

Using Conferencing and Collaboration to Reach Carbon Neutrality

*Research and Metrics for
Transitioning Green Intentions
to Green Outcomes*



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meetingzone
the conference call people

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Executive Summary

The argument is over. Climate change is very real. It is happening and every individual – and organisation – has a collective responsibility to do everything possible to curb its rapid onset. Whilst politicians have not yet come together on how to effectively address this change, increasingly businesses are taking the lead to do their part.

The modern age since the industrial revolution has been defined by a model for economic growth based on the behaviour of an ever-increasing population of consumers; if we are to prevent environmental disaster, the next age will need to be driven by conservation and the impact of new environmentally-minded behaviours of consumers and business. Economic growth and personal wealth is becoming more prevalent in the world's most populated and fastest developing countries – China and India. Currently the world's population is 6.5 billion, of which 1.3 billion live in China (equivalent to 20% of the world's population, and by their estimates growing at 10 million annually¹). India has 1 billion people, and by 2012 it is estimated India's population will equal the combined size of all Western countries². Combine large population with high personal and organisational wealth and the result is ever increasing and potentially unsustainable rates of consumption.

The demand these new consumers will have for existing carbon-based fuels will far exceed the available supply, as more than 2.5 billion new individuals and thousands of new businesses emerge and require increasingly more energy. Currently 35% (China & India) of the world's population are now just coming online as new consumers, and unfortunately just 12% (EU & US) already consume greater than 25% of the world's petroleum.

Meanwhile, low cost European air travel has driven up air transport volumes, which in turn have driven up carbon dioxide (CO₂) emissions. Britain's CO₂ emissions from aviation doubled between 1990 and 2000 and are projected to double again by 2030³. And whilst auto and aviation have comparable fuel consumption per passenger mile, they are not the same in their effect on the environment. Because aviation emissions occur higher up in the atmosphere, and produce water vapour and nitrogen oxide as well as CO₂, they can do more damage. The Intergovernmental Panel of Climate Change estimates the warming effects of aviation emissions are approximately 1.9 times of carbon dioxide alone. Whilst leisure travel has underpinned the bulk of the EU's growth in air transport, the business traveler is more prevalent today than ever before.

Fortunately, a rapidly evolving understanding of how to confront the causes of climate change means that all is not lost, and thinkers and doers alike understand that policy – and behaviours – can and will be altered to have an impact. It will take a common appreciation of the impact, tools and best practices for improvement, and ultimate benefits to accomplish change, but with the signs of warming appearing daily, this issue, unlike many others, will not go away. We expect keen, growing awareness of the importance of 1) using new cleaner energy technologies, 2) adopting emissions trading schemes, and 3) drawing upon a maturing set of collaboration technologies for working across distance.

To benchmark today's attitudes, Wainhouse Research – in conjunction with MeetingZone – surveyed European-based users to ascertain if their organisations have carbon emissions policies and whether conferencing technologies are factored into those policies. Of 229 respondents, more than half – almost 56% – state that concerns about climate change are influencing their organisational use of collaboration and conferencing technologies. Yet only 28% of organisations have carbon emissions policies – and only 7% actually quantify the impact of conferencing technologies. A slightly higher number have telework initiatives that factor conferencing technologies. This suggests that understanding how to fit conferencing technologies into carbon emission reduction programmes is at an early stage, with much work to be done and consequent considerable benefits to be realised.

This paper explores the issues of Climate Change and how specifically conferencing and collaboration technologies that enable work over distance and time barriers can play a key role in the realisation of a carbon neutral strategy. We endeavour to provide practical strategies and an understanding of the business benefits for an organisation to be ecologically responsible through encouraging the use of collaboration and new communication services.

¹ Chinese state media

² United Nations Population Division

³ Aviation Environment Federation, citing a UK government study

The Imperative to Act

Two major reasons underlie the need for urgent action to reduce our dependence on carbon-based sources of energy: the climatic impact of man-made sources of greenhouse gases and the vulnerability to geopolitical affairs that a reliance on oil creates.

Climate Change

It has long been known that certain gases – known as greenhouse gases – add to what's termed the *greenhouse effect*, the process by which the earth's atmosphere traps some of the sun's energy and keeps the surface and lower atmosphere comfortable. Greenhouse gases include:

- Carbon dioxide resulting from burning of fossil fuels and wood
- Methane, resulting from agriculture and energy production
- Nitrous oxide, used in dental anesthetics, food propellants, and other activities
- CFCs, hydro fluorocarbons (HCFCs), and other refrigerants that inevitably leak from cars and appliances
- Sulphur hexafluoride

Whilst some of these gases occur naturally, the scientific evidence that human activity has contributed to a substantial increase in the quantity of these gases in the earth's atmosphere is overwhelming, and this in turn is contributing to substantial changes in the earth's climate. The Intergovernmental Panel on Climate Change, a group of the world's top scientists, believes the world's temperature may increase over the next hundred years by up to 5.8° Celsius. And the impact is already being felt: the Department for Environmental Food and Rural Affairs tracks 49 indicators of climate change in Britain alone.⁴ The impact across the globe is being seen in rising sea levels, more extreme weather events, melting permafrost and mountain glaciers, dying forests, and loss of biodiversity. The human impact is immense, from droughts in Africa to island countries losing habitable land, and from extreme flooding (such as that seen recently in the UK and on the continent) to changing sea currents, severely affecting fisheries. In fact, the British Meteorological Office has found an increase in UK storm conditions since 1970 both in autumn and spring periods.⁵ The Intergovernmental Panel on Climate Change has identified a number of climatic changes very likely to occur, with greater than 90% confidence. These include:

- Higher maximum temperatures, with more hot days and heat waves over nearly all land areas.
- Higher minimum temperatures and fewer cold days, which could benefit agriculture in northern latitudes but which could also lead to a negative net effect if too extreme.
- More intense precipitation events, which could result in increased floods, landslides, soil erosion, and flood run-off.

Other changes are rated as likely, with a confidence greater than two thirds, e.g. more drought, more intense cyclones, and more variable Asian summer monsoon seasons.⁶

Unless the world achieves significant reductions in the amount of carbon dioxide emitted into the atmosphere each year, the consequences will be catastrophic. Yet achieving these reductions will not be easy. Ever since the industrial revolution, the modern age has been defined by a model for economic growth based on the behavior of an ever-increasing population of consumers; the next age will need be driven by conservation and the impact of new environmentally-minded behaviors of consumers and business. Economic growth and personal wealth is becoming more prevalent in the world's most populated and fastest developing countries – China and India. Currently the world's population is 6.5 billion, of which 1.3 billion live in China. (That is 20% of the world's population, and by their estimates growing at 10 million annually⁷.) India has 1 billion people, and by 2012 it is estimated India's

⁴ <http://www.ecn.ac.uk/iccuk/>

⁵ The Climate Change Challenge: Scientific evidence and implications, The Carbon Trust, 2005

⁶ Intergovernmental Panel on Climate Change Third Assessment, 2001

⁷ Chinese state media

population will equal the combined size of all Western countries⁸. Unlike earlier periods of economic growth, however, where wealth was acquired by a relatively small percentage of the population, we are now experiencing high rates of accumulation of wealth among large populations. Combine large population with high personal and organisational wealth and the result is ever increasing and potentially unsustainable rates of consumption.

The demand from these new consumers, will far exceed the available supply of existing carbon-based fuels, as more than 2.5 billion new individuals and thousands of new businesses emerge which will require increasingly more energy. Currently 35% (China & India) of the world's population are now just coming online as new consumers, and unfortunately just 12% (EU & US) already consume greater than 25% of the world's petroleum. China, in fact, overtook the United States in emissions of carbon dioxide in 2006 based on its voracious appetite for coal.⁹

Yet with a concerted and collective effort we can achieve the required reductions. The Stern Review on the Economics of Climate Change¹⁰ estimated that it could cost as little as 1% of annual global GDP to avoid costs of up to 20% of global GDP – a fairly good ratio by any standard.

The Kyoto Protocol

Signed in 1997 by 160 countries (5 more have since joined) responsible for approximately 55% of global greenhouse gas emissions, the Kyoto Protocol entered full force in 2005. It requires its signatories to reduce their emissions by an average of 5.2% from their respective 1990 levels by 2012 (some signatories have more ambitious targets, others less ambitious). Kyoto introduced the concept of the *global carbon market* and the monetisation of greenhouse gas emissions.

The protocol allows for three key mechanisms for addressing and reducing emissions:

1. Emissions trading, by which organisations may transfer Kyoto Protocol units to or acquire units from another participating entity
2. Joint implementation, by which one participating organisation may invest in a project that reduces emissions or enhances removal – and thus receive credits for that investment.
3. Clean development mechanism, which allows for credit to be received for projects that are undertaken in non-participating regions (such as reforestation projects).¹¹

This market-based approach has led to a number of exchanges that enable buying and selling of carbon credits, located in both the EU and even the US. It also has led businesses to measure their unique carbon footprints, based on conducting inventories of their greenhouse gases, reporting those greenhouse gases, and entering into exchange with others.

The typical method for organisations to reduce direct emissions is to calculate those emissions, seek internal abatement opportunities, and to develop a reduction/management plan. A second stage is to go after supply chain contributions to carbon emissions, and develop plans to address targeted reductions across the supply chain. A third step is to buy offsets if it is clear that offsets are necessary to reach carbon neutrality.

Energy Security

From a security perspective, dependence on mid-eastern oil on the part of developed nations has led to oil price volatility and conflicts in the Middle East, as well as some claims that radical organisations have been funded by some of the very nations from whom we purchase energy. A genuine shift in energy security may well eventually help remove the likelihood of further catastrophic wars and help address terrorist behaviors.

⁸ United Nations Population Division

⁹ Netherlands Environmental Assessment Agency, June 2007

¹⁰ Released 30 October, 2006 by Sir Nicholas Stern for the British government

¹¹ The Kyoto Protocol's innovation is not simply in creating a market for a commodity; but also in attempting to drive investments in clean technology from the private sector that will lead to use of an alternative, greener energy supply.

The Role of Business

It is now widely accepted that it is in the interest of the business community to partner with government – and lead through example – in fighting climate change. Past dire predictions that addressing climate change might prove too costly, leading to inflationary market behaviour, have been offset by an understanding that the impact on global gross domestic product (GDP) will be far worse through inaction than action. In fact, the Stern Review, widely accepted as an authoritative analysis of the economics of global warming, was only one assessment of the economics of climate change. With the cost of petroleum products continuing to climb, other valid reasons exist for conserving, preserving, and adapting to the next phase of energy supply.

Now that the scientific and business debate has subsided, the world is mobilising as never before to respond. Before discussing how conferencing and collaboration technologies fit into a strategy of attempting to reach carbon neutrality, it is important for all of us in business to understand the facts and underlying research on the topic.

The Research

CO₂ is emitted from various sources in various ways and, with the exception of aviation emissions as discussed above, a tonne of CO₂ causes the same amount of damage regardless of the source. According to one research group, a tonne of CO₂ is created when:¹²

- Traveling 3,200 kilometres by air
- Driving 3,060 kilometres in a mid-sized car
- Driving 9,700 kilometres in a hybrid car
- Operating a personal computer for 10,600 hours

Cutting emissions, however, is far more complex to address than simply through asking people to reduce travel or turn off their personal computers. This is because carbon emissions are produced at virtually every stage of production of goods – even grazing a dairy cow for eight months produces one tonne of CO₂. In fact, a complex chain of cause and effect exists and any discussion of the factors at play requires an understanding of some of the types and sources of emissions. Those relevant to this discussion include:

- Direct emissions, produced through on-site combustion of fuels (e.g. boilers, business travel, company-owned vehicles)
- Indirect emissions, which are off-site combustion of fuels (e.g. procured resources like electricity)
- Upstream emissions, which are those caused by suppliers (much like indirect, they occur off-site but in this instance are created in the supply chain)
- Downstream emissions, which refer to those emissions created by an organisation's products and activities during their lifecycle.

Reducing emissions from their existing sources does not address the problem, because new sources are always coming into production and economic growth, as noted earlier, is not an easy thing to throttle. For example, even though new technologies for curbing emissions can be installed, economic growth means more new sources arise. As an example, a European Union study has concluded that aviation accounts for about 4% of the world's CO₂ emissions. An aviation analyst at Brussels-based watchdog Transport and Environment has said that "The growth in aviation will change the relationship (between emissions and aviation), and offset any reductions by new technologies." This analyst has predicted that airline emissions will double in the coming 20 years even as other industries' emissions shrink.¹³

¹² A Consumer's Guide to Retail Carbon Offset Providers, Clean Air-Cool Planet, 2006

¹³ Angela Chalton, Associated Press, June 20, 2007: Aviation Tries to Go Green

Reaching Carbon Neutrality

Many organisations are beginning to look at reducing their carbon emissions for whatever reason – be it to fulfill corporate social responsibility obligations, to minimise exposure to markets for emissions trading or other reasons. The idea of carbon neutrality is founded on the idea that organisations can seek to reduce their carbon emissions as far as is economic, and then offset any remaining emissions by investing in projects that reduce emissions of greenhouse gases elsewhere. These projects can vary from the dubious – such as some of the reforestation projects and green energy schemes – to those formally endorsed by the United Nations Framework Convention on Climate Change (UNFCCC). With the rising profile of carbon-neutrality there has recently been a lot more interest in regulating these markets, and both non-governmental organisations and state governments are beginning to take an interest in recognised standards.

Carbon Footprint

A carbon footprint is the total amount of CO₂ and other greenhouse gases that are emitted over the full life cycle of a product or service. Typically it is expressed as grams of CO₂ equivalents, and is calculated using a method called the Life Cycle Assessment (standardised under the International Standards Organisation's ISO 14044 standard, discussed below). Using this method, organisations can effectively calculate their current footprint. Then they can take action by identifying “hot-spots” in terms of energy consumption and associated CO₂ emissions, optimising their energy efficiency and reduction of GHG emissions, and identifying solutions for neutralising emissions that cannot be eliminated by energy saving methods.

ISO

A number of frameworks exist that can help an organisation address its output of carbon dioxide. One important framework is the International Standards Organisation's (ISO) 14000 family of specifications for implementing Environmental Management Systems (EMS). This family of standards began in the mid 1990s, and includes specifications for conducting environmental audits and measuring an organisation's environmental performance, as well as criteria for selecting consultants and auditors. The whole ISO 14000 family provides management tools for organisations to control their environmental aspects and to improve their environmental performance. Some of the benefits of the ISO 14000 family include:

- Reduced raw material/resource use
- Reduced energy consumption
- Improved process efficiency
- Reduced waste generation and disposal costs, and
- Utilisation of recoverable resources.

The ISO 14001 specification in particular is recognised as a baseline for creating an effective EMS, and reportedly is in use by thousands of companies in more than 112 countries. ISO 14001 has helped companies evolve from maintaining regulatory compliance to a more advanced position of improved productivity, and the ISO has documented advantages in financing, insurance, regulatory, and other areas of operations for businesses which use the standard. Additionally, ISO 14001 looks at the entire life cycle of an organisation's products and services, based on a view of everything from the impact of the extraction or creation of raw materials to waste disposal.

Reaching ISO certification is a time-consuming process, however, that requires significant investment and commitment. And it alone does not guarantee carbon neutrality. In fact, though the ISO has done a yeoman's job of creating standards, processes, and frameworks for improving organisational productivity and efficiencies as they relate to environmental goals, being ISO-certified does not directly guarantee that an organisation has reached carbon neutrality. Additional steps must be taken, perhaps through participation in carbon markets, and most certainly through the use of conferencing and collaboration technologies, which can be a key part of the effort to reach carbon neutrality.

Reaching Carbon Neutrality through Conferencing and Collaboration

Travel reduction programmes are one of three key methods of reducing direct emissions (the other two involve addressing energy efficiency and switching to renewable fuels). Travel programmes may include some practical efforts, e.g. adopting alternatively fueled vehicles that reduce emissions to some extent. But more typically they involve substituting conferencing and collaboration technologies for travel (appropriately, based on business needs) and creating telework and telecommuting programmes.

Wainhouse Research believes that using conferencing and collaboration technologies can make a large contribution to the goal of carbon neutrality. Several reasons underscore our enthusiasm in this belief:

1. Business travel and commuting to work are significant contributors to greenhouse gases; conferencing and collaboration offer reliable, reasonable substitutions.
2. Conferencing technologies are measurable; sophisticated tools exist to track their usage and some service providers are willing to go far beyond simply sending a bill for services. Such service providers often are willing to work with organisations to help them utilise these technologies to fulfill their green intentions.
3. Travel is similarly measurable, and with what we know today about the output of transportation systems, it is incumbent upon all organisations to use a programmatic, sensible approach to travel.

Telework and travel programmes are two sides of the same coin, though with subtle differences. A telework programme is by nature internally-constituted and focused inward on employees and how they function as corporate contributors. Even as it appears to apply primarily to employees, a travel programme is more externally focused, as it must account for methods of continuing – without interruption – in one's dealings with partners, suppliers, and customers. A travel programme also requires the willing participation of partners; one innovation some enterprises have considered for fostering external change is to actually give preferential treatment to local companies – *and to treat as a local company any partner willing to embrace conferencing technologies*. Doing so requires a comprehensive programme that has elements for external communications with external stakeholders.

Implementing either telework or travel programmes requires the following steps:

- Analysis of the organisation's transportation behaviours
- Analysis of the organisation's current use of collaboration technologies
- Assessment of the organisation's carbon footprint
- Calculation of where and how changes can be made
- Implementation of programmatic changes in behaviour through deployment of appropriate technologies

It is not the goal of this paper to offer a complete scheme for using conferencing to substitute for travel; every organisation's situation will be different and there is no one-size-fits all approach. A simple algorithm for making the case for conferencing technologies as a means of carbon neutrality might consist of the following:

Number of business trips per year x kilometers travelled

Greenhouse gas emissions per air travel / total kilometers travelled

Number of business trips / commutes that can be eliminated through conferencing and collaboration

Greenhouse gas emissions reductions

Such an algorithm is a start in understanding how to integrate conferencing and collaboration into green initiatives. There are other benefits of conferencing and collaboration as well: economic and productivity gains that will accompany the satisfaction in going green.

One of the key practical changes that an organisation can make is to centralise the purchase, deployment and tracking of collaboration technologies to ensure that the organisation can track the effectiveness and increased use of these technologies rather than have it dispersed at a departmental level with multiple suppliers.

We believe that sooner – rather than later – conferencing and collaboration technologies will become a key component of carbon reduction programmes and that the demand and acceptance of remote business will soar over the next five years. To assess today’s attitudes, we conducted a survey of organisations for MeetingZone, sponsor of this paper, which to some extent bears this out.

European User Survey

From 24 July through 3 August 2007, Wainhouse Research surveyed European-based users to ascertain if their organisations have carbon emissions policies and whether conferencing technologies are factored into those policies. Email invitations were sent to business, government, and education users of conferencing and collaboration technologies and 229 valid responses were received. Respondents were entered into a draw for a £100 GBP Amazon gift certificate. Respondent demographics are provided in Appendix A.

Influence of Concerns about Climate Change

More than half – almost 56% – state that concerns about climate change are influencing their organisational use of collaboration and conferencing technologies. This breaks down as follows: 33% state that they expect to increase their usage based on their concerns, and 23% have concerns but likely will continue using the amount of conferencing they currently use. About 44% state that concerns about climate change are not influencing their use of collaboration and conferencing.

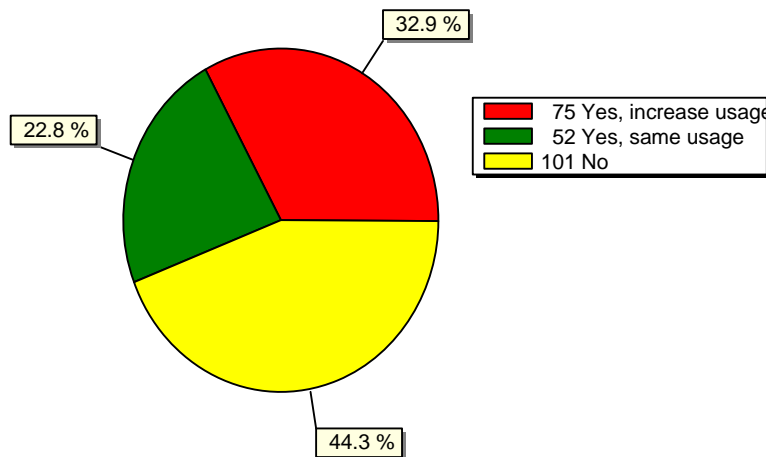


Figure 1 Impact of Concerns about Climate Change on Conferencing Use

Though almost 56% state that concerns about climate change are influencing their use of conferencing technologies, only 28% of the organisations have in place carbon emissions policies. (The fact is, only 7% have policies and actually quantify the impact of conferencing; another 21% have policies but do not quantify the impact of conferencing technologies, which totals 28%.) Another 26% expect to have some sort of carbon emissions policy within the next 12 months. Finally, 36% lack an emissions policy and do not expect to add a policy within the next 12 months.

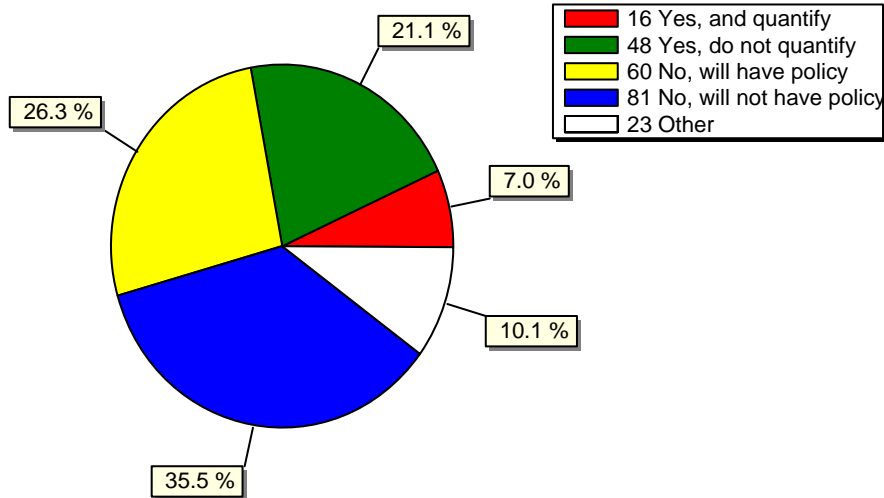


Figure 2 Carbon Emissions Policy

Many of the 10% who cited “Other” in fact added that they do not know if their organisations have carbon emissions policies; we believe most of these work for organisations that likely do not yet have any sort of policy established.

The fact that only 28% of organisations (7% + 21%) have carbon emissions policies – and only the 7% actually quantify the impact of conferencing technologies – suggests that understanding how to fit conferencing technologies into carbon emission reduction programmes is in its infancy, and much work remains to be done. Wainhouse Research believes the next several years will see a deepening of the necessary tools and understanding.

For comparison purposes, we also asked if respondent organisations have telework initiatives. Almost 35% of respondent organisations have telework initiatives; of the overall survey pool, 9% quantify the impact of conferencing on those initiatives and 25% have initiatives but do not quantify the impact. Another 14% expect to have an initiative within the next 12 months. These numbers would suggest that there is always a “lag” between those who track the metrics and those who have programmes but do not track the metrics.

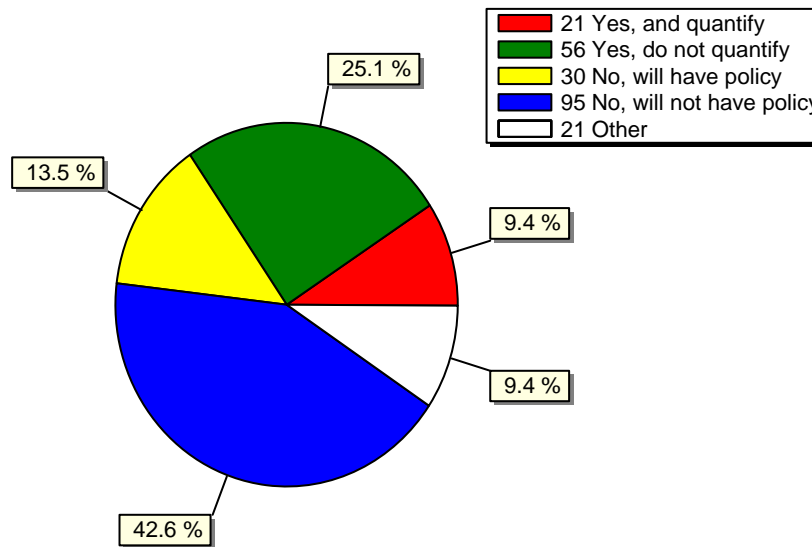


Figure 3 Telework Initiatives & Conferencing Impact

Service providers and equipment vendors alike have created many tools for tracking conferencing and collaboration metrics, and Wainhouse Research believes any enterprise interested in using conferencing and collaboration to address climate change will find it advantageous to take advantage of these tools. At the same time, this survey points out that more organisations have or will have climate change initiatives than will not, and we believe that over time, conferencing and collaboration will play an increasingly important role in addressing climate change.

Supporting Conferencing and Collaboration Technologies

Many inexpensive, highly effective, and carbon neutral options exist with collaboration and conferencing services. The underlying technologies that can be used to support GHG initiatives include:

- Audio conferencing. The most popular of all collaboration services. Typically provided by a service provider, audio conferencing services “bridge” or connect three or more parties together via a common telephone number. Access to the conference call can be via a desk phone, mobile phone, or any Internet telephone service. Services range from ad-hoc, self-service calls of 3-5 people to operator assisted calls for larger events with groups typically over 10 participants. Price per participant average 8 pence per minute or £4.80 per participant, per hour (often less than a journey by train or the cost of petrol in travelling to a meeting — *significantly* less than an airline ticket). Nearly 3 billion minutes of audio conferencing will be used in the UK during 2007. Usage in the UK grew 24% during 2006.
- Web conferencing. Web conferencing – also known as Net or data conferencing – is the fastest growing collaboration service. Web conferencing is similar to an LCD projector presentation in a conference room, however rather than gathering a group into a single “physical” conference room, participants individually view the presentation via their PC. Used in conjunction with audio conferencing, web conferencing allows meeting participants to see a presentation in real time on their PC’s web browser. Typically via an email invitation, the meeting presenter will provide a URL (a web page address) where all meeting participants “join” the presentation. The presenter then shares a slide presentation or can present nearly any PC application (financial spreadsheets, project plans, documents, etc). As the presenter changes slides or presents new information, the meeting participants PC screens are automatically updated with the new information. Web conferencing can be provided as a package with audio conferencing or as a separate service to be used in conjunction with the audio service. Prices range from a nominal cost when packaged with audio conferencing, to up to 12 pence per minute when provided separately. WR estimates that the volume of web conferencing usage in the UK grew over 50% in 2006 and forecasts similar volume increases in 2007.
- Web casting. Audio and web conferencing are real-time services which can be highly interactive for the meeting moderator and the participants. In contrast, web casting provides a more one-way method of presenting information to large groups, using participants PC browsers or video streaming client such as Window Media Player or Real media player. Audio, web (data), and video can be “cast” out to large audiences for an event or held in archive for participants to view on their own schedule. This service is effective when a very large audience is involved and interaction between the presenter and audience is not required. Costs vary widely depending on whether a web casting provider is assisting with the production of the web cast onsite, or if they are simply encoding, archiving, and streaming the meeting to participants. Typical web casts cost £750-£1,500 per session and may be accompanied by ongoing monthly archive costs.
- Videoconferencing and Telepresence. In contrast to audio and web conferencing, video conferencing allows participants to see one another in real time. Sessions can be point-to-point (one site to another) or multi-point (three or more sites viewing one another). Organisations typically purchase group video equipment with large LCD/HD monitors which reside in shared conference rooms where participants gather (typically 3-12 people per room) to see and interact with one another. PC presentations and data can be presented on separate monitors. Video is very effective when the participants do not know one another, are discussing a sensitive subject matter, or when eye contact and body language are critical to the discussion. New Telepresence systems provide a more realistic viewing environment whereby far end participants appear as if they are across the table from the near end participants. Price range from £2,500 for very simple small group systems up to £250,000 for Telepresence systems. Video conferencing is significantly more expensive than audio and web conferencing, but can be justified when large groups of frequent flyers use the systems regularly or when corporate culture or applications (distance education, product development, client relations) make it an attractive option.

Concluding Thoughts

It is the goal of this paper to offer a strategy for organisations that are beginning to analyse their carbon footprints to consider how to use conferencing and collaboration as a method of reducing those footprints. The market has spoken: the EU Emissions Trading Scheme, Chicago Climate Exchange, and many banks that are participating in global carbon trading are a testament to the viability of this approach. Guidance for preparing and reporting on greenhouse gas inventories are available through the World Resources Institute, World Business Council for Sustainable Development, and others. In time, conferencing and collaboration services will become essential tools in corporate strategies for going green.

Appendix A – Survey Demographics

Organisational Categories

The greatest number of respondents (39%) work for organisations of 50 – 1,000 employees. Another 24% are with organisations of 1,000 – 10,000 employees, and 13% with organisations of over 10,000 employees. Another 19% are with businesses with 1 – 49 employees, and small numbers are with government/defence, education, or healthcare. Many of those who place themselves in “Other” indicate they are with some type of charitable group.

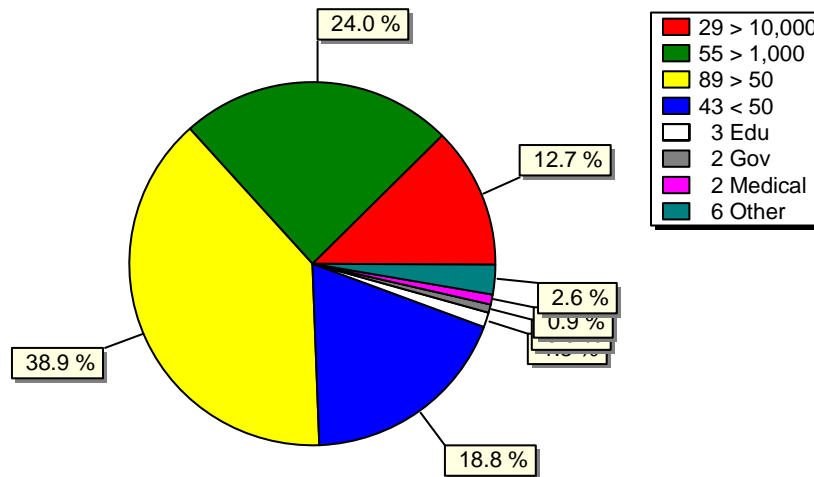


Figure 4 Respondent Organisation Type

Almost 28% work for technology-associated companies, whereas 24% are with professional services firms and 9% with financial services firms. Those who categorise their industries as “Other” cite industries such as bioscience, charity, marketing, energy management, retail, and trade association, among many others.

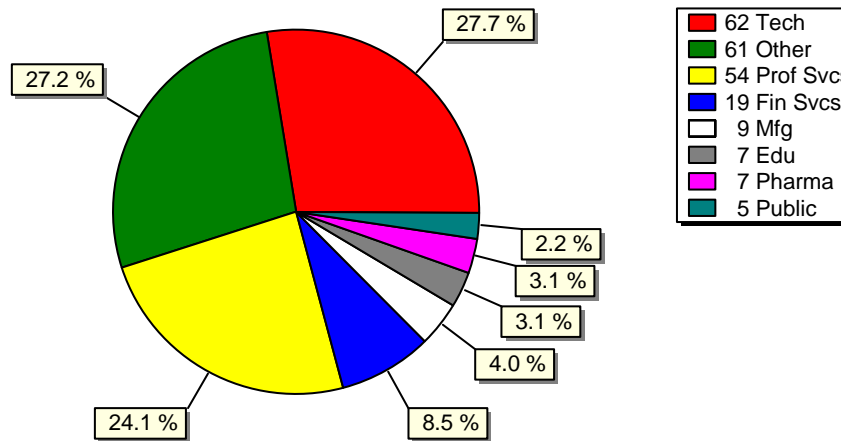


Figure 5 Respondent Industry

Respondent Job Function & Roles Related to Conferencing

The majority of respondents (28%) describe themselves as administrative professionals, followed by 20% who are sales/marketing professionals and 10.7% who are engineering professionals. Almost 1/3 (30%) describe themselves

as “Other,” and offer titles such as analyst, CEO, COO, Director, Managing Director, Project Manager, and Solicitor.

We asked respondents what best describes their role with regards to online meetings: whether they typically are:

- A conference participant (invited to someone else’s meetings)
- A conference host (initiates the meeting and invites others)
- Company administrator for conferencing services
- Other

About 55% typically are hosts who initiate meetings; another 24% are company administrators for conferencing services, and 17% are primarily conference participants who are invited to someone else’s meetings. Many of those who state they are “Other” say they are both host and participant.

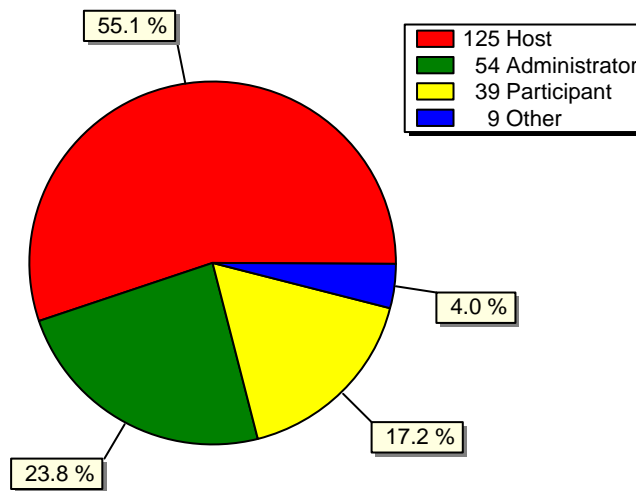


Figure 6 Respondent Meeting Role

Currently 95% of respondent organisations use audio conferencing services; 31% use web conferencing, and 27% use videoconferencing.

This paper was underwritten by:

meetingzone
the conference call people

About MeetingZone:

MeetingZone (www.meetingzone.com) is the UK's largest independent conferencing services provider and offers customers a high performance, personalised audio and web conferencing service. Based near Oxford, MeetingZone was formed in 2002 by Steve Gandy and Tim Duffy, who collectively have over 30 years experience in the technology and telecoms sector. MeetingZone's customers include many of the FTSE 500 companies in the Financial, Retail, IT, Pharmaceutical and Legal sectors. MeetingZone was awarded the 2006 Frost & Sullivan Customer Service Innovation Award in November 2006, and were finalists in the Growing Business Magazine Fast Growth Business Awards 2007.

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About Wainhouse Research

Wainhouse Research (www.wainhouse.com) is an independent market research firm that focuses on critical issues in real time Unified Communications including audio, web, and video, and streaming media. The company conducts multi-client and custom research studies, consults with end users on key implementation issues, publishes white papers and market statistics, and delivers public and private seminars as well as speaker presentations at industry group meetings.