



Linking Business Advice on Adaptation and Sustainability

Report to Defra, CSE and UKCIP

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Executive summary

This pilot project investigated the most appropriate messages to deliver adaptation knowledge to small and medium enterprises (SMEs). The aims of this project were to:

1. Raise awareness of the links between adaptation/climate resilience and resource efficiency, carbon reduction and business continuity/risk.
2. Raise awareness of climate change adaptation measures,
3. Test messages on climate resilience via resource efficiency channels through the existing business advice programme Envirowise, and
4. Provide Defra with clear messages on how to successfully engage SMEs using current environmental issues as platforms and links.

The approach used for this project consisted of four phases,

Phase 1 - developing and delivering an adaptation workshop presentation within existing Envirowise events to three different sectors (manufacturing, construction and facilities management),

Phase 2 - distributing questionnaires to attendees at the workshops,

Phase 3 - analysing these questionnaires and carrying out follow up telephone interviews on the topics emerging, and

Phase 4 - developing recommendations and conclusions on this topic.

Outcomes sought were:

1. For Defra, business advisors and the South East regional partners to gain an insight into the perspectives of SMEs on adaptation.
2. For Defra and business advisors to gain an understanding of the value of linking climate resilience and adaptation messages within existing environmental advice and business continuity.
3. To build capacity within business advisory networks and SMEs to achieve climate resilience.

Analysis of the responses from the questionnaires and interviews has resulted in key recommendations and messages for business advisors approaching this topic with SMEs. However this analysis is based on a small sample of 45 respondents. This is not statistically robust and the results should be regarded as indicative only. It is important to recognise that the views recorded during this pilot project are those of individual interviewees and not necessarily those of the organisations that they represent. It is also important to note that the views represented in this pilot project are from a small sample (45 respondents) of managers from three sectors engaged in a specific business support network in one region. If this study was focussed on different sectors or, managers from risk/business continuity/other career roles or, different geographical areas the results could be noticeably different.

The key messages from this project are outlined below and they highlight the suggested way forward for Defra and other business advisors as a result of this analysis.

Key messages for business advisors when presenting information on climate change resilience and adaptation:

- Clearly present and distinguish between the concepts of climate change adaptation and mitigation. Ideally at least 30 minutes including some interactive content is needed for the presentation.
- Frame adaptation advice in relation to business risks, opportunities and long term business resilience.
- Focus on providing adaptation advice online or at face-to-face training or at workshop sessions.
- Link climate change adaptation advice to resource efficiency, business continuity and sustainability and carbon reduction advice delivered by credible organisations.
- Use graphics (e.g. photos, graphs and illustrations including a limited amount of data to emphasise key points) when presenting climate change adaptation messages, particularly for understanding the type of climate in future years.
- Use local and personal messages about recent weather events such as flooding and snowfall which attendees have had direct or indirect exposure to, to increase their understanding for the need to adapt to climate change.
- When presenting the messages about adaptation demonstrate the benefits of climate change adaptation in terms of business opportunities and financial cost savings.
- Target messages at senior management in the first instance, as they have the most influence on these matters as well as support them with information to roll-out initiatives to other staff.
- Deliver initial adaptation messages through promotion (events and reference material) linked to other topics, since people who are not aware of the issue are unlikely to attend several hours on the topic if it is standalone.
- It is important to develop sector-specific examples to gain buy-in from sceptical audiences.
- The main barriers preventing action on adaptation were lack of time, knowledge, money and a lack of identification of whose responsibility it is within an organisation, specifically a lack of understanding of the links between adaptation and the respondent's own areas of responsibility.

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1 Introduction

The Adapting to Climate Change (ACC) Programme (Local Government, Regional and Business Team) from Defra sent out a briefing to regional contacts requesting bids on the theme of 'customer insight for business and adaptation' in December 2009. Defra wanted to use this money to fund regional pilots to give a greater insight into the needs of the business community, and how Defra best might communicate adaptation issues to the diverse range of organisations at a national and regional level. Following these activities AEA Technology (hereafter AEA) was awarded a contract to deliver the "Linking business support with adaptation and sustainability" project.

The aims of this project are to:

- Raise awareness of the links between adaptation/climate resilience and resource efficiency, carbon reduction and business continuity/risk.
- Raising awareness of climate change adaptation measures.
- Test messages on climate resilience via resource efficiency channels through the existing business advice programme Envirowise.
- Provide Defra with clear messages on how to successfully engage SMEs using current environmental issues as platforms and links.

AEA recognises that for many companies climate change adaptation is an issue that will be identified part way through its 'sustainability journey', perhaps after first considering issues such as resource efficiency and carbon reduction. At the same time, some companies consider business continuity or risk management to be an important issue and have plans in place to limit the impact of disruptions to their operations. In the light of this, an exploration of the messages that could be used to engage small and medium sized enterprises in adaptation should seek to build linkages with existing agendas such as business continuity, resource efficiency and carbon reduction. Many businesses will not be addressing either resource efficiency, carbon reduction or business continuity, so messages linking these with adaptation will not be universally applicable and can only form part of the method to promote adaptation to SMEs.

It is desirable to link these various strands of sustainability together so that business support organisations and Defra can help to achieve multiple environmental and climate resilience objectives in a consistent and joined-up fashion.

Envirowise was established in 1994 and is a respected business support programme managed by AEA on behalf of Defra to help businesses achieve efficiency and carbon savings. It therefore provides an excellent means of delivering the relatively new messages around climate resilience and adaptation using the pre-established networks, experience and reputation of the programme. With a number of Envirowise events taking place in the South East in early 2010 it was considered suitable to use these events as a means to access the SME audience required for this pilot project.

Adaptation was considered as a viable topic to present alongside resource efficiency as attendants at resource efficiency events are generally environmentally aware or interested in environmental topics, and attendees at these types of events generally understand energy savings and mitigation related actions, which helps to build the case for adaptation.

The link between resource efficiency and adaptation is particularly important in relation to time frames. Resource efficiency measures can lead to a payback in very short-term timeframes, which are ideal in the business cycle framework where planning for short term periods is widespread. Adaptation measures may lead to paybacks over a longer time period; however, the longer-term benefits from resource efficiency may be heavily impacted by climate impacts, particularly in terms of supply chain issues or reliance on single products for resource efficiency. Thus, it is essential to embed the issue of adaptation within the framework of resource efficiency, particularly as the current economic situation is causing more and more companies to consider resource efficiency approaches as methods of saving money.

This report explores and outlines:

- The **methodology and approach** in Section 1.1, outlining the methods utilised, events attended and presented at and how the data collection took place.
- A brief introduction to the project **stakeholders** in Section 1.2.
- Section 2 deals with the **analysis of the findings** from the presentations, questionnaires and telephone interviews.
- In Section 3 the **recommendations** for communications and business support going forward is outlined.
- All **appendices** including the event presentation slide deck, questionnaire and interviewee characteristics, telephone interview proforma and complete set of respondents comments can be found in Section 4.

1.1 Our Approach

The approach used for this project was a four phase approach.

- Phase 1 consisted of developing and delivering a workshop presentation to three different sectors. At the workshop questionnaires regarding adaptation messages were distributed.
- Phase 2 involved questionnaire analysis.
- Phase 3 consisted of carrying out in-depth semi-structured follow-up telephone interviews on issues raised during questionnaire analysis.
- Phase 4 involved writing up the results from the questionnaires and interviews and providing research-based recommendations on adaptation messages.

The following section describes the approach used for this project in more detail.

1.1.1 Events

In order to deliver this project, under the tight timescales required, it was necessary for the project team to work in collaboration with existing business support organisations in the region. AEA worked with the resource efficiency business support organisation Envirowise and took part in three planned Envirowise events delivered in February in the South East region. The events qualified for this project due to their different sector focus (construction, facilities management and manufacturing), event characteristics (training, workshop and seminar) and location (Hampshire, Surrey and Kent). This was deemed suitable as it would allow AEA to get a broad representation of different types of companies and varying company representatives across the South East region. The events attended and presented at were:

- Site Waste Management Plan training session for the construction sector, Hampshire,
- Resource efficiency and sustainability seminar for the facilities management sector, Surrey,

- Waste workshop for the manufacturing sector, Kent.

The Hampshire event took place the 18th February 2010, at Hampshire County Council offices in Winchester. Clare Downing from AEA delivered the adaptation presentation. Mark Goldthorpe from UKCIP attended the event in order to observe and view how AEA introduced the pilot project to the delegates. The main focus of the event was a three hour long Site Waste Management Plan training and was attended by 25 delegates. The organising bodies were Envirowise and Hampshire County Council and the Framework Contracts Manager Mark Thomas.

The Surrey event was held on the 24th February, 2010, by the facilities management organisation MASS in Wokingham. Delegate numbers were lower than expected with 8 delegates on the day, so the group presented to was small and the presentation style very informal. The event topic was sustainable facilities management solutions and Envirowise was the key organisation invited to this event. Lisa Mattsson from Envirowise/AEA and Aisling O'Sullivan from AEA presented the Envirowise resource efficiency slides as well as the adaptation presentation.

The Kent event was hosted by the company Aylesford Newsprint, who is a member of a MAS funded (Manufacturing Advisory Service) Resource Efficiency Club managed by environmental best practise consultancy Optimorph. The event was held on the 25th February 2010 and had 12 SME delegates. Lisa Mattsson from Envirowise/AEA presented the adaptation piece and an Envirowise waste expert delivered the three hour core presentation that focussed on effective waste minimisation and management for businesses in the manufacturing industry.

1.1.2 Presentation and Questionnaire Development

The presentation was developed using a scientific introduction to climate change to set the scene for the presentation and data from global climate models were explained. Subsequently, the focus turned to the weather and climate impacts in the short and long term for the UK, as well as the business risks and opportunities available to business. A risk assessment tool was presented to illustrate how businesses can prioritise their actions under the adaptation agenda in order to target the most important risks and most profitable opportunities first. UKCIP and CSE were mentioned throughout the presentation and their contact details were provided at the end of the presentation if the delegates had further queries.

Adaptation experts within AEA contributed with the technical background material and Envirowise staff ensured the material had a business focus and was not overly academic or scientific to suit the SME audience. The slide deck was very short and took around 10-15 minutes to present. A copy of the slide deck is provided in Appendix A.

It was particularly challenging to get across the key climate science messages, how businesses should view these messages, what effects it might have on their business and suggest a methodology to address these issues in ten minutes. It was clear that this was not really long enough but that this was the most we were allowed to do within the existing event agendas. It is suggested that 30 minutes would be a more suitable time allocation to portray these complex messages.

Following the presentation a questionnaire was completed by all delegates in order to capture their perceptions and understanding of adaptation and climate change before the presentation and after. It also aimed to find out what type of support they would be interested in receiving going forward in order to be better prepared for climate impacts. The analysis of the questionnaires is presented in Section 2.

The questionnaire was developed in conjunction with the presentation slide deck. There were 10 questions ranging from the respondents understanding of climate change concepts to rating barriers to change and selecting what kind of support they would be most interested in. A copy of the questionnaire is available in Appendix B.

1.1.3 Follow-up Interviews

Follow-up interviews were conducted via telephone with a number of participants identified at the regional events. In total, five interviews were conducted with representatives from different businesses in each sector to capture comment, data and ideas from workshop participants on delivery models and best practice in relation to adaptation messages.

Interviews were conducted on a semi-structured basis with an open framework which allow for focused, conversational, two-way communication. The semi structured interviews started with general questions on the topics of climate change and adaptation, and the possible relationship between these topics and issues such as the costs of taking action, the benefits and opportunities of adaptation which become the basis for more specific questions as these topics were elaborated upon during the interviews. The majority of questions were created during the interviews, allowing the flexibility to probe for details or discuss issues which emerged during the conversation. The benefits of using this interview structure are to;

- Obtain specific quantitative and qualitative information from a sample of the population,
- Obtain general information relevant to specific issues,
- Gain a range of insights on specific issues.

The interviews lasted between ten and 25 minutes and focussed on various issues including science data, presentation methods and expansion of ideas in relation to costs and time implications of attending adaptation workshops. Interviewees were anonymous; however an indicative list of survey respondents in terms of industry breakdown, approach taken and sample questions are presented in Appendix D. As the interviews were semi-structured each varied around the key content shown within this report and the follow up activity and analysis investigated areas such as:

- Have SMEs considered the risks and opportunities from climate before? If so, in what ways?
- What existing business continuity and risk management processes do SMEs already undertake, if any?
- What drivers would motivate SMEs to assess the risks and opportunities from climate?
- What are the barriers that stop SMEs from considering adaptation?
- How best could Government support business, and business advisors, in moving their adaptation planning forward?
- What are likely to be the most effective messages for engaging SMEs on adaptation?

The findings from the follow up telephone interviews were combined with the questionnaire responses and used to develop the recommendations in Section 3 and extrapolate key data on the messages used to present adaptation issues. More details on the interviewees, and sample questions are available in Appendix D.

1.1.4 Data Accuracy

The accuracy of information obtained from a survey is largely dependent on the sample size. One would expect greater confidence in results generated from larger samples. A sample of 100 is

considered by most statisticians to be the minimum sample size to produce statistically valid data. The data presented herein reflects a sample size of individuals from 45 people and should, therefore, be regarded as a series of observations.

The fact that all interviews were conducted by just one researcher helps to ensure consistency and so improve data accuracy. It is important to recognise that the views recorded during the survey are those of individual interviewees and not necessarily those of the organisations that they represent.

It is important to note that the views represented in this study are from a small sample of managers engaged in a specific business support network in one region, and if this study was focussed on managers from risk, business continuity or other career roles or other geographical areas the results could be noticeably different.

1.2 Stakeholders

This project was commissioned by Defra through Climate South East, CSE, who contracted with AEA to deliver the work. AEA has been working closely with CSE as well as the UK Climate Impacts Programme, UKCIP, throughout the project life time. UKCIP is the body that has been tasked with reporting progress on 2009/10 quarter four adaptation projects to Defra.

Climate South East is a not for profit, regional partnership of organisations from across the public, private and voluntary sectors committed to taking action to tackle the causes and effects of climate change in South East England.

Climate South East has a strong track record of bringing partners together to share understanding, carry out research, develop solutions and influence policy decisions. It is an active network that works closely with other similar organisations across the UK and beyond. More information can be found at www.climatesoutheast.org.uk.

The **UK Climate Impacts Programme (UKCIP)** helps organisations to adapt to inevitable climate change. While it is essential to reduce future greenhouse gas emissions, the effects of past emissions will continue to be felt for decades.

UKCIP has since 1997 been working with the public, private and voluntary sectors to assess how a changing climate will affect:

- construction,
- working practices,
- demand for goods and services,
- biodiversity,
- service delivery,
- health etc.

Warmer temperatures, heavier rainfall, rising sea levels: UKCIP's website can help organisations to understand climate change and how these changes might affect the organisation. It can help companies plan to adapt, so that they can prepare for negative impacts, and take advantage of any positive ones. UKCIP has examples of what people have already done to adapt, and links to information and advice in various areas or sectors. All tools and services are freely available on UKCIP's website (www.ukcip.org.uk).

Envirowise is a Government-funded programme dedicated to putting the sustainable use of resources at the heart of UK business practice. Envirowise is managed by AEA and has been so since its start in 1994.

Since its introduction, Envirowise has helped UK businesses save over £2 billion by enabling them to significantly reduce their environmental impact. In terms of efficiency and value for money this represents a saving of £38 for business for every £1 invested by Government.

Envirowise resource efficiency support contributes to awareness raising and understanding for the environmental and financial risks and opportunities surrounding changing supply of resources and how future resource availability may impact UK business. With climate change induced events and potential disruptions to business operations due to extreme weather and changing climate trends it is crucial to engage with businesses. It is also vital to increase their understanding of how this may affect their resource efficiency initiatives and potentially compromise their long term environmental and financial sustainability, adaptation clearly is paramount in addressing these issues.

Envirowise offers businesses of all sizes and sectors a wide range of free, independent and practical advice designed to genuinely improve their processes, profitability and competitiveness.

Services include:

- Advice Line - 0800 585794,
- An encyclopaedic website of valuable information - www.envirowise.gov.uk,
- 200+ events each year, from product design workshops to major exhibitions.

The Envirowise programme has been managed by **AEA Technology** for the past 15 years and AEA has a unique insight into effective business support delivery.

AEA is a leading energy and climate change consultancy, delivering visionary, integrated environmental solutions worldwide. AEA assist Government with evidence based policy development and solve environmental challenges to improve organisational performance.

AEA also help the public and private sectors respond to environmental challenges and opportunities created by worldwide drivers – sustainability, energy and climate change, air and water quality, resource efficiency, sustainable transport, innovation and knowledge transfer, risk management and due diligence.

2 Analysis of Questionnaires and Interviews

2.1 Introduction

Questionnaires were distributed at all three events, and subsequently analysed by the AEA adaptation team. They assessed the 45 respondents preferences for presenting the topic of adaptation at these events, the preferred type of support they need to in order to take up any adaptation activities within their own companies, and the best methods for communicating this topic.

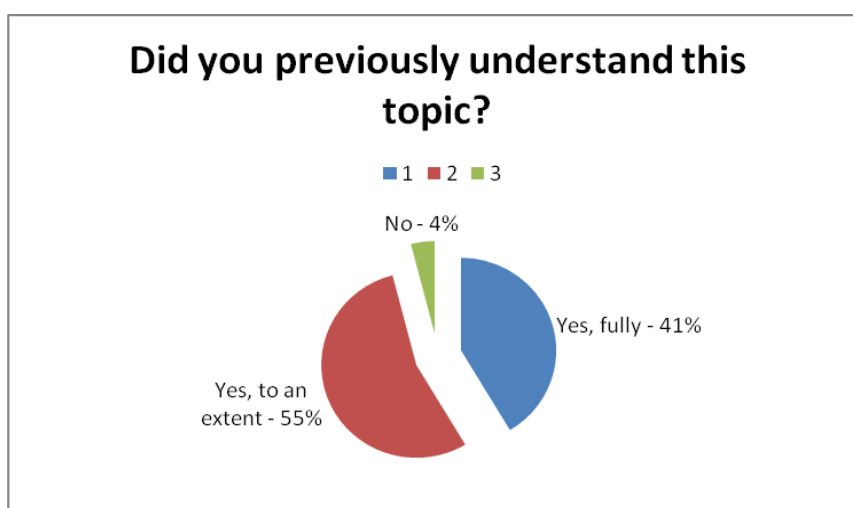
A copy of the questionnaire can be found in Appendix B. However, it should be noted that the questionnaire was altered very slightly between events in conjunction with feedback from UKCIP, with an additional question added in (Question 9).

The questions in the questionnaire that had a comment box where the respondents added their personal views have been recorded in Appendix E and a representation of those comments are dealt with within this section.

2.2 Analysis of Responses

2.2.1 Previous Knowledge of the Topic

The majority of all respondents (96%) were familiar with the concept of climate change before this event, with only two respondents (4% of respondents) stating they were not familiar with the concept of climate change. Within those who were familiar with the effects of climate change and climate models there was a clear difference between those who felt that they fully understood the concept 41% (19 people), while 55% (25 people) stated they felt somewhat familiar with the concept.



Graph 1. Previous knowledge of climate change.

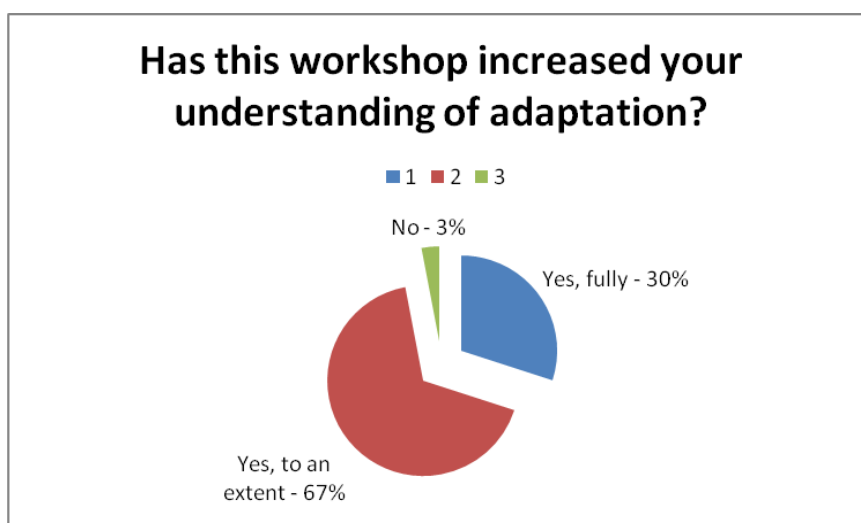
There was a strong sectoral breakdown between those who understood climate change – of the construction industry 48% (12 people) of respondents felt familiar with climate change and understood it fully, while 52% (13 people) felt they understood to some extent. Of those in facilities management 45% (4 people) of respondents felt familiar with climate change and understood it fully, while 33% (3

people) understood to some extent, and 22% (2 people) felt they did not understand the concept. Of the manufacturing sector 25% (3 people) of respondents were familiar with climate change and understood it fully, while 75% (9 people) felt they understood to some extent.

Attendees at the facilities management workshop and the manufacturing workshop were asked if they understood the difference between climate change mitigation and adaptation. Of this 44% (8 people) felt they fully understood the difference, while 56% (10 people) felt they could not distinguish the difference before the event.

Attendees at all three events were asked to prioritise if it was most important for their company to act on mitigation or adaptation, or both. The overall response was that 46% (21 people) felt it was important to focus on adaptation, 24% (11 people) on mitigation and 30% (14 people) on both. Within the three different sectors the breakdown was different. In the construction industry 64% (16 people) felt adaptation should be the focus, 36% (people) saw mitigation as most important while nobody regarded both mitigation and adaptation as important. Amongst the facilities management respondents 56% (5 people) felt adaptation should be the focus while 22% (2 people) view mitigation and both adaptation and mitigation (22%, 2 people) as equally important. For the manufacturing sector 100% (12 people) of the respondents felt action on both was essential.

Respondents were asked if this session had increased their understanding of adaptation and what it means for their business. 97% of respondents said 'yes' and only one respondent replied no. 30% (14 people) said that they now understand fully, while 67% (31 people) said they now understand adaptation to some extent, with 3% (1 person) not gaining a good understanding of adaptation issues from the event.



Graph 2. Understanding of adaptation post event.

2.2.2 Previous Action on Climate Change

Respondents were asked had they considered the opportunities and threats of climate change before this event. 13% (6 people) of respondents said yes, while the majority of the respondents, 87% (40 people), had not previously considered this. Of those who had undertaken previous consideration they described the activities, often a mix of mitigation and adaptation activities, they had previously undertaken as:

- Considering their impact on the planet,

- Considering the amount of waste they produced,
- Considering adaptation options such as staff availability and means of transportation to and from work,
- Developing new service offerings in line with adaptation demands,
- Considerations arising from clients asking to see disaster management plans, and
- Investing in energy management savings.

Respondents were asked if they were now planning on carry out a climate change adaptation assessment as a result of the workshop and 48% (20 people) now feel that they would. For those who plan to take action this include activities such as:

- Consider more economic use of workforce geographically,
- Review risks and adopt a system to review them,
- Speak to senior managers or directors about the issue, and
- To integrate adaptation with their sustainability plans.

When asked what motivated them to take action responses included:

- The savings to the environment,
- The need to secure the future of the company,
- Changes in their clients requirements as they become increasingly vocal about sustainability,
- The hard facts of climate change,
- The recent snowfalls in January 2010,
- Problems with deliveries due to weather, and
- The adaptation presentation itself.

Please see Appendix E for all comments provided.

2.2.3 Barriers to Action

52% of respondents (22 people) are currently not planning on carrying out a climate change adaptation assessment as a result of the workshop and these 22 were asked to select what main barriers to action they currently are experiencing, respondents had the option of choosing as many barriers as they wished. Responses are broken down in Table 1 below.

Barriers to action	Percentage
Not enough time to do it myself	77% (17 people)
Not enough knowledge	86% (19 people)
Not enough staff/no one with that role	82% (18 people)
Not enough money	59% (13 people)
Other	45% (10 people)

Table 1. Barriers to action.

Further information was drawn from those respondents who choose 'Other' – and the main other barriers identified were:

- This is not within my remit,
- Our board of directors would look at this,
- It should be undertaken centrally in the company,
- As a freelancer I am not affected,
- This is not relevant to my industry,

- This would cost more than the benefits it would bring.

For a full list of all comments please see Appendix E.

2.2.4 Ideal Actions on Adaptation

If money and time were not limiting factors the respondents were asked to describe the activities they would undertake on adaptation in that scenario. Some of the responses provided were:

- Actions against flooding, power loss and fire,
- Education on adaptation options, including educating the workforce about this,
- Develop new business objectives,
- Employ a specialist in the company in this area,
- Install air conditioning in premises,
- Protect offices from inclement weather,
- Quantify potential savings,
- Influence the design of buildings at the construction phase,
- Work on water management, rain water capture and building controls,
- Provide staff with laptops for flexible working.

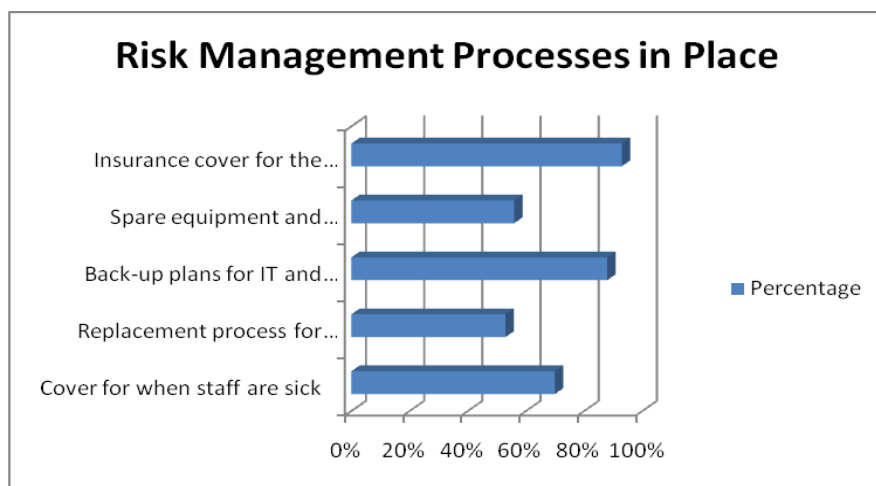
Despite the differentiation in the presentation between mitigation and adaptation some respondents still confused mitigation and adaptation actions in the response to this question. The people suggesting adopting various typical mitigating activities such as renewable fuel usage and other carbon reducing activities often claimed to be either aware of the concept of adaptation to an extent or fully. Thus, there is a likely chance that these people have not understood the difference between mitigation and adaptation to the desired level and therefore may need more detailed information in order to effectively implement adaptation initiatives within their organisations.

It is recognised that the session provided for the purpose for this project were limited in time and thus, delegates may not have had a chance to appreciate the concepts fully.

A full table of responses on ideal actions on adaptation is available in Appendix E, Question 5d.

2.2.5 Current Risk Management Processes

During the presentation it was communicated that adaptation is very closely related to risk management. The respondents were asked to identify which traditional business risk management processes they already undertaking within their companies currently, 43 respondents choose to answer this question and many picked several options which their company was currently pursuing. These are set out in the Graph 3 below.



Graph 3. Risk management currently in place, total figures.

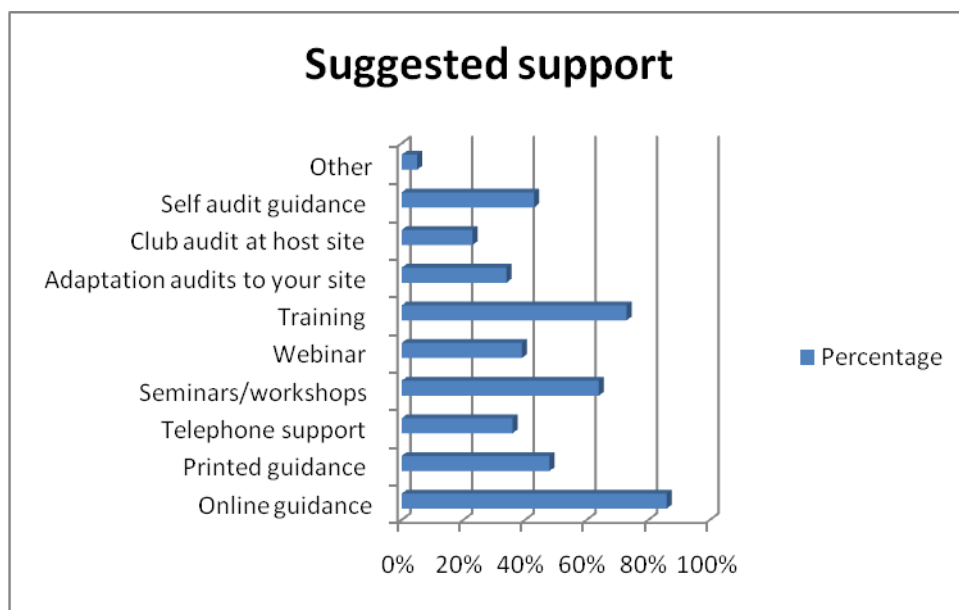
It is interesting to note that all three surveyed sectors currently show very similar approaches to general risk management, with insurance cover being the most popular risk management process in all three sectors. Table 2 details this further.

Risk management currently in place	Construction	Ranking	Facilities management	Ranking	Manufacturing	Ranking	Total
Cover for when staff are sick	70% (16 people)	3	50% (4 people)	2	83% (10 people)	3	70% (30 people)
Replacement process for staff leaving	52% (12 people)	5	38% (3 people)	3	67% (8 people)	4	53% (23 people)
Back-up plans for IT and communications systems	91% (21 people)	2	75% (6 people)	1	92% (11 people)	2	88% (38 people)
Spare equipment and supplies if stolen, lost or broken	57% (13 people)	4	50% (4 people)	2	58% (7 people)	5	56% (24 people)
Insurance cover for the building, equipment, supplied, staff	96% (22 people)	1	75% (6 people)	1	100% (12 people)	1	93% (40 people)

Table 2. Risk management currently in place by sector.

2.2.6 Adaptation Support

Respondents were asked how best could Government and business advisors support businesses in moving adaptation planning and initiatives forward. Table 4 below sets out the preferences of respondents to these set choices. Two of the respondents choose 'Other' and one stipulated that the government should remove red tape from the companies to enable them to adapt, while the other felt that government support for climate change adaptation is unnecessary and should be removed. 44 workshop attendees answered this question, with several selecting more than 1 option in the range.



Graph 4. Suggested support.

A club audit was offered as an option to use as adaptation support. Club audits use the delivery method of a ‘club’ system where a number of companies in a specific sector or region group together to learn about a specific topic, and visit each other’s sites to undertake audits, workshops and seminars¹. Self audit guidance is guidance on how to conduct an inspection of your premises and processes internally without hiring a consultant, to identify areas where action should be targeted in order to identify best practice and areas of improvement².

From Graph 4 it is clear that the preferred support across all sectors is online guidance followed by training and seminars and workshops. Few companies are interested in a club style audit or site audits at your site. Those expressing interests in telephone advice or webinars were also in the minority.

From a sector perspective the differences are fairly small as all three sectors indicated the same top three types of business support; online guidance, training, seminars and workshops. Table 3 outlines the sectoral differences in more detail.

¹ A **club audit** is a “one to many” type of business support seen deployed by for example, Envirowise, in past years. A number of companies form a club, often referred to Resource Efficiency Club, which has regular meetings together. The club can be funded and lead by for example a government body, independent company, business support organisation, local authority, trade union, university or other business focussed organisations. The club audit itself is where a club member company, or invited host company, hosts an event on its site and the club members are part of an internal site audit at that site. The site audit can be general or focus on a certain topic such as water, waste, energy, procurement, climate change mitigation or adaptation. Often the club audits are attended by between 5 to 10 member companies and the aim of the audit is for the attending companies to work together to identify good practice and areas for improvement and discuss its implications and applicability at the host company and within the wider club membership.

² A **self audit** is a where a company themselves carry out an internal audit of its premises using guidance from a business support organisation such as Envirowise. The guidance may be checklists and spreadsheets to complete in order to capture areas of good practice within the organisation and also areas of improvements. Often the guidance will enable the company to also calculate the potential financial savings available within the company through various environmental and resource efficiency initiatives. The purpose of the self audit guidance is to provide companies with hands-on advice on how to conduct a site audit without having to engage external, often expensive, consultants to do the work.

Suggested support	Construction	Ranking	Facilities management	Ranking	Manufacturing	Ranking	Total	Total ranking
Online guidance	83% (20 people)	1	88% (7 people)	1	92% (11 people)	1	86% (38 people)	1
Printed guidance	46% (11 people)	4	38% (3 people)	4	58% (7 people)	4	48% (21 people)	4
Telephone support	17% (4 people)	7	38% (3 people)	4	75% (9 people)	2	36% (16 people)	7
Seminars/workshops	54% (13 people)	3	75% (6 people)	2	75% (9 people)	2	64% (28 people)	3
Webinar	33% (8 people)	5	63% (5 people)	3	33% (4 people)	6	39% (17 people)	6
Training	71% (17 people)	2	75% (6 people)	2	75% (9 people)	2	73% (32 people)	2
Adaptation audits to your site	21% (5 people)	6	38% (3 people)	4	58% (7 people)	4	34% (15 people)	8
Club audit at host site	13% (3 people)	8	13% (1 person)	5	50% (6 people)	5	23% (10 people)	9
Self audit guidance	33% (8 people)	5	38% (3 people)	4	67% (8 people)	3	43% (19 people)	5
Other	8% (2 people)	9	0%	6	0%	7	5% (2 people)	10

Table 3. Suggested support by sector.

The least preferred options differ more amongst the sectors. The construction and facilities management sector are least interested in club audits at host sites while the manufacturing sector would like those kind of audits. The manufacturing sector is least interested in the webinar format, potentially due to the nature of manufacturing work with limited access to internet during the working day. Two construction respondents indicated under 'other' that business support is unnecessary and should be removed.

2.2.7 Adaptation and Business Support Links

Respondents were asked if it was helpful to have the adaptation presentation linked with other business advice – in this instance with construction events, facilities management events and manufacturing events focussing on resource efficiency, waste management and sustainability in general. The overall response was that 87% (33 people) felt it was helpful, while 13% (5 people) did not feel it was as helpful. The results varied greatly between the different sectors, with 79% (15 people) of the construction respondents finding it helpful as opposed to 100% (7 people) of facilities management respondents and 92% (11 people) of manufacturing respondents.

Further discussion at the seminars and in the follow up phone calls revealed that, particularly within the construction industry, adaptation was not seen as an important issue and that adaptation options should have been incorporated at the design stage of buildings, and not as something for those in the industry to attend to. This issue is further elaborated on in the recommendations.

When the question of having an adaptation presentation linked to other business advice was expanded upon and respondents were asked why it was useful to co-present this topic, positive responses included:

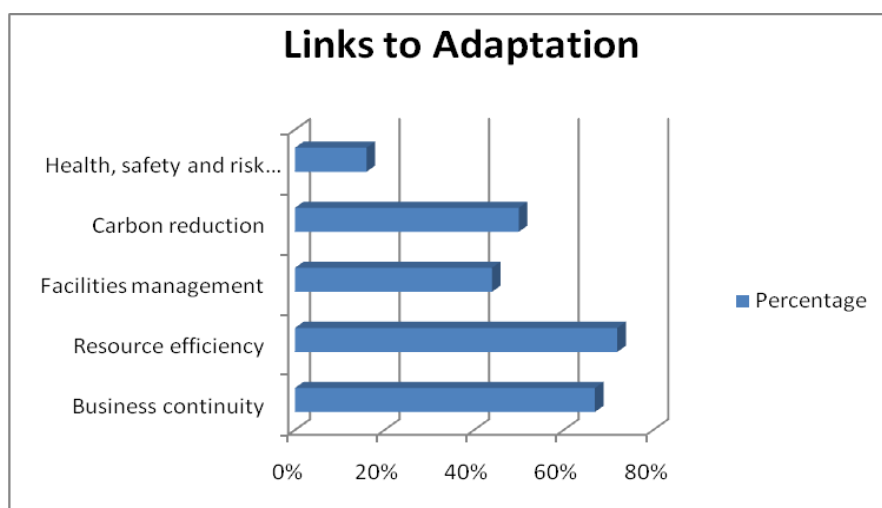
- To raise awareness,
- To ensure all groups in society are aware of this issue,

- That this knowledge would not have been gained otherwise,
- It has strong links to resource efficiency,
- It helped to have it co-presented as you were already in a learning environment when the topic was presented, and
- It was relevant to the presentation on resource efficiency.

Appendix E outlines all comments provided under this question.

Respondents were asked what other area or topic adaptation was most easily related to, and thus best presented with, from a list of options. This question was asked at two events (excluded only from the construction event and the question had 18 responses, with several respondents choosing to answer more than one of the topics. A percentage breakdown of their choices is given below in Graph 5.

This question was included in the questionnaire after the first event for the construction sector so therefore the statistics include only the responses from the facilities management and manufacturing events.



Graph 5. Links to adaptation.

Among other opinions offered by respondents about the presentation views included that they would like to see a sector specific targeted presentation on the topic, or that the topic should be presented on its own as it was of such importance. The level of science and facts was wholly appropriate with a number of respondents saying it contained a good mix of science facts and emotional appeal and was pitched at the right level. Two respondents mentioned there is a need to demonstrate benefits clearer in terms of business opportunities and cost savings.

3 Recommendations

This section of the report brings forward recommendations on presenting adaptation knowledge and information to small and medium enterprises. Recommendations are extrapolated from the analysis of the questionnaire findings from all three events, in addition to the in-depth telephone interviews with event attendees. The recommendations are sub-divided into the project aims that they address.

3.1 Recommended Approaches

Aim 1

- **Raise awareness of the links between adaptation/climate resilience and resource efficiency, carbon reduction and business continuity/risk.**

A number of respondents felt that they would never have heard of adaptation had they not attended a resource efficiency event in the first place, and to raise the profile of the topic it may be a method of distributing ideas, no matter how tenuous the links are. It is desirable to link multiple topics (resource efficiency/adaptation (climate resilience)/sustainability/carbon reduction) together so that providers of business advice and Defra can help to achieve multiple objectives in a consistent and joined-up fashion.

Several issues relating to presenting the data alongside these resource efficiency/sustainability/carbon reduction topics are noticeable:

- Some organisations see resource efficiency as relating only to material consumptions and monetary savings and do not understand the link between resource efficiency and adaptation. This may cause them to lose interest in the topic when co-presented.
- Another difficulty relates to presenting the topic alongside carbon reduction, as while companies readily identify mitigation and carbon reduction issues, when later asked about actions on adaptation some respondents became confused and listed actions on adaptation as energy saving and other mitigation related actions. It may be that a clearer distinction between mitigation and adaptation overcomes this problem.

In terms of presenting adaptation knowledge alongside other topics, resource efficiency and business resilience were suggested as particularly strong paths along which to focus. However, despite nearly all respondents having insurance and IT back-up procedures they did not consider that adaptation should be linked to risk management. Traditionally adaptation has been linked with risk management procedures in public organisations i.e. with RDAs and Local Authorities and it may mean that a change of perspective is needed when promoting adaptation to business. These events were not aimed at or attended by risk managers or environmental managers, for whom business resilience would have been particularly important, but attendees across all sectors identified with the parallels between risk management and adaptation within their own roles. Therefore, framing adaptation in relation to business resilience is a recommended approach, even when the attendees are not risk managers.

Aim 2

- **Raising awareness of climate change adaptation measures.**

A key finding is that it is of great importance to ensure the messages on adaptation are clearly and unambiguously presented. A number of respondents were not clear about the difference between

mitigation and adaptation, and also after the workshops indicated that cutting carbon emissions would be a suitable adaptation action. It is clear that even when the concepts of adaptation and mitigation are clearly explained when it comes to actions relating to both, members of the public become confused about the terms and actions they should undertake.

While climate change science can be a difficult topic to understand the majority of respondents had at least some knowledge of climate change potentially due to the high level of media attention in recent years. A number of respondents at the events themselves and in the telephone interviews stated that the use of graphs to present climate change impacts, and to show the urgent need to adapt was extremely useful. When questioned further about the graphs used in the presentation, an interviewee stated that from the event which he attended the graphs were the clearest memory he had of what he learnt on the day and the message that has stayed with him since.

From the responses at the workshops and telephone interviews it was clear that that personal experiences caused them to engage more with the topic of adaptation and to understand the implications of climate change and the need to adapt in a greater capacity, these experiences included:

- difficulties with supply chain deliveries,
- ICT systems and staff availability during recent flooding and
- January 2010 snowfall.

Some adaptation measures presented did raise concern with the respondents about the costs of undertaking such actions, and several respondents felt that the benefits should be clearer in terms of potential cost savings or risks. Benefits were presented in terms of future savings from investing in adaptation measures, and an illustrative case study of the costs in relation to an extreme event (severe snowfall and the resulting effect on profit) were used, similar to the approach Envirowise takes when encouraging investment in resource efficiency. One interviewee commented that in addition to being fearful about costs associated with taking adaptation measures, a key concern is a resistance to change within his organisation which makes him unlikely to put new measures in place.

Respondents were often reluctant to consider monetary investment, though several expressed that they would be more inclined to take action if a clearer representation of monetary savings could be demonstrated. This can be a function of people's uncertainty of climate change and a reluctance to act on events they see as uncertain and can also be a function of the current economic climate. It is likely that this varies for every company and individual as each would base their investment criteria on different conditions. Nevertheless, what is clear from the findings of this project is that when presenting adaptation messages clearer representation of monetary savings should be emphasised throughout.

Work on adaptation seems to be particularly well accepted within the facilities management field. This is likely to be because buildings/properties are at the forefront of the impacts on climate change due to varying temperatures and weather conditions. Manufacturing is also receptive to adaptation ideas while a number of construction sector respondents and interviewees felt that the construction sector is not a suitable vector for adaptation actions. Should construction be an area where adaptation is essential it was suggested by several construction respondents that this should take place at the planning stage of developments, and that current planning laws should include adaptation recommendations³.

³ For more information about this please see: Town and Country Planning Association (TCPA) report on '*Helping to deliver Climate Change Adaptation Through the UK Planning System*'. <http://www.rcep.org.uk/reports/28-adaptation/28-adaptation.htm>

Aim 3

- **Test messages on climate resilience via resource efficiency channels through the existing business advice programme Envirowise.**

The resource efficiency agenda provides a good pathway for directing adaptation learning as it is clear from the survey that respondents identified a link between mitigation and resource efficiency, and that currently knowledge among respondents about climate change is mainly focused on mitigation. As such, resource efficiency events provide an ideal mechanism to present this topic via an identifiable linkage.

In relation to the delivery mechanism for adaptation, respondents and interviewees felt that Envirowise is a delivery body that they trust to be an independent, technically believable source of information. Therefore delivery of these messages through bodies like Envirowise gives them credibility in the eyes of attendants. In addition, one respondent in the survey replied under question 10, the general comments box, that they would not have had an opportunity to learn about adaptation had it not been a part of these presentations as it was not something which would necessarily have occurred to them. This issue was elaborated on in the telephone interviews, where interviewees expressed the views that adaptation is a very important topic but one they would have been unlikely to attend a standalone event on, before these events.

Aim 4

- **Provide Defra with clear messages on how to successfully engage SMEs using current environmental issues as platforms and links.**

Clear preferences about the best method of delivering adaptation messages have emerged from this study. It is clear that online guidance, training, seminars and workshops are the preferred learning vehicles for receiving adaptation messages in general. Few companies are interested in a club style audit or telephone support or expressed a preference for self-audit guidance. Those expressing interests in a site audit or webinar were also in the minority.

The least popular options of adaptation support differ more amongst the sectors. All three sectors ranked the club audit at host site in their bottom three choices. The construction sector also indicated low interest in telephone support, while the facilities management respondents indicated little interest in printed guidance, telephone support, adaptation audits on-site or self-audit guidance. The manufacturing sector expressed little interest in online webinars or club audits at host sites. While these results are only indicative of the three sectors in this study, the wider implications of this are that different approaches to delivering adaptation messages should be considered for different sectors, but also that certain approaches may be unpopular across most or all sectors. Further sector specific research will be required in order to draw any further conclusions on this.

However, it is clear that adaptation may indeed be essential within the construction industry regardless of this, particularly in relation to the impacts of extreme weather on site safety, logistics, and weather-affected processes such as wet trades. Respondents in the construction industry did potentially not take on board these messages, and so a key component of taking forward this topic within that sector is to relate examples directly to their everyday practices as opposed to the overall economic sector to drive home the need for adaptation to them. Development of construction specific examples in terms of days lost, profit lost and construction specific work related incidents should be considered when delivering this topic to the sector. This is a point which should also be taken under consideration in other sectors – it may be essential to develop sector specific statistics and examples to engage buy-in on this topic for those who are unfamiliar with it.

A reluctance to act on the topic of adaptation is mainly due to a lack of time, knowledge, money and a lack of identification of whose responsibility this is within an organisation, specifically a lack of understanding of the links between adaptation and the respondent's own areas of responsibility e.g. staff working in waste management not relating to the need to adapt verses the assumption that adaptation is only affected by those areas covered by the facilities manager. While these issues vary within each organisation it is clear from this study that all three are common across companies from all three sectors analysed.

In terms of the staff at which this topic should be targeted at, interviews have established that in the opinions of those who attended this event this message should be delivered to senior management. This is due to the great importance of overall resilience of a successful company, and support at senior management level on these topics would ensure action. Expanding upon this issue interviewees were asked what is the best method to frame this topic in the minds of senior managers, the responses suggested framing adaptation in terms of risk issues, the potential number of work days lost due to climate events and the effects on profit and loss from extreme climate events. For additional staff within an organisation one interviewee recommends that support materials should be available to assist senior management to roll out this topic internally and gain wider staff buy-in.

The views from questionnaire responses and follow-up telephone interviews were combined to reach these recommendations. The key messages from this report are taken from these recommendations and can be found within the conclusions in the following section.

3.2 Conclusions

The aims of this pilot project were to:

1. Raise awareness of the links between adaptation/climate resilience and resource efficiency, carbon reduction and business continuity/risk.
2. Raise awareness of climate change adaptation measures,
3. Test messages on climate resilience via resource efficiency channels through the existing business advice programme Envirowise, and
4. Provide Defra with clear messages on how to successfully engage SMEs using current environmental issues as platforms and links.

The test messages about climate resilience/adaptation were delivered via a workshop presentation at three Envirowise events and the perceptions and knowledge of climate change were assessed using questionnaires and telephone interviews.

It is important to recognise that the views recorded during this pilot project are those of individual interviewees and not necessarily those of the organisations that they represent. It is also important to note that the views represented in this pilot project are from a small sample (45 respondents) of managers from three sectors engaged in a specific business support network in one region. If this study was focussed on different sectors or, managers from risk/business continuity/other career roles or, different geographical areas the results could be noticeably different.

In-depth analysis of the survey responses led to the development of conclusions and key messages, The conclusions from this pilot project are elaborated below, with the key messages clearly defined. This section defines the most appropriate way of presenting adaptation messages and gives Defra and business advisors a clear way forward.

Aim 1

The main links identified are the:

- Process of assessing the issues,
- Time frame planning for resource efficiency measures verses adaptation measures,
- Links between resource efficiency and mitigation, and
- Impacts of climate change impacts on measures for resource efficiency including for suppliers.

These links enabled AEA to utilise the Envirowise networks to disseminate the adaptation messages and attain an audience not often subjected to adaptation issues.

Aim 2

The majority of respondents will have at least some knowledge of climate change, however this will be focused on mitigation and emissions, and knowledge of adaptation or actions on adaptation will be quite limited. This can be countered by awareness raising on the topic of adaptation, through workshops, written text and sector specific approaches. It is clear from the analysis that when presenting adaptation issues ensure that the recipients understand actions on adaptation are different to actions on emissions reductions.

Aim 3

Throughout the project various messages were tested and explored with the respondents via presentations, questionnaires and telephone interviews. The main messages were coupled with the output data from global climate models, financial risks and opportunities, health risks for humans, business resilience, resource efficiency and associated financial cost savings.

A number of respondents stated that they would not have had an opportunity to learn about adaptation had it not been a part of these Envirowise events as it was not something which would necessarily have occurred to them. After an initial introduction to this topic via a presentation at different (non-climate change) events many respondents would be very interested in attending an event solely on adaptation.

Aim 4

In the first instance with small and medium enterprises target workshops at senior management, as the survey responses and interviews have indicated that senior management is where responsibility for prioritising actions on topics like business resilience resides. Support materials for senior management should be available to allow them to roll out the topic internally for all staff.

If senior management cannot attend, it would be helpful to provide materials (justification) to other staff to allow them to gain senior management buy-in to the topic, as the level of action needed to act on adaptation requires high level commitment and investment from the company. When targeting senior staff on this topic it is important to present information in terms of risk, days lost and effects on profit.

In the construction arena adaptation should be considered during the building design and planning stage, in addition to emphasising the issue and related problems to sector staff.

Self audits and club audits are not a popular learning method for this topic, as evidenced in the breakdown of suggested support as they were unpopular in the opinions of companies across all three sectors.

The greatest barriers to action on adaptation are a lack of time, knowledge, money and a lack of identification of whose responsibility this is within an organisation. Clearly presenting monetary savings and time from adaptation planning compared to the costs of clean-up after events may negate

this, while it may be important to present the duties for different personnel in terms of their adaptation potential to encourage action.



The key messages from this project are outlined below and they highlight the suggested way forward for Defra and other business advisors as a result of this analysis.

Key messages for business advisors when presenting information on climate change resilience and adaptation:

- Clearly present and distinguish between the concepts of climate change adaptation and mitigation. Ideally at least 30 minutes including some interactive content is needed for the presentation.
- Frame adaptation advice in relation to business risks, opportunities and long term business resilience.
- Focus on providing adaptation advice online or at face-to-face training or at workshop sessions.
- Link climate change adaptation advice to resource efficiency, business continuity, sustainability and carbon reduction advice. By linking multiple topics, providers of business advice and Defra could achieve multiple objectives in a consistent and joined-up fashion. However, although nearly all respondents have insurance and IT back-up they did not consider adaptation important in relation to risk management, the traditional route to embedding adaptation within a public sector organisation. This may mean that a change of perspective is needed when promoting adaptation to business.
- Use graphics (e.g. photos, graphs and illustrations including a limited amount of data to emphasise key points) when presenting climate change adaptation messages, particularly for understanding the type of climate in future years.
- Use local and personal messages about recent weather events such as flooding and snowfall which attendees have had direct or indirect exposure to, to increase their understanding for the need to adapt to climate change.
- When presenting the messages about adaptation demonstrate the benefits of climate change adaptation in terms of business opportunities and financial cost savings.
- Target messages at senior management in the first instance, as they have the most influence on these matters as well as support them with information to roll-out initiatives to other staff.
- Deliver initial adaptation messages through promotion (events and reference material) linked to other topics, since people who are not aware of the issue are unlikely to attend several hours on the topic if it is standalone.
- It is important to develop sector-specific examples to gain buy-in from sceptical audiences.
- The main barriers preventing action on adaptation were lack of time, knowledge, money and a lack of identification of whose responsibility it is within an organisation, specifically a lack of understanding of the links between adaptation and the respondent's own areas of responsibility.

4 Appendix

A Presentation Slides



**Adapting Your Business to Extreme Weather
- Now and in the Future**

Lisa Mattsson and Aisling O’Sullivan

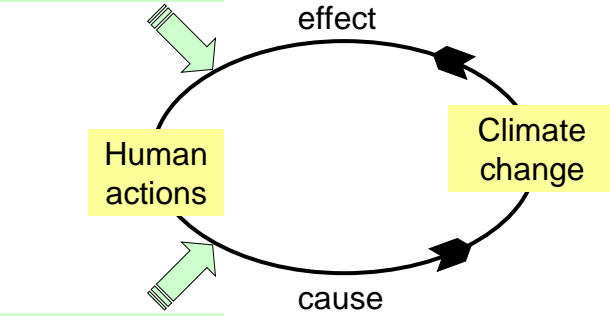
Contents

- Adapting to climate change
- Impacts of climate on facilities management
- The future climate
- Optimising sales opportunities from a changing climate
- Minimising disruption to your business
- Assessing the risks – thinking and tools
- Next steps
- Questionnaire

Definitions - Adaptation vs Mitigation

Adaptation - altering lifestyles, communities, and infrastructure to respond to climate change. This not only includes addressing the threats it poses such as increased risks from flooding and drought, but also exploiting any opportunities. Source: Environment Agency

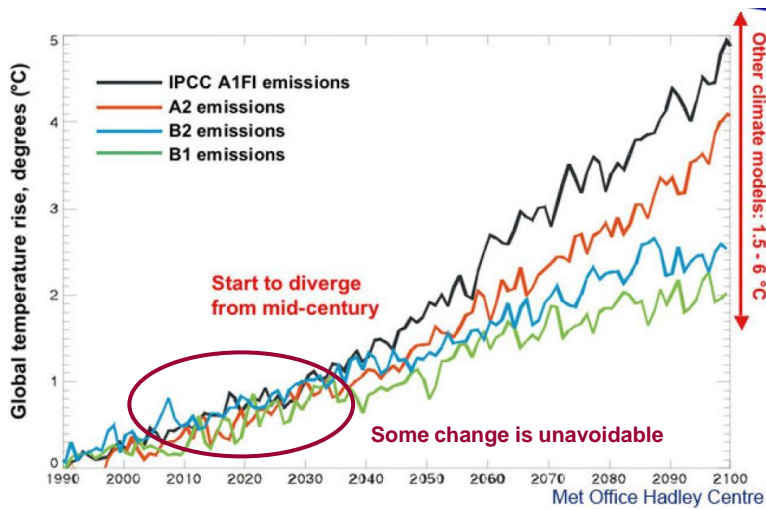
ADAPTATION



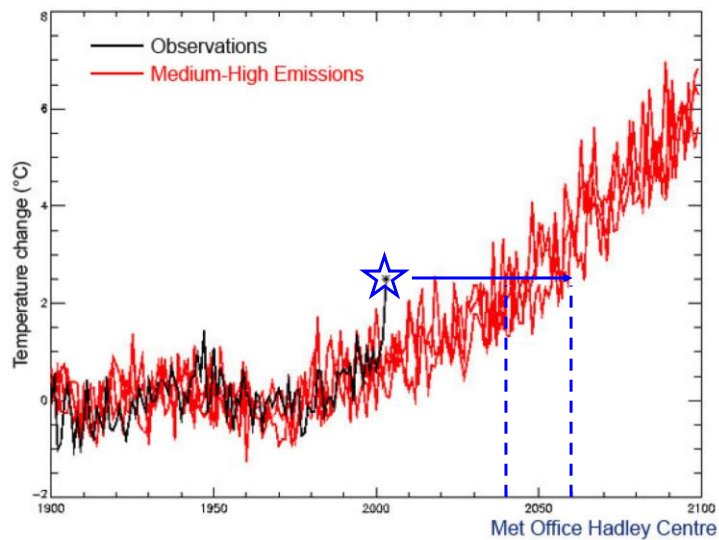
Mitigation - Avoiding the impacts of climate change, by reducing GHG emissions or storing carbon.



Climate Models



Climate Models



Future Climate Trends

- UK will continue to get warmer
- Summers will continue to get hotter and drier
- Winters will continue to get milder and wetter
- Some weather extremes will become more common, others less common
- Sea-level will continue to rise

Source: UKCP09 - produced by UKCIP, the Met Office et al., released by Defra, June 2009

Why Bother?

- A chance to make a more successful and profitable company
- A chance to reduce losses from weather-related events

52° ON BUSES



47° ON TUBE

Heatwave sends temperatures to twice limit for cattle

August 2003



January 2010

June 2007

Example: Cost Impacts of Weather Events

Standard number of working days per month = 19 days

Assume 2 days productivity lost for all staff/process as a result of weather event e.g. snow in January / floods in 2007
= 17 working days

Impacts:

- Month revenue loss of approx. 10%
- Monthly loss net margin (profit) 15% (fixed costs)

Does not include losses from start-up maintenance and repairs as a result of weather.

Impacts of Climate on Facilities Management

- **Subsidence during hotter dry summers**
- **Increased need for air conditioning in summer and Lower heating bills in winter**
- **Consideration for siting of buildings**
- **Lower heating bills in winter**
- **Less need for gritting paths in winter**
- **Building damage through storms**
- **Less water availability, including for bathrooms**
- **Increase in water quality problems**
- **Increased mould growth**
- **Need to cut grass all year round as growing seasons extend**

Things to Consider: Opportunities and Risks

1. **Direct physical impacts** where there is any kind of weather sensitivity - potentially a risk for any business which has buildings and people
2. **Indirect impacts** where the physical changes result in some change in behaviour - demand, markets, etc.
3. **Changes in behaviour and society**

Optimising Sales Opportunities

- **Make it part of your credentials to your customers and suppliers, like ISO 9001 and/or 14001**
- **Boost own sales with customers**
- **Ahead in thinking – identify sales for suppliers**
- **Can you supply your customers in an emergency?**

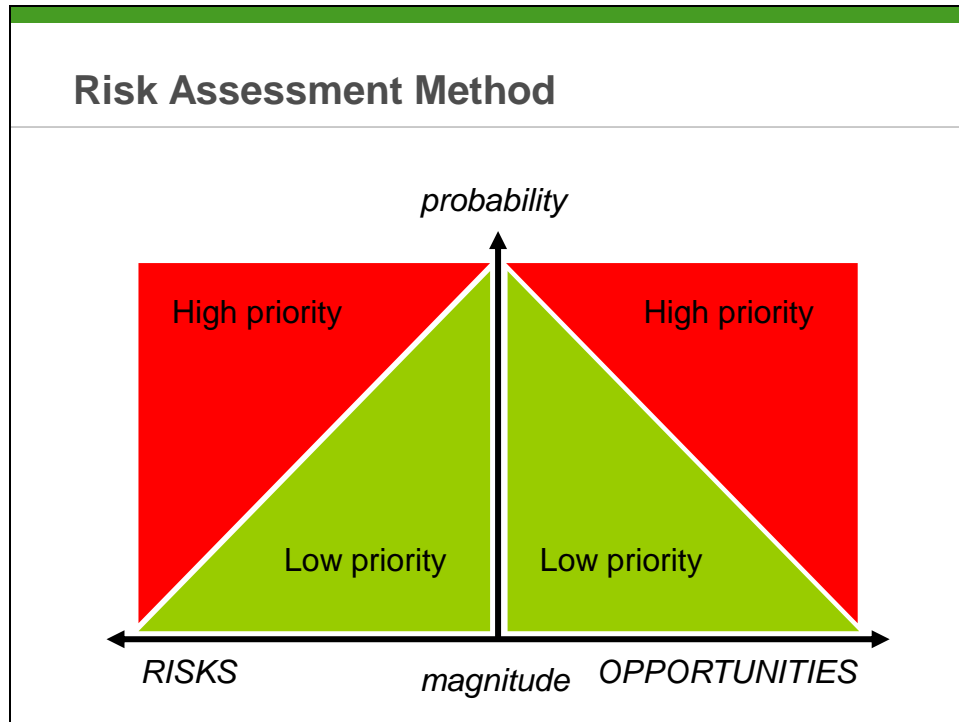
Minimise Disruption

Direct impacts:

- **Health and safety of workers travelling to/from work – duty of care under H&S Act**
- **Power outages – alternative source of electricity/heating**
- **Water loss – health of staff (toilets/wash facilities/drink consider supply and sewerage), process issues**

Indirect impacts:


- **Extreme weather elsewhere in world may affect customers and suppliers**



Next Steps

**Take steps to adapt your business today:
maximise the opportunities and
minimise the risks**

- 1. Take advantage of opportunities –** brainstorm with colleagues to identify new products, services or procedures
- 2. Minimise disruption and costs –** identify critical risks
- 3. Use the risk assessment method to prioritise the opportunities and risks –** make a plan to implement the top three risks and opportunities



Further Information

Climate South East www.climatesoutheast.org.uk

UK Climate Impacts Programme (UKCIP)

www.ukcip.org.uk

“helps organisations to assess how they might be affected by climate change, so that they can prepare for its impacts”

- Guide: ‘A changing climate for business’
- Business assessment tool (BACLIAT)

**Please complete the questionnaire
to help us to develop business support on adaptation.**

Thank you for your time!

B Questionnaire

Linking business advice on adaptation and sustainability

Dateth Month 2010, Location

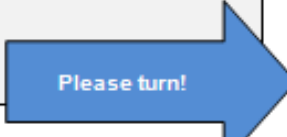
To help our project to assess this event and inform Defra and Climate SouthEast about how business's view adaptation we would appreciate a few minutes of your time to complete this questionnaire. Please tick the boxes that relate to your views (☐). Please answer all the questions.

1) Were you familiar with the concept of climate change before you came to this event?	Yes, fully ☐	Yes, to an extent ☐	No ☐
1a) Did you know the difference between climate change mitigation before this event? (i.e. measures to stop emissions) and adaptation?	Yes ☐	No ☐	
2) Do you feel it is more important for your business to act on climate change mitigation or adaptation?	Adaptation ☐	Mitigation ☐	Neither ☐
2a) Please outline why: _____			
3) Has this session increased your understanding of adaptation and what it means for your business?	Yes, fully ☐	Yes, to an extent ☐	No ☐
4) Have you considered assessing the opportunities and risks from climate change before you came to this event?	Yes ☐	No ☐	
4a) If yes: What have you considered? _____			

5) Are you planning to carry out a climate change assessment for adaptation as a result of this presentation?	Yes ☐	No ☐	
5a) If yes: What are you planning to do? _____			

5b) What has motivated you to take action? _____			

5c) If no: What are the barriers that are stopping you from taking action? Please rank each option out of 5, with 5 being the most important and 1 being the least important.			
Not enough time to do it myself _____		Not enough knowledge _____	
Not enough staff/no one with that role _____		Not enough money _____	
Other, please state _____			
5d) If money and time was not an object what would be the top three actions on adaptation you might take?			
1. _____			
2. _____			
3. _____			



6) What existing business continuity and risk management processes do you already undertake?

Cover for when staff are sick

Replacement process for staff leaving

Back-up plans for IT and communications systems

Spare equipment and supplies if stolen, lost or broken

Insurance cover for the building, equipment, supplies, staff

Other, please state

7) How best could Government, and business advisors, support businesses in moving adaptation planning forward? Please tick all the options that you would be interested in.

Online guidance – a website with tailored support regarding adaptation

Printed guidance – documents with guidance and tips, details of further information and support

Telephone support – a help line to answer questions and point you in the right direction

Seminars/workshops – live meetings with presentations, discussions and exercises

Webinars – interactive online training sessions that you can view and take part in from your home/office computer

Training – events with presentations and interactive exercises to teach you how to do the adaptation assessment of your own business

Adaptation audits to your site – a visit by an auditor to your office to review your adaptation risks and opportunities with you and your team

Club audit at host site - a visit by an auditor to one host site to review common adaptation risks and opportunities. The 'club' could be a group of companies in a specific sector where one of the companies hosts the audit and the other members attend and all learn together.

Self audit guidance – guidance taking you through an audit of your own site, with checklists and risk assessments to complete

Other – please specify: _____

8) Was it helpful to have the adaptation presentation linked with other business advice? Yes No

8a) Please outline why: _____

9) Do you think adaptation is most easily related to by thinking about:

Business continuity Resource efficiency Facilities management

Carbon reduction Health, safety & risk management Other

Please outline why: _____

10) Please provide any other comments you may have about the adaptation presentation.

If you are happy to be contacted if we need further details, please provide your name, e-mail address and telephone number:

THANK YOU FOR YOUR HELP!

Please hand in your completed questionnaire to a representative, or fax it to 0870 190 6318.

The information contained in this questionnaire will be stored on computer and used for analysing the effectiveness of the project.

All personal data will be kept strictly confidential and will only be used by the project for possible follow-up on this form, such as mailing of literature and invitation to events. By providing your telephone, fax and email address, we assume you are happy for us to contact you using those methods. If you do not wish to be contacted by these methods, please indicate so above by deleting or not providing the relevant details. The data is protected under the terms of the Data Protection Act 1994.

C Respondents Characteristics

Site Waste Management Plan training session for construction sector, Winchester, Hampshire, 18th of February 2010, hosted by Hampshire County Council.

Number of delegates: 25

Titles represented:

- Architect
- Frameworks manager
- Contracts manager
- Construction consultant
- Civil engineer
- Construction manager
- Project engineer
- Project coordinator
- Accountant

Resource efficiency and sustainability seminar for facilities management sector, Wokingham, Surrey, 24th of February, 2010, hosted by MASS.

Number of delegates: 8

Titles represented:

- Facilities manager
- Operations manager
- Building services manager
- Maintenance superintendent
- Freelance marketing executive

Waste workshop for manufacturing sector, Aylesford, Kent. 25th of February 2010, hosted by Aylesford Newsprint/MAS/Optimorph.

Number of delegates: 12

Titles represented:

- Accountant
- Managing director
- Quality engineer
- Electrical engineering manager
- Secondary products administrator
- General manager.

D Telephone Interview Proforma

Interviews were conducted on a semi-structured basis with an open framework which allow for focused, conversational, two-way communication. The semi structured interviews were initiated with general questions on the topics of climate change and adaptation, and the possible relationship between these topics and the issues such as availability, expense and effectiveness. This then formed the basis for more specific as well as open ended questions.

The majority of follow up questions were formed during the interview, allowing the flexibility to probe for details or discuss issues which emerged during the conversation. The focal questions designed for the follow up telephone interviews prior to the interviews are detailed below.

- Have you considered the risks and opportunities from climate before? If so, in what ways?
- What existing business continuity and risk management processes do you already undertake, if any?
- What drivers would motivate you to assess the risks and opportunities from climate?
- What are the barriers that stop you from considering adaptation?
- How best could Government support business, and business advisors, in moving their adaptation planning forward?
- What are likely to be the most effective messages for engaging SMEs on adaptation?
- Do you believe adaptation is well presented alongside other topics in a workshop? (e.g. sector related – construction, manufacturing, facilities management, or topic related – climate change, carbon reduction, resource efficiency, facilities management)?
- Would you have attended the event if it was a workshop focussed strictly on adaptation?
- Had the thought of the need to consider adaptation occurred to you before this event?
- Where would you have gone to get information on this topic before this event? Are there enough sources of information on this topic available to you currently?
- What level within your company should these adaptation messages be targeted at? Senior managers, risk managers, environmental managers etc.
- From the presentation, what brought home the need to consider adaptation the most to you? The financial implications, difficulty with staff getting to work, climate science etc.
- What would be the best way to present this topic if you could decide? E.g. potential lost days to businesses due to extreme weather, profit lost or other real life examples?

Follow-up interviews were conducted with representatives from all three sector events. Interviewees were guaranteed anonymity and were identified only from which sectoral event they attended and their job title. All respondents agreeing to take part in the telephone follow up interviews were male.

Sector	Job title
Construction	Contracts Manager
Construction	Accountant
Manufacturing	Managing Director
Manufacturing	General Manager
Facilities Management	Freelance Marketing Executive

E List of Comments

The following lists are a collection of all comments made in the complete questionnaires by the respondents. Representations of these comments are provided in the analysis section.

Question 2

Do you feel it is more important for your business to act on climate change mitigation or adaptation? (Adaptation, Mitigation, Neither, Both)

2a. Please outline why?

Construction comments:

- success can be achieved by adaptation to an unchangeable occurrence,
- we need to make changes,
- to try and reduce our carbon footprint,
- mitigation - more immediate action,
- to reduce carbon footprint,
- in order to put possible plans in place,
- To enable the company to continue to operate,
- prepare for the change,
- mitigation - it has to be better for all to reduce climate change and not just to accept,
- to achieve more business growth,
- add to business growth,
- deal with a potential problem before it becomes an issue rather than reacting when it does happen,
- time is running out,
- not just business will be affected and we must mitigate to save lives,
- getting the workforce to their place of work,
- adapt to new opportunities and limitations,
- responsibility/ duty of care,
- sales opportunity – mitigation.

Facilities management comments:

- there may be other influencing factors not shown in models,
- to save the planet we need to act now,
- adaptation as there is not a lot of scope in my business for mitigation,
- our business is unlikely to be affected but we can help to mitigate the impact,
- to cut costs and contribute towards improvements,
- adaptation as it will happen regardless.

Manufacturing comments:

- I believe they go hand in hand, you cant have one without the other,
- saving equipment from flooding, adapting the business to climate change,
- to combat climate change,
- stop mitigation to extent, less likely chance of adaptation, even though that would be a long process,
- both adaptation and mitigation can work in tandem,
- need adaptation to cope with events that might happen immediately and mitigation for long term solutions,
- both to stop climate change happening as well as being ready to deal with impact,
- reduce the risk of business interruption and associated costs,
- a reduction in causes will lead to a reduction in consequences,
- mitigate to save costs and help rate of greenhouse effects, adapt because some climate change is inevitable.

Question 4.

Have you considered assessing the opportunities and risks from climate change before you came to this event? (Yes, No).

4a. If yes, what have you considered?

Construction comments:

- to minimise affects of climate change on us,
- lots of clients now asking about disaster recovery plans,
- re use electric.

Facilities management comments:

- n/a.

Manufacturing comments:

- a reduction on all types of waste that our company creates, direct and indirect,
- the impact it could have on our business and future of our planet,
- staff availability and transport to work,
- today,
- invested in energy management saving 23t CO₂ per annum, annual cost savings.

Question 5.

Are you planning to carry out a climate change assessment for adaptation as a result of this presentation? (Yes, No).

5a. If yes, what are you planning to do?

Construction comments:

- Consider more economic use of workforce geographically,
- will need more time to reassess what actions,
- review risks and adopt a system to review them,
- heat u/e,
- see what additional business can be obtained,
- speak with line manager to implement change,
- chat with directors of company,
- work on waste management and plastics.

Facilities management comments:

- liase with local PCT pm issues,
- speak to colleagues,
- review risk management plans.

Manufacturing comments:

- to assess all processes involved in the creation of waste,
- ask Envirowise for help,
- discuss with MD our contingency plans,
- integrate with our sustainability initiatives,
- seek ISO14001, working within environmental management system,
- integrate with our sustainability initiatives.

5b. What has motivated you to take action?

Construction comments:

- Savings to the environment,

- to secure the future of the company - preserve company data and market intelligence,
- today (this event),
- visual presentation,
- the hard facts of climate change,
- the life risk,
- possible business limitations in future.

Facilities management comments:

- that small steps can contribute.

Manufacturing comments:

- today's presentation,
- delivery problems,
- the timescales in the presentation,
- the subject being presented today and I didn't have knowledge of adaptation,
- awareness/ training,
- recent snowfalls,
- a change in offerings to our major clients - i.e. focus on sustainability issues as opposed to cost of product,
- social responsibility,
- cost saving potential.

5c. If no, what are the barriers that are stopping you from taking action?

The respondents were asked to rank some common barriers: not enough time to do it myself, not enough knowledge, not enough staff/no one with that role, not enough money and other. The findings from the ranking can be found in the analysis section and the responses under 'Other' is outlined below.

- cost saving,
- our board of directors would look at this,
- all of the above,
- I do not think this is relevant to construction,
- I do not think it is necessary,
- not really an issue and it would cost more than benefits it would bring,
- need to do some more research first,
- need to demonstrate benefits clearer in terms of 'business opportunities and cost savings,
- as a freelancer not affected,
- its not my responsibility, responsibility of senior management,
- it will be carried out centrally.

5d. If money and time was not an object, what would be the top three actions on adaptation you might take?

- reduce ill health from extremes of weather,
- develop new business objectives,
- provide full air-conditioning,
- flood protection,
- protect from all inclement weather,
- identify how much money could be saved,
- reduce costs and pollution,
- educating operators and senior managers,
- minimise the impact of flooding,
- assess possible disruption costs and loss of business income,
- how we could act to protect our brand profile,
- loss of power,
- travel plans

- employ specialist within company,
- influence construction design,
- laptops to staff so they can work from home,
- improve life to live longer, reduce carbon,
- re-design certain areas within the building,
- protect IT equipment,
- these events will occur more often than before,
- fire protection,
- de-centralise services,
- water management, extend building controls, more sustainable fuel sources,
- calculate emissions on site,
- more pleasant environment,
- re-write contingency plans,
- gain more knowledge,
- more re-use, recycling,
- education of staff, educate myself, change processes,
- record data on energy costs throughout the site,
- gain advice,
- more information to designers pre-contraction,
- use wind/solar power,
- propose a greener way of working to staff,
- educate staff,
- look at new business opportunities,
- investigating rain water capture,
- not sure yet,
- reduction in waste,
- effective recycling.

Question 6.

What existing business continuity and risk management processes do you already undertake?

The respondents were asked to tick any of the following options: cover for when staff are sick, replacement process for staff leaving, back-up plans for IT and communications systems, spare equipment and supplies if stolen, lost or broken, insurance cover for the building, equipment, supplies, staff or 'Other'.

Breakdown of findings can be found in the analysis section and no 'Other' comments were provided from any of the three events.

Risk management currently in place	
Cover for when staff are sick	70% (30 people)
Replacement process for staff leaving	53% (23 people)
Back-up plans for IT and communications systems	88% (38 people)
Spare equipment and supplies if stolen, lost or broken	56% (24 people)
Insurance cover for the building, equipment, supplies, and staff	93% (40 people)

Question 7.

How best could Government, and business advisors, support businesses in moving adaptation planning forward?

The respondents were asked to tick any of the following options: online guidance, printed guidance, telephone support, seminars/workshops, webinars, training, adaptation audits to your site, club audit at host site, self audit guidance and 'Other'.

Findings from the respondents can be found in the analysis section. Listed under 'Other' were:

- remove funding as its unnecessary,
- remove red tape.

Suggested support	Percentage
Online guidance	86% (38 people)
Printed guidance	48% (21 people)
Telephone support	36% (16 people)
Seminars/workshops	64% (28 people)
Webinar	39% (17 people)
Training	73% (32 people)
Adaptation audits to your site	34% (15 people)
Club audit at host site	23% (10 people)
Self audit guidance	43% (19 people)
Other	5% (2 people)

Question 8.

Was it useful to have the adaptation presentation linked with other business support? (Yes, No).

8a. Please outline why?

Construction comments:

- to raise awareness,
- I gained more information,
- Would have been better targeted at a specific group rather than on the back of another session,
- good to have all parties involved in discussions,
- unaware of some information,
- I would not have seen this information otherwise,
- it further educated me.

Facilities management comments:

- gained knowledge,
- strong links to resource efficiency and housekeeping,
- let us think about something more we could do,
- makes everyone aware.

Manufacturing comments:

- it incorporates the whole importance,
- better view and bigger for future,
- not user of connection to waste,
- you were already in a learning mindset,
- relevant to presentation on resource efficiency.

Question 9.

Do you think adaptation is most easily related to by thinking about: business continuity, resource efficiency, facilities management, carbon reduction or health, safety and risk management or other?

Please outline why?

- facilities management - it is the facilities that need to adapt most,

- carbon reduction - well known concept,
- business continuity/resource efficiency - to continue trading you need to use all available resources,
- resource efficiency/carbon reduction - linked with energy/carbon reduction,
- business continuity/resource efficiency/facilities management - it makes you look at all the above differently,
- resource efficiency - the processes involved are linked,
- business continuity - it could put the business to a full standstill,
- all important.

Link to adaptation	Percentage
Business continuity	67% (12 people)
Resource efficiency	72% (13 people)
Facilities management	44% (8 people)
Carbon reduction	50% (9 people)
Health, safety and risk management	16% (3 people)
Other	0%

Question 10.

Please provide any other comments you may have about the adaptation presentation.

Construction comments:

- very brief - would like to see construction specific presentation on adaptation,
- good presentation, clear and concise.

Facilities management comments:

- very informative - makes the point we have to change our ways,
- interesting, good presentation, fun but hard truths,
- Very good!

Manufacturing comments:

- too general, not specific enough,
- very well presented.



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