

Landmark report reveals hybrid working can reduce urban carbon emissions by a staggering 70% in the UK and up to 87% in the US

New research by IWG and Arup into work-related carbon emissions vividly demonstrates the environmental benefits of the hybrid model and how it offers the possibility of a cleaner, brighter future.

Six cities across the UK and US were examined for the report including London, Manchester and Glasgow, as well as Los Angeles, Atlanta and New York City.

IWG The Global
Workspace
Leader

In partnership with

ARUP

Introduction

By Mark Dixon, Founder and CEO, IWG

As recently as December 2022, scientists were highlighting the imminent risk that, even at the current 1°C level of global warming, at least five environmental ‘tipping points’ are likely to be passed – from the collapse of the Greenland and West Antarctic ice sheets to a massive die-off of tropical coral reefs.

According to Johan Rockstrom, co-chair of the Earth Commission and Director of the Potsdam Institute for Climate Impact Research, it looks set to get far worse. “The world is heading towards 2°C to 3°C of global warming,” he says. “To maintain liveable conditions on Earth, protect people from rising extremes and enable stable society, we must do everything possible to prevent crossing tipping points. Every tenth of a degree counts.”

Growth is clearly a priority for IWG, but we are determined only to expand as a carbon-neutral organisation. The action we have taken to restrict and offset IWG plc’s environmental impact is having the desired effect: our strong rating by MSCI was upgraded to AA and I am very pleased to say that we have this month achieved carbon neutrality.

In my view, there is a glimmer of hope. As world leaders grapple with the biggest issue facing the planet, there are growing indications that the fast-changing working habits of millions of people across the world mean the days could be numbered

for one of the greatest drivers of global emissions: the daily commute.

Little has done more over the years to depress, stress and irritate workers than this daily back-and-forth, affecting people in otherwise fantastic careers, in exceptional cities and with great employers. It distances families, dilutes communities, contaminates the environment and wastes vast amounts of time and money.

For many, the daily commute is entirely unnecessary, because the office is no longer a physical place that people have to go to every day. Today, two-thirds of workers in the USA can operate remotely. And 84% of UK workers who worked remotely during the pandemic said they planned to continue using hybrid working. Rather, the office has evolved as a space where people meet and collaborate when needed, whilst the cloud has grown as a digital office where data is saved and is accessible at any time, from anywhere.



While sophisticated web-based technology has been around for a few years, it is only since the pandemic that companies have seen first-hand that not only does hybrid work, but they are able to thrive under the model. Firms are able to operate more efficiently with a more productive workforce, while employees are happier, as they see hybrid working as the equivalent of a 7% to 8% pay rise.

This rapidly growing demand for hybrid working is propelling the IWG business forward as we seek to open up to 1,000 new locations over the next year. The demand to work locally is particularly strong in the suburbs, former dormitory towns, satellite villages and countryside communities that used to be denuded of their people in the working week by the irresistible draw of the big city. In parallel, many businesses are now typically opting for a fraction of their former conventional city-centre space in favour of sites closer to where their employees live and actually want to be.

Just look at the sites of some of our most recent openings. In the UK, take Gerrards Cross, Buckinghamshire (population 8,000); Marlow, also in Buckinghamshire (14,000); and Chippenham in Wiltshire (relatively large at 45,000). In the USA: Kodak, Tennessee (10,500); Destin, Florida (14,000); Bluffton, South Carolina (27,700); Middleton, Wisconsin (20,000); Ridgeland, Mississippi (24,000); and Stafford, Virginia (5,500).

That is not to say that businesses are abandoning city centres; far from it. Increasingly, we are helping companies shake off the expense of the long-term lease and replace it with a flexible, cost-effective agreement on a smaller space in one of our city-based centres. This, too, is a trend that is proving highly beneficial for IWG and, as a result, we will continue to expand across metropolitan, suburban and rural locations. Make no mistake, the

office is most definitely not dead; it has just changed location!

Hybrid working also gives businesses the flexibility to scale up or down quickly without being locked into lengthy contracts. And it is a 'no brainer' when it comes to profit, with an independent Global Workplace Analytics survey recently showing that hybrid working can save organisations an average of more than £9,000 per employee per year.

I'm delighted that we have partnered with Arup to conduct a first-of-its-kind research and analysis needed to quantify the hybrid model's true potential as a means of reducing work-related carbon emissions.

We wanted to answer this question: "What is the environmental impact, in terms of carbon emissions, of a hybrid working model with office workers reducing their commute to their city centre office and working more from home or a local workspace?"

The project's findings are in this white paper – and they hint at the immense power that's now in our grasp to radically reduce humanity's negative environmental impact. The headline result is that allowing people to work close to home, enabling them to split their time between home and a local workplace, has the potential to reduce a worker's work-related carbon emissions by over half – and as much as 70% in Los Angeles.

Anything that's capable of such dramatic positive change must be taken very seriously indeed.

Mark Dixon, Founder and CEO, IWG

THE ROAD TO NET ZERO

The world is in a race against time to meet crucial carbon goals.

At the United Nations Climate Change Conference in Paris in 2015, 195 countries set a target of keeping the rise in mean global temperature to below 2°C, and preferably to 1.5°C. To do this, emissions of planet-warming greenhouse gases need to be reduced as soon as possible, in order to reach Net Zero by the middle of this century. And to meet the 1.5°C target, they need to be cut by roughly 50% by 2030. The UN has described the transition to a Net Zero world as "one of the greatest challenges humankind has faced".

Of all the greenhouse gases, carbon dioxide is by far the greatest contributor to climate change. Since the beginnings of the Industrial Revolution in the 1800s, the concentration of CO₂ in the Earth's atmosphere has increased by 50%. This has come primarily as a result of the use of fossil fuels, which currently supply around 80% of the world's energy.

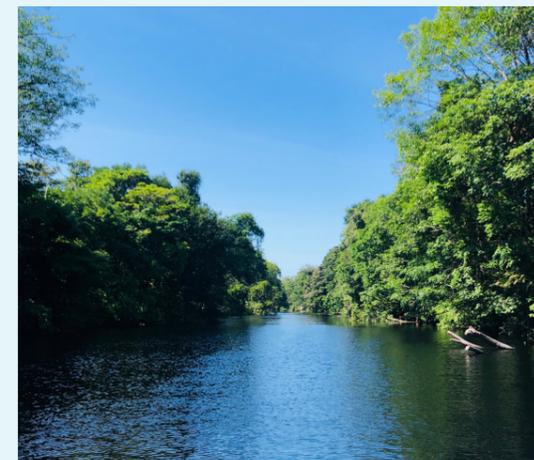
The road to Net Zero ultimately necessitates the replacement of polluting coal, gas and oil-fired power with energy from renewable sources such as wind or



solar. But before this can be achieved, it's important that both individuals and organisations do as much as they can to reduce their dependence on fossil fuels.

As well as altering our behaviours, we can also contribute to projects that aim to preserve the world's vital forests. Deforestation causes the release of greenhouse gases and is responsible for around 10% of global warming, according to the World Wide Fund for Nature.

IWG has partnered with leading forester Bio Assets to help protect the Amazon rainforest, and its initiatives include a project based on Marajó Island in the far north of Brazil. Its aim is to preserve around 86,000 hectares of forest while also supporting sustainable livelihoods among the local community. This has included the creation of a certified organic açai cooperative, the restoration of native tree species, and the promotion of courses on food production methods that prevent deforestation. The project has already reduced emissions by around one and a half million tonnes of CO₂ over the last ten years.



Calculating Carbon:

Background to the ARUP and IWG research

The specific emissions covered by the report were those arising from both commuting and energy use in workspaces. Research combined the use of Arup’s Transport Carbon Analysis Tool (T-CAT), which quantifies the CO₂ emissions related to transport, with an analysis of energy use and CO₂ emissions from different types of workspaces.

While looking at transport and buildings emissions in London and Los Angeles, the report also considered transport-related emissions in four other cities: New York, Atlanta, Glasgow and Manchester.

The report notes that in both the UK and the US, transport is the largest source of carbon emissions – higher than electricity production, manufacturing, or residential energy use. And personal vehicles generate the highest percentage. However, per capita transport emissions in the US are considerably higher than those in the UK, mainly due to people travelling further and using larger, less fuel-efficient vehicles. In all but a handful of cities in the US, the use of public transport is also lower than that in the UK.

Office buildings are a major consumer of electricity and gas in both countries. In the US, the greater range of climate zones causes a wider disparity of energy use across the country. Office buildings in the southern states of the US use far more electricity than gas, for example, as cooling is the main concern.

The report compared three types of workspace:

CITY CENTRE WORKSPACE

Located in a business district with good access to public transport. All energy usage relating to office consumption was considered, on a ‘per employee’ basis. This was based on a typical office utilisation rate of 65%.



Four different workspace scenarios were considered:



Traditional:

Five-day commuting to a city-centre office.



Home and HQ Hybrid:

A 50-50 split between home and a city-centre office.



Close to Home Hybrid:

A 50-50 split between home and a local flex space.



HQ, Local Flex Space and Home Hybrid:

A mix of all three locations, with half the time spent at a local flex space, 40% at home, and 10% in a city-centre office.

LOCAL FLEX SPACE

Located within a 15-minute cycle ride from home, and based on the typical characteristics of an IWG flex space. Energy usage is considered in the same way as for a city centre workspace, but in this case with a utilisation rate of 80%, based on IWG average figures.

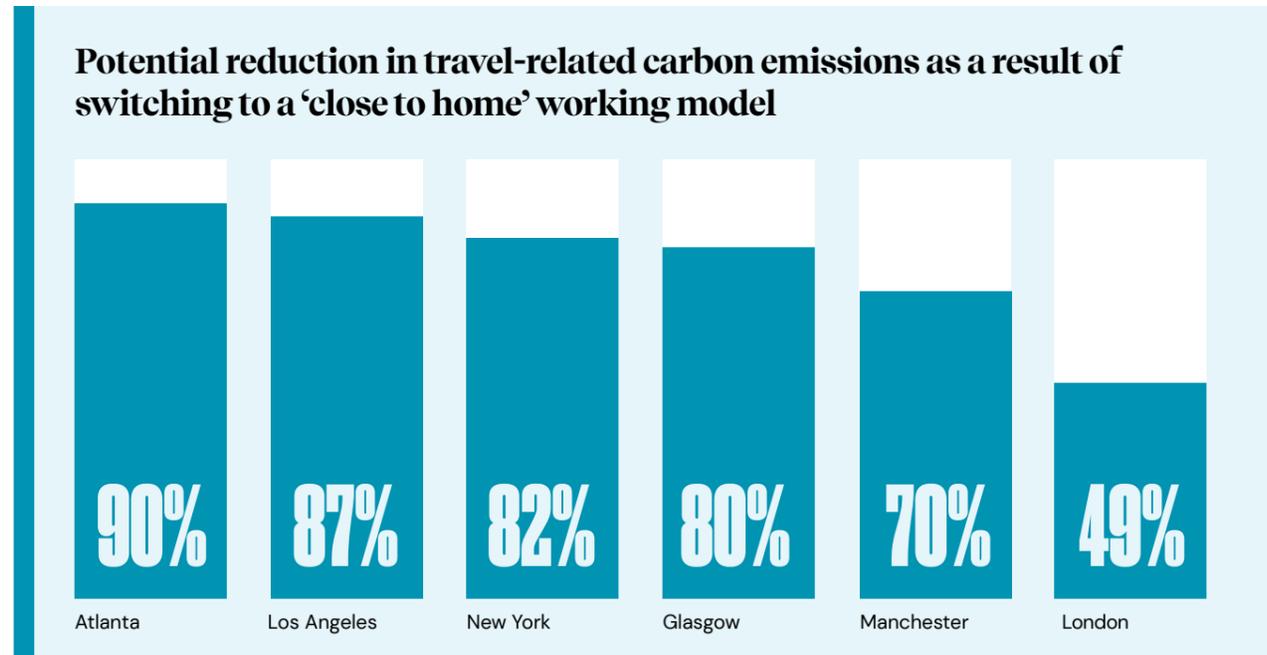
HOME

No transport-related emissions. Building emissions calculated by adding up the energy used by different sources that support working from home, such as power for laptops, lighting, heating and cooling, etc.

KEY FINDINGS:

A hybrid roadmap for a better world

All six cities covered in the research showed the potential for huge carbon savings through the widespread adoption of hybrid working. Traditional five-day commuting to a city-centre office was found to produce the largest carbon footprint, while the ‘close to home’ hybrid scenario, which combines home and a local flex space, was found to produce the least carbon emissions.



TRAVEL

When it comes to transport-related emissions, car use and distance travelled are the main factors. Therefore, in cities with a higher rate of car use, a change to working close to home has a proportionately greater effect on emissions. Cities in the US showed the largest potential carbon savings, because commuting by car tends to be far more prevalent. In Atlanta, the potential reduction was estimated to be a staggering 90%. However, in the UK the potential savings were also considerable: 80% in the case of Glasgow.

BUILDINGS

Occupancy is the biggest driver of the difference between building-related emissions in a city centre workspace compared to those in local flex spaces. The latter tend to have higher occupancy, therefore reducing the emissions per employee. This is a direct result of the rise in popularity of hybrid working, which leaves many central offices with considerable unused capacity, while utilisation rates for local workspaces are booming.

In Los Angeles, switching to working close to home was estimated to save 41% of building-related emissions compared with working five days a week at a city centre HQ. And in London, the ‘close to home’ scenario has the least associated building-related carbon emissions of all the models considered – 13% less than the five-day commuting scenario.

Overall, taking into account both transport- and building-related emissions, if a worker in Los Angeles stopped traditional five-day commuting into the city centre and instead worked close to home, their combined carbon footprint would decrease by

70%

A VISION

It's clear that a hybrid working model using local flex spaces brings a significant reduction in carbon emissions. However, this reduction could be even greater in future. The report proposes a roadmap using 'improved' variations of the 'close to home' and 'HQ, local workspace and home' scenarios, envisioning more sustainable modes of travel, and buildings that are designed to higher environmental standards.



IWG has already set out on this road. It has embarked on a major programme of expansion, with plans to open up to 1,000 new locations in the next year. "In the future, every community will have a local flex space allowing people to do their jobs close to where they live," says Mark Dixon. This will help to reduce the amount of carbon used in long commutes, and will also be more carbon-efficient in terms of workspace utilisation rates.

These spaces will also be designed with sustainability in mind: IWG has set stringent carbon targets for the fit-out of new openings. The group also works with its partners to drive procurement decisions towards low carbon products, sustainable raw materials and low-energy manufacturing processes. This includes

avoiding the use of materials with high carbon intensity and instead using locally sourced materials with high recycled content and innovative low-carbon materials. Many IWG locations already demonstrate ground-breaking green design (see page 8).

IWG also strives to mitigate the negative impact of work travel by measures such as its deal with carbon neutral electric car leasing company Tusker. It is also committed to expanding EV charge point availability at its centres, and providing showers and storage facilities for cyclists. In addition, colleagues around the world are leading numerous initiatives to reduce waste and promote recycling in its centres.

OF THE FUTURE



HYBRID: A MORE SUSTAINABLE WAY OF WORKING

The trend for dividing work time between a central office, a local flex space and home had already begun before the Covid-19 pandemic arrived, but today it's booming. At some point during the next five years, the proportion of professional employees embracing the hybrid model worldwide will pass 50%, meaning that for the first time in history, those working from a single location will be in the minority.

This is good news for both workers and the world we live in. The switch to hybrid working supports a number of the UN's Sustainable Development Goals for 2030, which the organisation describes as "a shared blueprint for peace and prosperity for people and the planet now and into the future".

Hybrid has a part to play in the following areas:

GOOD HEALTH AND WELLBEING

A recent IWG poll asked 2,000 office workers to name the leading employee benefit they would expect in a new role, and 88% cited the hybrid model. And for a large proportion of them, it was seen as far more than just a benefit: almost half said they would only consider roles that allowed them to work in a hybrid way. The reasons cited by workers who prefer the hybrid model include greater flexibility, leading to an improved work/life balance and the opportunity to spend more time with family and friends, and a reduction in the stress and expense brought by daily commuting.

GENDER EQUALITY

The flexible nature of hybrid working offers a future of more equal opportunities and a more equitable sharing of family responsibilities. A recent report in the UK found that the increased availability of flexible working following the pandemic has decreased the likelihood of women going part-time or leaving work altogether, helping them to stay in higher-paid jobs and more senior positions.

DECENT WORK AND ECONOMIC GROWTH

IWG's recent CFO Report found that more than four-fifths (82%) of financial leaders believe hybrid is a more affordable business model than one in which employees spend five days a week working at a central office. The money saved allows companies to focus more resources on growth. Technology giant Cisco says its shift to

hybrid working has saved the company in the region of US\$500m over five years, and it has invested these savings in new technology to facilitate the hybrid model. Research has also shown that increased productivity comes when workers choose to work when and where they're happiest and most effective. According to world-leading hybrid working expert Nicholas Bloom at Stanford, the hybrid model increases productivity by around 3% or 4% on average, which can make a significant difference.

SUSTAINABLE CITIES AND COMMUNITIES

Hybrid working revitalises communities and local economies, as people spend more time working at or close to home. Hybrid is a major factor in the growth of the 15-Minute City concept, in which shops, amenities and workspaces are all within a 15-minute walk or cycle ride from people's homes.

AFFORDABLE AND CLEAN ENERGY, AND CLIMATE ACTION

It's been shown that offices currently account for 40% of societal energy use, and that every unused desk creates a tonne of unnecessary CO₂ each year, equivalent to driving a car 6,000 miles. However, cutting down on the daily commute is the single biggest thing companies can do to reduce their carbon footprint. These two areas – buildings and transport – are examined in more detail in this white paper.

Leading the way in carbon-saving design

IWG's flex spaces around the world are raising the environmental bar.



Spaces Tullinløkka

Oslo, Norway

Located in the heart of Norway's capital, this Scandi-chic flex space is built from 80% recycled materials. That includes bits and pieces from 25 refurbished or demolished buildings across Oslo, including windows, wall tiles, and even benches from an old swimming pool. The use of reclaimed tiles alone saved 34,000kg of CO₂ in the construction project.



Spaces Gasperich

Luxembourg

Based in a carbon-neutral building certified as "outstanding" by sustainability rating scheme BREEAM, Spaces Gasperich used recycled materials widely during fit-out. HSBC, which occupies 75% of the space, has signed a ground-breaking 'green lease' to guarantee it will uphold the building's commitment to social and environmental sustainability – a first in Europe for the bank.



Signature Star Metals

Atlanta, USA

Two floors of the striking Star Metals Office Building in a "live-work-play" ecosystem in Atlanta's thriving West Midtown neighbourhood are home to a new Signature location. Nine of the building's 14 levels feature green roofs, covering a total space of 34,000 sq ft, which is good news for both users and pollinators. A special drainage system can capture and store more than 56,000 gallons of rainwater.



Regus One Welches

Welches, Barbados

One of the most energy-efficient commercial buildings on this Caribbean island, One Welches also features the largest solar carport and electric vehicle charging infrastructure in Barbados. It generates enough electricity to power a Nissan Leaf for more than two million kilometres of travel in a year. There's also a super-efficient, low waste aircon system and a sophisticated method for harvesting rainwater for outdoor irrigation.



Spaces Jubilee Place

Brisbane, Australia

In the Fortitude Valley district close to Brisbane's CBD, Jubilee Place mixes old and new – its modern cantilevered exoskeleton is designed around the 19th century Jubilee Hotel. It's gained a 6-star Green Star design rating thanks to its many environmental features, including green roof coverage, rainwater harvesting, solar power, and use of natural light.

Conclusion

The message is clear. Five-day commutes to city centre offices have the largest carbon footprint. Simply spending less time in or travelling to a city centre drives a drop in emissions from buildings and vehicles alike. The higher a city's car usage, the greater will be the immediate positive impact of the shift to home-based and local working.

"This research clearly shows that changing our behaviour is key to achieving our carbon targets," says Matthew Dillon, Director of City Economics and Planning at Arup.

But shifting long-held patterns of behaviour takes time, and Mark Dixon believes that in order to prompt a change in mindset, governments and local authorities must continue to develop policies that help companies to expand hybrid working and invest in the required relevant infrastructure to support them.

"We need to create integrated approaches that leverage better, more sustainable transport networks," he says. "We must have more joined-up thinking when it comes to transport planning and land usage, the development of safe cycling networks, better public transport connectivity, faster adoption of electric

vehicles, the accelerated production of renewable energy, retrofits of existing premises and better energy-performance for new buildings."

It's up to governments, businesses and public policy-setting bodies everywhere to consider the implications of these findings for the future of urban areas and working patterns, Dixon believes. That means developing policies that empower individuals and businesses to make a positive difference every day, and working together to create and deliver integrated strategies with hybrid working at their heart to reduce work-related carbon emissions in cities across the world.

"The single biggest change we can all make is to provide people with the choice to work closer to where they need to be, and with lower impact on the environment," says Dixon. "And that's down to all of us."



We help more than eight million people work the hybrid way in thousands of locations worldwide. Find out more about what we do today at iwgple.com.

Read the full report from IWG and Arup here:
[The Future of Work: A cleaner, hybrid future.](#)