

ACHIEVING NET ZERO

Enhanced virtual meetings are a key element of digital transformation and net zero attainment.

Powerful forces of change are sweeping the construction industry, catalysed by Covid-19 and digital technology.

These fundamental changes are coupled with the drive to net zero that will further solidify new methods of working, set to dominate business activity over the next decade.

Leaders should remain aware of the overall business, technological and environmental factors in play. These not only include the “agile organisation” enabled by digital technology, but increasingly their contributions to net zero and digital restructuring.

The Climate Change Act of 2008 committed the UK to an 80% reduction in carbon emissions by 2050.

In June 2019, legislation increased that target to 100%. The targets are likely to be enforced by provisos on government contracts and taxes.

This article argues that a reduction in business travel is the principal target for net zero achievement.

KEY STATS

36%
Proportion of car journeys for business travel

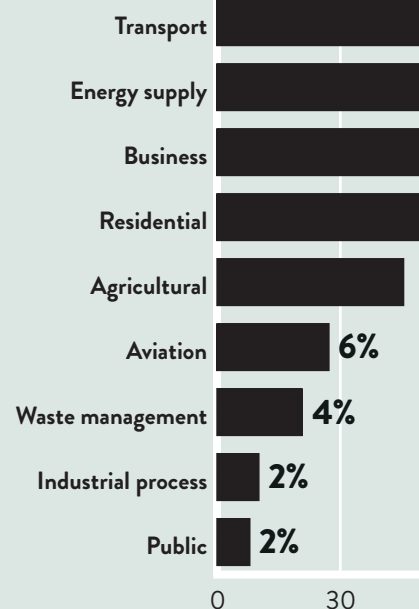
18%
Reduction in office energy use possible as a result of more virtual meetings

NET ZERO TARGETS AND DIGITAL TRANSFORMATION

A major element of digital transformation is collaboration and due to the multitude of subcontractors in the industry, involves everybody working on the same page. But there is much misunderstanding about the difference between collaboration software and virtual meetings. They are completely differentiated by time and process. A virtual meeting happens now, but a collaboration software process may extend for several years.

Technological change in the construction sector is rapidly evolving, but what happens when technology goes awry? Prior to the digital age, solution meetings were held in one room, but now we have access to virtual meeting software. The nuVa virtual meeting deliberately emulates a face to face round table meeting and is key to digital transformation, providing the best remote digital interface between the world of humans and the world of digital, accessing knowledge from across the world. The medium utilised for

GREENHOUSE GAS EMISSIONS



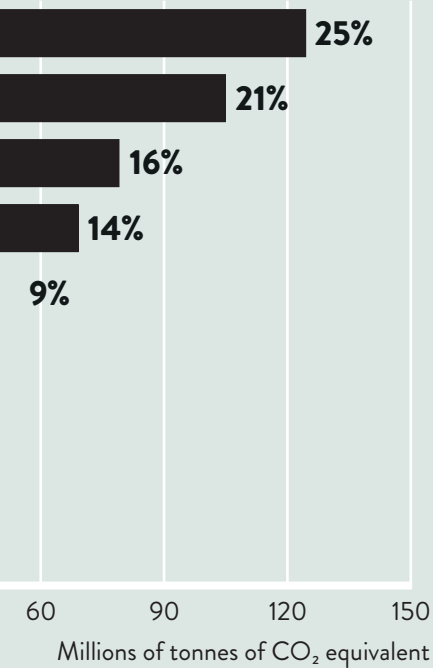
Source: UK Government data Feb 2020

remote meetings has a major effect on cognition, and for optimum experience, participants must use the richest possible method that does not constrain safety, cognizance and innovation.

The benefits of virtual meetings include immediate decision making on projects, saving travel costs, reducing impact on infrastructure and avoiding rework. Connecting participants and forming a knowledge-sharing network not only creates an intelligent and agile organisation, but delivers a major contribution to critical net zero targets. It is unlikely that virtual meetings will fully replace office meetings, but it is inevitable that they will reduce the number of decision-making meetings and pressure on transport links.

Closely examining greenhouse gas expenditure categories from the Department for Business, Energy & Industrial Strategy (BEIS), allows quantification of how virtual meetings can powerfully contribute to organisational strategy while identifying the prime means to attain net zero.

IONS



SURFACE TRANSPORT

BEIS data suggests that we can target 35% saving of current greenhouse gas expenditure in transportation. According to BEIS figures, rail transport is four times more carbon efficient than road.

Recent government reports reveal that at least 39% of car journeys are for business travel.

The reason for business travel and commuting is to gather in an office for meetings and share knowledge around the projects in progress.

“Natural meetings” were favoured due to our bodies and minds evolving over millions of years to socially collaborate.

These important human factors should not be underestimated for we interrelate and infer meaning in many subtle ways.

With the improvements in virtual meetings and the increased cognition that is now possible, a very large number of these journeys are obviated, thus saving hundreds of millions of journeys delivering a massive net zero gain of up to 48.52M.tCO₂e.



Net zero contribution category	Total BEIS M.tCO ₂ e spend	Total BEIS M.tCO ₂ e saving	% of each category saved by virtual meetings
BEIS cat. 1 Transportation	124.4	48.5	39%
BEIS cat. 2 Energy supply	104.9	18.7	18%
BEIS cat. 3 Business	79	23.7	30%
BEIS cat. 4 International aviation	27.2	16.3	60%
TOTAL	335.5	107.2	

nuVa's digital platform enables digital collaboration during virtual meetings

AIR TRANSPORT

International business travel is a major producer of greenhouse gases. The Association of UK Airlines, using government statistics, has ranked UK aviation at 6.4% of carbon emissions, of which a massive 6% is from international flights.

Due to the larger aircraft floor space of business class, its estimated that business aviation burns 75% of aviation greenhouse gas. In this category, 25% to 50% of greenhouse gas could be saved by utilising rich virtual meetings. Business travellers account for 12% of airline passengers, so it is therefore evident that a reduction in business travel is a major opportunity for driving to net zero with a potential saving of 16.3M.tCO₂e.

OFFICE OPERATION

This second category defined by BEIS is fuel consumption for electricity generation and energy production. Probably a target of an 18% reduction is feasible due to increased virtual meetings over a decade.

Despite progress in wind power generation and the reduction in coal powered generation, natural gas and imported gas are still supplying 40% to 50% of our energy and emit associated major greenhouse gas.

Reducing even electric car business journeys and the additional requirement for offices, reduces electricity consumption and carbon emissions by a possible 18.9M.tCO₂e.

BUSINESS

This includes fuel combustion in industrial and commercial sectors, including heating and air conditioning. It is hard to precisely define the savings that virtual meetings might deliver, but as Covid-19 has demonstrated, there is a clear trend towards hybrid working.

Virtual meetings mean less commuting and reduced electricity expended on office management, construction and manufacture.

Therefore, a reasonable net zero reduction target from business activity could be a conservative 30% over a decade with a target saving of 23.7M.tCO₂e.

DRIVING NET ZERO ATTAINMENT

We have demonstrated through close examination of BEIS figures that business travel is the largest producer of CO₂ across all of its categories.

To business leaders attempting to quantify the best way of achieving net zero targets, virtual meetings offer one of the best solutions available.

Examining the BEIS figures, business travel and associated office requirements present the largest target for achieving net zero.

This claim is justified by a major 22% saving of 107.2 M.tCO₂e from a total of 488.94 M.tCO₂e achieved over a decade.

For most organisation this is the best and easiest method for attaining net zero.

Business leaders may use rich virtual meetings to reduce business travel coupled with motivational packages to save carbon and greenhouse gas, consequently increasing their chances of winning government business and avoiding an impending tax burden.