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## A Summary of Consultation Responses

### Construction & Demolition Sector Plan

Towards Zero Waste

One Wales: One Planet



Date of issue: September 2012

# A Summary of Consultation Responses: Construction & Demolition Sector Plan

## **Overview**

The purpose of this report is to present the findings of the consultation process for the draft Construction and Demolition (C&D) Sector Plan, highlighting the key issues raised by consultees together with the Welsh Government's response. A public consultation exercise was conducted between 8 November 2011 and 31 January 2012.

The draft C&D Sector Plan covers all waste produced during construction, civil engineering and demolition projects. Its aims are to prevent and reduce waste and increase recycling from businesses in this sector. It will do this through:

- Influencing behaviour change;
- Encouraging better ways of working;
- Developing partnerships with the third sector; and
- Legislative controls.

The aims shall be addressed throughout the lifecycle of a construction product, from design of products /buildings to demolition, recovery and disposal.

This plan supports 'Towards Zero Waste', the overarching waste strategy document for Wales. It does this by detailing outcomes, policies and delivery actions relevant for these sectors.

These proposals seek to deliver sustainable outcomes. They contribute to the delivery of our commitments and targets.

## **Action required**

None – for information.

## **Further information**

For further information please contact:  
Waste Strategy Branch  
Department for Environment and Sustainable Development  
Welsh Government  
Ty Cambria  
29 Newport Road  
Cardiff CF24 0TP  
e-mail: [wastestrategy@wales.gsi.gov.uk](mailto:wastestrategy@wales.gsi.gov.uk)

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# 1. Introduction

## Purpose of this Report

The **Construction and Demolition (C&D) Sector Plan** falls within the first tranche of sector plans which will support delivery of the high level policies, targets and principles set out in **Towards Zero Waste (TZW)**, the overarching waste strategy document for Wales. The draft C&D Sector Plan was published for consultation in November 2011. It sets out proposals designed to help the construction and demolition sector and key stakeholders achieve one planet levels of waste by 2050. The plan focuses on the following areas: overarching issues; waste prevention; preparing for reuse; recycling; and sustainable treatment and disposal.

The purpose of this report is to present the findings of the consultation process, highlighting the key issues raised by consultees together with the Welsh Government's response. The report will help inform the preparation of the final C&D Sector Plan as well as future sector plans.

## Approach to Consultation

In accordance with Welsh Government guidance<sup>1</sup>, consultation on the draft C&D Sector Plan ran for a 12 week period from 8 November 2011 to 31 January 2012. The consultation approach was designed to clarify whether the Welsh Government's proposals for the management of construction & demolition waste are appropriate and sought responses to 9 specific consultation questions<sup>2</sup>. Responses to the consultation questions were elicited through a combination of public consultation and stakeholder workshops, further details of which are provided below.

## Public Consultation

The draft C&D Sector Plan was published for public consultation on 8<sup>th</sup> November 2011 with comments invited throughout the 12 week consultation period via letter, fax, email, telephone or online.

A total of **14** full written responses were received to the draft plan.

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<sup>1</sup> Welsh Government (2010) *Consultation Guidance for Staff*. Welsh Government, Cardiff

<sup>2</sup> Note that an additional question (Question 1) related specifically to the Sustainability Appraisal, undertaken in support of the Draft C&D Sector Plan and as such, is not the subject of this report.

## **Stakeholder Workshops**

In January 2012, 8 workshops were held with several stakeholder groups, at Constructing Excellence in Wales' office in Cardiff. The stakeholder groups were made up from representatives from construction, SME builders, demolition, civil engineers, product manufacturers, waste management companies, designers & architects, and clients. All of these workshops followed a similar process and format, which were designed to:

- brief key stakeholders on the structure and content of the draft plan;
- provide an opportunity for stakeholders to seek clarification on aspects of its content;
- encourage dialogue on the plan between stakeholders;
- invite immediate feedback on the consultation questions; and
- highlight the opportunity to further contribute to the plan consultation.

A total of 46 participants attended the workshops. The views expressed by stakeholders have been incorporated within the analysis of responses for each consultation question where appropriate.

## **Structure of this Report**

The remainder of this report presents the main findings from the consultation process together with the Welsh Government's response to the key issues raised by consultees. It addresses each of the 9 consultation questions in turn and is structured according to the key action areas of the draft C&D Sector Plan as follows:

- Section 2:** Overarching issues;
- Section 3:** Waste prevention;
- Section 4:** Preparation for reuse;
- Section 5:** Recycling;
- Section 6:** Other recovery and disposal.

This report concludes by outlining the next steps in the preparation of the C&D Sector Plan. Summaries of general, non-question specific comments and the Welsh Government's response are in Table A1, while the key issues raised in relation to each consultation question, together with the Welsh Government's response, can be found in Table A2. Both tables can be found in **Appendix A**.

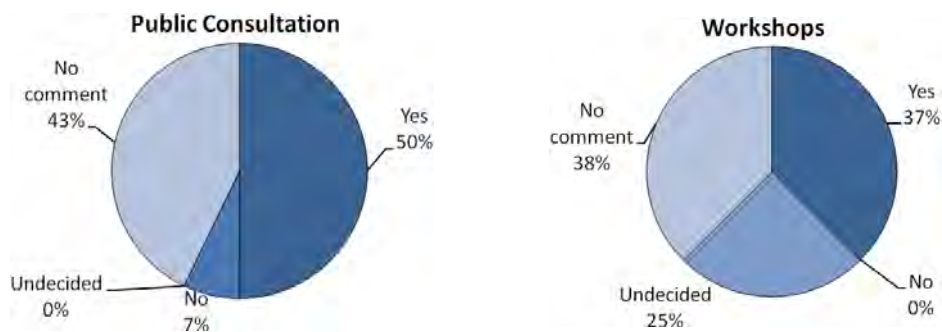
## 2. Overarching Issues

During development of the draft C&D Sector Plan, it was recognised that there were a number of objectives arising from the revised Waste Framework Directive and from Towards Zero Waste that are generic across all key actions areas. It was therefore necessary to develop proposals for overarching actions which would add to existing measures already in place to deliver many of these overarching objectives, including the protection afforded by the planning and environmental permitting regimes. Most of the actions cover resource efficiency as a whole, and include most, or all, elements of the waste hierarchy.

Although responses to Question 1 will not be dealt with in any detail in this document, a summary of them is provided below.

**Question 1: Do you agree with the findings and conclusions of the Sustainability Appraisal? If no, please explain why.**

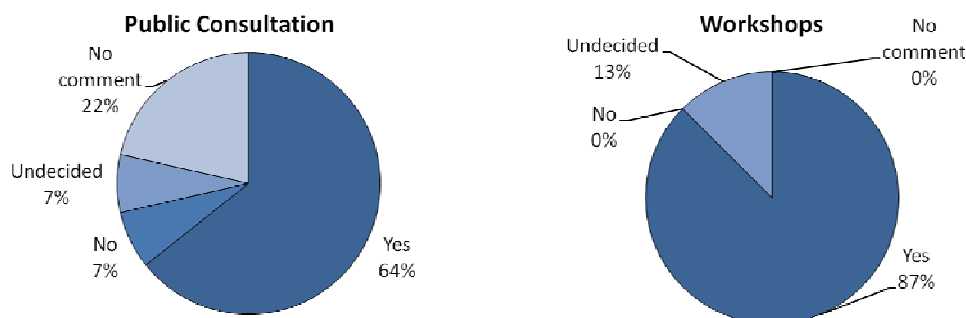
**Figure 1: Question 1 response summary**



A large proportion of respondents to the consultation agreed with the findings and conclusions of the Sustainability Appraisal (public consultation 50%; workshops 37%). However, in both cases a high proportion also chose not to comment (public consultation 43%; workshops 38%) and on discussion at with some attendees at the workshops, this was found to be because the document is too long with a lot of repetition.

**Question 2: Do you consider that a producer responsibility measure would be appropriate for the construction industry? If so, would you prefer a legislative or non-legislative approach?**

**Figure 2: Question 2 response summary**



The majority of respondents to the public consultation (64%) and the workshop attendees (87%) agreed that there was scope for a producer responsibility approach. Of these, most also felt that a legislative approach would be the best option. While this proposal was widely welcomed, several respondents felt that more detail would have been useful, with possibly some worked examples, to give a full picture demonstrating how this might be relevant to the construction sector. Several of those who opted for the legislative approach suggested linking up with existing planning legislation to avoid 'reinventing the wheel'. While the response to this proposal was largely positive, it is clear that more work needs to be done around where in the construction process, the producer responsibility should be focussed.

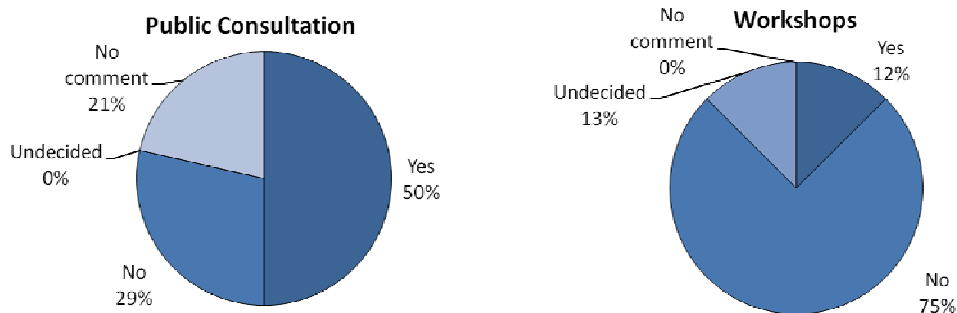
Only one respondent to the written consultation actively disagreed with the proposal, as they felt that in this sector, it is not the 'producer' of the waste who had most influence over waste production, but the client or designer.

#### **Welsh Government Response:**

The Welsh Government will investigate further the feasibility of introducing a producer responsibility measure for the construction & demolition sector. It is considered that a legislative approach would work best but there are no immediate plans to implement new producer responsibility legislation. The Welsh Government will look to adopt this approach through existing legislation where appropriate.

**Question 3: Do you agree that a voluntary agreement would be appropriate and deliverable? If no, please state why. If yes, do you feel that it would be beneficial to have separate agreements for each of the sub-sectors?**

**Figure 3: Question 3 response summary**



There was a significant diversion of opinion for this question, with 50% of respondents to the public consultation agreeing that there was scope for a voluntary agreement, in contrast to only 12% of workshop respondents. However, in almost all cases, even those who said yes felt that voluntary agreements on their own will not achieve the targets and need to be part of a suite of tools.

A workshop respondent suggested adopting an approach similar to that used in some European countries, whereby a voluntary approach is used as a precursor to bringing in legislation. If uptake of the voluntary approach is limited, then the legislative approach is brought forward, thereby giving an incentive for industry to sign up voluntarily.

Of those who disagreed to this approach (written response – 29%; workshop 75%), several felt that voluntarily agreements put SME's at a disadvantage as they often do not have sufficient financial or personnel resources to invest in voluntary schemes.

**Welsh Government Response:**

The Welsh Government does not currently consider that a Voluntary Agreement would be appropriate for the construction and demolition sector.



**Question 4: Do you consider that the best method for monitoring the resource efficiency of the sector would be to measure the total material used per standardised unit? If no, please suggest an alternative.**

**Figure 4: Question 4 response summary**

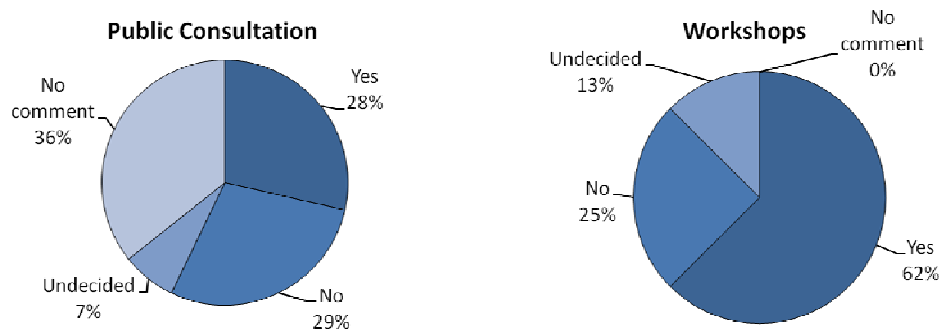


Figure 4 shows that this question divided respondents. Of those responding to the public consultation, only 28% agreed with the concept of monitoring resource efficiency using total material used per standardised unit, while 62% of the workshop responses indicated they were in agreement. The majority agreed that a standardised unit would enable comparisons to be made across the sector, but several commented that agreeing on that unit would require further discussion.

Of those who responded no to this question (public consultation – 29%; workshop – 25%), most felt that it would be too difficult to establish a standardised unit as there are so many variations in the types of projects, products & materials used within this sector. A couple of alternative ways of monitoring were suggested, such as relying on disposal figures as there is already a clear licensing and monitoring regime in place, or percentage of materials wasted.

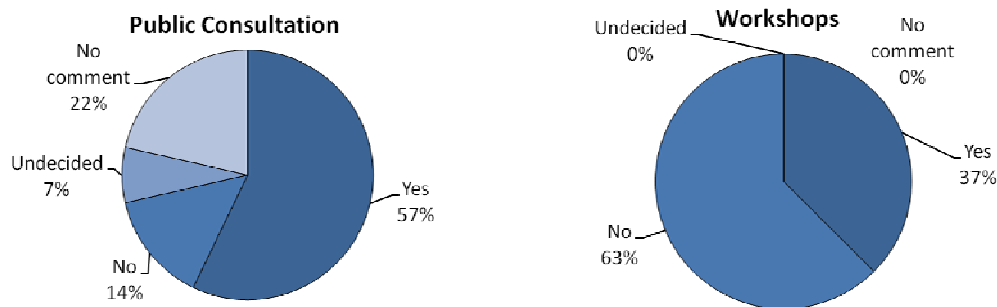
#### **Welsh Government Response:**

The Welsh Government will investigate the feasibility of developing a monitoring methodology for resource efficiency within the industry.

### 3. Waste Prevention (including reuse)

Question 5: Do you agree with the proposed waste prevention target?

Figure 5: Question 5 response summary



The majority of respondents to the public consultation (57%) agreed with the waste prevention target and felt that it was ambitious but achievable, providing focus was put on the priority materials, as stated in the consultation. A lesser number of workshop respondents (37%) felt this target was appropriate. Several of those who agreed with it, did however have concerns about the age of the data used for the baseline.

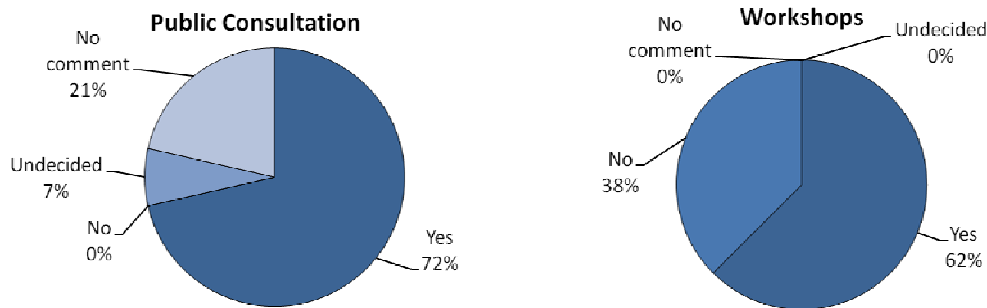
Of those respondents who disagreed with the target (public consultation – 14%; workshop – 63%), some felt that it was far too high, while others felt that the target could be reached sooner and exceeded. One respondent to the written consultation felt that this was more of an aspirational target, rather than a ‘SMART’ performance target, since its achievement was not totally within the control of the sector.

#### Welsh Government Response:

The non statutory waste prevention target for the construction and demolition sector will be set at 1.5% reduction year on year. The Welsh Government will review this target as new data becomes available.

**Question 6: Do you consider that setting 5 yearly milestones is a fair way of monitoring progress against the proposed waste prevention target? If no, please explain why.**

**Figure 6: Question 6 response summary**



The majority of respondents from both the public consultation (72%) and the workshops (62%) considered that setting out 5 yearly milestones was a fair way of monitoring progress.

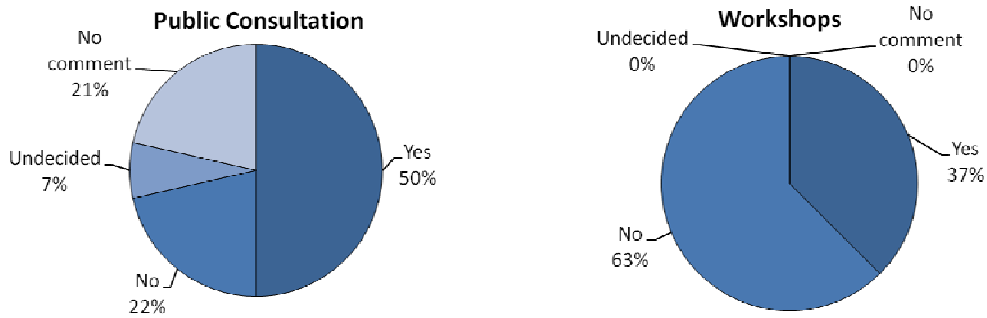
None of the respondents to the public consultation disagreed with this approach. All of the respondents from the workshop, who disagreed with the approach (38%), considered that 5 years was too long as the situation within the construction industry changes very quickly. One respondent suggested that 3 years might be more appropriate or 5 years with interim monitoring at the half way point.

**Welsh Government Response:**

The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.

**Question 7: Do you consider these actions to be sufficient to meet the waste prevention targets? If not, what other measures would you suggest?**

**Figure 7: Question 7 response summary**



While several respondents from both the public consultation (50%) and the workshops (37%) considered that the proposed actions set out in the consultation document were sufficient to meet the waste prevention targets, they all provided comments, suggesting how those actions could be improved.

All of the respondents who replied no to this question (public consultation – 22%; workshops – 63%) were able to provide examples of additional issues which would need to be addressed to meet the waste prevention target. Details of all of these additional comments are set out in table A2 in Appendix A.

**Welsh Government Response:**

The evidence suggests to Welsh Government that the proposed actions will be sufficient to achieve the waste prevention target. The Welsh Government will also work with the industry to refine the proposed actions where evidence suggests that further clarification is required.

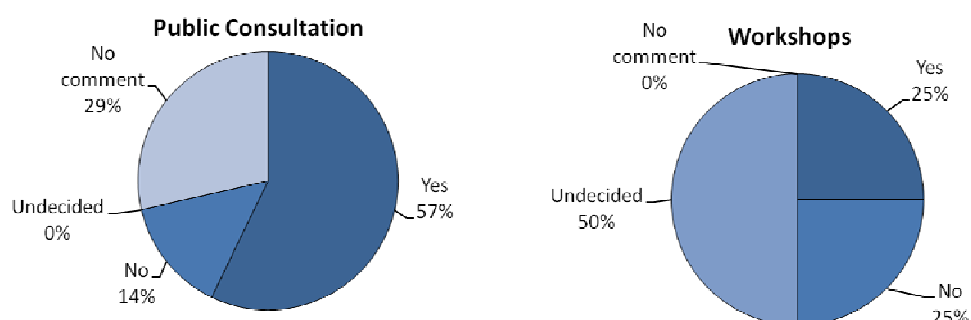
## **4. Preparation for reuse**

No specific consultation questions were set on preparation for reuse in the draft C&D Sector Plan. Specific comments on preparation for reuse received from respondents are provided and addressed in Appendix A.

## 5. Recycling

Question 8: “At least 10% of the total value of materials and products used in all new buildings promoted or supported by the Welsh Government or WGSBs should be of recycled or reused content”. Should this target be increased? If so, what would be an appropriate target?

Figure 8: Question 8 response summary



57% of respondents to the public consultation were in agreement that this target should be increased, however this question created some confusion and a great deal of discussion in the workshops. It appeared the confusion arose about the aim of the measure and the way in which data is currently collected to monitor it.

In the workshops, only, 25% of respondents felt that the target should be increased, and 50% were undecided on how to move forward with the action. Some respondents considered that the measure had good intentions, but was difficult to measure and is not currently achieving what it should.

For those respondents who answered ‘no’ to this question (public consultation – 14%; workshops – 25%), this again appeared to be due to confusion over what the measure was hoping to achieve and the way that data is currently collected to monitor the measure.

### Welsh Government Response:

The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in Government funded projects. If necessary, the measure as a whole will be reviewed through the Public Sector Plan, to be published for consultation in early 2013.

**Question 9: Do you consider these actions to be sufficient to meet the recycling targets? If not, what other measures would you suggest?**

**Figure 9: Question 9 response summary**

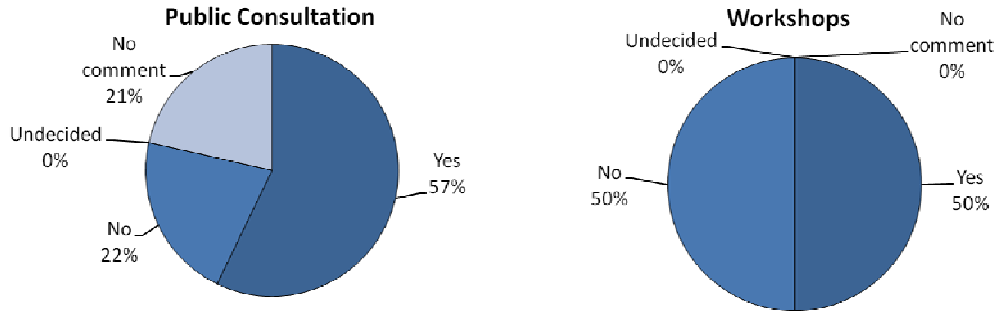


Figure 9 shows that, for both consultations, at least half of the respondents were in agreement with the question. 57% of respondents to the public consultation and 50% of the workshop responses agreed that the proposed actions (as laid out in the consultation) would be sufficient to meet the recycling targets. In addition, they all provided comments suggesting how the actions could be improved.

All those who answered no to this question (public consultation – 22%; workshops – 50%) were able to provide examples of additional issues which would need to be addressed to meet the recycling target. Details of all of these additional comments are set out in table A2 in Appendix A.

**Welsh Government Response:**

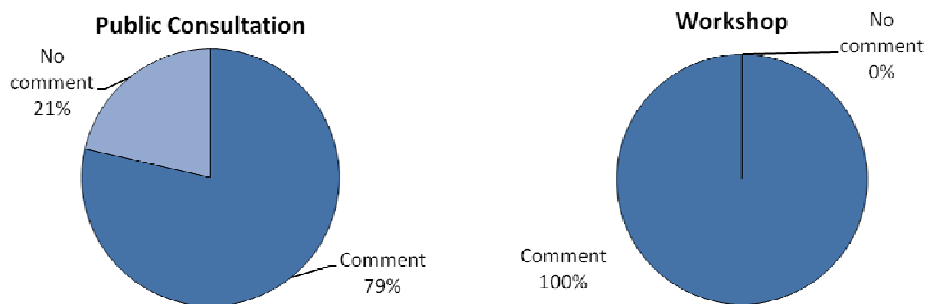
The evidence suggests to Welsh Government that the proposed actions will be sufficient to achieve the recycling targets. The Welsh Government will work with the industry to refine the proposed actions where evidence suggests that further clarification is required.

## 6. Other recovery and disposal

No specific consultation questions were set on other recovery and disposal in the draft C&D Sector Plan. Specific comments on other recovery and disposal received from respondents are provided and addressed in Appendix A.

Question 10: We have asked a number of specific questions. If you would like to comment on any specific actions, or raise any issues which you feel we have not fully addressed, please use the space provided.

Figure 10: Question 10 response summary



79% of respondents to the public consultation and 100% of those attending the workshops responded to this question. Several used this as an opportunity to comment on actions within the preparation for reuse or other recovery and disposal sections, where no specific consultation questions had been asked. All comments relating to this question have been captured in Table A1 in Annex A.



## **Next steps**

The findings of this report have helped inform the preparation of the final C&D Sector Plan and will form part of the evidence base to support development of future sector plans.

## **APPENDIX A Key Issues and Responses**

Table A1: Broad key issues and the Welsh Government response

Key Issue Raised	Welsh Government Response
<b>Overarching Comments</b>	
<p><b>Business Services Association: Mandatory Targets and Co-operation with Industry</b> - As the figures in the consultation demonstrate, the majority of waste in the construction and demolition sector is already reused or recycled. For this reason we would favour a voluntary approach to rather than legislated targets to increase recycling and reduce the level of waste going to landfill. Such targets could carry some unintended consequences, such as increased fly-tipping, which would discourage responsible waste management and could be particularly onerous for SMEs. We welcome the many proposals contained in the consultation to support increased recycling rates among SMEs. A voluntary approach will give SMEs and the local authority areas in which they operate the time and incentive to take advantage of greater access to recycling depots.</p>	<p>The targets proposed by Welsh Government are based on those set by the EU in the revised Waste Framework Directive. We recognise that there is already a significant amount of recycling and reuse activity within the C&amp;D sector however; this is largely around aggregates and soils, both of which contribute relatively little to the ecological footprint. The Welsh Government has identified priority materials for this sector, which when removed from the waste stream will make a significant improvement to the ecological footprint of Wales. Therefore this will encourage all those within the C&amp;D sector, to concentrate their efforts on reducing the disposal of these priority materials wherever practicable. The Welsh Government funds a number of service provider bodies, all of whom provide guidance and support to businesses throughout Wales.</p>
<p>We would encourage the Welsh Government to work with industry to identify any barriers that are preventing further progress to reduce waste and increase recycling levels from being made.</p>	<p>Through consultations such as this, and through the work carried out by service providers funded by Welsh Government, the Welsh Government will continue to work closely with industry to identify barriers to reduce waste and increasing recycling activities. The Collection, Infrastructure and Markets Sector Plan has looked at this issue in detail and any relevant actions identified through this work will be signposted in the final Construction &amp; Demolition Sector Plan.</p>
<p>The consultation predicts increases in plastic waste as plastic replaces other materials in construction. Collaboration between industry and the government would be particularly helpful to address expected developments of this nature</p>	<p>The Collection, Infrastructure and Markets (CIM) Sector Plan has set out a range of actions which will address the infrastructure needed in Wales to meet the targets set out in Towards Zero Waste. It has also started to</p>

<p>and to horizon-scan for future industry changes that will impact waste management and the 'zero-waste' target.</p>	<p>address supply and demand issues with regards to availability of good quality recycle within Wales.</p>
<p>The consultation paper states that "recyclates will be collected and managed with supply to Welsh manufacturing in mind". While we understand the government's ambition to support a resource management industry in Wales, such proposals may mean it is not possible to get the best available price and could limit the efficacy of waste management. We would note that the success of the government's programme will be driven by price.</p>	<p>The Collection, Infrastructure and Markets (CIM) Sector Plan has set out a range of actions which will address the infrastructure needed in Wales to meet the targets set out in Towards Zero Waste. It has also started to address supply and demand issues with regards to availability of good quality recycle within Wales.</p>
<p><b>Public Procurement</b> – The consultation sets out plans to "ensure public and corporate procurement includes the integration of environmental and resource efficiency criteria in calls for tenders and contracts". We would encourage the Welsh Government to ensure that any criteria included in public tenders are outcomes-focused and contain sufficient flexibility to allow bidders to develop the most innovative designs that will deliver the greatest value for money for the public purse. We would suggest the government publish clear guidance for all public bodies which sets out how to get the best contract from the private sector, in terms of value for money and effective waste management. Without sufficient skills and a proper understanding of the procurement process, there is a potential danger that new criteria of this kind could have a negative impact on the quality of public tenders.</p>	<p>The Waste Strategy Branch is working closely with Value Wales to ensure that relevant actions are supported by procurement guidance and conditions. The Public Sector Plan, due to be consulted on in early 2013, will explore the role of public procurement in waste prevention further.</p>
<p><b>Site Waste Management Plans</b> - There are concerns that the current waste management system as it operates in England currently imposes additional costs on businesses as a result of regulatory duplication and overlap. We would therefore strongly encourage the Welsh Government to work closely with the UK Government to ensure that any legislative proposals are fully aligned with the rest of the UK and do not result in duplicated reporting requirements and unnecessary burdens. A resource management economy in Wales will rely on a single streamlined legislative regime in place.</p>	<p>The proposed Site Waste Management Plans (SWMPs) regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
<p><b>Horizon Nuclear Power:</b> Initiatives such as the Waste Protocol Project are useful but we wonder whether the CL:AIRE protocol should perhaps have</p>	<p>Although treatment of contaminated land is not currently within the remit of this sector plan, the CL:AIRE Definition of Waste: Development Industry</p>

<p>been mentioned in the document.</p>	<p>Code of Practice may still have some relevant applications, Therefore, Welsh Government notes this suggestion and will look to include a reference to the document in the relevant section of the final sector plan.</p>
<p>We note the proposal to introduce a charging mechanism for SWMP in Wales as this appears to be moving in the opposite direction to the light touch regulation that is occurring in other regulatory arenas. For example, in England, SWMP regulations are intended to be self-regulated and the onus is on the developer (or principal contractor), to make sure the SWMP meets regulatory requirements with all those involved in the project acting in accordance with the plan and current waste legislation.</p>	<p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
<p><b>Wilmott Dixon (Systems Manager):</b> I am very encouraged to see joined up thinking and a considered approach behind the whole assessment. There is not a single simple solution, but a raft of measures that need to be implemented to ensure the success of the Plan. I whole heartedly endorse the findings and recommendations of the report. The key to its success will be if appropriate legislation is introduced to enforce the necessary changes and financial support given to the recycling and reprocessing industries.</p>	<p>The Welsh Government recognises that there is no single solution to the challenges set out in Towards Zero Waste and therefore through the sector plans, will strive to develop an action plan which all sectors can contribute to.  Where legislation is seen to be the best option, the Welsh Government will seek first to review and adapt or improve existing legislation. Creation of new legislation will be seen as a last resort, to minimise the burden on businesses. The Collection, Infrastructure and Markets Sector Plan sets out the support which will be made available to the recycling and reprocessing industries.</p>
<p><b>Wilmott Dixon:</b> Our prime challenges in achieving and sustaining zero waste to landfill remain principally with the legacy of hazardous materials and waste arisings from demolition and refurbishment of buildings – this is a present and future challenge. Likewise contaminated land remediation wastes, if not manageable onsite (though accept out of C&amp;D scope). In addition, supplier engagement and commitment to take shared challenge ownership of prior materials for reuse and recycling – focus groups needed by trade / material?</p>	<p>The Welsh Government recognises thereat there are gaps in our knowledge regarding the size of the problem of legacy construction wastes. Through this sector plan and the Collection, Infrastructure and Markets (CIM) Sector Plan, the Welsh Government will seek to address these evidence gaps and encourage the development of innovative solutions.</p>
<p>Welsh Housing stock refurb standard: our WDP colleagues operate significant refurbishment programmes for clients across the country. We would be willing to share experience of standards across England and</p>	<p>Noted. Welsh Government will communicate this to Constructing Excellence in Wales who will provide liaison between the relevant Government</p>

<p>support development of refurb standards to support cradle-to-cradle thinking in design spec for delivery and improvement of Welsh Housing stock for future generations.</p>	<p>departments and external organisations.</p>
<p><b>Keep Wales Tidy:</b> One area which seems to have been omitted from consideration with regard to the Welsh Housing Quality Standard (WHQS), on pages 71 and 72 of the document, is the reference to wastes from environmental improvements external to the properties, which is also part of WHQS. This could include demolition and construction wastes and should be covered by the guidance and benchmarks.</p>	<p>The Welsh Government recognises that the actions proposed in the consultation may not contain all the relevant detail. Any review of the Welsh Housing Quality Standard will include a detailed evaluation of where wastes may arise in the processes covered by the standard and any revised or new guidance will be structured accordingly.</p>
<p><b>Local Authority Recycling Advisory Committee:</b> The figures used to inform the Plan are from 2005-06, some 6 years old. We are sure the industry will have moved on since then and it's a shame more up to date information is not available. Tables 2 (p.23) and 3 (p.24) show "transfer station" as a destination of waste – this is potentially additional landfill as the final destinations are not known.</p>	<p>The Welsh Government recognises that the data used to set the baseline for the Construction &amp; Demolition Sector Plan is now out of date. However, at the time of drafting the consultation document, it was felt that this was the most complete set of data for the sector. The Welsh Government are already in discussions with the Environment Agency to determine how best to collate a new set of data.</p>
<p><b>Royal Society of Architects in Wales:</b> Clear guidance is needed to help the construction industry to balance conflicting drivers. The recent explosion in the use of external insulation on housing is a good example of these conflicts: cost drivers can make it almost impossible to achieve desired lower U values (and lower carbon footprints), whilst avoiding the risk of covering the country's houses with insulation material that cannot be safely be recycled.</p>	<p>The Welsh Government recognises the potential conflicts between the energy efficiency and waste agendas and therefore will work closely with colleagues in the planning and construction policy teams, to explore options for minimising the impacts of these conflicts. The Welsh Government will also explore opportunities for working with whole supply chains to address these issues through ecodesign.</p>
<p><b>UK Contractors Group:</b> We need to ensure that we do not re-invent the wheel. Many of the actions outlined here are already being actioned by various groups, such as the UK Contractors Group and detailed discussions should therefore be had with these groups prior to implementing the plan.</p>	<p>It is the intention of Welsh Government that the sector plans not only propose new actions, but also capture actions which are already been undertaken – be that within government or by the industry itself.</p>
<p><b>Wales Construction Federation Alliance:</b> Whilst acknowledging that there is a suite of sector plans to be published and that this "Construction and Demolition Sector Plan" is part of the whole, I have a slight concern, given the piecemeal publication programme, that the interrelation between one another may not be as clear and firm as it should be.</p>	<p>The Welsh Government recognises that the only way to achieve the targets set out in Towards Zero Waste and associated sector plans is if all those involved in a sector participate. We will encourage a whole supply chain approach to all relevant actions.</p>

<p>Reference to those already published, and those to be published, in the current document may in itself be appropriate and adequate for some, but the capacity to ignore or disregard may also present itself to others.</p> <p>Section 1.3 (“Who is the Sector Plan aimed at?”) in my mind could do with a reversal of the first two paragraphs to stress and cement the importance of the relationship between all the parties in the construction industry. (I would indeed maintain that “of relevance” should be changed to “fundamental” in the second paragraph when referring to others!).</p> <p>There is reference in section 1.8 to the strong links between the C &amp; D Sector Plan and the Public Sector Plan “...as the public sector is a major construction client in Wales. Local government procures some 40% of the construction industry’s outputs.... Therefore, any proposed actions relating to driving change through procurement of services and materials will be developed further via the Public Sector Plan.”</p> <p>Without total buy-in by all parties engaged in the construction industry, in the public and private sectors alike, it will be difficult to ensure that the balance of responsibility and participation will be achieved in respect of the waste agenda. It must not be conveniently left to the contracting side of the industry alone to shoulder this task.</p> <p>The relevance of the “Construction and Demolition Sector Plan” to the public sector may need to be forcefully reinforced to allay my perceived fears as expressed above.</p>	
<p><b>Cylch:</b> In addressing the ecological footprint of C&amp;D waste it is important to recognise the sustainability benefits of community engagement around construction activities. In the case of SME’s and local companies operating within defined geographical areas, then building a local infrastructure through Trade Waste Bring Sites (TWBS), surplus centres, community exchange centres (e.g. with Cylch Members) and other facilities to prevent and divert waste of usable products should be a priority, to support the waste hierarchy and derive optimum community benefit from capture or resource materials. In the case of large construction companies who locate on large sites and</p>	<p>Trade Waste Bring Sites and surplus centres are still in the pilot stage but Welsh Government fully support Cylch’s wish to see a network of such sites, in due course. The Collection, Infrastructure and Markets (CIM) sector plan has set out a range of actions which will address the infrastructure needs in Wales to meet the targets set out in Towards Zero Waste and the facilities suggested here could all be part of that infrastructure.</p> <p>Welsh Government recognises that there are already some great examples of Best Practice within the C&amp;D industry, as well as a range of guidance</p>

<p>relocate according to contract requirements, a degree of best practice should be developed in how to engage with communities and how to implement the Proximity Principle through engaging with local services in preventing and diverting waste in the first instance and in recycling or other treatment thereafter. An example is using the National Community Wood Recycling contract service to use local collection services for waste wood. This also needs investment and expansion to operate at appropriate scale and efficiency.</p> <p>CEW should facilitate a community engagement services directory in conjunction with other key stakeholders, including Cylch.</p>	<p>regarding procurement and contract management. We will ask Constructing Excellence in Wales to carry out a review of these resources, and come up with recommendations on how best to publicise and disseminate them to the industry.</p> <p>Welsh Government will investigate the feasibility of a community engagement services directory with its delivery partners.</p>
<p>As well as the prevention of waste throughout the lifecycle of the construction process it is also suggested that regulations for fitting elements in buildings be introduced, for example, doors and windows have to be fitted so that they are airtight, insulating, weatherproof and, as included in the Ecodesign aspect of the sector plan, easily de-constructed. A quality standard is already available in Germany that addresses some of these aspects, RAL Mark of Quality - <a href="http://www.ral-guetezeichen.de/guetezeichen.html?&amp;L=1">http://www.ral-guetezeichen.de/guetezeichen.html?&amp;L=1</a></p>	<p>These aspects would be controlled through Building Regulations, which are devolved and are due to be reviewed over the next few years by Welsh Government. This suggestion will be passed to the relevant department for consideration.</p>
<p>Utilise existing void properties which prevents demolition and reduces the need for building on green belt.</p>	<p>Noted. Welsh Government will consider this suggestion in relation to current planning policy.</p>
<p>There is a need to have statutory targets to report preparing for reuse data separately to recycling. The correct recording of waste materials and their destinations need legislation and strong regulation to ensure preparing for reuse and recycling are accurately recorded. Specific C&amp;D preparing for reuse targets have not been set because of the lack of current data.</p>	<p>The Welsh Government will examine the feasibility of measuring the level of reuse of items that are not managed as waste in order to see how strong the market is, and whether there are any changes with time.</p>
<p><b>Welsh Local Government Association:</b> Site Waste Management Plans feature in this consultation. The issue of responsibility for enforcement has not yet been addressed, although there is reference to a planned consultation. It should be noted that local authorities do not always undertake the building control function and that it is carried out by private sector companies for certain projects. Also, as clients for some building works, there</p>	<p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>



<p>would be potential conflicts of interest in undertaking any enforcement role. These factors should therefore be taken into consideration in the consultation on SWMPs.</p>	
<p><b>Workshop Responses</b></p>	
<p><b>Waste</b> – Could consideration be given to exploring the potential of the existing rail network and its application for facilitating waste recovery?</p>	<p>A North Wales Rail strategy is currently in development, which includes a proposal for waste by rail in the rail freight section. The Welsh Government will liaise with the North Wales Residual Waste Treatment Partnership to find out how this proposal has been received, and whether it could be a viable option for the rest of Wales in the future.</p>
<p><b>Civil engineering</b> – It needs to be clear throughout the sector plan that the client is key, it's not just focused on the contractor. It is felt that the wording of paragraph 1.3 gives one the opportunity to disregard the actions and devalues the messages. The importance of planning needs to be stressed.</p>	<p>The Welsh Government recognises that the only way to achieve the targets set out in Towards Zero Waste and associated sector plans is for all those involved in a sector to participate. The Welsh Government will encourage a whole supply chain approach to all relevant actions.</p>
<p><b>Client</b> – Need to ensure any measures are consistent with current practices, for example work with Building Research Establishment Environmental Assessment Method for buildings (BREEAM) to amend criteria to address low waste weighting, not create another standard or regulation. SWMPs critical to delivering the Construction &amp; Demolition Sector Plan.</p>	<p>Planning and building control are devolved functions. Therefore, we will work closely with colleagues in the Planning divisions and Business Enterprise, Technology and Science Department (BETS) to review and improve current standards.</p>
<p><b>Construction</b> – The rise of landfill costs (landfill escalator) is an ideal nudge in the right direction. Current SWMP are a waste of time, adds cost to project – what will be different with Welsh SWMP? There needs to be consideration given to coordination between regulators.</p>	<p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
<p><b>Demolition</b> – Thought needs to be given to ensure targets are not detrimental to business in Wales. Caution should be afforded where any target is to be different to England. What is driving this target? Provided there is economic reasoning and is sustainable, the target could be used to give us an edge, but this must be central to thinking. There are lots of targets in the sector plan, this needs to be simplified for</p>	<p>The targets proposed by the Welsh Government are based on those set by the EU within the revised Waste Framework Directive. EU Directives have set minimum targets that any Member State or region can exceed should they wish to do so.</p>

<p>industry. The plan needs the market. The market can be used to achieve the target established.</p>	
<p><b>Design</b> – Clearer summary of where all the wastes / difficult wastes are. How the component parts are broken down? Pre-site / on-site / design stage / breakdown of the waste problem. Need for greater information on what waste occurs and where in construction to stimulate opportunities for design solutions. With clear guidance it will happen through design. Competing demands of Part L.</p>	<p>Data from the 2005/06 C&amp;D waste survey does include a breakdown of waste types and, to a certain extent, what C&amp;D sub-sectors they are produced by. However, Welsh Government recognises that there is room for improvement with regards to data collection within the sector, and if a survey is to be used again, all relevant comments from this consultation will be taken into account when devising the data collection methodology.</p>
<p>Product labelling required to include life cycle analysis.</p>	<p>Welsh Government will ask their service providers to investigate this issue.</p>
<p>SWMP via building control focused – need to play greater role opportunities during on-site inspection.</p>	<p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
<p><b>SME builders</b> – Need the infrastructure to deal with the waste.</p>	<p>The Collection, Infrastructure and Markets (CIM) sector plan has set out a range of actions which will address the infrastructure needs in Wales to meet the targets set out in Towards Zero Waste and the facilities suggested here could all be part of that infrastructure.</p>
<p><b>Product manufacturers</b> – Consideration needs to be given to the use of existing mechanisms (BREEAM and Code for Sustainable Homes), first before any new / replicating actions are undertaken. However, there are existing issues with the weighting of BREEAM. It is important to give an incentive to Welsh builders. There are major opportunities for waste reduction / recovery within the Welsh Building Regulations. Have the Welsh building regulations been considered as part of this plan? Any actions should focus on the construction industry's primary motivations:</p> <ul style="list-style-type: none"> <li>• Have to (legally/client)</li> <li>• Saves money</li> </ul>	<p>Planning and building control are devolved functions. Therefore, we will work closely with colleagues in the Planning divisions and BETS to review and improve current standards.</p>

**Table A2: Question Specific Key Issues and the Welsh Government Response**

Question	Key Issue Raised	Welsh Government Response
<b>Overarching</b>		
<p><b>Q2: Do you consider that a producer responsibility measure would be appropriate for the construction industry? If yes, would you prefer to see a legislative or non-legislative approach?</b></p>	<p>(Keep Wales Tidy) Another area that could be covered possibly by a non legislative approach is integrating Eco Design into all construction activities. We hope that the latter would lead to waste prevention and a reduction in issues like fly-tipping, which is highlighted in the report, with construction and demolition waste being the second most commonly fly-tipped waste after household waste.</p>	<p>Ecodesign Centre Wales and Constructing Excellence in Wales have been asked to investigate opportunities for working with manufacturers of construction materials and products to improve the recyclability of their products. The Welsh Government will also explore opportunities for including ecodesign in design and architecture courses and are looking to develop guidance for perspective clients to help them set specifications for their buildings.</p>
	<p>(LARAC) We would welcome more producer responsibility. However for buildings, we feel that their lifespan is too great to make the builder responsible – the building company may last less time than the building. The design of houses for deconstruction and disassembly would be welcome.</p>	<p>Planning and building control legislation is devolved. The Welsh Government will work closely with colleagues in planning and BETS to ensure that the Towards Zero Waste agenda is taken into consideration during the review of these pieces of legislation.</p>
	<p>The introduction of mandatory site waste management plans will help to ensure materials are separated during the deconstruction phase. Also, the introduction of site waste management plans would potentially ensure that the waste hierarchy is considered and (hopefully) applied from the planning phase and through to both the build and the deconstruction phases.</p>	<p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
	<p>(RSAW) Legislation should as far as possible fall within the current industry protocols (i.e. Institution of Civil Engineers (ICE) demolition protocols).</p>	<p>Planning and building control legislation is devolved. The Welsh Government will work closely with colleagues in planning and BETS to ensure that the Towards Zero Waste agenda is taken into consideration during the review of these pieces of legislation.</p>
	<p>(UKCG) In most cases it is not the 'producer' of the waste (as per the definition in the Waste regulations) that has most influence over the waste production. As explained above, in most cases it is the client/designer who has most influence over the waste that is produced (e.g. it is their decision as to whether a building is demolished or refurbished).</p>	<p>The Welsh Government recognises that the only way to achieve the targets set out in Towards Zero Waste and associated sector plans is for all those involved in a sector to participate. The Welsh Government will encourage a whole supply chain approach to all relevant actions.</p>

	<p>(WCFA) It sounds an interesting concept. How onerous could / would it be for the industry? Would it be possible to prepare an analysis, based on a typical building and civil engineering project, to have a better appreciation of what it could mean in practice? The issue of a legislative or non-legislative approach could then be considered.</p>	<p>The Welsh Government recognises there is more work needed on the feasibility of this proposal and in particular, whether it would be possible to do through existing schemes or legislation.</p>
	<p>(WLGA) There are already various building codes and standards in place which influence decisions in this respect and it is important that the situation is kept as simple and easy to understand as possible. Existing systems should be reviewed before any new measures are introduced, with good practice built upon and areas of weakness eliminated. Legislation might provide greater certainty as to what is required but, if such a path is to be followed, it would be important that the requirements introduced are easy to follow and replace (rather than add to) existing measures.</p>	<p>The Waste Strategy Branch will work closely with other relevant Welsh Government departments who are leading on reviews of devolved legislation and ensure that waste policy is taken into account in new or revised legislation.</p>
<p><b>Workshop responses:</b></p>		
	<p>(Waste) This should be an adopted measure within a full legislative framework. An approach lead and time frame are required for further consideration. Legislation needs to be introduced to address the issue at the design. It should be a front end principle and legislative driven. Consider using the Building Operation Manual to itemise every item of material used on the building. The approach needs to consider whole design process not just the product. SWMP could be used to re-enforce design issues and eliminate waste.</p>	<p>The Welsh Government will investigate further the feasibility of introducing a producer responsibility measure for the construction &amp; demolition sector. If it is found to be the best approach, the Welsh Government will look to adopt it through existing legislation and schemes, where appropriate. Welsh Government will consider these comments when developing the regulations and associated guidance. The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
	<p>(Civils) This should be addressed at a high level. This could be adopted into the SWMP process, current SWMP starts too late in the process. A SWMP should start from the very beginning of the process, be a part from the outset. A SWMP should be extended beyond the life of a building to include the demolition; this would make the process parallel to the health and safety requirement (Construction Design Management - CDM). Difficult from the information provided to give true consideration to what this would mean in practice. What would be in the implication for civils? Worked examples would have been good for the workshops to provide illustration and explain what this would lead to. Legislation is the preferred model, to ensure it is the responsibility of the producer from the start to the end. This will prevent the responsibility being passed through the chain. It is a legislation issue, it wouldn't happen</p>	<p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>

	<p>otherwise. It needs to be made legislative like CDM. This would force the producer to think at the design stage, undertake a plan consider the cost issues and plan the best solutions. A full life cycle approach. What is the liability of this? It is likely that the producer will not be around at the end of building life. It is difficult to anticipate what will be harmful wastes in the next 20-50 years. The lists of most difficult wastes are constantly evolving. Would this change how waste is categorised?</p>	
	<p>(Client) New build to include new refurbishment / extension schemes, linked to planning requirement. There will need to be specific consideration given to hazardous materials, in particular contaminated land where in situ treatments have been used. The impact/benefit of the producer responsibility would differ for different building types linked to the 'life' of the particular building type, for example industrial buildings 15 year lifespan, hospitals 60 year, residential 100 year. Would need to co-ordinate with existing requirements, for example BREEAM, Code for Sustainable Homes etc. This is particularly important for Welsh Government funded projects with BREEAM requirement, for example all hospital new build to BREEAM excellent. There are regulatory and systematic issues with current producer responsibility measures. Consideration should be given to examining existing mechanisms to deliver producer responsibility measure before development of any new regulation. Count this be used to address asbestos legacy in housing and public buildings?</p>	<p>It is recognised that, at present, BREEAM scoring is weighted in favour of energy efficiency measures, and that waste prevention measures are given low priority. It is likely that BREEAM and the Code for Sustainable Homes will be reviewed in Wales, with the relevant planning and building control legislation. The Waste Strategy Branch will work closely with the relevant Welsh Government departments who are leading on these reviews, to ensure that waste policy is taken into account in new or revised legislation.</p>
	<p>(Construction) Need to clarify who is the producer in the context of a building – is it the client or developer? Consideration needs to be given to prevent the responsibility being passed to the contractor – it could be aligned with current H&amp;S requirements (CDM). There is no history of this being undertaken anywhere else, it is admirable that Wales is pushing forward. The theory of this measure is good but there is concern that in practice it could be difficult.</p>	<p>The Welsh Government recognises that there are many potential complications with this approach and appreciate the positive response that has been received to this proposal. The next step in this process will be to commission a feasibility study, which will include a review of current tools / legislation which could be used to introduce the scheme.</p>
	<p>If implemented, it will need legislation to ensure that all comply. To be successful it will need to be policed, this should be through planning and building control.</p>	<p>The Waste Strategy Branch will work closely with relevant teams within the Planning division of the Welsh Government, to ensure that the correct processes are followed to implement this measure, once the feasibility study has been completed.</p>
	<p>Do need to consider that there may be a cost disadvantage to developers who want to develop in Wales – may be an action that is good in principle but not commercially practical. What would be the impact on manufacturer's of product that can not be recovered? It</p>	<p>Product manufacturers were one of the sub-sectors approached during the consultation workshop. Welsh Government recognises these concerns and would like to emphasise that the intention is to introduce new best practices throughout the sector in Wales,</p>

	<p>could be that using a percentage target for recovery, on a sliding scale towards 2050 would be appropriate.</p>	<p>which should ultimately give Welsh contractors a competitive edge when working in other areas of the UK. The Welsh Government's ultimate goal is for zero waste by 2050, i.e. 100% reuse and recycling.</p>
	<p>How can this responsibility be passed through the users of the building to prevent them from adding elements to the building that inhibit recovery? Could incentivising the cost of recoverable materials be a way to encourage the use of these materials without the need for this directive? If this was policy, manufacturers would be forced to look at their products.</p>	<p>The Welsh Government recognises that there are many potential complications with this approach. The next step in this process will be to commission a feasibility study, which will include a review of current tools / legislation which could be used to introduce the scheme, as well as exploring new tools.</p>
	<p>This will need to work hand in hand with consideration of the whole life cost of a building, to illustrate to a user that the building will have a reduced decommissioning cost. Could this be linked to the operating (energy) cost of a building currently being displayed?</p>	<p>The Welsh Government recognises that there are many potential complications with this approach. The next step in this process will be to commission a feasibility study, which will include a review of current tools / legislation which could be used to introduce the scheme, as well as exploring new tools.</p>
	<p>(Demolition) The system should look at the End of Life Vehicles Directive, there needs to be a full cycle approach. The responsibility needs to start at planning stage, with the building information being logged and recorded. This currently happens in France, Belgium, Germany and Holland. The central registration and archiving of drawings will create a resource for the structural engineering of deconstruction. This is something that could form part of Building information modeling (BIM) or SWMP. The use of 3D modelling is becoming more common and is moving forward. There is a current lack of quality information within CDM files for demolition, much of it is generic and doesn't include modification/refurbishment. This is important as when a building is de-constructed, it is never the same as the initial build. The information is necessary to ensure maximum recovery as a lack of information will usually on H&amp;S grounds, led to a mechanical demolition which lowers reuse/recovery.</p>	<p>The Welsh Government recognises that there are many potential complications with this approach. The next step in this process will be to commission a feasibility study, which will include a review of current tools / legislation, which could be used to introduce the scheme, as well as exploring new tools.</p>
	<p>(Design) Need for life assessment of product to enable design decisions to be made and assessment of recoverability of building. What would be the measure? ELV weight against percentage recoverable. Could be link to building information pack. BREEAM offers standard methodologies with some adaptation could offer a solution. (98,000 BREEAM assessments in the UK). Needs to address holistic cost of the building. Needs to be initiated at the manufacture of the product. Responsibility shared by manufacturer</p>	<p>The Welsh Government recognises the importance of a life assessment approach to products and Ecodesign Centre Wales will be working closely with Constructing Excellence in Wales on this.</p> <p>The next step in this process will be to commission a feasibility study, which will include a review of current tools / legislation, which could be used to introduce the scheme, as well as exploring</p>

	and constructor. Would need training/behaviour change around sustainable buildings. Choose legislation and allow the market to drive forward.	new tools.
	(SME) This should be administered through a legislative approach and where possible integrated with existing regulation, for example Building regs, BREEAM or perhaps tax motivated incentives. Look at BREEAM, credits given at design should take into account materials chosen for recoverability. The responsibility for waste should be with the producer, like CDM it should be a cradle to grave approach. Contractors will do what they are paid to do and achieve the standards they have to. Could it be expanded to apply wider than new build?	It is recognised that at present, BREEAM scoring is weighted in favour of energy efficiency measures, and that waste prevention measures are given low priority. It is likely that BREEAM and the Code for Sustainable Homes will be reviewed in Wales, with the relevant planning and building control legislation. The Waste Strategy Branch will work closely with the relevant Welsh Government departments who are leading on these reviews, to ensure that waste policy is taken into account in new or revised legislation.
	(Product) There needs to be a threshold, accompanied with life cycle assessment and recovery plan for building products to make it practicable for the producer (to consider at design/planning) and for the end recoverer. There are opportunities with BREEAM with redress, 2011 there were 98,000 BREEAM assessments in UK. There are some elements such as calculation modules that offer major benefits to a producer measure however there is a need to examine the BREEAM credits and weightings to encourage waste prevention/minimisation. There are opportunities with the producer responsibility for encouraging the standardisation of building models. Unique buildings in the United Kingdom make the process more complex. This is a valuable measure for making a difference – sustainable development is about not burdening the future with the impact our actions.	It is recognised that at present, BREEAM scoring is weighted in favour of energy efficiency measures, and that waste prevention measures are given low priority. It is likely that BREEAM and the Code for Sustainable Homes will be reviewed in Wales, with the relevant planning and building control legislation. The Waste Strategy Branch will work closely with the relevant Welsh Government departments who are leading on these reviews, to ensure that waste policy is taken into account in new or revised legislation.
<p><b>Q3: Do you agree that a voluntary agreement would be appropriate and deliverable? If no, please state why. If yes, do you feel that it would be beneficial to have separate agreements</b></p>	(Wilmott Dixon) Agreed with the principle that the agreement should be separated out (might be difficult for companies that complete both C&D works? Will they need to sign both? Or one?). The larger companies could be grouped together for Construction, Demolition and Civils and perhaps keep the general SME builders separate? Agreed – efficiency gain in doing so.	The Welsh Government has considered this issue and, taking account of the responses, considers that it would be impractical to develop a voluntary agreement.
	(Keep Wales Tidy) An acceptable starting point, but it should be regularly reviewed and if the targets are not being met then a more formal arrangement should be made. It would probably be better to have separate agreements with each sub-sector as these can be tailor made to achieve targets and deal with the most appropriate issues and actions for that sub-sector.	The Welsh Government has considered this issue and, taking account of the responses, considers that it would be impractical to develop a voluntary agreement.
	(LARAC) The difficulty with a voluntary agreement is that it makes the	The Welsh Government recognises that the construction and

<p><b>for each of the sub-sectors?</b></p>	<p>playing field uneven. Smaller companies won't be able to afford to commit to such measures, whilst larger companies will have to increase their prices. We would prefer to see legislation as this would apply to all. However, if voluntary agreements can be shown to increase recycling rates like the Courtauld Commitment, then they should be encouraged. Separate agreements for each sub-sector would be needed, as the waste compositions for each sub-sector are quite different.</p>	<p>demolition sector within Wales is dominated by SME companies and lone operators. With this in mind, the Welsh Government agrees that a generic voluntary agreement, to encourage working towards the waste prevention targets is probably not appropriate.</p>
	<p>(RSAW) In our view it would be preferable to utilise legislation combined with consumer and end-user information and awareness campaigns, as we worry that a voluntary agreement will lack the teeth needed to drive change. It could penalise good environmental practice, which tends to have higher capital costs.</p>	<p>The Welsh Government accepts this comment and does not currently consider that a Voluntary Agreement would be appropriate for the construction and demolition sector.</p>
	<p>(WCFA) A voluntary agreement ought to be the first step based on a sub-sector provision, but including the client and stakeholders etc, as referred to in paragraph 1.3 of the consultation document.</p>	<p>Welsh Government has considered this issue and, taking account of the responses, considers that it would be impractical to develop a voluntary agreement.</p>
	<p>(Cylch) It would be beneficial to have separate agreements and targets for each sub-sector as they each have different waste compositions and quantities. However, voluntary agreements alone will not reach the targets – particularly those for 2025 waste reduction of 23% and 2050 63% - the targets for increasing recycling and transfer of landfill tonnages into other management systems could, however, be achieved through voluntary agreements. Ecodesign can also be managed on a voluntary basis, through R&amp;D and pursuit of best practice. The introduction of voluntary agreements could be backed up with the possibility of statutory requirements, if they do not produce the desired results. Statutory requirements should also be developed to increase Design for Deconstruction (D4D). Evidence of the consideration of D4D within new construction before planning consents are agreed.</p>	<p>The Welsh Government does not currently consider that a Voluntary Agreement would be appropriate for the construction and demolition sector. However, once further feasibility work has been carried out on some of the proposed actions (in particular, those relating to Ecodesign), this may be seen as a suitable approach for introducing new ideas to the sector.</p>
	<p>(WLGA) The key problem with a voluntary agreement is who monitors and enforces it? Operators employing bad practices will tend to be the ones least likely to adhere to a voluntary agreement. This causes resentment amongst those who do comply, especially if it results in their prices being undercut. If a different agreement is needed for the different sub-sectors this introduces room for misunderstandings over what applies to whom, with reduced chance that there will be adherence to <i>any</i> of the agreements. Demonstration that recognised standards have been met (in ways that can be verified/audited) is one</p>	<p>The Welsh Government accepts this comment and does not currently consider that a Voluntary Agreement would be appropriate for the construction and demolition sector.</p>



	<p>way of showing/monitoring compliance, although this needs to be addressed in specifications for works – i.e. setting out what is required before works start rather than assessing what has been delivered at the end. Support for commissioning bodies (including local authorities) to improve on the quality of their specifications – and to achieve consistency in these requirements - would be helpful in this respect, giving a clear signal to the industry about expectations.</p>	
<p><b>Workshop responses:</b></p>		
	<p>(Waste) Incentives, incentives, incentives. Need to drive voluntary approaches. Size, capacity and ability need to be taken into account. They are pivotal in the efficiency of any voluntary agreement. Generally they are more beneficial for bigger companies. There would be greater success from separate agreements, identifying who is responsible for what, for example materials specific. This is necessary as different sectors/materials have different impacts across the industry. It is difficult to see how voluntary agreements would be beneficial for smaller companies (current perception) – there would need to be accompanying education and incentives to engage smaller builders. This approach is limited if it doesn't successfully address the smaller companies who generally produce the more difficult wastes.</p>	<p>The Welsh Government recognises that the construction and demolition sector within Wales is dominated by SME companies and lone operators. With this in mind, the Welsh Government agrees that a generic voluntary agreement, to encourage working towards the waste prevention targets is probably not appropriate.</p>
	<p>(Civils) If the target needs a high proportion of compliance, a voluntary approach is not a good option. People will generally take the easy option, legislation provides certainty. There isn't a good track record of success with voluntary approaches in the construction industry. The legislation needs to be a requirement of the client – this is the way only way this will work in civils. Voluntary agreements however could be appropriate if linked to public driven works. This could be used as first step. The tender process, with external verification could be very effective. SWMP is key to achieving the targets. The responsibility for achieving the targets should lie with the client. There is CEEQUAL (evidence-based Sustainability Assessment and Awards Scheme for Civil Engineering), which is used by the public sector client. The Church Village By-Pass achieved 87%. With some development this could be used to encourage TZW desired activity.</p>	<p>The Welsh Government accepts this comment and does not currently consider that a Voluntary Agreement would be appropriate for the construction and demolition sector.</p> <p>In addition, the Welsh Government is developing a Towards Zero Waste Public Sector Plan, which will include actions relating to public procurement and contract management.</p> <p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
	<p>(Client) The group felt that better opportunities exist with procurement specification to achieve the TZW targets. Public sector procurement through frameworks and specifications offer a major opportunity for Wales to set requirements for the supply chain to be delivered as part of the construction, such as waste minimisation and recovery targets.</p>	<p>The Welsh Government is developing a Towards Zero Waste Public Sector Plan, which will include actions relating to public procurement and contract management.</p> <p>The Welsh Government does not currently consider that a</p>

	<p>Current NHS framework incorporates Key performance Indicator (KPI) targets for all construction projects. Need to look for consistency across contracts, for example requirements set by local authorities differ. Would prefer to see legislation, this is key. There needs to be a major change in the industry to achieve targets, measures should consider successful methodologies used by Health and Safety Executive (HSE), for example CDM regs. Voluntary agreements do not fit all!! There would need to be differing agreements for different sub-sectors. These agreements typically require a large resource to successfully implement which may present a barrier for SME's. Who would monitor a voluntary agreement? What if they are not achieved? Targets set for the construction industry are very challenging and much will need to be done to raise awareness, especially amongst the smaller companies/contracts.</p>	<p>Voluntary Agreement would be appropriate for the construction and demolition sector.</p>
	<p>(Construction) There needs to be a clear mechanism for demonstrating that the targets are being achieved. We, the industry needs to prove we are doing it! There need to be control points to ensure monitoring and measurement; BREEAM has a benchmark system by building type/size. Using a voluntary mechanism will result in national contractors signing up, but sub-contractor's (small builders) will be forced to sign up, but will pay lip service and cut corners! In our experience they will not monitor. This could be delivered through BREEAM with amendment. Waste is not currently a mandatory credit. However, there are those currently cheating BREEAM. This needs to be focused on the designers/architects, educating the client as some choices, certain colours, design etc generate more waste. If a voluntary measure was to be introduced, consideration needs to be given to what the measure is to do, how it will do it and how it is measured. However in practice this will be difficult to deliver.</p>	<p>The Welsh Government recognises that the construction and demolition sector within Wales is dominated by SME companies and lone operators. With this in mind, the Welsh Government agrees that a generic voluntary agreement, to encourage working towards the waste prevention targets is probably not appropriate.</p> <p>It is recognised that at present, BREEAM scoring is weighted in favour of energy efficiency measures, and that waste prevention measures are given low priority.</p> <p>It is likely that BREEAM and the Code for Sustainable Homes will be reviewed in Wales, with the relevant planning and building control legislation. The Waste Strategy Branch will work closely with the relevant Welsh Government departments who are leading on these reviews, to ensure that waste policy is taken into account in new or revised legislation.</p>
	<p>(Demolition) If you want something done you need to set rules, however there needs to be thought given, if voluntary, to how you maintain consistency between England, Wales and Scotland. Overly high targets could cause disadvantage to Welsh business. It needs to be a real target; halving waste to landfill was off mark for demolition. The sector was achieving 50% landfill diversion in the 1980/90's. The targets will require a major behaviour change for that to happen, a mix of voluntary and legislative measures need to be adopted for best results. There are a substantial proportion of clients who are</p>	<p>The Welsh Government accepts these comments and does not currently consider a Voluntary Agreement would be appropriate for the construction and demolition sector.</p> <p>The Welsh Government recognises that there are currently some conflicts between different pieces of legislation relating to this industry. It is not the intention of these sector plans to introduce unnecessary new legislation but to work with industry to identify the best ways of meeting targets. Where a statutory approach is</p>

	<p>commissioning a demolition on a one off basis. With this in mind it is important that targets are legislative. Thought needs to be given to closing the loops on demolition product, it needs to be linked into the new build process. This is especially relevant where a project is site clearance for new build, the waste producer will become the waste user. Consideration needs to be given to the potentially conflicting environmental benefits against health and safety welfare, for example glass is easily recycled however it is very difficult to safely remove from a demolition. Current practices with mechanical demolition will break the glass making it almost impossible to recover. The achievement of the targets could be incentivised with the appropriate infrastructure and market conditions; this would be more effective than a voluntary approach but wouldn't require legislation.</p>	<p>required, the Waste Strategy Branch will work closely with other relevant Welsh Government teams to ensure that waste policy is taken into account at an early stage of legislative review / development.</p>
	<p>(Design) Legislation is favoured to create a level playing field. Voluntary agreements are not universal, some will some won't. Legislation would offer sector equality and protection. All sectors need to be the same, otherwise some penalised if legislation differs. Building to more sustainable standards is typically more expensive, however it is often the cost so of achieve standards and not materials or construction methods that make it more expensive. For example the Code for Sustainable Homes adds £2000 costs per dwelling. Little understanding about the life time savings gained from a sustainable building in running/disposal costs against more standardised construction. Client focused as most able to influence building outcome. Perhaps look to energy efficiency ratings on products as effective for enabling people to make decision on product performance. This should be broadened for buildings to incorporate whole life building costs. In construction, still money talks more than green commitments-profit driven. Should it cost more to build unsustainably?</p>	<p>The Welsh Government accepts these comments and does not currently consider that a Voluntary Agreement would be appropriate for the construction and demolition sector.</p> <p>It is likely that BREEAM and the Code for Sustainable Homes will be reviewed in Wales, with the relevant planning and building control legislation. The Waste Strategy Branch will work closely with the relevant Welsh Government departments who are leading on these reviews, to ensure that waste policy is taken into account in new or revised legislation.</p>
	<p>(SME) Voluntary agreement is not the answer for something of this scale, maybe for some other sectors. Public £ can be used to great impact in Wales, especially as public purse generates 60% construction spend. Creates un-level playing field, the costs / benefits for small businesses would differ from the large businesses. Statutory target needed to encourage re-use. Voluntary approach will not achieve targets.</p>	<p>The Welsh Government is developing a Towards Zero Waste Public Sector Plan, which will include actions relating to public procurement and contract management.</p> <p>The Welsh Government recognises that the construction and demolition sector within Wales is dominated by SME companies and lone operators. With this in mind, the Welsh Government agrees that a generic voluntary agreement, to encourage working towards the waste prevention targets is probably not appropriate.</p>

	<p>(Product) More impact if managed as a supply chain issue, not necessarily sub sector. How would voluntary agreements be managed to consider imported product, without negatively penalising UK manufacturers? Voluntary agreements are for bigger companies with budget – smaller companies have no money for these types of actions and would need support. Could funding be made available for the SME's? Voluntary agreements should support Regulation, in Germany they set regulation with a long lead time for example 2025, and then establish a series of voluntary commitments with 5 year review. If the targets are being met they delay or remove the regulation, if they are not being met they bring the regulation date forward.</p>	<p>The Welsh Government is developing a Towards Zero Waste Public Sector Plan, which will include actions relating to public procurement and contract management.</p> <p>The Welsh Government recognises that the construction and demolition sector within Wales is dominated by SME companies and lone operators. With this in mind, the Welsh Government agrees that a generic voluntary agreement, to encourage working towards the waste prevention targets is probably not appropriate.</p>
<p><b>Q4: Do you consider that the best method for monitoring the resource efficiency of the sector would be to measure the total material used per standardised unit?</b></p>	<p>(WD) It might be an idea – through the enforcement and monitoring of SWMP compliance – to record design decisions that have been taken to improve efficiency and support the ideals of eco-design.</p>	<p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
	<p>(LARAC) Does this mean total used compared with not used? I.e. percentage wastage? Might be clearer to state “percentage wasted”. A standardised methodology needs to be adopted to allow like for like comparisons to take place.</p>	<p>The Welsh Government will investigate the feasibility of developing a standardised monitoring methodology, for resource efficiency within the industry.</p>
	<p>(RSAW) We believe that this requires further targeting to make sure we are clear about what goes to landfill vs. what gets taken off site for recycling. We note that resource efficiency will vary widely between small building projects and large construction schemes and this may need to be reflected.</p>	<p>The Welsh Government will investigate the feasibility of developing a standardised monitoring methodology, for resource efficiency within the industry. The Welsh Government will also ask the undertakers of any feasibility exercise, to take into consideration the suggestions made during this consultation process.</p>
	<p>(UKCG) We believe that the easiest way to establish whether construction waste is being reduced is via disposal, as there is a clear licensing and monitoring system already in place (e.g. waste transfer notes), which can establish all the waste that is removed off site. In addition WRAP has already set up a waste reporting portal for construction companies that could also be utilised.</p>	<p>This proposal is about introducing a methodology to monitor how efficiently the sector is using its resources and therefore needs to take into account more than just how much construction waste is reduced by. However, the Welsh Government notes the suggestion of using pre-existing mechanisms and these will be investigated as part of the feasibility exercise.</p>
	<p>(Cylch) Monitoring resource efficiency will come through at least two channels: 1) as suggested, total material per standardised unit. Would the standardised unit differentiate between total virgin, total reused and total recycled material used? 2) Also need to consider Materials Flow Analysis – so not just quantity of materials consumed by the sector but also need to consider where the resources came from and what eco-footprint they carry – e.g. stock used from surplus centres (which could supply from the existing 13% of new product that is</p>	<p>The Welsh Government will investigate the feasibility of developing a standardised monitoring methodology for resource efficiency within the industry. The Welsh Government will also ask the undertakers of any feasibility exercise, to take into consideration the suggestions made during this consultation process.</p>

	<p>currently discarded at the end of jobs), alternative materials that have lighter ecological footprint and the distance and treatment options applied to waste that is generated (i.e. Proximity Principle). In simple terms, if the materials were sourced from secondary markets they would have a lower ecological footprint than products sourced from virgin resources.</p>	
	<p>(WLGA) Whilst important as a concept, 'resource efficiency' will be difficult to measure in practice, given the variety of different types of construction project – trying to define a 'standardised unit' is likely to be problematic in itself. There may be scope to compare over time, looking at the level of resource going into a particular building at one point and then a similar building at a later date. However, this might be better undertaken via periodic research studies, involving a sample of building types where companies agree in advance to keep records (as opposed to trying to come up with a method for continuous monitoring).</p>	<p>The Welsh Government will investigate the feasibility of developing a standardised monitoring methodology for resource efficiency within the industry. The Welsh Government will also ask the undertakers of any feasibility exercise, to take into consideration the suggestions made during this consultation process.</p>
<p><b>Workshop responses:</b></p>		
	<p>(Waste) Use SWMP to tackle the issue of monitoring. The plan would offer up to date information on projects. This information needs to be captured to help prevent problems at the end of the waste cycle. Waste out should be measured against square meterage / tonnage to enable comparison.</p>	<p>This proposal is about introducing a methodology to monitor how efficiently the sector is using its resources and therefore needs to take into account more than just how much construction waste is reduced by.</p>
	<p>(Civils) There are practical difficulties with standardising measurements, KPI's. The ability to compare projects on a level playing field, to compare performance is critical. It is clear measurement is needed, but it will be difficult to determine what and how. Typically in civil's project - m2/paving. The South Wales Highways framework uses the tonnage of waste generated and percentage of waste to landfill. Monthly report on each waste type and the use of recycled materials records are kept as to whether waste is re-used on site and/or offsite. The Pontypridd City Centre project is also recording carbon. South Wales Aggregate Working Party measure used for aggregates - tonnage/time/volume. The responsibility for measurement should be with the client from the start of any project.</p>	<p>The Welsh Government will investigate the feasibility of developing a standardised monitoring methodology for resource efficiency within the industry. The Welsh Government will also ask the undertakers of any feasibility exercise to take into consideration the suggestions made during this consultation process.</p>
	<p>(Clients) NHS and Swansea City adopted the WRAP targets for recycled content and recovering waste. Data collected does not enable comparisons to be made on the performance of different builds of the same type. Does not allow for normalisation of a buildings size,</p>	<p>The Welsh Government will investigate the feasibility of developing a standardised monitoring methodology for resource efficiency within the industry. The Welsh Government will also ask the undertakers of any feasibility exercise to take into</p>

	<p>in terms of target for example when considering hospitals. Need something that enables like for like comparison, which mitigates for impact of economic downturn. Contracts often over long time periods so targets once agreed cannot be altered until new framework (some degree of alteration possible but has to be negotiated). Consensus was a standardised methodology needs to be adopted, this will prevent current picking and choosing of metric to produce most favourable outcome. This has been seen with the increased costs of builds to meet H&amp;S requirements (for example, need to include sprinkler systems in school classrooms) skewing waste performance data.</p>	<p>consideration the suggestions made during this consultation process.</p>
	<p>(Demolition) Generally, the current indicator used in demolition is building type/m2/tonnes out. Companies do use different indicators to manipulate the market and there needs to be a consistency of indication. NFDC members (currently 170 members) are required to submit an annual return of volume of demolition and material type. Further information is needed on the type of indicator and how the indicator will be used for additional comment to be made.</p>	<p>The Welsh Government recognises the need for a consistent approach to enable accurate monitoring against targets. The Welsh Government will also investigate the feasibility of developing a standardised monitoring methodology for resource efficiency within the industry.</p>
	<p>(Design) Needs to be adopted as other methods for example cost/waste results in a skewed figure. Unclear about what format was being proposed in this question, would suggest waste out/m2 of building. There needs to be an audit of figures – the only way to get a true measure. All voluntary data collection at present. Major differences between contractors - some claiming close to zero waste at present. Illustrates need for SWMP. Need for penalty if exceed a %? Should vary on projects? Need initial measure to start with to gain data to establish benchmarks. Need to capture nature of the waste/waste types in addition to volume.</p>	<p>The Welsh Government will investigate the feasibility of developing a standardised monitoring methodology for resource efficiency within the industry. The Welsh Government will also ask the undertakers of any feasibility exercise to take into consideration the suggestions made during this consultation process.</p> <p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
	<p>(SME) Not sure what unit of standardisation is being suggested. Cost is an issue but not right as a measure. Measure total material used – quantified by paper chain? BRE – would be in a position to work and advise on measures. Material flow analysis should be considered.</p>	<p>The Welsh Government will investigate the feasibility of developing a standardised monitoring methodology for resource efficiency within the industry. The Welsh Government will also ask the undertakers of any feasibility exercise to take into consideration the suggestions made during this consultation process.</p>
	<p>(Product) Needs to be consistent measure of appraisal, we need universal measurement as a starting point. Building efficiency is currently measured using carbon footprint. How would off site construction be factored in, for example impacts of build off site? Are we over simplifying? This issue is complicated we will need to set</p>	<p>The Welsh Government recognises the need for a consistent approach to enable accurate monitoring against targets. The Welsh government will also investigate the feasibility of developing a standardised monitoring methodology for resource efficiency</p>

	benchmarks.	within the industry.
<b>Waste Prevention</b>		
<b>Q5: Do you agree with the proposed waste prevention target?</b>	(RSAW) We are concerned about the use of weight as a measure of reducing waste arising, because of issues raised elsewhere in Towards Zero Waste, namely that certain materials contribute environmental waste problems in disproportion to their weight. Our central point is that the target must be the sensible design of structures such that their obsolescence is accounted for and thought through before they are built. It is essential to highlight the importance of appointing designers who understand whether they are designing for long-term, mid-term or temporary structures – chartered architects are trained in this area.	Reduction in weight of waste arisings is used as a baseline and measure, due to the nature of the data currently available. The priority materials for each sector have been highlighted and actions will be prioritised to enable focus on these materials, to ensure maximum reduction of the ecological footprint by 2025.  The Welsh Government recognises the necessity of engaging with all sub-sectors of the construction industry and particularly the importance of design in reducing the impact of construction projects in the future.
	(UKCG) This is not a good measure of performance as waste arising will change depending on the economic situation and types of project in the region. In the Sustainability Appraisal a Zero waste production target is proposed, however this would need to be explained. You mention recycling within this explanation, so this implies that waste will still be produced, it is therefore what we do with this waste that is important. Ensuring no waste goes to landfill is therefore a more achievable goal. There are certain waste streams where treatment options will need to be established to achieve this (e.g. historical hazardous waste, including asbestos, and residual; waste from soil treatment).	The purpose of this target is to encourage the industry to rethink the way they work and limit the amount of waste produced. For waste that is produced, the Welsh Government will encourage the industry to consider the waste hierarchy at all times – prepare for reuse, recycle, recovery (including energy from waste) and finally, disposal. The Welsh Government wishes to see zero waste to landfill, but this target can only be achieved if there is a reduction in waste arisings and push residual waste treatment up the waste hierarchy.
	(WFCA) The targets as proposed would appear to be necessary to achieve the desired 2050 overall reduction. It is reasonable to assume that commencing with the materials listed would bring the greatest benefits within the shortest time frame possible. Hazardous waste could, in some sub-sector activities and particularly in the context of contaminated land / remediation, prove to be more challenging unless client briefs are clear and funding requirements covered.	The Welsh Government recognises the challenges relating to hazardous waste, in particular for the construction & demolition sector. The Welsh Government will also work closely with relevant organisations, such as Constructing Excellence in Wales and the Environment Agency Wales, to identify evidence gaps and review or develop guidance where a need is highlighted.
	(Cylch) The target makes reference to the fact that waste prevention is the best way of reducing the ecological footprint of waste and so the target should be focused on the priority materials with the highest ecological footprint, figure 5, page 26, rather than the high tonnage, low eco-footprint materials such as aggregates. The 1.5% target is an	Reduction in weight of waste arisings is used as a baseline and measure due to the nature of the data currently available. The priority materials for each sector have been highlighted and actions will be prioritised to enable focus on these materials, to

	<p>agreeable target based on the 5 yearly review cycle, which should include an opportunity to revise the target to be more ambitious if necessary. 1.5% per annum reduction in arisings should be readily achievable, especially with legislation demanding better waste management practices and evidence of consideration of the hierarchy, including onsite 'direct reuse' of materials before they become waste – or exchange of usable products into collaborative consumption models where materials are sent for use rather than disposal.</p>	<p>ensure maximum reduction of the ecological footprint by 2025.</p>
	<p>(WLGA) Measuring 'waste that has been prevented' can be a largely abstract concept and requires a range of assumptions. Changes in the overall volume of waste generated are likely to be heavily influenced by the overall level of economic activity. Trying to identify the impact of this strategy on overall volumes is all but impossible: good outcomes resulting from measures in this strategy could be overwhelmed by an uplift in the level of activity (and the converse also applies). Therefore whilst it may be of interest to monitor annual change against an <i>aspirational</i> target of 1.5%, it is not a 'SMART' <i>performance</i> target because its achievement is not totally within the control of the sector.</p>	<p>Reduction in weight of waste arisings is used as a baseline and measure due to the nature of the data currently available. The priority materials for each sector have been highlighted and actions will be prioritised to enable focus on these materials, to ensure maximum reduction of the ecological footprint by 2025.</p> <p>While waste is a devolved issue, the Welsh Government does not currently have the powers to set a statutory waste prevention target. Therefore, this could be seen as an <i>aspirational</i> target. However this is required in order to monitor the progress of the sector, against the requirements in the revised Waste Framework Directive.</p>
<p><b>Workshop responses:</b></p>		
	<p>(Waste) The target is achievable with investment in infrastructure to manage the waste, this is especially important with regards to move the waste around, for example transport costs. Minimising/preventing waste needs to be tackled with design/producer responsibility. The last 10% will be most difficult, for example insulation will be a big issue. The global market is an issue, encourages/supports opting for the cheaper option.</p>	<p>The Collection, Infrastructure and Markets (CIM) Sector Plan has set out a range of actions which will address the infrastructure needed in Wales to meet the targets set out in Towards Zero Waste.</p>
	<p>(Civils) It is difficult to understand how it will be achieved universally, needs to be different for each waste type. In 2005 re-using /recycling above 80% already. To change this we need to change the design in the first place. Again it starts with the client – change the concept of the design otherwise the industry wont be able to achieve the waste prevention target required. What is the cost of waste prevention? Need to work with the Environment Agency to look at soils and aggregates, these are beneficial materials required for projects. The need to issue a waste transfer note deems them waste – requiring</p>	<p>The Welsh Government recognises the importance of design in relation to waste prevention and have proposed several design-related actions within the plan. The Welsh Government will work closely with Ecodesign Centre Wales and other relevant design bodies, to ensure that this issue is addressed as early as possible.</p> <p>The Welsh Government will continue to feed into UK and EU discussions regarding end of waste criteria and waste quality</p>



	<p>regulation etc, affects ability to use. Agreement on emphasis on priority wastes.</p>	<p>protocols, including those relating to soils and aggregates.</p>
	<p>(Client) How has the economic downturn impacted on the target? Has the target been achieved through reduction in the amount of construction projects? There has been an approximate 40% reduction in capital spend and a move towards refurbishment projects. The volume of waste generated has reduced but there will be a higher percentage of difficult wastes produced - impacting the ecological footprint. By doing less we are creating a bigger waste issue. Considering the 1.5% year on year reduction target. The target should prioritise specific materials and projects types to maximise the benefits not just in volume terms. Looking at volume will focus on large volume materials e.g. aggregates.</p>	<p>The Welsh Government recognises that different waste types have different impacts on the environment, and have identified the priority materials for waste prevention. For the construction and demolition sector these are: wood, plastic, metal, insulation and gypsum and hazardous waste. The priority wastes are described in the current situation section of the draft consultation document.</p> <p>The Welsh Government is evaluating the actions within the sector plan in the preparation of its waste prevention programme, and as required by the revised Waste Framework Directive. The programme will describe which waste prevention actions will be implemented in the short term (over the next 5 - 6 years), and which will be explored or developed for future implementation. One of the key criteria for evaluating and prioritising potential actions will be their efficacy in tackling high impact waste types.</p>
	<p>(Construction) Achievement of these targets is critically linked to project set up. Over the next few years in Wales, construction will mainly consist of public spend rather than private. The Welsh Government and Local Authorities are the key, targets could be driven through procurement. What has been the impact of the economic downturn on the volume of waste generated during the period? How will the influence/impact be addressed? Consideration needs to be given to inclusion of construction output and construction spends. What was the construction output in 2005 to correlate to the 2005 waste baseline? Demolition waste should be taken out of the baseline used for waste prevention target, as by its very nature it can not be prevented, as such.</p>	<p>The Welsh Government is developing a Towards Zero Waste Public Sector Plan, which will include actions relating to public procurement and contract management.</p> <p>Demolition waste can be prevented / reduced through refurbishment and/or reuse of structural elements and architectural features. Please note that "prevention" includes reuse and, in theory, there is potential for a good reuse rate at many demolition projects.</p>
	<p>(Demolition) It is an adventurous target that may be too global. It is easily achieved for some waste streams but not possible for others. The definition of waste needs to be addressed to address the use/re-use of soils excavated etc for use on site (at a later date) but classified as waste. This will impact on the waste prevention baseline. Behaviour change in design is key for achieving the targets. Demolition is a consequence of poor building structure/design. The move to off site construction methods needs to be encouraged. Pre-fabrication has a historic stigma attached of poor/sub standard</p>	<p>The 5.4 million tonne baseline referred to in Towards Zero Waste and the sector plan does not include materials reused on site. Therefore to achieve this challenging target, more effort will be needed to be put into reducing waste from the priority material streams.</p> <p>The Welsh Government recognises the importance of design in relation to waste prevention and has proposed several design-related actions within the plan and will work closely with</p>

	<p>product that it not true of current methods and products. Current high market prices for materials such as copper (£3000/tonne) will generate a perverse impact on achieving the prevention target.</p>	<p>Ecodesign Centre Wales and other relevant design bodies to ensure that this issue is addressed as early as possible.</p>
	<p>(Design) Should reflect the individual materials not by weight alone. Otherwise could encourage the avoidance of addressing the more difficult and priority wastes. How do you capture savings when benefit is not received until end of buildings life? Waste prevention activity should become the industry norm when designing/planning a building – how to move to that state? In addition to waste prevention at concept, design should consider the longevity of building, building change of use and ease of deconstruction to maximise potential waste prevention.</p>	<p>Although several references are made to the priority materials of wood, plastic, insulation and gypsum products, hazardous waste and metals, the Welsh Government has not consulted on individual targets for these. During the consultation workshops, a breakdown of reduction in waste arisings by priority materials was provided to illustrate their importance. Although these would not be statutory, the Welsh Government considers it would be useful to include this breakdown in the final C&amp;D sector plan.</p> <p>The Welsh Government recognises the importance of design in relation to waste prevention and has proposed several design-related actions within the plan and will work closely with Ecodesign Centre Wales and other relevant design bodies to ensure that this issue is addressed as early as possible.</p>
	<p>(SME) Target is far too high for this sector (SME). It would be better to start off low and increase if performance improves. Look for incremental shifts for example from landfill to recovery to reuse to prevention. Materials with high volume are not necessarily the highest impact, the targets should be tailored/materials specific. There needs to be investment in infrastructure for prevention, currently funding at the wrong end of the waste hierarchy. This should be in place first.</p>	<p>The waste prevention target is given as a percentage and is set for the sector as a whole. The Welsh Government recognises that there are barriers to waste prevention and that these can differ between sub-sectors. Through the wide range of actions proposed, the Welsh Government hopes all sub-sectors will get relevant support and guidance to help them contribute towards meeting this target.</p> <p>The Collection, Infrastructure and Markets (CIM) Sector Plan has set out a range of actions which will address the infrastructure needed in Wales to meet the targets set out in Towards Zero Waste.</p>
	<p>(Product) The 1.5% incremental increase is open for debate; we expect a greater rise in the future. This target can be reached sooner and exceeded. There is scope for higher standards and a more ambitious target to be set for different material types for example, gypsum has greater potential for an increased target. Added value products can make a greater contribution to achieving targets. Preference should be given for material with that factors waste prevention methods into production, installation and end of life, for example insulation products with no on site waste generation and</p>	<p>The waste prevention target (non-statutory) for the construction and demolition sector will be set at 1.5% reduction year on year. Sector plans will be living, flexible documents that will be reviewed regularly. An annual report will be produced to report on our progress against the targets in Towards Zero Waste. Welsh Government will therefore review this target as new data becomes available. In the consultation workshops, a breakdown of reduction in waste arisings by priority materials and the associated impact on the ecological footprint was provided to illustrate their importance. Although these would not be statutory, the Welsh</p>

	recoverability at end building life.	Government feels that it would be useful to include this breakdown in the final C&D sector plan.
<p><b>Q6: Do you consider that setting 5 yearly milestones is a fair way of monitoring progress against the overall Towards Zero Waste target? If no, please explain why.</b></p>	(UKCG) These will need to be simplified as at present they send out a mixed message. A Zero non-hazardous waste to landfill target is an easy way to explain this, and part of achieving this is by reducing the waste generated. Current figures in the document suggest that over 75% of construction waste sent off site (including soils and stones) is already being reused, recycled or recovered. Therefore setting stepped targets 80% by 2015, 90% by 2020, 95% by 2025 would be a simpler option. The Strategic Forum for Construction Waste Working group has also developed a methodology for measuring this.	<p>The 5.4 million tonne baseline referred to in Towards Zero Waste and the sector plan does not include materials reused on site. Therefore to achieve this challenging target, more effort will be needed to be put into reducing waste from the priority material streams.</p> <p>The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.</p>
	(WCFA) The setting of 5 yearly milestones appears to be a reasonable proposition given the recognition that “waste prevention actions take effect in the medium to long term”. This could also be of benefit in the early years of the programme period, as clients may not have fully adopted the “designing out waste” approach now being suggested as part of their development work, leading to possible undue expectation on the contractor delivering on the current strategy.	The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.
	(Cylch) There is a need to implement annual monitoring of progress towards targets, possibly performance indicators, as currently the waste data from the C&D sector is not collated on a regular basis. Five year milestones are appropriate as it could take some years to implement annual data collections and monitoring programmes.	The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring. An annual report will be produced by Waste Strategy Branch, to report on progress against the targets set in Towards Zero Waste.
	(WLGA) If the response to question 5 above about waste prevention targets is accepted and the monitoring is of an aspirational target, then frequency of assessing progress is not critical and 5 years would seem acceptable. If the intention is, however, to use this as a performance measure then 5 years would be too large a gap.	While waste is a devolved issue, the Welsh Government does not currently have the powers to set a statutory waste prevention target. Therefore, this could be seen as an <i>aspirational</i> target. However this is required in order to monitor the progress of the sector, against the requirements in the revised Waste Framework Directive. The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.
	<p><b>Workshop responses:</b></p>	
(Waste) The five year interval is not appropriate monitoring, it is too long. Yearly would be better, but not entailing excessive cost. Need to give consideration to economic factors which may result in targets appearing to be achieved without industry effort, for example waste prevention targets could be achieved because the economic downturn has decreased the volume of construction activity. Need to look for	<p>The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.</p> <p>The Welsh Government is currently investigating the best approach for monitoring against the targets. An annual report will</p>	

	<p>different ways of collecting data, survey no longer considered to be appropriate. Need to develop systems to improve confidence in data, especially if it is being used to provide baselines or demonstrate performance.</p>	<p>be produced by Waste Strategy Branch, to report on progress against the targets set in Towards Zero Waste.</p>
	<p>(Civils) 5 year review is reasonable in comparison terms. This mirrors what is used to determine aggregate production levels. This would allow clients enough time to get to grips with the target. How does this translate for other sectors?</p>	<p>The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.</p> <p>All sectors will have targets set through the sector plans. How these are monitored may depend on the sector and whether there is already a methodology in place to collect the relevant data.</p>
	<p>(Client) It is considered that the period should be no less than 3 years or 5 years with interim monitoring at the half way point. Monitoring should be materials focused not volume, to ensure the savings of one material are not used to suggest achievements for other more difficult materials. Consideration needs to be given to the decoupling of economics from waste. This is of particular importance to construction as with an economic downturn the industry is often the first in and last out of recession.</p>	<p>The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.</p> <p>In the consultation workshops, a breakdown of reduction in waste arisings by priority materials and the associated impact on the ecological footprint was provided to illustrate their importance. Although these would not be statutory, the Welsh Government feels that it would be useful to include this breakdown in the final C&amp;D sector plan.</p>
	<p>(Construction) Five yearly milestones represent a good place to start, however there will be a need for a gateway review to monitor. Too much can happen in five years if not monitored, for example, the impact of the current economic situation, changes in technology etc.</p>	<p>The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.</p>
	<p>(Demolition) A five year interval is a good balance. If the period was shorter you wouldn't see change, however it limits your ability to address potential areas of concern. Thought needs to be given to the quality of data collected to monitor progress.</p>	<p>The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.</p>
	<p>(Design) Who will monitor and how? What monitoring system is proposed? Five years considered appropriate as will increase monitoring accuracy, as potential peaks/troughs with be smoothed. Undertaking monitoring every year is an expensive exercise and can be difficult. Could be done more frequently if SWMP data was available and reviewed at five year intervals for need to change/amend actions. Would enable focus and review. Five years would allow the impact of new legislation to be considered. This time period also taking into consideration other changes to regs for new building control regs - so would seem appropriate. Has to be</p>	<p>The Welsh Government is yet to confirm how data will be collected to monitor against the target. Initially this may take the form of another survey. However the potential limitations of survey data are recognised and the Welsh Government will therefore also look for a more robust and regular data collection method. Once the SWMP regulations are in force, there may be scope to link into this process.</p>

	<p>consistent, reliable and accurate.</p>	
	<p>(SME) Agree with the 5 year monitoring because it takes into consideration fluctuations / growth and economic trajectory. It allows a bit of leeway for these externalities. Needs to be a 5 year target with interim milestones and regular monitoring.</p>	<p>The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.</p>
	<p>(Design) This time period is too long as the situation/context changes very quickly. There needs to be an interim review or ideally annual monitoring. This is especially important regarding products as new products are constantly being launched / revised each year. The Construction sector is impacted more than most by seasonal fluctuations and anomalies, for example most construction activity is focused in the warmer months. This however is reversed when considering some construction materials for example insulation sales/activity is focused (higher) in the winter.</p>	<p>The Welsh Government will take forward a milestone approach to monitoring and will consider whether to adopt 5 yearly milestones with interim monitoring.</p>
<p><b>Q7: Do you consider these actions to be sufficient to meet the waste prevention targets? If not, what other measures would you propose?</b></p>	<p>(WD) <i>a) Sustainable Construction products:</i> Think the availability of information will ensure that designers and contractors can make more informed decisions and back up their choices with clients more easily.</p> <p><i>b) Design solutions for construction products:</i> Agree that MMC will reduce waste onsite – feel better, more practical gains can be made through standardised sizes – material suppliers and manufacturers need to buy into the idea of zero waste to landfill – and recognise that they play an important part (this could include onsite training for operatives – who have used old systems for years and now have to make that adjustment) [for example, plasterboard in 3m lengths, though designers make floor to ceiling tile height 3.2m, creating significant off-cuts etc. Either influence supplier to create longer boards, which impacts delivery logistics or reduce ceiling height]</p> <p><i>c) Encourage use of value engineering for large construction projects:</i> Through my experience of VE – its primary task is to reduce the cost of the project – then, as a side issue the examination of recycled / reclaimed / standardised sizes etc of materials are considered – Agree it works but usually financial drivers are the main reason for it on a project. Would advocate risk based value decision making to add greater value</p> <p><i>d) Designing out waste:</i> Think that the awareness of the tool is out there with the larger contractors and design teams – but is rarely used</p>	<p>The C&amp;D Sector Plan Consultation document proposes a range of actions to help the C&amp;D sector meet the waste prevention targets set out in Towards Zero Waste. The Welsh Government recognises that this is not an exhaustive list and that some will need further work before it is feasible to move forward with them. The Welsh Government has received some excellent feedback on individual actions, including suggestions on how to improve or build on them. Once the final sector plan is published, the next stage is to work with industry and relevant service provider bodies, to prioritise and deliver the actions.</p>

	<p>to its full potential. More awareness / training and insistence from clients would improve the impact of this tool.</p> <p><i>e) Minimising 'wastage' factor:</i> Really like the idea of 80:20 split on ordering materials. New concept to me – but when on site and having discussions with management – 2 main reasons for wastage –</p> <ol style="list-style-type: none"> <li>1. Over ordering</li> <li>2. Damage</li> <li>3. Design to material spec – see plasterboard example</li> </ol> <p><i>f) Education and guidance:</i> Perhaps not only amending the “environmental card” but having additional questions about the environment in the supervisors / managers cards, will help spread awareness more widely (not only those with the environmental card!)</p> <p><i>g) Welsh Government directed support for SME's to reuse surplus materials:</i> Good idea. Significant opportunity at base of the pyramid to add value here</p> <p><i>h) Infrastructure to support the reuse of surplus materials for community benefit:</i> Agreed it is a good idea – we / the industry needs to be mindful of not “muddying” the waters legally on waste and what constitutes waste – suggest some EA guidance to accompany this plan too.</p> <p><i>i) Moving the use of demolition wastes up the waste hierarchy:</i> In Willmott Dixon Ltd we operate under the U1 exemption often – commercially it ends up being more viable. But take the point regarding the embodied energy of the materials – is this a bit much for SME's to be considering? Waste / recycling V's Carbon can sometimes open a “con of worms” scenario.</p> <p><i>j) Increase awareness about using reused products:</i> Would like to see more of a National Industrial Symbiosis Programme (NISP) approach whereby locally in Wales we all share materials - much like (h). Agreed that this is a good idea.</p>	
	<p>(KWT) Keep Wales Tidy would like to suggest a sixth design principle - <i>Design to reduce waste during use of the space or building.</i> We</p>	<p>At present, the sector plan does not deal in any detail with issues arising during the usable life of a structure (i.e. after the build</p>

	<p>have produced a design guide “<i>Designing for a Clean Safe and Tidy Environment. A Good Practice Guide</i>”. This guide highlights the consequences of poor design choices, which can lead to: trapped litter - waste in the wrong place; or indefensible space providing cover for environmental crime, such as vandalism, which leads to broken items that have to be replaced. A summary and a full copy of the guide can be found on Keep Wales Tidy’s website. Also the 80:20 ordering suggested on page 59 may not be practical for some projects and an alternative could be to donate any surplus at the end of the project to a charity or community project.</p>	<p>stage, but prior to end of life / demolition stage). The Welsh Government would need to consider with the industry, whether this is within the remit of the plan and if not, the best way to take this forward.</p>
	<p>(UKCG) You should also mention the Strategic Forum for Construction Waste Action Plan, which uses more up-to-date data to compile a picture of the waste streams. There are also a number of subordinate action plans that feed into this, including timber and plasterboard.</p>	<p>Many reference sources were used in the development of this sector plan consultation document. However the Welsh Government recognises that this was not an exhaustive list and welcomes suggestions of further sources which can be considered during the development of the final sector plan, and planning for delivery of the actions.</p>
	<p>(Cylch) These actions are sufficient to start working towards meeting the waste prevention target. We would add that the dissemination of examples of best practice are shared and promoted widely throughout the C&amp;D sector. Deconstruction for reuse will eliminate a significant volume of priority wastes at the traditional ‘demolition’ phase and help prevention targets. Investment by the construction industry and government into ‘surplus centres’ and systems that support ‘materials exchange’ needs to be increased beyond the initial pilot work being conducted by CEW, Recipro and Cylch – with these bodies leading project development in collaboration with C&amp;D sector stakeholders. Recognising the Cylch role in developing a ‘reuse &amp; repair network’ in Wales (in line with Article 11, rWFD) identify necessary resources to improve this infrastructure to also support preparation for reuse in C&amp;D sector. Action ‘g) Welsh Government directed support for SME’s to reuse surplus materials’, needs to ensure the reuse of materials becomes a mainstream activity. As Wales is a small country, there is a need to build on existing infrastructure, for example co-located surplus centres alongside other community exchange centres, building trade sites or HWRC’s is sensible in providing access and logistical services.</p>	<p>Constructing Excellence in Wales, who are funded by the Welsh Government to manage a Waste Programme, have a remit to share and promote best practice throughout the C&amp;D sector and they will continue to hold this key role in relation to the C&amp;D Sector Plan.  All of the actions proposed should at this stage, be seen as a starting point. Some will be delivered in a relatively short period of time; others will need several years to develop. The Welsh Government will start to work with industry and relevant service provider bodies, to prioritise actions and determine the best methods to deliver them. Where work has already begun, for example with the surplus centres, the Welsh Government will continue to work closely with those delivering and identify how to maximise their impact on the targets.</p>
	<p>(WLGA) The measures proposed are all sound. However, none of</p>	<p>This is an excellent point and will be given further consideration by</p>

	<p>them questions whether the building is really necessary in the first place. This should be the first consideration. Linked to this, the differential treatment of VAT on new and existing buildings is a key issue. At present, there is an added financial incentive to undertake new building and this can tip the balance away from refurbishment and retrofit towards demolition and reconstruction. Whilst tax is a non-devolved issue it is an issue that warrants further consideration with the UK Government. The statement that Waste Awareness Wales will undertake an awareness campaign, to support and encourage the reuse of materials is noted and this will be built into forward work plans.</p>	<p>the Welsh Government. The sector plan does include some actions relating to working in conjunction with the UK Government and the Welsh Government will look to include this additional point in the final sector plan.</p>
<p><b>Workshop responses:</b></p>		
	<p>(Waste) There is a lack of infrastructure and a lack of development in infrastructure necessary to achieve the targets. Infrastructure needs to be established for the full construction cycle from conception to recovery / disposal.</p>	<p>The Collection, Infrastructure and Markets (CIM) Sector Plan has set out a range of actions which will address the infrastructure needed in Wales to meet the targets set out in Towards Zero Wales.</p>
	<p>(Civils) Construction industry thrives on a challenge. Focus needs to be given to entry into the industry and ensuring engineering/degree courses are teaching waste prevention principles. Currently the focus is on consultants not contractors. Focus needs to be given to design. If the design is poor it is not going to improve when built, the generation of waste will be inherent. The time expectation of clients is often unrealistic, the programme is designed too tight and when accompanied with change is responsible for project waste. Supermarkets are a particular example of tight programmes and multiple design changes during construction. Need to focus on measures that bring the team together, building integrated teams with a balance between responsibility and participation. Client, design and contractors need to work together from the start – maybe get planners and waste management involved? Management, in particular project and site management needs addressing as poor management leads to issues which leads to waste. Need to remove the ability for the client to pass responsibilities down the supply chain. This is where legislation needs to come into place. There needs to be greater integration between sectors and sector plans. Local Authorities involvement is an issue they have declined invitations to be involved pre-consultation and consultation workshops, they need to be more involved if the targets are to be achieved.</p>	<p>The Welsh Government recognises the importance of design in relation to waste prevention and has proposed several design-related actions within the plan. The Welsh Government will work closely with Ecodesign Centre Wales and other relevant design bodies, to ensure that this issue is addressed as early as possible. The Welsh Government will also explore opportunities for including ecodesign in design and architecture courses and look to develop guidance for prospective clients to help them set specifications for their buildings.</p>
	<p>(Clients) Focus on offsite and modular construction methods.</p>	<p>The C&amp;D Sector Plan Consultation document proposes a range of</p>



	<p>Addressing standardised design would enable waste to be reduced, lessons to be learnt and eliminate constant “changing” bespoke design. Need to examine opportunities at earliest stage to identify potential waste at source. Behaviour change is key. Social media/social networks to make people aware - enable opportunities to be identified. Need to develop capacity within social enterprise/reuse infrastructure as materials wasted currently due to lack of facilities. SWMP could start to begin the behaviour change process. There needs to be a culture change. Within public sector low turn over staff mean many set in their ways. Often reluctant to release!! Construction still cost driven, not enough money to do in a different way! Look for opportunities, it has happened for H&amp;S.</p>	<p>actions to help the C&amp;D sector meet the waste prevention targets set out in Towards Zero Waste. The Welsh Government recognises that this is not an exhaustive list and that some will need further work before it is feasible to move forward with them. The Welsh Government has received some excellent feedback on individual actions, including suggestions on how to improve or build on them. Once the final sector plan is published, the next stage is to work with industry and relevant service provider bodies, to prioritise and deliver the actions.</p>
	<p>(Construction) Waste prevention needs to be part of the education system. It should become part of the day job not an addition to it. Making it part of training courses/degree etc could be a good way of beginning the industry behaviour change. Need to explore opportunities within current systems such as CSCS, VELPAK for inclusion. Goes back to question 2 - Who is responsible for waste prevention? End of life principle is not in the mindset of construction professionals and needs to become habit. The Environment Agency needs to be part of the solution not just a regulatory organisation.</p>	<p>The Welsh Government recognises that there is still a lot of work to be done with regards to behaviour change and waste prevention. With the help of service providers such as Constructing Excellence in Wales, WRAP and Waste Awareness Wales, the Welsh Government will determine the best routes to disseminate behaviour change initiatives to client groups and the C&amp;D sector community.</p>
	<p>(Demolition) Measures need to look at the whole life of a building, the targets will need a holistic approach, and this will then address de-construction aspects. The Environment Agency definitions of waste need to be re-examined. The sector plan doesn't consider using the market place to stimulate change, particularly for a materials end use.</p>	<p>The proposal for a producer responsibility / End of Life for buildings approach is intended to go some way towards recognising the need for a more holistic approach to construction. The next step in this process will be to commission a feasibility study, which will include a review of current tools / legislation which could be used to introduce the scheme. The Collection, Infrastructure and Market (CIM) Sector Plan addresses the need to use the market place to stimulate change.</p>
	<p>(Design) There needs to be clearer definition on what the best options are – what is most green. Too many different measures exist. Need clearer education/ messages from government. SWMP – critical. Lack of industry understanding on how to prevent waste. What penalties exist for exceeding targets? Need incentive to ensure compliance. Who will issue penalty? If Wales does not meet targets and penalised how does this translate to industry? Systems needed for addressing product design that leads to waste generation for example insulation stuck to plaster boards. Agree with the waste</p>	<p>The Welsh Government recognises that there is still a lot of work to be done with regards to behaviour change and waste prevention. With the help of service providers such as Constructing Excellence in Wales, WRAP and Waste Awareness Wales, the Welsh Government will determine the best routes to disseminate behaviour change initiatives to client groups and the C&amp;D sector community.</p> <p>The C&amp;D Sector Plan Consultation document proposes a range of actions to help the C&amp;D sector meet the waste prevention targets</p>

	<p>prevention chart – needs to be active with review on performance.</p>	<p>set out in Towards Zero Waste. The Welsh Government recognises that this is not an exhaustive list and that some will need further work before it is feasible to move forward with them. The Welsh Government has received some excellent feedback on individual actions, including suggestions on how to improve or build on them. Once the final sector plan is published, the next stage is to work with industry and relevant service provider bodies, to prioritise and deliver the actions.</p>
	<p>(SME) Deconstruction should be challenged into re-use. Behaviour change activity needs to be included to encourage re-using/refurbishing instead of new. Refurbish existing void properties rather than building new, better value rather than primary costs. Infrastructure not always there for re-use – does CIMS plan to address this? What about community exchange centres? Current infrastructure has been developed to efficiently bury in the ground but not to keep the materials out of the waste stream. There is no consideration given to fiscal drivers, tax breaks, reducing VAT on second use products for example. The development of partnership approaches for example local authorities and private equity mixes to alleviate public finance constraints.</p>	<p>The Collection, Infrastructure and Markets (CIM) Sector Plan has set out a range of actions which will address the infrastructure needed in Wales to meet the targets set out in Towards Zero Wales.</p> <p>The Welsh Government has limited powers in relation to the development of fiscal drivers and therefore would need to work with the UK Government to look at initiatives such as these. The sector plan does include some actions relating to working in conjunction with the UK Government and the Welsh Government will look to include this additional point in the final sector plan.</p>
	<p>(Product) There needs to be an examination of the potential for establishing one measure for recording performance. There are currently 27 sustainability measures providing varying types of information on different aspects of sustainability performance. A rating system for building products could be effective. Consideration could be given to those of the Sustainable Building Products Association and Nature +. It would be a major step forward if Welsh Government reviewed and identified/specified a single measure, but don't develop a new one!! There is no consideration given, within the current actions, to the construction peculiarity that what is design and specified not always what is built. Who will be responsible for policing the actions? There needs to be enforcement, this is especially true for demolition sites. At present the Environment Agency have no remit to visit demolition sites. This re-enforces the need for SWMP.</p>	<p>Although there isn't currently a specific action within the Sector Plan relating to development of specifications for construction products. Ecodesign Centre Wales and Constructing Excellence in Wales have been asked to investigate opportunities for working with manufacturers of construction materials and products to improve the recyclability of their products. This could have the potential to feed into development of more consistent specifications / rating systems.</p> <p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
<p><b>Recycling</b></p>		
	<p>(WD-JO) A 10% recycled content by value is currently achieved by</p>	<p>The Welsh Government will investigate the feasibility of increasing</p>

<p><b>total value of materials and products used in all new buildings promoted or supported by Welsh Government or Welsh Government Sponsored Bodies (WGSBs) should be recycled and reused content.” Should this target be increased? If so, what would be an appropriate target?</b></p>	<p>default. I believe higher targets should be set starting at 15% and increasing year on year. However, I would recommend caution if you are considering setting high mandatory minimum percentages for buildings using the WRAP tool. Other aspects such as embodied energy should also be considered. Timber constructions (even if it's Forest Stewardship Council- FSC) when compared against a steel building fair badly on this measure and would fail to reach a high target.</p>	<p>the use of products and materials with recycled content in Government funded projects. If necessary the Welsh Government will review the measure as a whole, through the Public Sector Plan, to be published for consultation in early 2013. The Waste Strategy Branch will work closely with other relevant Welsh Government departments to ensure that the measure is meaningful and measurable.</p>
	<p>(RSAW) We are very concerned about the measurement of 'value'. We believe measures should be targeted at different construction materials.</p>	<p>The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in Government funded projects. If necessary the Welsh Government will review the measure as a whole, through the Public Sector Plan, to be published for consultation in early 2013. The Waste Strategy Branch will work closely with other relevant Welsh Government departments to ensure that the measure is meaningful and measurable.</p>
	<p>(Cylch) The target of 10% of value of materials is not an appropriate measure or target as the cost of materials fluctuates and recycled / reused materials have a higher cost. Public procurement should be supporting the use of recycled and reused materials in new builds to assist with the access, availability and supply of such materials and therefore drive the market. For example, steel has high recycled content already and is easily available; access to other recycled / reused materials and products is very limited and usually has higher costs.</p>	<p>The Welsh Government is developing a Towards Zero Waste Public Sector Plan, which will include actions relating to public procurement and contract management.</p> <p>The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in Government funded projects. If necessary the measure will be reviewed as a whole through the Public Sector Plan, to be published for consultation in early 2013.</p>
	<p>(WLGA) Measurement is again problematic because the recycled content may not always be known and/or it may be difficult to verify claims made about products. However, simply having a target is an important signal and, in that respect, 10% may be on the low side. If the intention is to drive behaviour change perhaps the target should be more ambitious. One way of doing this might be to have targets on a product basis where it is possible to specify the recycled content that is required and higher targets may be possible and deliverable (e.g. for steel, aggregate).</p>	<p>The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in Government funded projects. If necessary, the measure will be reviewed as a whole through the Public Sector Plan, to be published for consultation in early 2013.</p>
	<p><b>Workshop responses:</b></p>	
<p>(Waste) Value is a difficult measure, open to fluctuation and variation. Do we know if this target is being achieved? Consideration should be given to volume or weight; this is more easily determined / measurable. Different materials should have different percentages to</p>	<p>The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in Government funded projects. If necessary, the measure will be reviewed as a whole through the Public Sector Plan, to be</p>	

	<p>drive the more difficult materials. This needs to be baselined. Onus should be on the product not the value/contractor/project. Product should be labelled to make it easier to understand when you are using materials with recycled content, and how much recycled content.</p>	<p>published for consultation in early 2013.</p> <p>The Welsh Government recognises the importance of working with product manufacturers and reproducers to ensure that more sustainable products are marketed correctly and that those at the end of the supply chain have all the information they need to make an informed decision when choosing a product.</p>
	<p>(Civils) As it stands if you want the project funding you comply with the target. Welsh Government must lead by example. It should be increased and its application should be widened. Subject to market conditions – 10% should be achievable depending on the type of build. Moves towards timber frame will make it more difficult. The target should be reviewed. What is it trying to achieve? Is it counter-productive? We need to generate markets to encourage recycling, to consider the holistic impact, should we be importing product with recycled content in place of using locally sourced products, for example recycled plastic kerbs from china. At ten percent it is achievable in civils. The targets may vary for different projects. Should the target be set by the client? This could be better than 10%. Do we have the materials with recycled content to cope if demand was increased?</p>	<p>The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in Government funded projects. If necessary, the measure will be reviewed as a whole through the Public Sector Plan, to be published for consultation in early 2013.</p> <p>The Collection, Infrastructure and Markets (CIM) Sector Plan has started to address supply and demand issues with regards to availability of good quality recycle within Wales.</p>
	<p>(Client) The target as it has been currently established is difficult to measure against. NHS believe 15% is being achieved, primarily driven through framework activity. There is a lack of available information on the recycled content in products. Information currently used is not considered to robust and not integrated. Need for standardised methodology for calculating recycled content. Establishing minimum recycled content requirements for product, for example steel, flooring, aggregate would be better model. Suppliers/product manufacturers not forthcoming with information making it difficult to assess if target is being currently achieved. Need for a publicly available database for key products. Could be sold as marketing tool? Barriers to using recycled content product – inferior quality and confusion amongst manufacturers about what is being asked – often supply green jargon marketing material. How are claims about recycled content policed? SWMP could monitor recycled content?</p>	<p>The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in Government funded projects. If necessary, the measure will be reviewed as a whole through the Public Sector Plan, to be published for consultation in early 2013.</p> <p>The Welsh Government recognises the importance of working with product manufacturers and reproducers to ensure that more sustainable products are marketed correctly and that those at the end of the supply chain have all the information they need to make an informed decision when choosing a product.</p>
	<p>(Construction) The target should be universally applied across all projects, not restricted to new build. The target also does not</p>	<p>The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in</p>

	<p>consider external works. This target is difficult to achieve for some projects, for example timber frame. If the target is to be revised consideration should be given to project/building type targets – not one fits all. Current provision of evidence generally via WRAP recycled content tool. The tool needs revising as currently limited, dated, changeable and easily doctored. It can be manipulated to create an answer. Need to develop a proper reporting/monitoring toolkit combined with a database of manufacturer information. Before any increase in this target is considered the current system needs to be shored up. Data is not currently robust enough to shift the target up. A robust measurement tool is required. SME's not prepared / able to achieve target. Is it the right target? Value it a difficult measure, it is not consistent across projects or time. How can it be verified? It is not currently delivering what it was intended to deliver. Monitoring/measuring is inconsistent against the target as it currently stands. Target often measured at design stage, however what you start with and what is built is often different.</p>	<p>Government funded projects. If necessary, the measure will be reviewed as a whole through the Public Sector Plan, to be published for consultation in early 2013.</p>
	<p>(Demolition) The ambition of this is good, it will create market places for recycle. However this is not something that we have come across. Does the 10% target represent a challenge? There are ways to manipulate data to suggest this target has been achieved, material borrowing and focus on one high value element which may represent a small volume. There is a lack of quality information of the recycled content of products. How do you address material where recycled content is inherent, for example plasterboard, steel etc? There are lots of barriers to using recycled products or products with recycled content in Wales. There are many demolition companies using their demolition product for their own use (in linked civil engineering companies) as poor market for re-sale. This is compounded by the fact that there is an abundance of quarries in Wales. Target/specification could be linked to the use of certain materials from the start. Do we have enough of the right infrastructure in Wales to generate quality recycled product if there is a market demand?</p>	<p>The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in Government funded projects. If necessary, the measure will be reviewed as a whole through the Public Sector Plan, to be published for consultation in early 2013.</p> <p>The Welsh Government recognises the importance of working with product manufacturers and reprocessors to ensure that more sustainable products are marketed correctly and that those at the end of the supply chain have all the information they need to make an informed decision when choosing a product.</p> <p>The Collection, Infrastructure and Markets (CIM) sector plan has started to address supply and demand issues with regards to availability of good quality recycle within Wales.</p>
	<p>(Design) What does target mean? Value of materials and products is not a clear measure. Difficult to demonstrate compliance with. Who monitors? Better to address recycled content by breakdown against material types.</p>	<p>The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in Government funded projects. If necessary, the measure will be reviewed as a whole through the Public Sector Plan, to be published for consultation in early 2013.</p>
	<p>(SME) The target has good intentions but difficult to measure and not</p>	<p>The Welsh Government will investigate the feasibility of increasing</p>

	<p>achieving what it should. Consider 10% materials as a better option, not 10% of recycled content/volume. Currently excludes external works. A suggestion for minimum recycled content for the product. Materials would be better than value and more quantifiable. Push for a closed loop supply chain. Either remove and replace or conduct a review process.</p>	<p>the use of products and materials with recycled content in Government funded projects. If necessary, the measure will be reviewed as a whole through the Public Sector Plan, to be published for consultation in early 2013.</p>
	<p>(Product) This target is more achievable for some projects types than others for example new build over refurbishment. There is little information about this target – what is meant by value? Is it a monetary value? How is this target policed? Volume is a more easily measured variable than value. Target would be more effective if materials focused and could vary by material type. It could be related to “certified product certificates”, or CPD directive. This would enable the laying field to be levelled if it was applied to the 1<sup>st</sup> importer into the UK also. How does this influence the product producer as it currently stands? It is a laudable aim to have recycled content. This methodology will not necessarily deal with the problem, it will encourage some use of products with recycled content but not driven up the recycled content of products. There needs to be increased emphasis on the supply chain, from manufacturer to consumer.</p>	<p>The Welsh Government will investigate the feasibility of increasing the use of products and materials with recycled content in Government funded projects. If necessary, the measure will be reviewed as a whole through the Public Sector Plan, to be published for consultation in early 2013.</p> <p>The Welsh Government recognises the importance of working with product manufacturers and reproducers to ensure that more sustainable products are marketed correctly and that those at the end of the supply chain have all the information they need to make an informed decision when choosing a product. The Welsh Government will also investigate the need for behaviour change initiatives to encourage a higher take up rate for these types of products.</p>
<p><b>Q9: Do you consider these actions to be sufficient to meet the recycling targets? If not, what other measures would you propose?</b></p>	<p>(WD) Working with product manufacturers – ensure that this extends to SME’s in Wales – given the type of companies used and the social requirements placed on us by Welsh Government.</p>	<p>The Welsh Government has asked Ecodesign Centre Wales and Constructing Excellence in Wales to carry out this work. Both organisations have excellent links into the SME community, as well as the capacity to network with UK, European and internationally based companies.</p>
	<p>(LARAC) We like the idea of developing Trade Waste Bring Sites. Re: allowing businesses to use HWRC’s for recycle – this will need to be assessed on an authority by authority basis. Some authorities do allow permitted trade waste recycle for a fee; however, others struggle with capacity for household waste and are constantly in a battle to discourage trade abuse with van bans, permit schemes etc. Separate facilities for trade waste would be more appropriate.</p>	<p>The Welsh Government and Environment Agency Wales have both given support to the development of a pilot Trade Waste Bring Site in Wales, and it is hoped that this will be in place by the end of 2012. The proposal for use of HWRC sites for industrial and commercial waste came from the Collection, Infrastructure and Markets (CIM) Sector Plan and will be explored further through that.</p>
	<p>(RSAW) The measure of weight is problematic. It is not clear how insulation is being compared against aggregates, for example, so any measures need to be sensitive to different materials. As designers, we are looking for clear, unambiguous guidance that we can use within our specifications to action beneficial change. If this means that certain products become effectively proscribed, dialogue with industry is needed to develop economically sustainable ways of achieving a</p>	<p>In the consultation workshops, a breakdown of reduction in waste arisings by priority materials and the associated impact on the ecological footprint was provided to illustrate their importance. Although these would not be statutory, the Welsh Government feels that it would be useful to include this breakdown in the final C&amp;D sector plan.</p> <p>Any proscription of materials / products would have to be done via</p>

	<p>transition to better practice, hopefully using the strengths of existing commercial practice.</p>	<p>planning and/or building control, both of which are devolved functions. Therefore Welsh Government will consider these points in any future amendments to the Building Regulations.</p>
	<p>(UKCG) The PAS 402 Green Compass standard will need to be revised and strengthened to ensure the collection of reuse / recycling data forms part of the standard. There is also the possibility that this will become a full British Standard. The UKCG has already been in discussion with the BSI to offer its input into this new standard.</p>	<p>Constructing Excellence in Wales (CEW) developed and is also the lead for the PAS 402 standard and Green Compass accreditation scheme. The Welsh Government are still discussing with CEW the advantages and disadvantages of developing PAS 402 into a British Standard.</p>
	<p>(Cylch) There is a need to have statutory targets to report preparing for reuse data <b>separately</b> to recycling. The correct recording of waste materials and their destinations need legislation and strong regulation to ensure preparing for reuse and recycling are accurately recorded. Specific C&amp;D preparing for reuse targets have not been set because of the lack of current data. As with Question 7, it is important to share examples of best practice and case studies where high recycling rates have been achieved to help overcome some of the barriers as reported in the Environment Agency's survey, Table 12. There is a need to produce a statutory target for preparing for reuse <u>as distinct</u> to recycling. 90% by weight target for recycling if considered alone may undermine the drive for waste prevention and reuse – in achieving targets counter-intuitive behaviours can emerge that drive waste materials down the hierarchy and remove the availability for reuse as material enters the recycling stream. Infrastructure for both preparing for reuse and recycling needs consideration and improvement – possibly via TWBS and other materials exchange facilities - and support for the Green Compass scheme seems useful in pushing best practice. The work Cylch is doing in developing a 'reuse and repair' network will also improve the infrastructure required to meet the targets.</p>	<p>The Welsh Government will examine the feasibility of measuring the level of reuse of items that are not managed as waste in order to see how strong the market is, and whether there are any changes with time.</p> <p>Constructing Excellence in Wales, who are funded by the Welsh Government to manage a Waste Programme, have a remit to share and promote best practice throughout the C&amp;D sector and will continue to hold this key role in relation to the C&amp;D sector plan.</p> <p>The Collection, Infrastructure and Markets (CIM) Sector Plan has set out a range of actions which will address the infrastructure needed in Wales to meet the targets set out in Towards Zero Wales.</p>
	<p>(WLGA) The measures will certainly help move things in the right direction. WLGA welcomes Welsh Government's willingness to look at expanding the collection of recyclate from businesses at CA sites and HWRCs in ways that will not adversely affect local authorities' compliance with the Landfill Allowance Scheme. There may be ways that incentives to collect can be created by counting the recycled materials against local authorities' own recycling targets and WLGA has already offered to discuss possibilities with Welsh Government. In relation to increasing the quality of recyclate and the 'mandatory provision of a separate collection for paper, metal, plastic and glass',</p>	<p>The Welsh Government welcomes support from WLGA with regards to opening up HWRCs to industrial and commercial waste. The proposal for use of HWRC sites for industrial and commercial waste came from the Collection, Infrastructure and Markets (CIM) Sector Plan and will be explored further through that.</p>

	<p>WLGA notes the ongoing debate on the definition of what counts as 'separate'.</p>	
<p><b>Workshop responses:</b></p>		
	<p>(Waste) Mandating segregated collection will make a major difference to recovery rates that can be achieved for construction and domestic waste. This needs to be undertaken. What would be the penalties if not undertaken? How would it be implemented? It seems a requirement that can be applied more easily to municipal waste, it is difficult to understand how it would be applied for skips on smaller one skips projects. The compartmentalisation of skips is difficult. What would be the implication in rural areas, as this could result in increased transportation, this could have a broader environmental impact. Education is key. Infrastructure/equipment critical. These are required to improve the quality of recycle. If the recycle quality could be improved the value is there. There will need to be investigation given to the markets, how do you smooth out fluctuations which led to recycle going to landfill when markets dip?</p>	<p>Source segregation of certain waste streams is mandated in Article 11 of the revised Waste Framework Directive. However, the Welsh Government recognises the challenges faced by the C&amp;D sector - in particular smaller operators - in relation to separate collection. Constructing Excellence in Wales will continue to work with industry to investigate solutions, and in the meantime the Welsh Government and Environment Agency Wales have both given their support to the development of a pilot Trade Waste Bring Site in Wales, and it is hoped that this will be in place by the end of 2012.</p> <p>The Collection, Infrastructure and Markets (CIM) sector plan has started to address supply and demand issues with regards to availability of good quality recycle within Wales.</p>
	<p>(Civils) There is not one solution there needs to be package of measures to achieve the targets. A range of education and training measures need to be developed. Where possible measures should look to use the existing/same legislation. With any legislation there should be a financial support package for the post regulation stage. Consideration should be given to fiscal incentives as a stimulus. Measures should encourage a top down approach, use Welsh Planning as a mechanism to drive through Wales. SWMP are needed – as a statutory requirement. This should run parallel to the Certified Safety Professional (CSP) system. The achievement of the target will be dependent on buy in. There are gaps from key stakeholders, how do you get everyone to engage? The client's attitude to risk will need to be addressed if more recycled products are to be encouraged on site. What about Technical Advice Notes (TANS), there is no mention?</p>	<p>The Welsh Government recognises that there is still a lot of work to be done with regards to behaviour change and recycling. With the help of service providers such as Constructing Excellence in Wales, WRAP and Waste Awareness Wales, the Welsh Government will determine the best routes to disseminate behaviour change initiatives to client groups and the C&amp;D sector community.</p> <p>The Welsh Government has limited powers in relation to the development of fiscal drivers and therefore would need to work with the UK Government to look at initiatives such as these. The sector plan does include some actions relating to working in conjunction with the UK Government and the Welsh Government will look to include this additional point in the final sector plan.</p>
	<p>(Client) Ambitious but achievable. Barriers:</p> <ul style="list-style-type: none"> <li>• What is the implication of asbestos legacy in public buildings and social housing on the target?</li> <li>• Will be difficult for some materials as there is a lack of recycling technology, infrastructure and logistics, for example insulation product. Targets need to address materials not volume to make real environmental gains.</li> </ul>	<p>The Welsh Government recognises thereat there are gaps in our knowledge regarding the size of the problem of legacy construction wastes. Through this sector plan and the Collection, Infrastructure and Markets (CIM) Sector Plan, the Welsh Government will seek to address these evidence gaps and encourage the development of innovative solutions.</p>



	<ul style="list-style-type: none"> <li>• Recycling often difficult to coordinate as suppliers will only take their own product, become logistical nightmare to do the right thing.</li> <li>• End of waste criteria could offer opportunities to increase/encourage recycling.</li> </ul>	<p>The Welsh Government will continue to work closely with the Environment Agency, Defra, the other Devolved Administrations and the European Commission to develop end of waste criteria, where appropriate.</p>
	<p>(Construction) Yes, industry feels it is on the way! Flexibility in the sector plan is the way forward. Plans need to ensure they join up end users, clients and government, everyone on board. Need to ensure recycling target is consumer driven – private, commercial developers will not want to invest otherwise. Need to stimulate the markets for recycle, currently there are still barriers to the use of recycled products for example the use of recycled aggregates on projects. The time needs to be afforded to demolition projects to enable maximum recovery rates to be achieved. Clients need to invest in/buy in. What about soils?</p>	<p>The C&amp;D Sector Plan Consultation document proposes a range of actions to help the C&amp;D sector meet the recycling targets set out in Towards Zero Waste. The Welsh Government recognises that this is not an exhaustive list and that some will need further work before it is feasible to move forward with them.</p> <p>The Collection, Infrastructure and Markets (CIM) Sector Plan has started to address supply and demand issues with regards to availability of good quality recycle within Wales.</p>
	<p>(Demolition) The demolition sector is achieving a high recovery rate at present, Cuddy Group regularly achieving 93%. There are materials that prevent 100% recovery, these include ceiling tiles, painted timber, insulation, glass (due to recovery method) and asbestos. Investment needs to be made to develop infrastructure for tackling the most difficult materials to achieve higher targets. There are products on the market that limit recovery, for example prefabricated buildings are typically 80% to landfill. The need to achieve “U” values on buildings is demanding the use of products that are not easily recoverable. For example a block of flats in Swansea required £400,000 UPVC upgrade to achieve “U” values, the block had been refurbished (including UPVC windows) only 18 months previous. There was no UK market for the reuse of these windows, went to Eastern Europe. Does current legislation encourage recycling by allowing the transportation of materials from A to B? What impact will the introduction of more composite materials have on recovery rates? Need assistance with the identification of plastics, to aid recovery. The plan needs to ensure that the economic drivers/markets are in place for the target to be achieved. Recovery could offer opportunities for economic growth for Wales, the generation of jobs and resource. The targets need to be material specific to drive real change, currently only recycling 50% insulation but this could be offset and the target achieved by high aggregate recovery.</p>	<p>The Collection, Infrastructure and Markets (CIM) Sector Plan has set out a range of actions which will address the infrastructure needed in Wales to meet the targets set out in Towards Zero Waste.</p>
	<p>(Design) Targets very high. Difficult to see how this will be achieved</p>	<p>The Welsh Government has recently started the process of</p>

	<p>for insulation products. Product which cannot be recovered still being specified in new building at present (as meets energy targets). Implications on fly tipping if waste has no recovery option. Material bans not mentioned as an option, success for gypsum.</p>	<p>reviewing the Building Regulations and will be concentrating on energy efficiency initially. The potential of legacy waste from insulation is a well-recognised problem and can hopefully be addressed during this review.</p> <p>The Welsh Government recognises that there could be significant benefit in material bans and this is addressed in section 3.6.5d) of the Construction &amp; Demolition Sector Plan consultation document.</p>
	<p>(SME) Yes it is achievable. However, there should be a separate target for re-use, taking reuse from prevention and preparing for reuse. There should be separate targets for materials to avoid offset from easier to recycling materials being used to achieve the target. Look at the impact of the WEEE directive pushing materials down the waste hierarchy. Needs more focus on skills and training to develop behaviour change. SWMP on site as a mandatory requirement.</p>	<p>The Welsh Government will examine the feasibility of measuring the level of reuse of items that are not managed as waste in order to see how strong the market is, and whether there are any changes with time.</p> <p>The proposed SWMPs regulations for Wales will be consulted on later this year. All comments relating to SWMPs will be passed to the project manager leading on this work.</p>
	<p>(Product) How is the information on target achievement recorded? For example Estonia suggests it produces 1/10 of the waste of the UK with a similar population. The gypsum landfill ban has been very successful and bans should be considered for other specific materials for example insulation. There needs to be consideration given to demolition, currently there is little monitoring or requirement to recover or maximise recovery. At present only local authority notified of demolition, this is particularly important when considered against the asbestos legacy in Wales. Focus need to be given on developing infrastructure for specific waste types, for example insulation. There is currently no facility to recover the commonest types of insulation in the UK. Sector specifics – there are often problems with the products that come back to the factory from site preventing recovery, for example contamination etc, how do we resolve this? Products from demolished properties if not deconstructed are damaged and unable to be re-used. The quality of a product from a deconstructed property is generally higher, how do we encourage these activities?</p>	<p>The Welsh Government is currently investigating the best approach to monitoring. An annual report will be produced by the Waste Strategy Branch to report on progress against the targets set in Towards Zero Waste.</p> <p>The Collection, Infrastructure and Markets (CIM) Sector Plan has set out a range of actions which will address the infrastructure needed in Wales to meet the targets set out in Towards Zero Wales. It has also started to address supply and demand issues with regards to availability of good quality recyclate within Wales.</p>