

PATIENT-CENTERED BUILDING PERFORMANCE OPTIMIZATION

BLURRING THE BOUNDARIES

WHAT WE DO

Mott MacDonald wants support health care providers. We can help you to optimise your buildings for the comfort and wellbeing of staff and patients.

Building Performance for People is a suite of services that connects staff and patients directly to building design and management. We want to ensure that occupant comfort, satisfaction and utility are key tenets of building operation.

Building Performance Optimisation service can provide real time information on the 'health' of your building. We can identify problem areas, highlight trends and recommend interventions to improve outcomes.

Our goal is to help you to make precise and targeted investments that lead to real and measurable improvements.

WHY IT WORKS

The positive impacts of **evidence based design** in healthcare is well established. Research shows the design helps not only the patient, but also the worker to feel better in the hospital space. The built environment can impact positively on patient safety, staff happiness, effectiveness and morale, reported visitor satisfaction, bed turnover rate, increased market share for healthcare facilities and more.

The benefits of **patient engagement** is also well recognised. Increasingly patients expect to be involved in their own care and treatment, with engaged patients showing better health outcomes than those treated in more passive environments. This premise can be readily extended to control over the physical environment in which care is received.

HOW IT WORKS

Data taken from our **Antenna** app is overlaid with technical building performance data from **sensors** located throughout the building. The service can be **completely customized** to the client's needs. It can be adapted to gather a diverse array of information or tailored to monitor specific concerns within a particular facility, if required.

Building systems can be fine-tuned, with changes closely monitored for any unintended impacts. Real-time information is provided directly to asset management professionals via a **user friendly dashboard**, creating a smart, responsive building environment. Subsequently, aggregate data from building management systems can be incorporated into a digital twin, where available.

WE HELP YOU UNDERSTAND YOUR DATA

Our technical professionals will **analyse and decode** the combined user engagement surveys and sensor data in a way that makes sense to you, and can provide a clear list of priorities for targeted investment and/or operational improvement.

Antenna, Mott MacDonald's Building Performance Optimisation app, empowers individuals to make information choices on building use, as data can also be provided directly back to staff and patients.

Ultimately, **Mott MacDonald** will securely collate aggregate data from multiple healthcare locations, adding to the growing data set supporting an evidence-based design approach to healthcare facilities and re-focussing on human comfort.

YOU CANNOT MANAGE WHAT YOU CANNOT MEASURE

The Centre for Climate, Health and the Global Environment (C-CHANGE) at Harvard School of Public Health have defined the **9 foundations for healthy buildings** include ventilation, air quality, thermal health, moisture, dust/pests, safety/security, water quality, noise and lighting/views. These foundations, assessed using performance metrics, can be used to evaluate and improve the impact of a building on people living and working inside.

Mott MacDonald has partnered with Harvard in the UK to host the next stage of this research, CogFX Study 3: Global Buildings.

The **WELL Building Standard®** is a performance-based wellbeing certification, based on similar foundations but expanding considerations to include healthy nutrition and social-cultural aspects. It is an accepted industry standard for measuring, certifying, and monitoring features of the built environment that impact human health and wellbeing.

Mott MacDonald can utilise aspects WELL Building Standard® and other industry to tailor an approach to health and wellbeing that meets your needs.

