



AWARENESS PROGRAMME

The new year has reinforced our objectives for the company. We have been active in many ways to keep raising awareness and make NWA team and collaborators conscious of what needs to be done at small and large scales.

We are now starting a plastic consumption survey for our office. The aim is to face our behaviour as consumers and implement change based on visible facts.

PROJECTS

At NWA, we believe that change starts at home...

NWA OFFICE INDOOR AIR QUALITY

by Alex Soto, Head of Sustainability at NWA

- The importance of indoor air quality in the workplace -

We spend an average of 90% of our time indoors and much of that in the workplace, and the air that we breathe (approximately 15,000 litres per day) has an effect on our health. Clean air with adequate concentration of oxygen is critical for our brain function and production of energy in our bodies, however, access to fresh air is not always guaranteed.

Indoor air pollutants come from various external sources mainly as a by-product of engine combustion such as carbon dioxide (CO2) and nitrous oxide from car engines, carbon monoxide from cigarette smoke and particulate matter suspended in the atmosphere. Internal sources of pollution can mainly be attributed to CO2 from people's exhalation, biological contaminants like bacteria and viruses, and chemical pollutants emitted by furniture, carpets, adhesives and paints in the form of VOCs. Research studies have found that polluted air in the workplace can cause headaches, drowsiness, difficulty concentrating and exacerbate respiratory illnesses. Increased concentration of CO2 (>1,400ppm), has also been attributed to decreased cognitive performance (61% lower) when office workers were tested on their ability to make decisions, complete goals and strategise. (Reference: <https://dash.harvard.edu/handle/1/27662232>)

- Indoor air quality benchmarks -

A key method for ensuring adequate indoor air quality is an efficient and properly operating ventilation system that is capable of removing indoor pollutants, for which a number of benchmarks are available.

At NWA, we strive to align our practice to WELL Building Standard benchmarks for health and wellness of building occupants, which in this case recommends keeping CO2 concentration levels below 800ppm at maximum occupancy. This represents a 25% increased ventilation when compared to UK Building Regulations requirements.

- Are we getting enough fresh air? -

NWA office is a naturally ventilated building in a rural setting where outdoor pollution is not a main concern; however, it relies on people with individual comfort needs and perceptions to open and close windows to introduce adequate levels of fresh air.

In order to assess the quality of our indoor air -and following our motto of what gets measured, gets managed- we began to measure the concentration of CO2 in particles per million (ppm) with a monitoring device that also displays temperature and humidity levels for 24 hours intervals. We are now able to track how rapidly CO2 levels can rise from <500ppm upon our arrival in the mornings to reaching up to 800ppm (WELL benchmark) by lunch time. We were able to identify a >1,400ppm CO2 concentration measurement in our meeting room at full occupancy, with windows only partially opened during a cold winter morning.

As a short-term result of our experiment, we have raised awareness about the quality of the air that we breathe during work hours and began to open our windows more frequently to ensure CO2 levels are kept below 800ppm, per WELL Building Standard. In the long term, we are committed to maintaining higher ventilation rates to experience the accumulative benefits of oxygen-rich, fresh air as we strive to improve the health and wellbeing of NWA employees.

NEWS

SPRING 2020

OTHER NEWS

We have surveyed our office airtightness with a thermal camera lent by Sustainable St Albans. The results were conclusive. We will now have to establish the right approach to deal with the findings.

LETI, London Energy Transformation Initiative, have published a **Climate Emergency Design Guide** and an additional guidance, Embodied Carbon Primer, with more details. These documents were produced in order to give knowledge and guidance to people working in the building industry on how to calculate and reduce embodied carbon.

This March, we are celebrating NWA women. Find out more [here](#).

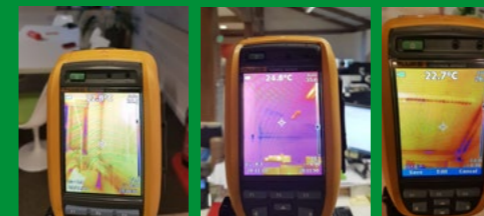
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NWA single use plastic free Wednesdays



The WELL Building Standards seven concepts for healthier buildings



Airtightness camera exercise



LETI