



## UK-GBC WELLBEING LAB: OFFICES

*A compendium of experience*

# FOREWORD

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“ Over the last few years, the property sector has experienced a booming interest in health and wellbeing in the workplace, and its link to productivity. This is partly due to emerging technologies such as wearables and sensors, that enable people to understand first-hand the effect their local environment has on their health.

But it is also the result of a growing body of evidence – much of which has been collated by UK-GBC and WorldGBC – linking high quality sustainable building design with the health, wellbeing and productivity of building users and visitors. As a result, forward thinking companies are recognising the need to provide the best working environment to attract and retain the best talent, and strengthen their employer brand. However, tackling these issues can be challenging: few organisations currently have the technology, skills or structure in-house to measure and improve the health and sustainability of their workplace.

In response, in September 2016 UK-GBC built on its pioneering work in this area by launching a first-of-a-kind ‘Wellbeing Lab’, aimed at driving and supporting action in the sector. 11 project teams, whose participants span the breadth of the built environment sector, were welcomed onto the programme, each showing commitment to UK-GBC’s goal of transforming the way we think about, design and manage our working spaces.

In subsequent months, it has been inspiring to see the teams feeling empowered, and even excited, by what they’ve discovered and learnt. Sharing their experiences throughout, they found positive things to celebrate and many opportunities for improvement within their organisations. Anecdotally, all of these teams have fed back that they found the programme constructive, and a good use of their time.

This document provides a compendium of their wide-ranging experiences. It spans the spectrum from highly technical issues (concerned with monitoring equipment and data) all the way through to the deeply personal (occupant preferences and personalities).

I’m delighted that UK-GBC has been able to convene a safe forum for these learnings to be shared. We remain committed to accelerating the sustainability journey of all our member businesses by building networks and knowledge-sharing. This Wellbeing Lab has done just that, and I look forward to continuing to support our members and the wider industry in delivering more sustainable workplaces.



*Julie Hirigoyen, CEO, UK Green Building Council*

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# INTRODUCTION

## What was the Wellbeing Lab?

The Wellbeing Lab was a seven month knowledge exchange programme designed to guide its participants through the measurement and implementation of best practice health, wellbeing, and productivity principles, using a rigorous framework. Small 'teams' composed of combinations of sustainability executives, HR professionals, office managers, and landlord representatives brought projects to the programme. Through this structured 'ideas and action' forum, they used their own premises to see for themselves how these ideas play out in practice.

The participants were introduced to the key issues which impact on occupant health and comfort, and how to use the WorldGBC's Offices Framework (explained later in this report) to measure their impact within their own workforces. They then worked through the process within their own organisations. Over the seven months, they came to regular workshop check ins, where they had advice from experts and industry leaders, and openly discussed their progress, and any barriers or frustrations they faced, with their peers.

## Why did teams participate in the Wellbeing Lab?

First and foremost, all the teams shared a desire to stay ahead of the curve and show their leadership in this area of growing importance: they see this as the beginning of a market shift towards buildings which are good for both occupants and environment. As such, they need to prepare themselves that by building capacity and expertise in order to provide advice and services related to human health in the built environment.

It was also clear to us that all the participants felt a need to connect with other individuals and organisations also exploring the arena of health and wellbeing. While they are all proud to be trailblazers, there remains a need to be part of something bigger.

On a more inward looking basis, there seemed to be a couple of common drivers: firstly, a wish to invest in their own people, and ensure that their own organisations continue to be able to attract and retain the best talent. Additionally, they wish to 'practice what they preach', to add credibility to their interactions with future clients.

More specifically, many of the teams wished to explore ways we can improve our existing stock. It is arguably 'easy' to build a healthy new building, but the majority of workplaces in the UK already exist. Understanding how we can optimise these spaces via low cost intervention, and what issues should be considered when refurbishing space, will be highly valuable over the coming years.

## Wellbeing Labs: project timeline\*

\*In between the four face to face workshop sessions described below, the teams went away to collect and analyse data, and work on engaging their organisations on the topics at hand.

SEPTEMBER  
2016

Full-day kick-off workshop:

- Introduction to WorldGBC Framework
- Previous experience
- Industry experts including WELL, Leesman and Arup

OCTOBER  
2016

Half-day workshop:

- Cundall office tour
- Industry experts - LCMB and Innovate UK
- Open discussion on experience so far

JANUARY  
2017

Half-day workshop:

- Open discussion, focus on monitoring
- Discussion of teams' findings
- Communicating lessons learned

MARCH  
2017

Half-day workshop:

- Final results discussion
- Team conclusions
- Project findings

APRIL  
2017

Presentation and celebration of success at UK-GBC launch event





## HEALTH, WELLBEING & PRODUCTIVITY: THE FUNDAMENTALS

In 2014, WorldGBC, supported by UK-GBC, produced a landmark report on the topic of Health, Wellbeing and Productivity in offices.

We came to understand more about the impact the physical office environment has on staff health and wellbeing, and that very often, there are synergies between design for human health and design for positive environmental impact. For example, maximising the use of daylight in buildings is a clear win in terms of energy use, but also has a very strong positive impact on people's health: we rely on it to regulate our circadian rhythms, and therefore keep us awake, alert, and happy.

In due course we coined the '90% rule': staff costs are approximately 90% of business running costs, people spend around 90% of their time in buildings, and 90% of business leaders are changing their approach to wellbeing in response to changing expectations.

We have also seen this agenda being driven from the bottom up: the advent of wearable technology, the internet of things, and smartphones means individuals are increasingly able to measure their own health in a multitude of ways. Looking to the future, the combination of this empowerment of people with the rapid improvement in environmental sensors is likely to mean that increasingly, employees will be actively considering their workplace's impact on their own health.

Other factors that have influence on both human health and environmental sustainability include:



**Air quality:** by using natural materials and adding plants, internal pollutants such as CO<sub>2</sub> are reduced, meaning reduced need for ventilation, thereby reducing energy use



**Views:** a view of the outside improves access to daylight, reducing lighting loads, whilst also having a positive psychological impact



**Location and amenities:** attractive public realm and shower facilities encourage active transport, which reduces building associated transport emissions



**Thermal comfort:** giving people some control over their environment helps them become more comfortable, while reducing seasonal heat/cool loads



**Office layout:** visible stairs and flexible spaces encourage social interaction and walking between floors, reducing energy associated with lift use



**Nature:** plants help improve internal air quality, but also have a positive psychological impact



## Recap on the WorldGBC Health, Wellbeing & Productivity Framework

When we started work on health, wellbeing and productivity in 2014, we realised that what the industry really needed was a way to measure the impact of building design on their organisation. We recognised that one of the major drivers for interest in this area is the economic impact of staff health: how much time lost to illness is avoidable? Can staff turnover be related to quality of workplace?

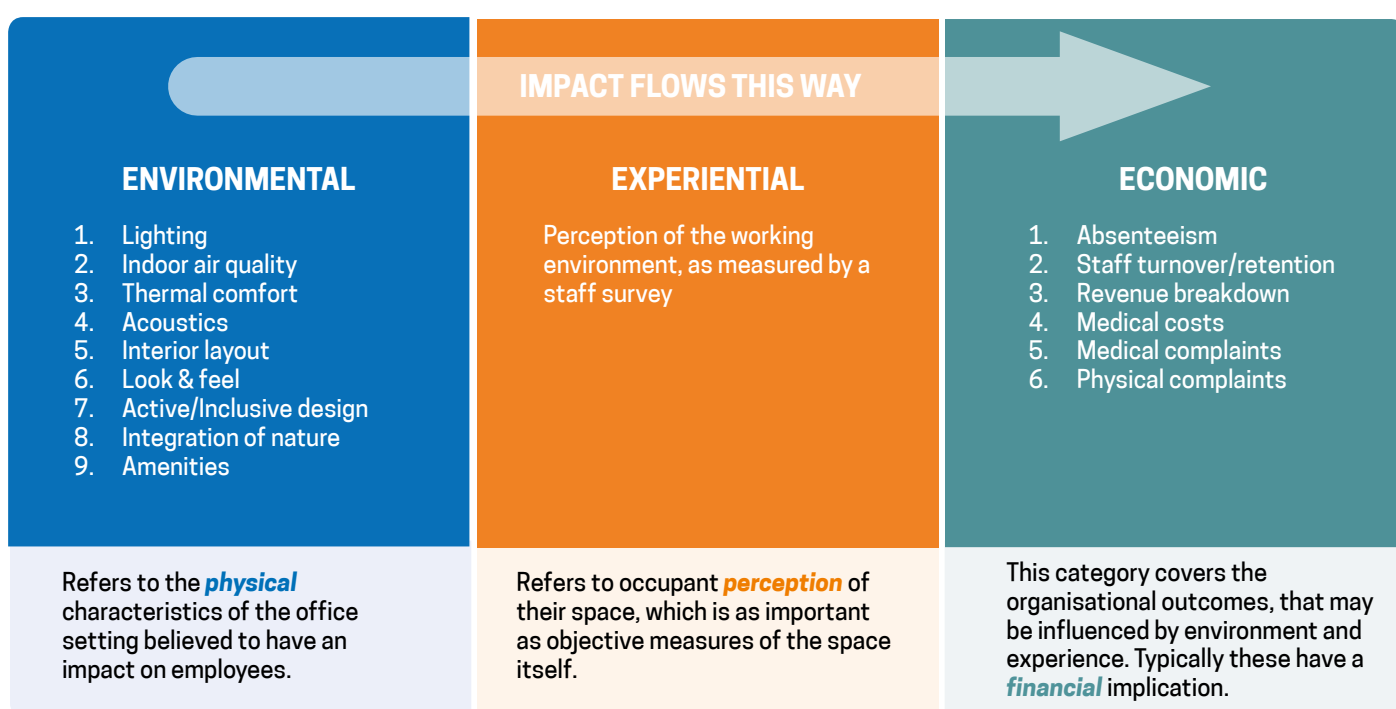
We understood that to begin to answer these questions, we needed a three pronged approach. The WorldGBC Offices Framework, shown below, sets out how to measure objective environmental conditions; subjective occupant perception; and objective HR data.

Surveying staff provides valuable direct feedback on how

they perceive their space, which can be as important as objective measures of the space itself, while economic (or HR) measures cover the organisational and financial outcomes that may be influenced by environment and experience.

The strength of this approach is that it brings together evidence from previously siloed approaches: facilities management, with their knowledge of environmental factors; HR, who can help interpret people's day to day experience of their space (perhaps the most important part of the story); and management, with a high level understanding of the way their spaces perform.

The Wellbeing Lab process was designed to help participants understand the impact of their building on their organisation, and using the Framework as a guide.







## KEY INSIGHTS

All the project teams had different experiences over the course of the programme, as they examined their spaces and organisations, and responded with appropriate interventions. However, there were a number of themes that came through strongly across the board, described below.

### 1. Monitoring is more difficult than it should be

Most of our participants found air quality monitoring highly challenging. Firstly, there is a huge variety of options available, which makes it hard for a non expert to make a decision. Procuring the equipment can be difficult: the UK market is still very immature, particularly for commercial grade equipment. Many participants also faced time consuming difficulties integrating their monitors with existing IT systems. Finally, BMS systems should have the functionality to monitor IAQ, but even where they do, that data is usually lost, misunderstood, or unintelligible.

### 2. Some interventions are simple and easy

We canvassed our teams on the 'quick wins' they have already made as a result of the programme, they suggested:

- Fix annoying broken things
- Give information on existing related provisions
- Put more plants in your space
- Open the windows in the afternoon
- Reduce clutter
- Switch to eco-friendly cleaning products
- Provide fruit
- Zone your space to allow for quiet spaces and collaborative spaces
- Add artwork to bland areas
- Use WELL gap analysis to inform further improvements

### 3. Perception surveys are of real value

Almost all organisations found perception surveys to be the easiest part of the Framework to carry out. All of them agreed, however, that it is vital to act on surveys in order to maintain staff engagement – responding quickly to their needs builds trust, whereas ignoring survey responses leads to 'survey fatigue' and frustration. Focus groups and education further engage staff, and can result in unexpected insights into their needs.

### 4. People understand health and wellbeing intuitively

In general, most occupiers have little or no say over their working environment. This means that as soon as they feel even the smallest sense of ownership or empowerment, they respond positively. When this is within the context of their employer caring about their health and wellbeing, staff recognise the immediate, personal gain. You don't have to be an 'expert' to understand the issues at stake: everybody wants to be healthier and happier.

### 5. It's not a fixed duration process

All the teams agreed that improving health, wellbeing and productivity in their spaces is not a linear process with a start, a middle, and an end: it's an ongoing commitment, which requires continuous revisiting and improvement.



## 6. Environmental data is important – but don't get too hung up on it

A lot of time was spent on environmental monitoring, but the group agreed that this data is most useful when it helps people articulate their experience: perception is an essential component of wellbeing. To get an accurate picture of a building's environmental performance, you need to monitor across seasons, and properly analysing environmental data takes time and expertise, with different metrics being more relevant for different spaces. Looking at the two data types together smooths this process.

## 7. You can't go it alone

It is vital to bring together previously siloed groups, including HR, FM, health and safety, and management, to maximise chances of good outcomes. The issues highlighted in the Framework cut across the whole executive team, and the best results come with leadership support, which adds credibility and clout to the process. The most successful teams on the programme had all brought together these cross cutting teams, but doing so appeared to be easier for smaller organisations.

## 8. Investing in your own staff is a win-win

Many organisations in the group seemed to spend less time, money, and effort on their own spaces and staff than those that they design or service. There was a dawning

realisation during the programme that actually, investing in your own staff is powerful not only in terms of their increased health and productivity, but also in terms of the offer you can make to the market.

## 9. The market has a long way to go

It is very clear that the whole industry has a long way to go in terms of truly understanding and addressing this issue. From the lack of knowledge on an individual basis, to the difficult in procuring 'kit', to the need for early consideration of these issues during design, we all have a lot to learn.

## 10. People focus on the more easily quantifiable aspects

Very few of our teams considered the physical factors beyond the 'measurable'. Issues such as layout, look & feel, and amenities all have a significant impact on staff wellbeing and health, but are harder to assign a numerical value to, meaning they are often left out of studies.

However, this need not be the case. Even a reasonably 'rough' subjective judgement (poor, average, good etc) can be helpful and should not be overlooked.





## KEY FACTS



<b>Project Team</b>	Forbo Flooring UK Ltd
<b>Business type</b>	Product manufacturer
<b>Building Location</b>	Kirkcaldy, Scotland
<b>no. of occupants</b>	20
<b>Floor area (m²)</b>	250
<b>Type</b>	Owner occupier
<b>Status</b>	Approaching refurbishment

Our products sit within buildings, and so have an impact on the health and wellbeing of occupiers. The program therefore had benefits not only in terms of the spaces our staff occupy, but also in those spaces that use our products.

Through our participation we learned:

- Obtaining the IEQ monitor was no problem – getting it to communicate another story.
- Having senior management on board is a must, but putting together the right project team was central to delivering a successful project. We recommend ensuring you have the right skills in the group – HR / H&S / Design / Office - and including people who work in the space.
- Running a briefing session to explain the Framework process and people's role within it was invaluable. Communicating with staff and not simply relying on a "cold" questionnaire helped us to manage expectations, and taking time to talk to people helped enormously.
- Health and wellbeing should not be viewed as a linear process with a start, middle, and end. It is a continuous process, focussed on delivering positive experiences to stakeholders.



Forbo's efforts to really engage with their staff resulted in an **80%** response rate to their survey

**Health and wellbeing should not be viewed as a linear process with a start, middle and end.**

Using the Framework approach generated internal interest, with other departments now keen to try it. This has put the type of indoor environment we provide for employees on the agenda, with a greater recognition of its impact on future recruitment and retention of people. The process dovetails with what we are trying to achieve via our social accountability and Committed to The Health of One programs – which take this to a wider audience.





## KEY FACTS



<b>Project Team</b>	Max Fordham LLP
<b>Business type</b>	Consulting engineers
<b>Building Location</b>	Central London
<b>no. of occupants</b>	150
<b>Floor area (m<sup>2</sup>)</b>	1500
<b>Type</b>	Tenant
<b>Status</b>	Undergoing refurbishment

Before participating in the Lab, we had already implemented a number of relevant initiatives. We had various pieces of environmental monitoring equipment around the London office and had conducted a wellbeing survey in all our offices. The Lab was a way for us to tie these strands together.

It also catalysed creation of an informal group which now meets on monthly basis to discuss ideas for health and wellbeing initiatives in the office. This group contains the practice's commercial director, the head of HR, the Sustainability team leader and a number of interested engineers and consultants.

We learned from our work on the Lab that:

- The initial focus of the Lab was on the improvement of the physical infrastructure, and as environmental designers we think that this is important. But talking to other participants made us realise that our governance structure removes many hurdles to investment in better workplaces by inherently engaging with staff.

- Collecting physical data on the environment is useful, but becomes much more useful when it can help people articulate their experience more clearly. This only works if people have an element of control in their workplace. If they don't, it might make them feel worse.
- Having a forum such as the Lab to discuss shared issues with a diverse group of organisations (consultants, architects, contractors, institutional investors and manufacturers) is great.

Our next step is to bring together our in-house expertise in a structured way so we can help other people with their workplaces. We plan to develop a detailed Wellbeing Policy to clarify the practice's approach to improving our partners' and employees' physical and mental health.

**It catalysed creation of an informal group which now meets on a monthly basis to discuss ideas for health and wellbeing initiatives.**



## The Role of Governance in Health and Wellbeing



**Henry Pelly and Henry Pipe, Max Fordham LLP**

As Building Services engineers, providing user control is important to the work we do. Giving people the feeling that they can move seats, adjust their heating or open a window makes people feel more comfortable. This user control is more important than getting the temperature absolutely right. Design is only part of the story. Building users need to be given freedom to use this control. That might be as straightforward as a flexible dress code that allows people to wear a jumper in winter and a t-shirt in summer.

At Max Fordham we've taken this further. As an employee-owned business we've given people authority to control how they work. This extends to control of work methods, working hours, and the work they do. They also have a say in the direction and focus of the business. This control is important but we're careful that we don't force people to be so free from structure that they are stressed about the expectations on them. Sometimes that is a difficult balance to get right. Mutual support and idea-sharing is an important component to making it work. As shared owners of a business it really pays to pool your thoughts and insights with your colleagues.

If you think about any activity you love doing, it will probably have three key components. You have control over how and when you do it, you will be good (or getting better) at it, and you will get a sense of companionship from it. We think that in addition to designing a great workspace, these are the ingredients for workplace wellbeing.



## KEY FACTS



<b>Project Team</b>	David Morley Architects
<b>Business type</b>	Architects
<b>Building Location</b>	Central London
<b>no. of occupants</b>	62
<b>Floor area (m<sup>2</sup>)</b>	402
<b>Type</b>	Tenant
<b>Status</b>	Fine tuning

Our team were very passionate about this topic, so we were easily able to create an 'office environment committee'. The excellent response to our survey allowed us to quickly highlight some priorities. For example, a need for a variety of working spaces, enhanced temperature control, improved air quality and lighting.

As part of our participation in the Lab we:

- Invested in indoor environmental quality monitors to measure air quality, which highlighted that CO<sub>2</sub> levels tend to peak at around 2pm. We now encourage the opening of windows, particularly in the afternoon to keep us alert.
- Introduced low-cost easy wins, such as Peace Lilies, known for their air cleaning qualities, and using Lechuza self-watering planting systems, to minimise the need for maintenance.
- Re-thought the way that we use the limited space we have and have made some positive steps in creating new types of workspaces to reduce time spent at individual desks.

Moving forward we plan to:

- Conduct a wellbeing perception survey bi-annually to sense-check whether insights vary across different seasons and to monitor changes in employee satisfaction levels.
- Continue to collate HR metrics, in the hope of noting improvements in the health of the team, in relation to sickness absence, as well as retention and attraction.

The experience taught us that it is vital for HR, facilities and finance departments to converse openly to ensure their respective objectives align, and that mutually beneficial (and realistic) targets are set.



DMA communications with staff resulted in an excellent **85%** response rate to their survey.



## The Office Manager's viewpoint



**Kate Hase, David Morley Architects**

When implementing a Wellbeing strategy in any organisation, it is vital to have support from the leadership team, as well as HR, Facilities and Finance departments, as they all hold important data and knowledge that are key to moving the agenda forwards. Ultimately, their respective objectives should align to continually improve the business, and we are quickly realising that focusing on improving the wellbeing of your team is a vital component in this.

Although most organisations have access to HR data, such as sickness absence and staff turnover, many will find difficulty in showing correlation between investment in wellbeing and improvements in staff health, retention rates, and the associated financial gains. This may be due to the complexity in understanding emotional indicators, such as tiredness, happiness and stress, which manifest themselves very differently across personalities. Therefore, the employee voice is an invaluable, and free, source of real-time information that all employers must tap in to.

There will always be further investments leaders could make. However, small, inexpensive incremental changes, like rearranging furniture, introducing greenery or simply decluttering a work space, whilst encouraging employee participation throughout the process, help teams feel empowered and more engaged with their organisation.





## KEY FACTS



<b>Project Team</b>	Workspace Group Ltd & JLL
<b>Business type</b>	Landlord & consultants
<b>Building Location</b>	Central London
<b>no. of occupants</b>	105
<b>Floor area (m<sup>2</sup>)</b>	1308
<b>Type</b>	Owner occupier
<b>Status</b>	Recently refurbished

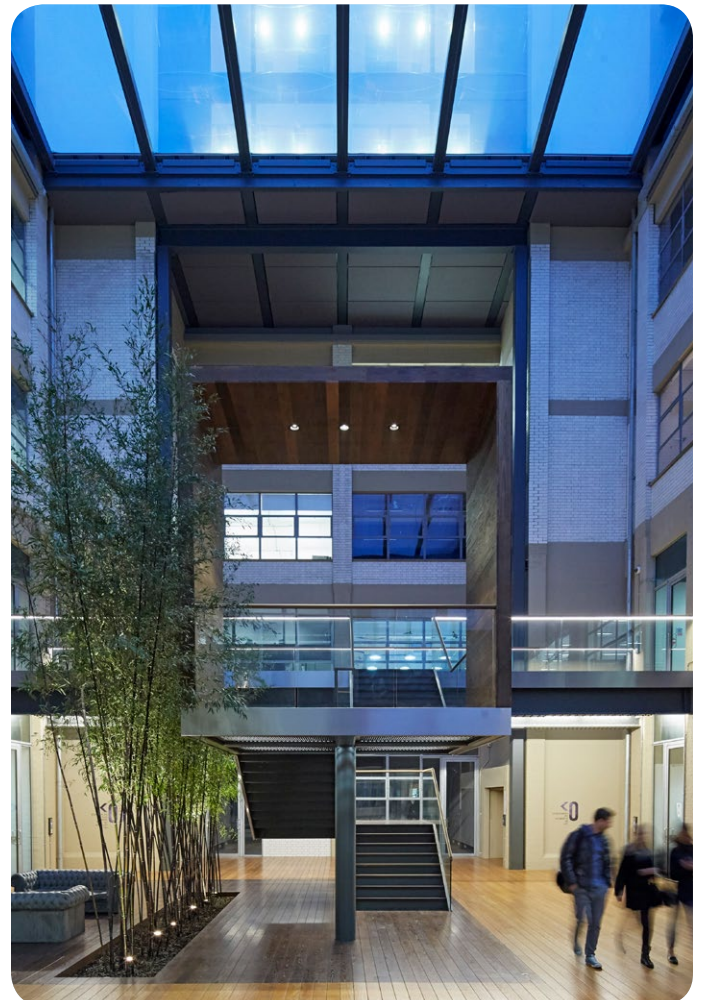
The Lab came at a good time for us as Workspace had recently moved into a newly refurbished Head Office. IEQ testing provided useful objective data, while the wellbeing survey results showed that generally staff were very happy with the new space, particularly the variety of available work spaces, the onsite gym and the office design. The Lab also enabled the project team to explore what we can feed into the developments, refurbishments and managed sites in the wider Workspace portfolio.

The practical quick wins in response to the results from both the Wellbeing Survey and the IEQ Assessment were:

- Installing blinds to reduce screen glare and solar heat gain
- Investing in more video conferencing facilities
- Hanging artwork to improve the look and feel of the office
- Adjusting Air Handling Unit controls and cleaning ductwork to improve thermal comfort
- Introducing more plants for visual impact and to reduce CO<sub>2</sub> levels.

Moving forward:

- We intend to trial real-time IEQ sensors in the Workspace Head Office to explore how this information can be used along with other data sources such as presence data, through Internet of Things (IoT) to enhance customer experience, improve operations and maximise the use of space
- Once we understand better how the buildings in the portfolio are performing against best practice, we can educate the Marketing and Lettings Teams so that they can communicate this information to their stakeholders.



Head Quarters atrium © Workspace Group

“At Workspace, technology is a significant driver for the wellbeing agenda, offering flexible working locations within and outside the business environment.”  
**Jamie Hopkins, CEO, Workspace**



**96%** of staff felt the design of the office had a positive impact on Workspace's corporate image.



## KEY FACTS



<b>Project Team</b>	Skanska UK
<b>Business type</b>	Contractor
<b>Building Location</b>	Bentley, South Yorkshire
<b>no. of occupants</b>	115
<b>Floor area (m²)</b>	1800
<b>Type</b>	Owner occupier
<b>Status</b>	Recently occupied

We clearly see the links between health and wellbeing of occupants in commercial buildings, green design and construction practices, and enhanced returns on high quality investments. We learned many things from the Lab process, but the three main things are:

- There are a number of complexities in the way that HR data is collected and reported in different companies.
- IEQ monitoring options are vast and sometimes difficult to understand.
- Health and wellbeing in buildings is something that most people intuitively relate to in some way. However, the development of metrics provides better understanding of how these relationships work and interact, and therefore helps demonstrate the return on investment.

We also found:

- Occupant perception surveys are quick and easy to implement, and have provided a good picture of how people receive our building.

- Comparing survey results with HR data has revealed a strong correlation between building perception (and environmental) ratings and absence due to certain sickness causes.
- The support of leadership is critical to the sourcing of relevant HR data, and can take some time to get right, however the outcomes to date show that this is worthwhile.

We have now set up a reporting protocol for absence by cause on a building by building basis, to ensure we capture the relevant HR metrics. This took several attempts to get right, however now that it is in place it is easy to maintain and review.

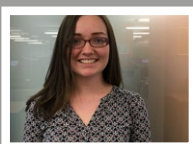
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## The Future of Monitors



**Eleanor Stewart,  
Skanska**

Monitoring Indoor Environmental Quality (IEQ) is just one part of assessing and improving wellbeing in the built environment. Experience shared during the Wellbeing Lab highlighted issues with the availability, suitability and complexity of commercial monitoring systems, but it is a fast evolving area. We see its future becoming increasingly interactive, mobile and targeted: we expect increased availability of IEQ monitors suitable for offices, and hope this is just the beginning.

Going forward, there is a need for monitors to interact with existing systems in buildings to react to the data they are recording. Crucially, monitoring systems need to become increasingly interactive so people can feed in their experiences at the same time as collecting IEQ data. Wearable and portable monitors may begin to play a larger part in addition to static monitors. This will quickly lead to enormous datasets that organisations and individuals can utilise.

There are challenges to face around data security, interpretation and communication of this data, and monitoring platforms must continue to adapt to meet these challenges. This may include live indicators embedded within the built environment, such as indicator lights representing IEQ parameters, or more interactive web platforms where data collectors can choose to share data.





# BUROHAPPOLD & THE UNIVERSITY OF BATH

## KEY FACTS



<b>Project Team</b>	BuroHappold & the University of Bath
<b>Business type</b>	Consultants & academics
<b>Building Location</b>	Bath
<b>no. of occupants</b>	450
<b>Floor area (m<sup>2</sup>)</b>	3980
<b>Type</b>	Tenant
<b>Status</b>	Fine tuning

We at BuroHappold and the University of Bath used the 'WHOLE' project as the subject of our Wellbeing Lab participation. WHOLE, "Wellbeing and Health in Offices: a Longitudinal Experiment", is an innovative longitudinal study of health and wellbeing in BuroHappold's headquarters in Bath.

The study uses highly stable and accurate, low-cost environmental sensors developed by the university and a new commercial IAQ sensor developed in Norway. In addition, a bespoke smartphone survey app was developed to provide a simple way for participants to provide repeated answers to our key measurement metrics.

We learned the following:

- Measured IAQ was found to decrease significantly during the winter months due to the reduced opening of windows.
- There is correlation between occupant satisfaction levels and the measured IAQ and temperatures.
- Developing a survey app for smartphones was more complicated than we anticipated.
- Expensive commercial sensors may not yield greater accuracy than less complicated and/or expensive devices.
- Our experience suggests that both low and high budget approaches can deliver beneficial outcomes, but success always requires dedicated personnel time.

We are developing a list of possible interventions and will implement a selection of these during the remainder of the study. We will soon expand our pilot study to three other office areas within our building, each of which is physically different. This workplace diversity will allow us to correlate and compare quantitative metrics such as absenteeism and qualitative aspects such as view towards the river, access to daylight and control over the indoor environment.

## Working with academia



**Anthony Davies**  
(BuroHappold) and **Dr Sukumar Natarajan**  
(University of Bath)

Collaboration between academic institutions and industry is essential for unlocking the true value of research. To access funding, Universities are now often required to produce an 'impact' statement, describing how research will impact society and how that will be measured. Additionally, industry needs access to the latest equipment, research and understanding of human health and wellbeing which exists in academia to stay competitive, and be able to provide services that add value to clients, their assets and people.

For us, the WHOLE study, a partnership between BuroHappold and the University of Bath, is an example of the way industry and academia can work together to rapidly deliver increased impact. Combining industrial expertise of engineers, HR, finance and facilities management professionals with cross disciplinary academic researchers, provides the opportunity to test equipment and approaches developed in academia in a real office environment.

The results of our study can be used to immediately improve the office environments that are being assessed to support health, wellbeing and productivity. Collaborations such as ours provide hands on experience of how these innovative sensors, apps and approaches can be applied on projects across the built environment. This symbiotic relationship rapidly reduces the lag time between undertaking the research and the delivery of innovative approaches, effectively bridging the gap between academic work and its eventual industrial application.



## KEY FACTS



<b>Project Team</b>	Greengage Environmental Ltd
<b>Business type</b>	Consultants
<b>Building Location</b>	Central London
<b>no. of occupants</b>	25
<b>Floor area (m²)</b>	200
<b>Type</b>	Tenant - shared office
<b>Status</b>	Fine tuning

We were in a unique position to explore how to best implement the framework in a smaller shared office space. Observations from the Lab will inform the decision-making process of deciding on a new physical environment in a potential office expansion.

We conducted physical data monitoring, including air quality and temperature. This showed that:

- Overall our air quality was very good.
- We did detect that there was a cycle, as air quality tended to deteriorate around mid-day. This is consistent with measurements of other offices.
- This pattern should be considered when planning workflow and FM management.

We also conducted a wellbeing survey, which showed overall satisfaction with the office space, but raised

concerns that should be further investigated. For example, the provision of more private meeting spaces, and control of heat and lighting. We are going to bring this agenda forward by:

- Organising a targeted workshop with our employees to share the survey and monitoring results, giving employees the opportunity to discuss and actively shape potential actions to improve wellbeing in the office.
- Developing a system to collect organisational data more effectively, and implementing a cyclical process of perceptual data collection with a follow up survey.
- Continue environmental monitoring.



## KEY FACTS



<b>Project Team</b>	Carbon Credentials
<b>Business type</b>	Consultants
<b>Building Location</b>	Central London
<b>no. of occupants</b>	52
<b>Floor area (m²)</b>	500
<b>Type</b>	Tenant
<b>Status</b>	Fine tuning

The Wellbeing Lab began for us with a 60 question perception survey, which provided a baseline analysis to define which projects were important. It was also instrumental in the business case: by playing back actual perceptions, we achieved buy-in from executive leadership.

Staff have found wellbeing data particularly interesting, from a personal perspective



Our key findings from the programme include:

- A lunchtime workshop sharing the outcomes of the survey and discussing wellbeing with our staff resulted in many 'quick wins': for example, explaining decisions made during the fit out to improve look and feel, and air quality, which staff were unaware of.
- The acoustic drawbacks of a highly collaborative environment, and how that might affect team-members who were seeking to focus and concentrate. We have now appointed an acoustic consultant to help us improve this.

We've used the Wellbeing Lab experience to investigate different types of sensors to improve our office and enhance our service offering to clients. Staff have found wellbeing data particularly interesting, from a personal perspective, so this has been very useful for engaging them.



**75%** of staff participated in the survey



## KEY FACTS



<b>Project Team</b>	Standard Life Investments
<b>Business type</b>	Investor / landlord
<b>Building Location</b>	Edinburgh
<b>no. of occupants</b>	800
<b>Floor area (m<sup>2</sup>)</b>	9892
<b>Type</b>	Landlord and tenant
<b>Status</b>	Approaching refurbishment

We decided to participate in the Lab with a building in which we are both tenant and landlord and which is about to undergo significant refurbishment. The refurbishment is at the early stages of design and forms part of a wider project to create a connected company campus. With a new office building due to complete in summer 2017 with some staff moving and others not, it is important that the refurbished space provides a similar quality of workplace.

As part of the Lab we:

- Collated HR data on staff turnover, absenteeism and occupancy.
- Monitored indoor air quality and noise and compared these with best practice benchmarks.
- Undertook a Leesman survey of all staff involved in the campus project.

- Conducted a WELL Building Standard gap analysis for both buildings.

Once the gap analysis is complete we will decide whether to pursue full WELL certification for the buildings. Initial findings from the analysis suggest that it is equally possible for our refurbishment project to perform well as it is for the new development.

Outputs from the acoustic monitoring and the Leesman surveys have strengthened the case for break-out spaces and task-specific zoning in the fit-outs which were already designed in.

The learning from this exercise is providing valuable contributions to how we consider health, wellbeing and productivity across our investment portfolio. We are now actively including recommendations in fit-out guides in order to help tenants maximise the health and wellbeing of their staff and the effectiveness of their space.



# ARUP & THE CROWN ESTATE

## KEY FACTS

<b>Project Team</b>	Arup & The Crown Estate
<b>Business type</b>	Consultants & landlord
<b>Building Location</b>	Central London
<b>no. of occupants</b>	100
<b>Floor area (m<sup>2</sup>)</b>	1394
<b>Type</b>	Landlord and consultant, working with tenant
<b>Status</b>	Fine tuning

From a landlord's perspective, we learned 5 major lessons from our participation in the Wellbeing Lab:

- Customers (occupiers) have an interest in understanding how the built environment can influence the health and wellbeing of their employees. There is an opportunity as a landlord to engage with interested occupiers in maximising their ability to optimise health and wellbeing within their occupied spaces.
- Data analysis using the Framework takes a significant amount of time.
- Combining survey and/or interview responses with data from monitors is a holistic way of understanding the issues at hand, where objective physical measurements correlate with subjective occupant feedback. In our work, higher CO<sub>2</sub> readings occurred where occupants reported "stuffy" conditions. Likewise, low humidity levels were recorded where occupants perceived "dry air" conditions. Understanding these parameters will enable The Crown Estate's management team to make targeted

changes to the building systems and work with the customer to improve the working conditions of the occupiers.

- Customers are interested in understanding organisational outcomes. The participating customer in our study has plans to recruit a professional to capture HR data to examine relationships between building and human performance.
- Companies undertaking the Framework would benefit from more detailed guidance about conducting surveys and tracking HR data.

Going forward, we aim to optimise the participating customer's understanding of employee wellbeing, working environment and building performance results. We will have a stronger understanding of how our properties are performing from a systems, equipment and user perspective. We will assess the impact of the building on the customer and consider what improvements could be adopted as part of the base build of our assets, and how we can work with our customers to maximise the performance of our buildings for the benefit of our customers.



## The Value of Occupant Feedback



**David Wheatley,**  
Arup

In order to evaluate occupant wellbeing, arguably the most important starting point is to ask people how they feel. Environmental sensor data is very useful, but if we don't know what people are actually experiencing, how much can it really tell us?

An occupant satisfaction survey can be used to canvass opinion as widely as possible across a group of occupants. Having gained some initial insight, there are ways to drill down further into detail such as conducting interviews, observations or interactive user diaries.

Delivering a successful occupant satisfaction survey can be challenging; principally getting people to fill the surveys in! If the response rate is low, the results may not reliably represent the staff population and efforts may be wasted. Incentivising the survey, or gaining buy in from senior management to 'encourage' participation are methods worth considering to try and boost response rates. Paper surveys instead of electronic surveys are an option too; they are more time consuming but we find they achieve high response rates because of the personal interaction involved when conducting them.

The only limitation of a single survey is that it's a snapshot in time, whilst working environmental conditions are constantly changing. Looking forwards, we need start gathering continuous feedback through building specific apps, so that occupants can express their level of comfort and wellbeing whenever they feel compelled to do so.





## KEY FACTS



<b>Project Team</b>	Willmott Dixon Interiors
<b>Business type</b>	Contractor
<b>Building Location</b>	Central London
<b>no. of occupants</b>	70
<b>Floor area (m<sup>2</sup>)</b>	2048
<b>Type</b>	Tenant
<b>Status</b>	Recently refurbished

Having recently completed an office refurbishment for WDI's Head Office in Farringdon, it became apparent that the design may not have considered the best working practices for its people. We wanted to investigate this further through a retrospective assessment on the design.

We learned three important lessons from our work in the Lab:

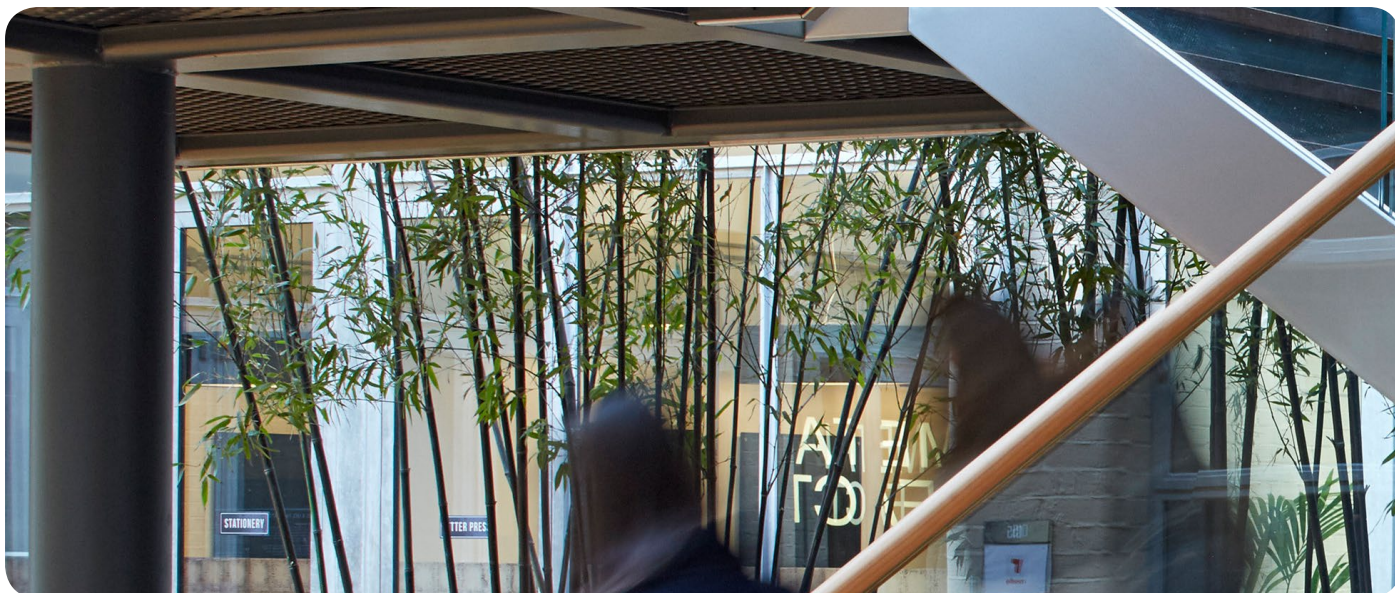
- Our initial thinking about some aspects of the design suitability was confirmed by a Leesman survey. But this also demonstrated some surprise results, and we performed better in some areas than expected.
- There is an opportunity to increase awareness of health and wellbeing issues across all areas of the business.
- The industry still has a long way to go in embracing the health and wellbeing concept and making it a key design consideration.

Based on our experience we intend to:

- Continue gathering data for our case study and present the findings to the Directors.
- Make recommendations and set out to implement improvements internally to help create a more user friendly, healthier and productive office environment for WDI employees.
- We will also carry out a post 'improvement' survey, to assess the outcomes of the proposals.







## WHAT DOES THIS MEAN FOR YOU?

As this was the UK-GBC's first ever Wellbeing Lab, we learnt a number of lessons that we would like to share, to encourage everyone to take this on.

One of the most noticeable aspects of the Lab programme was the clear sense of empowerment the individuals involved felt: having a defined Framework and associated evidence to refer to made their actions within their organisations credible. It seemed to be the case for many teams that as the process went on, trust within their organisations grew, and a virtuous circle began to appear.

It became obvious to us that the way the Framework brings together multiple stakeholders (FM, HR, management, etc), hugely increases the chance of positive outcomes. Previously siloed individuals will begin to work together to understand their staff needs, and decide on the most effective routes towards these. Quick wins are revealed, and rapid response to these builds trust and confidence among staff, which in itself leads to a more positive attitude to working environments.

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**One of the most noticeable things was the clear sense of empowerment the individuals on the programme felt.**

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We also realised the scale of the challenge the market faces over the coming years. Wearable and sensor technology is advancing at an incredible rate, meaning that staff are becoming ever more interested in their own health. To keep pace with this, employers need to understand the factors at play; to respond positively to this, and provide healthy, fit for purpose spaces. In order to support this, the market for

building sensors needs to recognise and react to the issues faced by many people using their products.

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**The Lab has confirmed what we have always said: anyone can do this, and everyone should.**

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The Lab has confirmed what we have always said: anyone do this, and everyone should. With that in mind, we have thought carefully about our participants' experiences, to come up with the following 'top tips'. These should help you get to grips with the Framework within your own organisation.



## 1. Start with the data that you already have

Data about buildings, perceptions and people is plentiful – what is rare are attempts to sift that data systematically. The Framework enables you to pull together experience and expertise you likely already possess, to get teams talking and working together who up until now saw little reason to collaborate. See what data you have before even considering collecting any additional – chances are you are sitting on a large quantity of data that will reveal all kinds of relationships in your company worth investigating.

## 2. When you do need additional data, begin with what is easiest

For most of our participants, this meant conducting a perception survey, typically regarded as the easiest and most cost-effective effort to undertake, and also the most valuable thing to do. The Lab demonstrated that collecting data, particularly physical building data and HR data, could be a big task. It can be daunting to take on the Framework all at once – begin with that which is easiest because it often provides the necessary encouragement to go deeper.

## 3. Make sure you get the most out of your colleagues

Leadership is critical, as we have noted elsewhere, but the Framework only works well when you have widespread support within your company. No one has the expertise like you when it comes to your buildings and people, and no one knows your company better than you do. People within your company are best placed to see relationships between building and human performance, and the teams that were most successful in our Lab were those that had the most collaboration among colleagues.

## 4. Always come back to your business, and your business case

Health and wellbeing is a big topic, and it is best to make it as specific as possible to your company. What role do your buildings play in your success as a company? What specific HR problems do we seem to have, and how are these building related? Making this agenda personal and financial is critical to getting buy-in, but it's also important to know what success looks like to you, so that you can measure it better and see your improvements.

## 5. Ask yourself this simple question: If everyone could know everything about my building, would my sustainability strategy remain the same?

The role of technology in promoting health and wellbeing should not be underestimated. We are moving to a time when ordinary individuals will have the capability to measure environmental conditions and report them to anyone in the world. This is already happening in the external environment – all it needs to do is move indoors, which it will. If you are seeking support for work in this agenda, it is important to stress that we are entering a period of transparency in sustainability, one in which people will know more about the environment and how it affects them.



“The Wellbeing Lab has highlighted the level of interest in, and commitment to, health and wellbeing among our members. The participants have demonstrated their leadership in this area, by tackling it head on. The wider industry needs to take up this challenge, and we at UK-GBC look forward to working with our membership to do so.”

*Julie Hirigoyen, CEO, UK-GBC*

With thanks to Wellbeing Lab participants:



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