

## Using micro sensor technology to improve tenant wellbeing

### The challenge: a lack of visibility vs too much unstructured data

Facilities Managers are under pressure to save energy and running costs by improving asset life-cycle strategies and property sustainability.

The key to good decision-making is reliable, organised data, which is quick to attain, easy to understand and informative.

However, 4D Monitoring recognised that facilities managers commonly face one of two problems: either they have no visibility of building performance, or they are overwhelmed by data with little time to analyse it.

### The importance of profiling the tenant environment

Temperature, air quality and light levels have a significant impact on tenant wellbeing. Studies show, without exception, that there is a negative correlation between the levels of Co2 in the air and the productivity levels and cognitive capabilities of employees.<sup>1</sup>

Similarly, room temperature is a reoccurring point of contention for those working within the commercial office environment. Yet without accessible, structured data, management teams are regularly forced to take a reactionary role - responding to tenant complaints as they arise rather than proactively driving wellbeing improvements.

### The solution: interfacing micro sensor technology

4D Monitoring began to investigate sensor technology that would provide a clear picture of the commercial tenant environment - of temperatures, air quality and more.

It is imperative that technology placed within the tenant demise is easy to install, aesthetically non-intrusive and long lasting.

Disruptive Technologies provide one such solution. Disruptive are the creators behind smart, wireless mini-sensors which now integrate seamlessly with the 4D Monitoring platform.

This is a crucial development in the 4D Monitoring offering.

<sup>1</sup>National Institute of Environmental Health Sciences, 2015



With Disruptive Technologies, we have cut the time it takes to deploy our profiling solution by one third, which means we can retrieve and analyse data immediately, without causing disruption to employees.

### Turning data into action

4D Monitoring is now able to leverage the connectivity afforded by Disruptive Technologies to provide fast, reliable recommendations to facilities managers and site teams. This collaborative approach has driven a range of improvements within the tenant demise, and continues to do so.

4D Monitoring can now prove that room temperatures are correct, easily. The system will alert site teams when temperatures drop below a certain level or get too hot, so the problem can be fixed before tenants make a complaint.

We have been able to diagnose problems with secondary air conditioning systems that are fitted into tenant spaces. These systems are not run by the Building Management System (BMS), which means monitoring the central plant wouldn't necessarily highlight whether they are operating outside of occupancy hours.

The profiling solution has also been used to enable a smart cleaning approach. Bathroom traffic is monitored across multi-let commercial sites, so cleaning resource can be diverted to toilets with a heavier footfall.

*"The integration with Disruptive Technologies has enabled 4D Monitoring to offer reliable, easily deployable, wireless environmental monitoring devices across many industries. With this data, we can empower FM's and site teams to make proactive decisions about tenant wellbeing, easily."* – Barry Jones, Operations Director, 4D Monitoring

