Packaging’s existence is only as a delivery system for products – it has no “life” of its own - and in fulfilling its role in containing and protecting products its environmental impact is massively less than that of the products that “mandate” its existence.

Valpak

Annex A of the consultation sets out a description of measures evaluated for the Waste Prevention Plan; although we agree with most of these there are a couple of comments we would like to make.

Firstly, we would strongly oppose the introduction of any additional taxes, levies or charges on packaging producers. Producers already make substantial financial contributions towards the recovery and recycling of packaging and this has greatly increased UK packaging recycling levels. Any introduction of additional charges would ultimately be passed back down to consumers and would therefore be contrary to the Welsh Government’s objective of saving householders and businesses money.

The second point is that we would like to draw attention to the PAS 141 standard that has recently been launched, this is a reuse quality standard for WEEE and more information on it can be found here:

<http://www.valpak.co.uk/EnhanceYourReputation/GainAccreditations/Pas141WeeeReuse.aspx>. We believe that improving consumer confidence in reused items is an important step in encouraging an increase in levels of reuse and quality standards, such as PAS 141, can help achieve this. We are also aware that WRAP are developing a generic reuse standard to incentivise greater levels of reuse across other sectors.

Welsh Environmental Services Association

ESA strongly supports the waste hierarchy. Waste prevention stands at the top of the hierarchy; the highest priority is to reduce waste and where possible prevent it altogether. In developed economies such as the UK, making progress in reducing and preventing waste will require profound changes in production processes, consumption patterns, and business and consumer behaviour. Given today's propensity towards a "throwaway society", these changes cannot be achieved overnight, and in any case it would be unrealistic to expect waste to be eliminated altogether.

Nevertheless, ESA and its members are playing an active part in efforts to improve the way in which we use resources in the economy, not only here in the UK, but also in the EU and more widely.

Welsh Environmental Services Association

ESA and its members are already taking action which contributes towards preventing waste and improving resource efficiency.

ESA has agreed a Responsibility Deal with Defra which includes a commitment by our members to promote the waste hierarchy and to place greater emphasis on waste prevention and resource efficiency in their dealings with their waste producer customers. Although the Responsibility Deal was agreed with Defra, many of our members that have signed up to the Responsibility Deal operate in England and Wales and are therefore expected to apply the objectives of the Deal in both countries.

A number of ESA member companies are actively engaged in re-use initiatives involving partnerships with charities and local authorities. These initiatives help to promote the re-use of a range of products and materials which would otherwise be waste, including electricals, textiles, furniture, and paint.

ESA believes that the Waste Prevention Programme for Wales should:

- Identify which products and materials to target as waste prevention priorities. In ESA's view, the main priorities are electrical and electronic equipment, construction materials, food waste, clothing and textiles, furniture, plastics and packaging.
- Set out how re-use, repair, and leasing business models can be extended. In ESA's view, partnerships between private sector waste companies, charities/third sector organizations, and local authorities are a good approach.
- Explain how the idea of "waste prevention" can be made more meaningful to people and businesses. In ESA's view, it is essential to demonstrate the economic as well as environmental advantages of using resources more efficiently.

ESA's recently published report ' Going for Growth : A Practical Route to a Circular Economy explores a number of options which could play a part in a waste prevention programme. The report can be downloaded at : http://www.esauk.org/esa_reports/Circular_Economy_Report_FINAL_High_Res_For_Release.pdf

ESA and its members look forward to playing an active part in the development by the Welsh Government of the national Waste Prevention Programmes required by the EU.

Welsh Retail Consortium

The Welsh Retail Consortium is the trade association for retailers in Wales. We represent the broad spectrum of Welsh retailing, including large multiple retailers, department stores and independents; selling food and non-food products and services; on the high street, out of town, in community and rural shops, and online.

Through our sister organisation, the British Retail Consortium (BRC), our members have been at the forefront of initiatives to improve resource efficiency and reduce. This was demonstrated in our 2012 publication: *A Better Retailing Climate: Towards Sustainable Retail*. This comprehensive report details progress across a range of issues including reducing waste and packaging and helping consumers make more sustainable choices. A 2012 progress report was published in March 2013.

Retailers are not just trying to minimise their own waste, they are working hard to help households reduce both their food and packaging waste, and have made significant progress in this under the Courtauld Commitment. Alongside increasing the proportion of recycled material used in packaging, they have improved communication to consumers by setting up the highly successful On-Pack Recycling Label (www.oprl.org.uk).

The vision and mile-stones described in the consultation paper are broadly in line with the Courtauld targets. If retailers achieve the new targets set out in the Courtauld Commitment Phase 3, most of the household, packaging and commercial waste requirements will be fulfilled.

However, if all waste producers are driven to focus on the same priorities, then the need for sufficient infrastructure arises. Pressures around waste treatment facilities and transfer stations have already emerged in Scotland, and it is vital that, if stakeholders are urged to reduce their environmental impact, sufficient infrastructure is put at their disposal so as to reach the objectives set out in consultation document.

Williams a Williams Cyf

With reference to waste and recycling to me there are a few simple things that would simplify things.

Source segregation is important, this minimises contamination either from dirty material and the lax attitude of employees.

Source segregation also cuts down costs in the recycling centre and with savings in labour.

To maximise the value of the materials liquid containers should be rinsed.

If the number of different plastics was used with low grade as pots and trays being banned, this would make recycling much simpler and eventually the cost of raw recycled material cheaper.

Peoples attitude to recycling must change, this can be achieved by concentrating on young children and people, maybe have some sort of change in the school curriculum, adding into it "life and living", maybe we are pushing the kids to University when they don't have the basics in place (including recycling).

Infrastructure to deal with recycled material must be in place with investments in infrastructure and developing uses for the collected materials. These materials should be looked at as a resource and not exported to third world countries, these countries have already seen the long term value of these materials.

Local sorting centres would minimise transport costs and create local work even in the most rural locations

WRAP Cymru

There are three key issues we would like to highlight from our response to this consultation:

- Food waste – this is a priority waste stream, and WRAP has world-leading experience in addressing food waste prevention and treatment, including through our consumer food waste prevention programme Love Food Hate Waste. We would welcome the opportunity to explore ways in which we could enhance this offering in Wales.
 - Voluntary agreements – we agree that a voluntary approach to action can be extremely useful particularly when dealing with larger businesses. Much of WRAP’s work has taken place under the auspices of voluntary agreements, and these have driven significant progress over recent years. We would be happy to help the Welsh Government to extend the voluntary approach to other areas in future.
 - Eco-innovation – the REMake project has demonstrated that eco-innovation is not just an environmental, but a competitiveness issue. We would welcome an opportunity to drive implementation of the recommendations of the REMake project in order to encourage greater business engagement in eco-innovation across Wales.
-

Record of industry workshops

Priority: Construction & Demolition Sector

Date: Thursday 25 April 2013

Time: 09:00 – 14:00

Venue: Future Inn, Cardiff Bay

Priority Areas for Action

The Welsh Government has worked with stakeholders to identify the causes of environmental impact and waste generation within the sector. They reflect each step in the life cycle of a construction product.

4 key areas were identified to concentrate on:-

- Design of construction projects and construction products
- Damage to construction products in transit
- Over-ordering by builders + use of excess products generated on site
- Demolition and refurbishment of buildings

The aim of the workshop was to work through these key areas to identify the main barriers to waste prevention and then to discuss possible solutions to overcome these barriers.

Design of construction projects and construction products

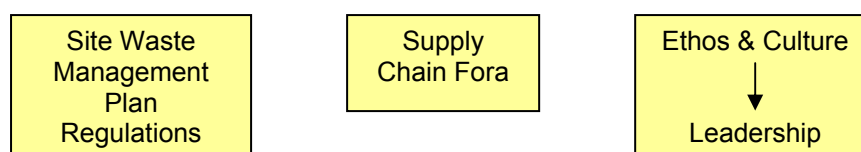
Barriers	Solutions
Policy Drivers	<ul style="list-style-type: none">• Rewrite BREEAM – eco-labels do not score points on current system. BREEAM does not allocate much importance to embodied impact and therefore no incentive for resource efficiency in design. No benefit allocated to designing for deconstruction and re-use.• Rewrite ‘green guide’ with regards to content and ‘governance’ – it is currently very commercially driven, non-transparent, monopoly and based on methodology that does not conform to existing and emerging international standards.• Planning guidance to encourage standard size materials; use qualified architects and professionals to ensure control of projects; require a CDM co-ordination (may cost more in design fees, but less in build fees).• Increase longevity of products will lead to materials with higher potential for reuse. Need to re-think products and designs more appropriate for circular economy• Introduction of house manuals – record of who has built it, what / how / when (for maintenance purposes).

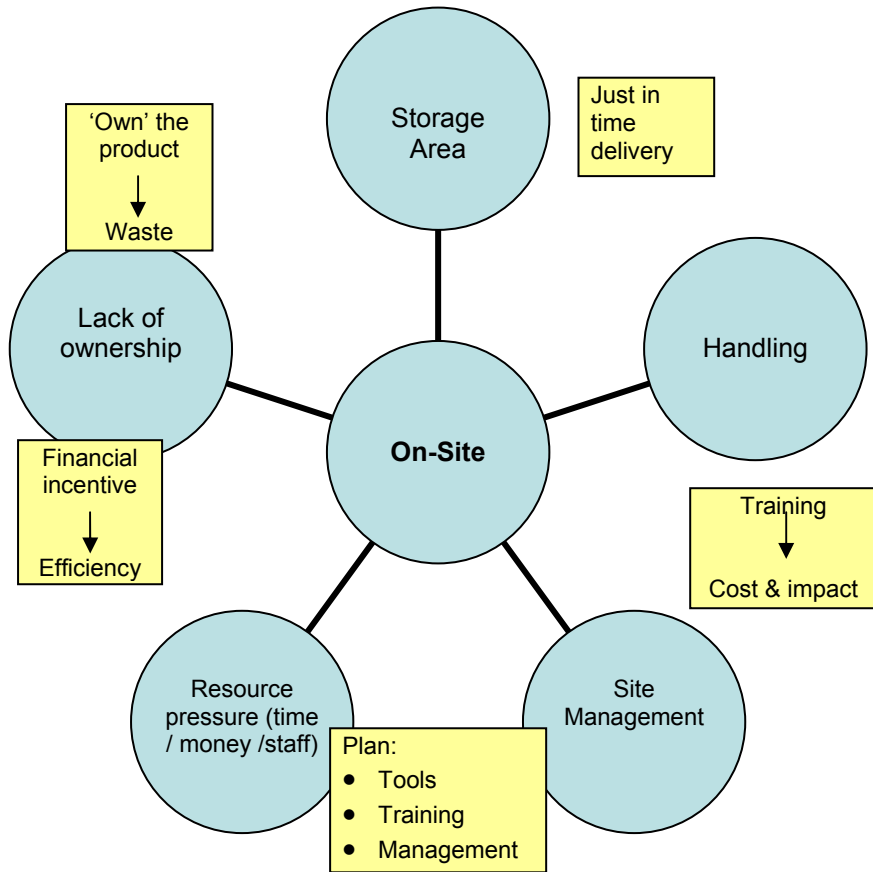
	<ul style="list-style-type: none"> • Ban wood waste to landfill as in other European countries. This would provide raw material for energy and industry and remove negative assumptions about methane generation from wood decay. • Green Construction Board output on capital carbon based on CCS and grid decarbonisation rather than the behaviour change we need which can be driven through better design (and encouragements to better design) through planning and regulations. Systems could include – embodied impact targets or statements in planning (e.g. Brighton and Hackney), revised BREEAM and revised or abolished Green Guide.
Design Culture	<ul style="list-style-type: none"> • Waste prevention needs to be embedded in training for designers and contractors. Need to encourage innovation but also some standard designs needed.
Society Values	<ul style="list-style-type: none"> • Encourage design of ‘homes’ not houses i.e. building for longevity. Local authorities could be encouraged to offer self-build plots rather than larger plots for large housing developments.
Refurbishment	<ul style="list-style-type: none"> • Encourage refurbishment rather than demolition & new build. There is currently a VAT incentive for new builds but not for remodelling properties.
Client Requirements	<ul style="list-style-type: none"> • The client holds the ‘purse strings’ so it is key that they are influenced to change attitudes and requirements. • Clients and designers to design with deconstruction in mind so end up with a resource efficient end of life product. • Encourage the supply chain to produce pre-fabricated buildings and better packaging (greater concentration of product).

Additional notes

It was felt that the use of the phrase ‘buildings and construction products’ was misleading as it suggests that projects other than buildings are precluded from this agenda. It was noted that aggregates have not been flagged as a high impact material. However, bituminous substances have been included (Section 4.1.1) and together with concrete, they will most likely arise on civil and infrastructure projects.

Damage to construction products in transit and in storage





Over-ordering by builders and use of excess products generated on site

Barriers	Solutions
Clients (& builders) not making demands for efficiency	<ul style="list-style-type: none"> • Legislation & enforcement – otherwise very few will do it. Needs to be done properly, enforced and will need resources. • Planning conditions
Building contracts don't give architects level of authority to have control over waste produced and material storage	<ul style="list-style-type: none"> • Standard contracts off shelf with case law built around it. Add in a clause – has to go back to 'best endeavours'. • Identify key materials and focus on big hitters. • Standard waste plan but with flexibility for contractor to alter i.e. a proposition that can be negotiated. • Agree sanctions
Competing priorities e.g. community benefits – local labour – choice	<ul style="list-style-type: none"> • Perhaps a strategic mission statement from Government.
Culture – waste is acceptable on site; other issues are seen as more important	<ul style="list-style-type: none"> • Sharing good examples e.g. contractors who believe that efficiency is the way forward. • Behaviour change campaign getting foremen to be proactive not reactive. • Regulation – procurement for best value not cheapest; targets to motivate e.g. max 10% waste.
Economies of scale – better value to buy in bulk	<ul style="list-style-type: none"> • Supplier take back • Surplus centres

Demolition and refurbishment of buildings

Barriers	Solutions
Driven by contractual and regulatory constraints. Who currently has remit for enforcing activities at construction & demolition sites?	<ul style="list-style-type: none"> • Needs to come from the client – if the client requires it, change will happen. • Need to provide a level playing field via contractual requirements/changes to regulations
From July 2013, Construction Products Regulation (EU) No 305/2011 (CPR) will require all construction products to carry a CE mark – could limit reuse of products. Who will warranty the product?	<ul style="list-style-type: none"> • Will need to come from design of products / materials.

Currently no level playing field for 'sustainable' options – these tend to be more time consuming and therefore more costly; clients not willing to pay extra	<ul style="list-style-type: none"> • Again, needs to be linked into procurement and contracts – has to come from client and designers or through a regulatory route.
Language / terminology i.e. architectural salvage is more appealing than 'recycled' / reused product	<ul style="list-style-type: none"> • Important to vary language used depending on audience, but ensure that messages are consistent.
Supply & demand – currently very little demand for reused / recycled building materials in South Wales. Contrarily, would quantities be available if a project did want to use all reused / recycled materials?	<ul style="list-style-type: none"> • Possible role for Government here to promote reuse via an incentive scheme so that a new market develops. Can this be linked to savings from landfill?

General notes

Thank you to all who attended and participated in the workshop, and to those who have fed into the final notes.

One point of concern that was raised at the event was the apparent duplication of time and effort for those who had previously also contributed to the C&D Sector Plan and Site Waste Management Plan development. While I appreciate that it may seem as though the Welsh Government have consulted a lot on very similar subjects, we felt it was necessary to get feedback from as wide an audience as possible. All of the consultations have produced valuable outputs which we will now pull together and use as we start to focus on how to deliver against the targets in Towards Zero Waste.

In addition, the Waste Prevention Programme is statutory under EU legislation, and their guidelines outline a consultation process that should include stakeholder engagement.

Agenda and background notes

9.00-9.30	Arrive and refreshments
9.30-9.45	Welcome - Facilitator Introduction to Waste Prevention Programme -
9.45 – 10.45	Table discussion of barriers to being more resource efficient
10.45-11.00	Coffee break
10.45 -12.00	Table discussion of overcoming barriers
12.00 – 12.45	Feedback from each table - Facilitator
12.45 – 13.00	Summary and close –
13.00 – 14.00	Lunch and best practice sharing

Table 1 Design of buildings and construction products

The design of buildings and construction products impact heavily on the environmental sustainability of a construction project. One of the areas of work will focus on developing use within the sector of the following principles for design:

- Design for reuse and recovery
- Design for off-site construction
- Design for materials optimisation
- Design for waste efficient procurement
- Value engineering (for large projects)
- Design for deconstruction and flexibility

Table 2 Damage to construction products in transit

It is estimated that on average, between 5 and 15% of materials ordered for a construction project will be 'wasted' due to damage retained during transport or incorrect storage etc. This leads to over-ordering by the construction company. Effort will be put into packaging and transport solutions which minimise damage, and the construction industry will be encouraged and provided with clear guidance on the correct storage of materials on site.

Table 3 Over-ordering by builders

This issue may be solved in part by addressing damage issues, but there should also be a re-focus of ordering. There are ordering mechanisms which optimise productivity whilst avoiding waste. These should be promoted for use by construction companies. The public sector can also have a role to play in its procurement of construction projects, and placing less time pressure on construction projects.

Time pressure is often quoted as a reason to over-order - there is often no time within the schedule to wait for additional materials to arrive on site, so to avoid penalties for over running on time the construction company will order excessive quantities of materials at the start of the project.

Use of excess products generated on site

There will inevitably be some projects which do not use all of their ordered materials, and for these cases there should be facilities available for companies to deposit these materials for use by others. There are a number of options for this material including take back and sale by the original merchant, bring sites run commercially or by social enterprises (with associated websites for publicising available stock) and collection hubs for use by charities, social housing landlords or those on low income. There are challenges with this model in that it need to match material donation to demand, but it is promising and could have wide sustainability benefits.

Table 4 Demolition and refurbishment of buildings

Demolition and refurbishment of buildings

There is considerable scope to increase reuse and preparation for reuse of building materials and components that arise during the refurbishment and demolition of buildings. There will be a focus on raising awareness of these opportunities within the sectors and wider to their client base. As prevention is at the top of the waste hierarchy, the first stage in demolishing or refurbishing a building should be an assessment of reuse potential. This mentality is likely to have knock-on effects to improve the environmental sustainability of any resultant waste management options. Public procurement could again have a role to play in encouraging sustainable refurbishment and demolition, and in producing case studies for dissemination.

Measures

A high level piece of work was completed using existing evidence, and was not designed to produce our programme of work in this area but rather to inform the elaboration and implementation of the programme.

The report recommended that the following measures would lead directly to waste being prevented. A full description of all measures is included in Annex A.

Specific recommendations on measures were:

- Primary Measures – these are measures which will directly lead to the desired outcome:
 - Eco-design
 - Green Private Procurement & supply chain influence
 - Green Public Procurement
 - Resource Exchanges

- Enabling Measures – these support the primary measures:
 - Grants and Loans
 - Innovation Vouchers
 - Networks
 - Toolkits
 - Construction Products Register
 - Eco Labelling
 - Guidance documents
 - Regulation
 - Site Waste Management Plans
 - Standards
 - Funded business programmes

- Measures which should not be relied on in isolation to effect change, but could be used as supporting measures (e.g. information campaigns) or be used to publicise success (e.g. awards):
 - Awards
 - Certification
 - Information campaigns

Aim

1. An understanding from each table what their barriers to resource efficiency are
2. An understanding of what would help over come those barriers.

Workshop attendees

Position	Organisation
Consultant	Constructing Excellence in Wales
Waste Strategy Officer	Welsh Government
Waste Strategy Officer	Welsh Government
Waste Strategy Officer	Welsh Government
Waste Strategy Officer	Welsh Government
Contracts Manager	Joyner PA Cymru
Co-ordinator	Rounded Developments Enterprises Eco Home Centre
Waste Regulation Policy	Welsh Government
Managing Director	Cardiff Demolition Co Ltd
WEST Project Manager	Welsh School of Architecture
Construction Waste Programme Director	Constructing Excellence in Wales
Sales Director	Robert Price Builders Merchants
Consultant	Eurobond-SkanDek Ltd
Director and Secretary	Civil Engineering Contractors Association (Wales) Ltd
Associate Director	BRE Wales & South West
Environment Manager	Travis Perkins Plc
	AEA
Chief Executive of the Alliance for Sustainable Building Products (ASBP)	Plant Fibre Technology Ltd
Team Leader – Waste Prevention & Reuse	Blaenau Gwent County Borough Council
Director	Walters UK Ltd
Director	Honesty Architects Limited
Managing Director	Theodore Sons & Daughters
Environmental Manager	Castleoak
Partner Architect	Hoole & Walmsley Architects
Procurement Project Manager	WRAP

Priority: Eco-Innovation

Date: Monday 22 April 2013

Time: 09:00 – 14:00

Venue: Waterton, Bridgend

Priority Areas for Action

The Welsh Government proposes to promote and encourage the implementation of eco-design and eco-innovation among Welsh manufacturing companies serving domestic and international markets. These companies will benefit commercially from producing market-leading products and in future-proofing against increases in the cost, and reduction in the availability, of input materials.

***Eco-innovation means** the ‘introduction of new or improved product (good or service), process, organisational change or marketing solution that reduces the use of natural material resources’. In terms of new or improved products, eco-innovation (eco-design) means changing the way that products are designed to reduce the amount and type of material in products (including hazardousness); improve longevity; design for reuse, separation and recycling. This includes new business models that reduce the consumption of goods through leasing, producing more durable goods and enabling repair and reuse.*

The aim of the workshop was to identify the main barriers to promoting eco-innovation in Wales and then to discuss possible solutions to overcome these barriers.

Target Sectors

Effort will be targeted to address resource intensive products where there is evidence that it is possible to reduce the product’s impact through changes to their design.

The Advanced Materials and Manufacturing and Life Sciences sectors were targeted for discussion at the workshop.

Barriers

Eco-design Centre Wales gave a presentation on the barriers, taken from the draft report ‘*Ecodesign Baseline for Wales*’.

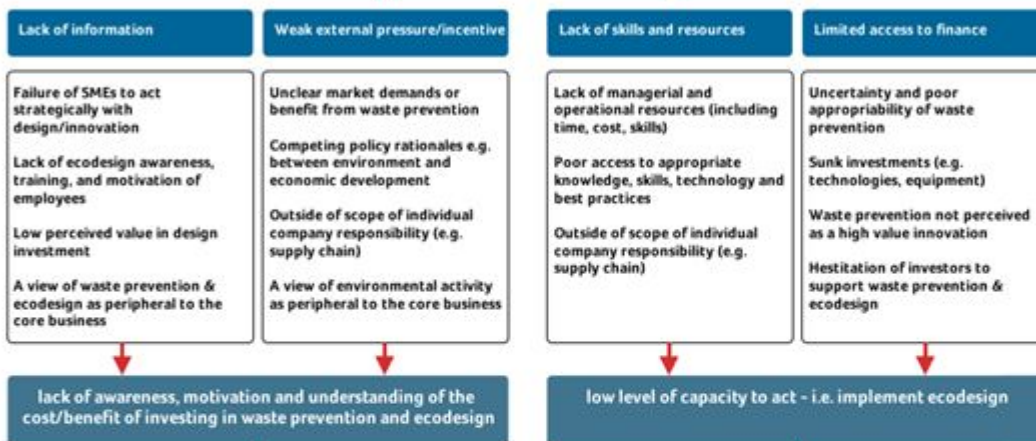
At the workshop the barriers to business identified in the diagram below were discussed

- Lack of information
- Weak external pressure/incentive
- Lack of skills/resources
- Limited access to finance.

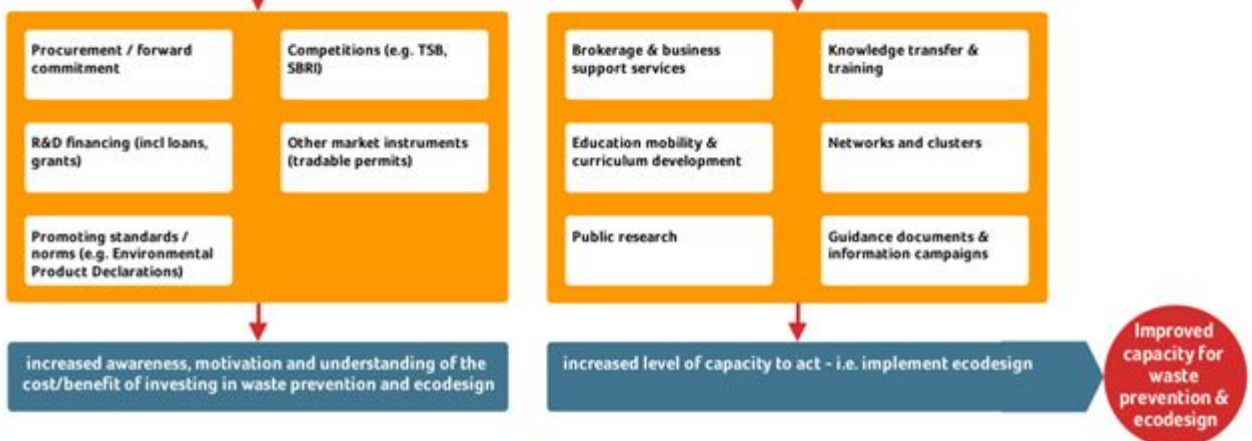
Policy barriers



Business barriers



Interventions



The attendees were asked if they agreed that these were the main barriers to enhancing eco-innovation in Wales, identify any others than may have been missed and to prioritise these. They were also asked if the barriers applied to all business sectors or whether some were sector/circumstance specific. The attendees agreed that these barriers were relevant and made the additional observations:

External pressures and incentives

- **Unclear market demands or benefits,**

In the Life Sciences sector (which produces high value, small material products) material costs are low relative to other costs and only a small part of the cost of getting the product to market.

Vs large bulk material industries.

- **Competing policy rationales (eg between environment and economic development, outside scope of individual company responsibility (eg supply chain))**

In the Life Sciences sector, lots of waste is created due to other regulation (eg packaging/Health and Safety). There are other pressures such as reducing packaging vs increased shelf life.

No joined up thinking at Government level – eg sector panels vs cross cutting issues such as eco-design.

EC Directives (ELV, WEEE etc) focus on recycling rather than reuse. Don't address design adequately – no 'producer' responsibility.

Standards (CE Kite marks) and red tape danger – actually it is good business practice, and should be described as such.

OEMS and extended producer responsibility review

ISO standards review – moving from site to product.

Lack of information

- **Failure of SMEs to act**

Terminology is an issue – too much jargon.

- **Lack of awareness, training and motivation of employees**

Awareness of customers is an issue, such as use of service models (demand side)

Awareness of material security is different in different sectors.

Behaviour change was discussed, particularly: habit/comfort zones, attitudes and behaviours of boss and employees, risk aversion.

Green wash – fatigue of.

Knowledge gap – less in younger people, greater in older people?

Perception of innovation – not just products/technology.

- **Low perceived value in design investment, a view as being peripheral to the core business**

Step changes/incremental improvements to make bigger changes.

Lack of skills and resources

This was perceived as the biggest barrier, especially in SMEs. Is anything being done to address this barrier?

- **Lack of managerial and operational resources**

Companies need TIME to change the way they work. If not, any changes have a short shelf life.

- **Poor access to appropriate knowledge, skills technology and best practices,**

Education is not part of the core curriculum

Lack of consultative capacity on LCA.

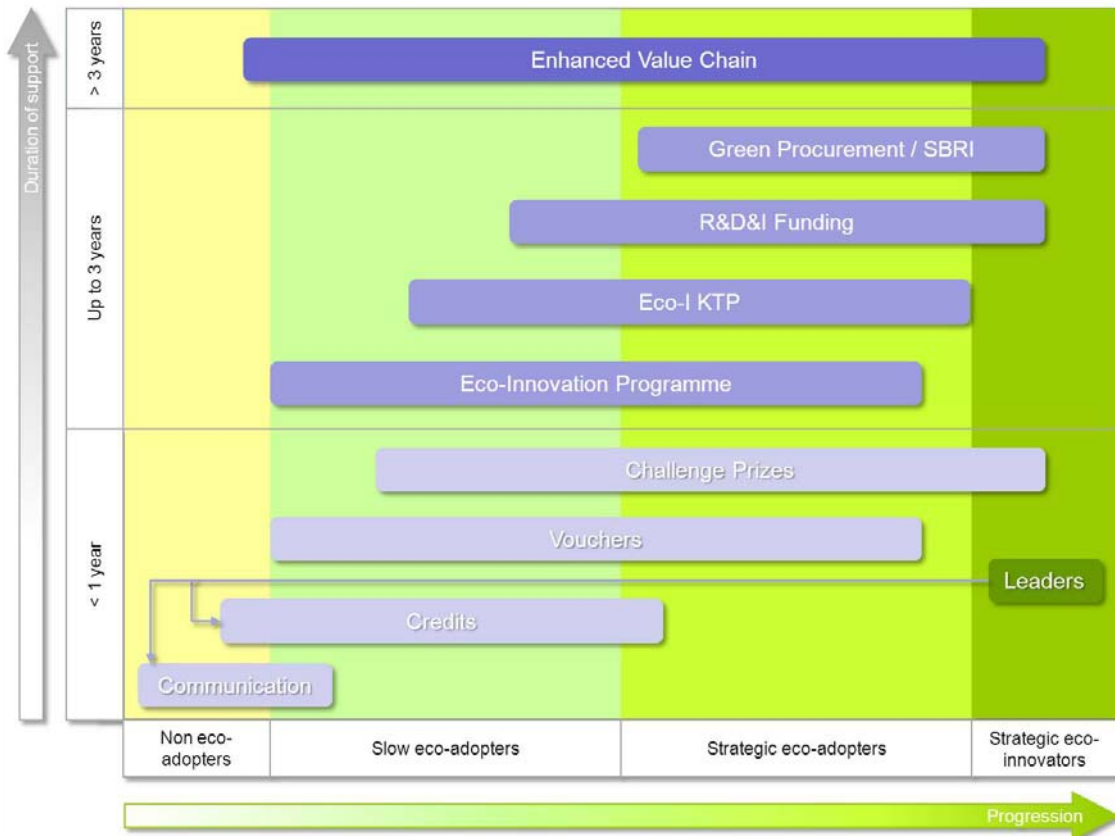
- **Outside scope of individual company responsibility (eg supply chain).**

Looking across the whole LCA and supply chain is DIFFICULT, as there is fragmented access to lots of businesses. Sight of the 'bigger picture' for a product supply chain is needed. There are some issues where willing individual companies are powerless to change (such as procurement).

Is there an interaction between 'designers' and 'enablers'?

Measures

C_Tech and Eunomia gave a presentation of proposed measures, taken from the draft report: *Development and Appraisal of Eco-innovation options for Wales (C-Tech and Eunomia)*. He also introduced the idea of some companies being more receptive to eco-innovation than others (non eco-adaptors, slow eco-adaptors, strategic eco-adopters and strategic innovators), with different measures being applicable to different companies, as described below:



The workshop discussed that some of these types of measures are already being taken forward within the WG's general innovation support offering, and that there would be opportunities to incorporate an 'eco' element to them.

Other suggested measures are new (such as the enhanced value chain option).

The attendees were asked to expand on these proposals in detail and prioritise them, identify any others that may have been missed and find out which of the measures would help address the barriers above. The attendees agreed that these measures were appropriate and addressed the barriers discussed above. The following observations were made:

Business support programmes:

- Embed 'eco' as business as usual in business support programmes.
- Focus on the reason (rather than whether eco or not).
- Understand why Anchors are successful and knowledge transfer to others.
- Examples of leaders: Make it tangible
- Demand side interventions work better (business finding the expertise)
- Academia to business, speed of market of research

- Link to academic research and knowledge of what is going on: train the trainer, who do I go to for support?
- Getting businesses engaged - Take the 'eco' from design, 'makes good business sense'.
- Have a 'skilled' and relevant conversation with industry when engaging – the automotive industry was used as an example.
- Case studies, focussed, business specific information
- Need to adapt business support intervention to each individual company – attitudes are different in different companies.

There are some current business support schemes which could be adapted:

- **High performance company scheme** could include 'product' design
- 'Masters KTP' – Fraunhofer model

Green Procurement was seen as a very important lever to enable change:

- To support strategic eco-innovations (ie full LCA on spec).
- Could influence non-eco adaptors.

In addition, to the measures described above, the role of **Prizes and Challenge Funds** was discussed, and it was agreed these had a large role to play:

- Eco-challenge fund
- Businesses giving students a project – prize for school/company/product.
- High performing company strategic workforce plan.

The role of **Education** at all levels was also considered important:

- Apprenticeships – fresh thinking , not afraid to take risks, no baggage.
- Academic secondments to industry.

Extended Producer Responsibility was also discussed:

- Sell benefits as well as liability (such as adding value back to businesses and Wales).
- Need to know more about how it would be implemented.

Life Sciences

Comes down to quality of delivery: sector knowledge and opportunities, and high knowledge type interventions (KTNs/RDI)

Where segmented – 300 companies - environment not on their agenda.

Drivers could be procurement (public sector nhs), hazardness (SBR competition), enhanced value chain actions.

Way forward

This workshop will inform the final 'Waste Prevention Programme' for Wales (which is a statutory requirement of the EU revised Waste Framework Directive, to be published by 2013). It is also proposed that this work informs a funding bid from the 2014-2020 European Structural funds.

Agenda

9.00-9.30	Reception and Tea and Coffee	
9.30 -9.45	Welcome and Introduction to the Event	Independent Facilitator and, Welsh Government
9.45-10.05	Barriers to Ecodesign	Ecodesign Centre Wales
10.05 -10.45	Facilitated group discussion on barriers	Facilitator and EDC
10.45-11.05	Group feedback	Facilitator
11.05-11.20	Break	
11.20-11.35	Measures for enhancing ecodesign	
11.35-12.15	Facilitated group discussion on measures	
12.15-13.00	Group feedback	
13.00 -13.10	Summary and ways forward from event	Welsh Government
13.10-14.00	Lunch	

Workshop attendees

Organisation (some including job title)
Welsh Automotive Forum
Advanced Materials & Manufacturing Sector Welsh Government
Life Sciences Sector Panel
Enterprise Consulting

Head of Innovation Policy Welsh Government
Head of Knowledge Transfer & Commercialisation Welsh Government
SEMTA (Sector Skills Council for Science, Engineering and Manufacturing Technologies.
Ecodesign Centre
C-Tech
WRAP
Waste Strategy Branch Welsh Government

Those to be asked to become engaged subsequently to event (and who expressed apologies)

Advanced Materials and Manufacturing Sector Panel
EEF
ESTnet
Welsh Optoelectronics Forum
SDWP (covered by Automotive forum)
Operations Manager Business Innovation
Business in the Community

Priority Sector: Small and Medium sized Enterprises (SMEs)

Two workshops were held as follows:

Date: 14 June 2013

Time: 09:00 – 14:00

Venue: Venue Cymru, Llandudno

Date: 21 June 2013

Time: 09:00 – 14:00

Venue: Maldron Hotel, Cardiff

The Purpose

The workshops provided an opportunity for SMEs to influence the implementation of the waste prevention programme. The Welsh Government described its priorities, and attendees were invited to discuss waste prevention and resource efficiency from the perspective of a Welsh SME. The benefit of this approach is that businesses being affected by the measure can input into its development at an early stage, resulting in a more tailored output.

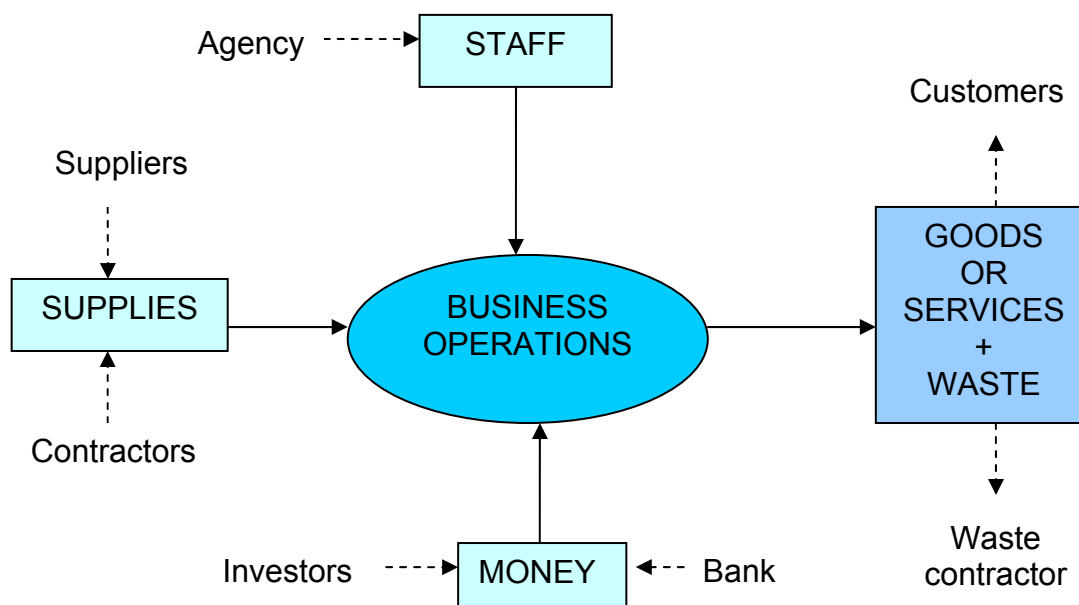
Target Sectors

The following were identified as priority sectors, and representatives from these sectors were specifically invited to the workshops:

- Small retailers and wholesalers
- Food and Accommodation Services
- Office based services

The Task

The following diagram represents a business, with its associated resources and outputs. The delegates were asked to think about these wider considerations as well as their internal processes and operations.



The discussion for each workshop was split into 4 questions on waste prevention and resource efficiency action:

- What's already being done in the target sectors?
- What further opportunities exist?
- What are the barriers faces by SMEs?
- What can be done to encourage action?

The Discussion

Below are the key points from both workshops, divided by priority sector.

Retailers and Wholesalers

1. What's already being done by some SMEs in this sector:

Supplies

- Food manufacturers reduced some food packaging due to packaging regulations
- Stock and rotation ordering
- Reusable transit packaging
- Longer life produce
- Prescribe lighter weight packaging

Staff

- Staff training initiatives
- Coat hangers reused
- Pick your own

Money

- Price reduction for short life goods
- Higher prices to cover costs

Goods / services and waste

- Plastic bags charge
- Sale of bags for life
- Reuse of packaging from goods to consumers

Internal processes & business operations

- For food retailers – making food to order
- Reduce process waste through continuous improvement approach
- Invest in new technology to improve efficiency on a 3-5 year basis

2. What further opportunities exist?

Supplies

- Ask suppliers to take back packaging
- Deposit return systems (also applicable to internal processes and operations)
- Innovative packaging
- Upgrade packaging to increase shelf life of food
- Increased use of effective forecasting and ordering
- Improve reliability of machines and manufacturing processes to reduce wastage

Staff

- Print receipts and other information double-sided
- Do not print receipts unless required by the customer
- Share best practice among SMEs
 - Recognise the variety of SMEs in terms of type of activity, geographical location, and size of business
 - Offer a range of targeted information, and different opportunities to share information.
 - Create “super-groups” of companies and use high achievers as case studies – if messages come from peers, other companies are more likely to buy into methods.
 - Senior management and all staff need to sign up to enable process/business model changes.

Money

- Investment in processes, training etc – if there are clear benefits

Goods / services and waste

- Encourage use of customers' own bags
- Packaging of online retailers – often recycled – opportunity for reuse?

Internal processes & business operations

- LED lighting - change bulbs less often, great for display lighting
- Controls on chilling units
- Use concentrated products for cleaning

3. What are the barriers faced by SMEs?

Supplies

- Packaging often comes from overseas
- Packaging within packaging
- No returnable options available for packaging
- Inability to influence suppliers
- Lack of purchasing power
- Risk averse – no appetite to break rank with the norm
- Lack of ownership through lifecycle (e.g. of single use packaging)

Staff

- Behaviour change in staff is difficult to achieve
- Human error often creates wastage
- Continuity of support – stops actions being followed up
- Companies are not always easy to reach, even if the messages are available.

Money

- Shortage of money to invest in actions
- Time is money! SMEs don't have the same resources as larger companies

Goods / services and waste

- Customer expectations
 - Bags
 - Displays
 - Packaging
 - Aesthetics (e.g. shape and size of fruit and vegetables)
 - Quality
- Quantity of packaging increased for postage for security reasons

Internal processes & business operations

- Knowledge
- Support
- Guidance
- Time
- Marketing – tension/conflict between “green” and “quality”
- For food, is the “perfect” shape, size and colour a result of customer expectation or marketing?
- Understanding of opportunity
- Legislative burdens

4. What can be done to encourage action?

Staff

- Support providers need to follow up and provide help for ongoing improvements
- Training materials and sessions
- Face to face and online
- Visits to companies
- Start up businesses – encourage them to think about the whole business model approach
- Provide good business cases
- Management must lead the way to train staff so that they understand the reasons for change, and perhaps use incentives to encourage action.

Money

- Financial support is more useful to larger companies than consultancy.
- Grants are best, but ‘soft’ loans can be good for smaller companies.

Goods / services and waste

- Change consumer perception of what can be used and what is waste
- Recipes in shops
- No receipts

Internal processes & business operations

- Develop and promote benefits of breaking rank with the norm
- Advertise “pioneers”
- Welsh Government, local authorities and organisations promote these businesses
- “Think small first” – small business can take advantage of these opportunities if a level playing field is provided

Food and Accommodation Services

1. What’s already being done by some SMEs in this sector:

Supplies

- Use of local suppliers where possible
- Purchase of second hand / antique furniture
- Bulk buying
- Talk to suppliers about reducing quantities of packaging
- Use returnable packaging, or loose goods
- Opt for fresh food (better quality but can sometimes increase waste)

Staff

- Use local staff – no need for accommodation
- Provide staff meals
- Training for staff
 - Kitchen talks
 - Communications
 - Feedback & updates
 - Access to information/resources
 - Try to get more consistent staff performance through training and monitoring

Money

- Type and scale of action is dependent on funds available

Goods / services and waste

- Portion sizing
- Plate sizes for buffets – avoids overly large portions
- Cooking to order
- Messaging on healthy eating
- Customer communications e.g. Love Food Hate Waste
- Use of tap water
- Buffets to reduce waste by not plating up a meal that's too large
- Toiletries presented in large containers, not small bottles
- "Education" of clients
- Measure and monitor waste production
- Donation of old bedding to a zoo
- Donation of old towels to be used as cleaning rags
- Waste oil recycling service

Internal processes & business operations

- Effective use of technology e.g. microwave, refrigeration & freezers
- Recycling heat from air conditioning to heat swimming pool
- Menu design – to use up food, reduce waste
- Management of products within the business – ensure use before products reach their use by dates
- Reduce food preparation waste
- Use of tea urns instead of individual pots, bags etc
- Breakfast buffets
- Use of hand dryers instead of towels
- On-site laundry – less stock required
- Packaging reused in small organisations
- Stock control / spillage control
- Carefully manage the ordering system and process
- Double-sided printing, printing only where necessary, reuse of paper

2. What further opportunities exist?

Supplies

- Move to paperless ordering
- Bulk or collective purchasing
- Greater use of closed loop packaging
- Avoid retailers and wholesalers that use excessive packaging
- Reusable packaging from suppliers

Staff

- Qualifications and recognition of waste management expertise
- Reward for staff that demonstrate high level of competence in waste management
- Raise staff awareness of food date labels, ordering, storage and extending the life of food.
- Staff management of customer expectations – to explain that certain actions are necessary, and describe their benefits.

Money

- Get competitive advantage through advertising green credentials

Goods / services and waste

- Edible plates
- Do not sell packaged sandwiches – make fresh
- More businesses to offer different portion sizes – consumer choice
- Buying more shouldn't be cheaper as it encourages excessive purchasing
- Green “marketing” – messaging and education, engagement, change culture and perception, including understanding of benefits
- Advertise – local food, buy as much as you need, environmentally friendly packaging, reduced packaging – will result in market development and more money for the business
- Cluster opportunities for waste services, particularly food waste in tourist areas
- Increase reuse and donation or disposal to charities and social enterprises
- Alternative outlets for surplus food
- Increase donation or sale of furniture, furnishings, carpets, towels, bed linen etc.

Internal processes & business operations

- Monitor production of waste, particularly food, and adjust the business operations accordingly
- Use chemical free cleaners
- Harvest rainwater
- Limit refurbishment to what is needed, and reuse or revamp whilst refurbishing
- Serve sugar in a bowl rather than a sachet – same with other items such as coffee, salt, milk etc.
- Share best practice among businesses

3. What are the barriers faced by SMEs?

Supplies

- Little influence over suppliers, particularly when the suppliers are significantly larger businesses
- Leasing schemes
 - Lack of understanding
 - Lack of uptake
 - Perception that leasing will reduce quality and reliability

Staff

- Business owners and staff don't understand the benefits - either financial or environmental - of waste prevention
- Company ethos and custom/habitual business practices.
- There is a resistance to change from staff and business owners
- Maintain the knowledge and understanding of the staff – particularly when there may be seasonal staff or high turnover.
- Inadequate knowledge among catering staff, for example in the use of off-cuts of meat
- The knowledge gap exists beyond direct staff – also FSA, health inspectors, customers.
- Risk aversion, fear of breaking ranks and being different.

Money

- Environmentally sustainable goods and packaging often more expensive than less sustainable – small businesses sometimes have to go for the cheapest option
- It's cheaper to buy disposables (e.g. cups)
- Local produce can sometimes be more expensive

Goods / services and waste

- Customers don't understand the benefits - either financial or environmental - of waste prevention
- Ethos and expectation of customers – business guests have a different view to the elderly, or families
- Many customers like to know what to expect – resistant to change
- Poor quality & provision of waste services
- Dealing with waste takes time
- Food – offer something different
 - Portion sizes
 - Garnish / presentation
 - Style of service
 - Messages to go alongside food menu.

Internal processes & business operations

- Conflict between the grading systems (e.g. A.A.) and sustainability – indicators of “quality” often run contrary to environmental sustainability.
- Hygiene regulations make it more difficult e.g. ketchup bottles, sugar bowls.
- Risk averse – business owners don't want to be taken to court, so processes are designed to avoid this
- SMEs have older technology
- Lack of networking within the industry – little sharing of info because many businesses don't engage.
- Life of products – fashion and image, and costs dictate products used.
- Ease versus efficiency – it's easier to waste than to think differently.

4. What can be done to encourage action?

Supplies

- Environmental packaging – need specification for suppliers to work to.
- Government and businesses to put pressure on supply chain to reduce packaging
- Reuse packaging e.g. cardboard.
- Buy local if possible; buy collectively; buy in bulk.
- Think about packaging
 - retail packaging
 - bin liners
 - packaged soap
 - plastic and covered glasses in the bathroom.

Staff

- Increase accessibility to case studies – make them available to business owners and staff
- Encourage the link between action on the environment and service to staff e.g. offering choice
- Produce quality, standard staff training materials that provide the basic grounding
- Better understanding of basic food storage, hygiene and preparation, and menu planning, for staff
- Provide good information to children – they will be the staff and customers of the future
- Allow for creativity and innovation – don't be prescriptive (in either policy measures or as management).
- Business clusters, geographic and/or sector.
- Any information needs to be credible and relevant to the business.
- Actions may seem complex – need to make them simple.
- Communications – needs to be easy to access, relevant, not too complex, not overload, and good exemplars.

Money

- Use money to refurbish rather than replace items.
- Think again about “perfection” – sometimes do businesses invest in new for no purpose. Does it make business sense?

Goods / services and waste

- Provide good information to children – they will be the staff and customers of the future
- Improve access to good quality waste services, in particular recycling
- Alongside access, make businesses aware of the options for waste management
- Legislation to use better packaging so that competing businesses are on a level playing field.
- Get support from local authorities e.g. in recycling.
- Think about seasonality – links to turnover and food waste.

Internal processes & business operations

- Planning regulations – do these inhibit businesses from operating more sustainably?
- Policy scrutiny – do some policies result in perverse outcomes in other areas, such as environmental sustainability?
- Industry bodies should be encouraged to lobby organisations that manage grading systems
- Sustainable tourism accreditation schemes – these are good, but need to be proportionate and not put a lot of burden on businesses
- Change to Food Standards, Health & Safety rules etc to allow for certain practices which prevent waste.
- Extend life of products e.g. long life bulbs.
- Audit and review waste, particularly food, cardboard, plastic.

Office based services

1. What's already being done by some SMEs in this sector:

Supplies

- Rent or buy second hand furniture
- Buy furniture with recycled content
- Buy recycled paper, or thinner gauge paper
- Rent IT equipment
- Buy to the spec needed, and only renew when necessary
- Share equipment only used infrequently with other SMEs
- Buy in bulk, and buy collectively
- Attempt to influence suppliers (e.g. to reduce packaging)
- Use take-back schemes or refills (e.g. for toners)
- Sustainable procurement principles used

Staff

- Green teams – to promote improvements in the business
- Staff training (e.g. how to use duplex printers)
- Encourage (and incentivise?) staff to reduce waste
- Home working – investigate whether this increases or decreases waste
- Encourage staff to turn off IT rather than leaving on standby
- Waste audits carried out by some businesses

Money

- Investment in new technologies – more efficient in longer term

Goods / services and waste

- Pass on or sell previously used furniture to other businesses
- Donate office furniture to community furniture reuse schemes
- Send IT to refurbishment or reuse organisations
- Sort waste

Internal processes & business operations

- Have kitchen facilities to reduce consumption of pre-packaged goods
- Binless offices
- LED bulbs
- Reduced paper use – use IT more effectively for business operations, producing delivery notes, invoices etc electronically
- Use of news services on electronic devices instead of newspapers
- Control ordering and use of stationary
- Printer confirmation – requires confirmation at the printer, to avoid printing a document twice or print in error
- Print to screen rather than physical printouts

2. What further opportunities exist?

Supplies

- More collective purchasing
- More leasing
- A network is needed to provide quality second hand furniture, IT, carpets etc
- Purchases need to be “future proof” – need to predict what’s needed
- Everyone buying into a new paperless, electronic way of doing business (including customers)
- Sub-contracted procurement for SMEs

Staff

- Education – part of the induction into an organisation should be training on what wastes are typically generated by the business, and how to avoid or reduce them.
- Make sure staff members are trained in the use of technology.
- Encourage segregation by having central, segregated bins NOT bins at each desk.
- Encourage home working if this is likely to reduce waste (e.g. less printing).
- Bin audits – to check that staff understand what’s required and act on it.
- If staff members are out of the office, use technology to avoid having to print information out.
- Change mindset about paper v electronic – trust in the technology!
- Information and provision of services to change attitudes to second hand (e.g. furniture) – corporate image, guarantees, longevity of second hand goods, knowledge of suppliers.

Money

- Invest in sustainable technological solutions
- The recession can be used to the advantage of waste prevention actions – thrift is welcome.

Goods / services and waste

- Reuse schemes
- Engage with consumers by promoting waste prevention actions

Internal processes & business operations

- Meeting agendas, minutes etc – don't print multiple copies, keep one copy of each available during meetings
- More equipped lunch areas
- Use tap water instead of bottled water for staff, visitors and customers
- Food bins in kitchen areas – makes food waste visible
- Encourage clients to accept receipts, invoices and other paperwork electronically
- Make double-sided printing the default setting on all printers.

3. What are the barriers faced by SMEs?

Supplies

- Suppliers won't offer take back for small quantities
- SMEs do not have much influence over their suppliers
- Lack of trust in leasing – quality of goods and lease service
- Recycled materials are perceived as more expensive and lower quality.
- Internet connections are weak in some areas, so there is a reliance on paper copies
- Lack of supply of quality 2nd hand goods and equipment.
- In rural areas, there is less opportunity to purchase collectively – few similar businesses, no close business neighbours with whom to collectively purchase.

Staff

- Business managers / owners don't have enough knowledge to train their staff.
- Managers are busy running their business – so they don't provide leadership on waste prevention.
- Tackling waste prevention can be dull.
- Waste prevention can be time consuming and hard work.
- Staff and management are often resistant to change.
- Consumerism operates in businesses too – it's nice to have new furniture, the latest gadgets etc.
- The focus has been on recycling in recent years – there's a lack of awareness of prevention, recycling is easier and is a more visible activity.
- Lack of awareness of "hidden" commercial waste that ends up in household waste stream.
- People are more comfortable taking a paper copy of an agenda to refer to at meetings (i.e. there are habits that are difficult to break).
- Lack of easy to understand messages around waste prevention & reuse to encourage action.
- Home working - restrictive working arrangements.
- Need an understanding of the low hanging fruit to get interest, then move onto higher hanging fruit requiring more investment.
- Messaging is key.

Money

- SMEs sense that savings from waste prevention will be minimal
- No money to make the necessary changes.
- There's a cost to advertising waste prevention.
- Home working – the business needs to support heating, equipment etc in multiple locations.
- Unsure of returns on investment.
- Time and cost pressures (and time equals money in SMEs)

Goods / services and waste

- Customer perception – do customers value waste prevention?
- Waste prevention isn't as "sexy" as some other initiatives, such as solar panels
- Lack of policies e.g. on paperless offices, tap water etc.
- Lack of outlets, storage and space for reuse of IT, carpets etc.
- Lack of knowledge of where & how to donate furniture, EEE etc for reuse – could be more advertising needed?
- No service, or no affordable service, for recyclable waste collections if the quantities are small.

Internal processes & business operations

- Time – no time for setting up procedures (e.g. double sided printing)
- Productivity – having a bin in the office encourages staff to stay at their work stations; bringing packaged lunch is quicker than staff preparing, heating and then washing up.

4. What can be done to encourage action?

Supplies

- Penalties for goods and packaging that use excessive raw materials.
- Tax new goods to encourage refurbishment and reuse.
- Make sourcing second hand furniture, Electrical and Electronic Equipment etc. easier by having a local depot.
- Good long term leasing schemes will encourage longer term thinking, not buying new every couple of years.
- Recycled materials should be cheaper, and promoted as good quality.
- Database or register of equipment available for sharing, or collaborative consumption groups.

Staff

- Simple & targeted training materials – no jargon.
- One stop shop for information and support.
- Case studies to show staff how waste prevention actions have been successful in other, similar businesses.
- Guarantee of quality of service, and good financial deal, on leasing.
- Guidance materials needs to be specific, easy to read, short (1 page) and fun to read.
- Behaviour change to address consumerism.
- Guidance on when to replace equipment with more resource efficient models, including info on whole life cycle costs.
- Share expertise through mentoring etc.
- Staff incentives, sharing of savings, donate savings to charity to encourage staff participation.
- Change culture so there is pride in reusing goods rather than purchasing new.
- Use of local business networks for intelligence & knowledge sharing.
- Leadership and management.
- Adapt manufacturing principles to the office environment e.g. lean.
- Target info – get the right people around the table, and tailor the information to what the sectors can achieve.
- Local problem solving between businesses.

Money

- Financial incentive to businesses that prevent waste (not sure of detail).
- Advertise the benefits of waste prevention action.
- Make being “green” economically viable and attractive.
- Make green accounting more mainstream.

Goods / services and waste

- Change behaviour to reduce consumerism.
- Produce info that customers can understand about the need, benefits etc of waste prevention.
- Funding and other support for repair shops.
- Reuse / preparation for reuse depots (perhaps associated with landfill sites).
- Cheaper spare parts and components to encourage repair.

Internal processes & business operations

- Integration of “sustainability” issues into ALL government support to businesses, from start up onwards.
- Link concepts of “lean manufacturing” to offices.
- Welsh Government could check with businesses what they are doing on waste prevention, and have a logo or sign for those companies that can demonstrate tangible action.
- Waste minimisation “clubs” or hubs to encourage sharing of best practice and collaborative projects.
- Sectoral or geographical collaborations to learn from each others, buy in bulk, share equipment etc.
- Promote the circular economy model.
- Supply businesses with information on what they can do to prevent waste, and market materials, leaflets, resources etc to help them.

Way Forward

The Welsh Government recognise that there are a number of common themes emerging for all SMEs, but that there are also some issues which are sector specific.

The workshop will inform the Waste Prevention Programme implementation project on material resource efficiency in SMEs.

Workshop attendees

Facilitators and support staff for each workshop were provided by WRAP and the Welsh Government.

Attendees were as follows:

Local authority business advisors – 3
Federation of Small Business – 2
Other business support – 5
Tourism sector representative organisations – 3
SMEs - 9

Agenda

9.00-9.30	Reception and Tea and Coffee	
9.30 -9.45	Welcome and Introduction to the Event	Facilitator and Welsh Government
9.45-11.00	Facilitated Discussion: Waste prevention and resource efficiency. What actions do businesses already take? What further opportunities are there?	All
11.00-11.15	Break	
11.15-12.30	Facilitated Discussion: What's stopping businesses from taking further action on waste prevention? What can be done to encourage action?	All
12.30-12.55	Group feedback	All
12:50-12:55	Summary and way forward	Welsh Government
12.55-13.00	Closing remarks	Facilitator
13.00-14.00	Lunch	