

## **Teleconferencing – Do you really know what it’s about?**

**An extract from Carbon Intent Survey April 2009.**

Teleconferencing is becoming increasingly popular as a modern working method - the real time communication between a group of people (more than two) in at least two locations and using one of a suite of facilities. It is used to reduce the time, cost and environmental implications of travelling to meetings, whether abroad or local.

Teleconferencing facilities tend to come in three forms:

- ⊕ Audio conferencing – using conventional voice telephony
- ⊕ Video conferencing – using networked cameras that relay pictures as well as sound
- ⊕ Web conferencing – sharing documents live over the web either independently or at the same time as audio or video conferencing.

Tele-presence takes all of these to the next level with high-quality, specialised equipment used for web-conferencing where the user has the impression that he or she is present in another location.

Teleconferencing will probably never replace all meetings as there is no substitute for face-to-face meetings to establish trust. Once this is established, teleconferencing can be used and it is most often used for internal communications where people in different regions and countries need to work together.

Earlier versions of Teleconferencing suites, especially those run in-house rather than managed services, were often unreliable. This has cast an air of mistrust, at least for some and as a result, usage of conferencing facilities is met with a fear that it will not work. But with the range of collaboration tools available today, that fear is now unfounded and people can work with colleagues in other locations as though they were sitting beside them.

### **Teleconferencing and Carbon Dioxide Emissions**

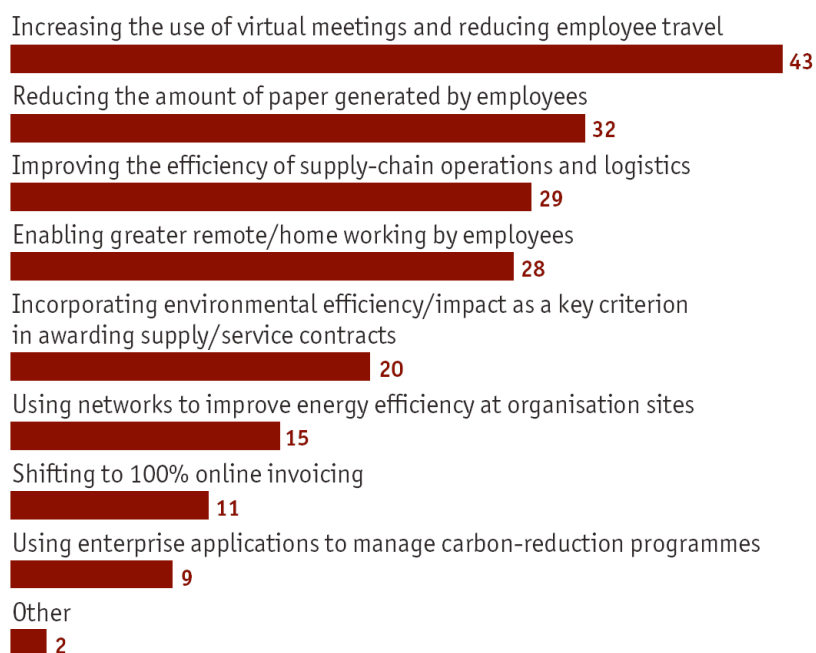
The use of Teleconferencing facilities to reduce face-to-face meetings results in less business travel, and reduced carbon dioxide emissions. The global survey by the Economist Intelligence Unit<sup>22</sup>, of 345 senior executives, cited earlier, found that web and video conferencing are the most popular [ICT-enabled] tools for reducing an organisation’s carbon footprint. These technologies and services were more attractive than Homeworking to the respondents, as the carbon dioxide emissions reduction from transport miles is relatively straightforward to measure in a carbon audit study.

22 The Economist Intelligence Unit 2008 managing the company’s carbon footprint – The emerging role of ICT.

The Economists Intelligence Unit found that companies are still more likely to consider virtual meetings, rather than Homeworking, as a mechanism for carbon dioxide emissions reduction using ICT (see chart below), and showed a level of scepticism around the net carbon dioxide emissions reduction benefits of Homeworking.

**Which of the following improvements in operations are likely to make the greatest contribution to an organisation's carbon-reduction efforts?** Select up to two responses.

(% respondents)



Of course whilst there are potentially large CO<sub>2</sub> emissions reductions to be made from using virtual meeting facilities and, therefore, not travelling, these will be offset to some degree by the energy use of any specific conferencing suite that would not otherwise be used. Recent increases in the use of high-definition video-conferencing and the development of tele-presence equipment has lead to a perception of increased energy use by these facilities.

UK research calculates that the worst case scenario is the use of a broadband line for Teleconferencing which uses 0.005kWh to run.<sup>23</sup> Given that the average BT conference call lasts an hour this equates to 0.00215kg CO<sub>2</sub> generated (based on DEFRA's 2007 electricity emissions factor of 0.43kg CO<sub>2</sub>/kWh). This is less than 10% of CO<sub>2</sub> savings through reduced business travel resulting in a large net benefit overall. Whether or not a teleconference suite requires more bandwidth and energy than this estimation, it is clear that the overall travel emissions reduction outweighs this. This is reinforced by online calculators on the websites of major teleconference suite vendors.

<sup>23</sup> James 2008 Conferencing at BT – Results of a survey on its economic, environmental and social impacts.

## Guidelines for Teleconferencing

Teleconferencing can be a cheap and effective route to saving carbon when using existing technology such as audio telephone and basic web conferencing.

Following a detailed review of current research, the Carbon Intent Project estimates a typical carbon dioxide emissions reduction for Teleconferencing of 35 kg CO<sub>2</sub>/ conference call / per employee.

Carbon savings can be optimised through Teleconferencing but to make sure it produces the efficiencies that it should do, have a think about the following first:

- ⊕ Understand your IT infrastructure capability/ technical needs to provide Teleconferencing solutions. For example: internal telepresence solutions require high bandwidth at offices at both ends – dialler and receiver – will you need an infrastructure upgrade?
- ⊕ Do a cost analysis to assess the financial benefits of Teleconferencing – frequent travellers will payback faster.
- ⊕ Teleconferencing – use of video conferencing requires decent bandwidth for home users and office locations. For example, personal video conference units work well over normal UK ADSL broadband services (typically 3- 4 Mbps down, 500 – 750 kbps up) in the downward direction, but with reduced definition in the uplink. For office locations 2 Mbps SDSL is the minimum practical bandwidth.
- ⊕ Communicate with staff and managers so they understand that Teleconferencing ICT solutions have vastly improved reliability and functionality in recent years, especially managed solutions (e.g. outsourced). Encourage staff to try these technologies again.
- ⊕ Set and enforce policies on travel to increase uptake of e.g. by budget reductions
- ⊕ Communicate extensively with users before and during a Teleconference implementation project as user acceptance and usage is critical to a successful project.

## Comment

*At Amillan, we use teleconferencing and collaboration tools for internal meetings. With sales people and engineers working in all corners of the UK, we regularly conference them all into project meetings and reviews and we've found that we have more regular contact with colleagues as we don't need to formally arrange meetings with them. People are much quicker to conference someone and have a "face-to-face" conversation with them online than they are to arrange to have a meeting with them. We have the tools on peoples desktops so it's quick and easy to contact everyone. Even though we're experts in this field, we did invest considerable time in making sure that everyone was fully trained on teleconferencing as user acceptance is ultimately the key to success.*