



A COVID-19 Virtual Ideation Experience

Team Topic and Number: Space Utilization & Metrics_8

Team sponsor/chapter (if applicable): N/A

Team Lead: Eldar Gizzatov, CEO at Basking.io

Team Members:

- Andy Heard, Senior Analyst at The Instant Group
- Adriana Konjani, Global Real Estate Strategy and Portfolio Planner at Shell
- Simon Russell, Founder & Managing Director at SuperByte
- Raul Velarde, Business Development - Sustainability Manager at Turner Construction Company

Supply & Demand in Post-COVID Workplace Environment: New Attitudes, New Occupancy, New Metrics

Executive Summary

Whilst the focus of metrics may switch to ensuring “office readiness” in the Return to Office phase following lockdown restrictions, the scrutiny of utilisation going forward will remain, and in many cases, scenario modelling of various utilisation impacts is required now to aid decision-making on any impacts of the pandemic on the RE portfolio. Facing the need to cut costs, 25% of CFOs are looking to cut back on Real Estate given expected headcount reductions and the ease at which companies have transitioned to remote working¹. 75% of CRE professionals believe more working from home will become the norm².

¹ Source: PwC, COVID-19 CFO Pulse Survey US findings — April 27, 2020

² Source: Gartner Research, CRE Actions in Response to COVID-19: Week of 13 April 2020

It is widely believed that the function of the office and the way office space is utilised will change as a long-term outcome of the pandemic. Traditional metrics measuring office density and desk occupation will no longer be as relevant as there will be the need to move beyond basic swipe-card data monitoring to provide insights on real time space usage to identify the new space archetypes required and the resulting impacts on the overall office portfolio requirement.

1. Demand side: Changing workers' expectations and lower occupancy due to WFH adoption

1.1. Human centric view on CRE

With a [wide-spread adoption](#) of work-from-home standards, and expected changes in the office metrics from a density standpoint, we will also be revisiting *how* the space is used. Yet, these changes don't take into account the need to increase the share of collaboration spaces. Meanwhile, more than 50% of working Americans are feeling the effects of loneliness in the workplace³.

Why is this important and how can we address it? For years, mental health has been a stigma but that has changed. An increased awareness on the subject has also made it prevalent in CRE with programs like WELL and Fitwel making "Mind" and "Wellness" a point of planning design. Spaces suggested in these programs inherently inspire people to gather and interact, creating a sense of [belonging](#) that few people can experience at home. Enabling these interactions while maintaining social distancing in the workplace will require more office space or limited occupancy standards.

Similarly, as groups still adapt to a work from home approach, we should consider still providing collaboration space in the office for groups to meet as needed. Coming into the "new normal", the popular small 10'x10' conference room will not be able to hold the same amount of people. Conference room space and layouts should increase to provide groups to work together enough room to social distance and the accessibility to step outside without the whole room having to shift to maintain distance.

Overall, the worker choice for where and when they work is now a major consideration and metric that will impact all office space requirements. With the planned return to work in particular, there will need to be an initial measure for who can work from home to sport a staged return and longer term who will want to increase their home working.

1.2. Sensitivity analysis approach to forecasting the occupancy in post-COVID offices

So how will the office occupancy change after lockdown restrictions are lifted? We've used the sensitivity analysis approach to answer this question, estimating the occupancy dynamics for the office of a Fortune 500 company in New York (35,000 sq ft, 300 employees allocated)

In order to establish the baseline pre-COVID occupancy metrics, we are using the real-time occupancy data collected in the office from December 2019 to February 2020. This dataset allows us to measure the ratio of regular, mobile employees and visitors in pre-COVID period (see Chart 1)⁴.

³ Source: Cigna, Loneliness and the Workplace: 2020 U.S., 23 January 2020

⁴ Source: Basking Automation, COVID-19 response, <https://basking.io/covid-19/>

		Visit Duration	
		Long Visit More than 3 h per day	Short Visit Less than 3 h per day
Visits Frequency	Visits frequently > 70% of the days	Regular Employee	Regular Visitor
	Visits rarely < 70% of the days	Mobile Employee	Visitor

Chart 1. Categories of employees & visitors by frequency and duration of visits. Source: Basking.io, 2020

Next, we've made the following assumptions regarding the impact of WFH on regular employees, using the findings from a recent study of WFH adoption⁵:

Scenarios	Share of Regular Employees Switching to Mobile Work
High WFH impact	70.00%
Base Case	35.00%
Low WFH impact	15.00%

As a result, we found the peak occupancy rate decreasing from 71% pre-COVID to 47.16%, 55.00%, 59.89% in High WFH Impact, Base Case and Low Impact scenarios (see charts 2, 3 below):

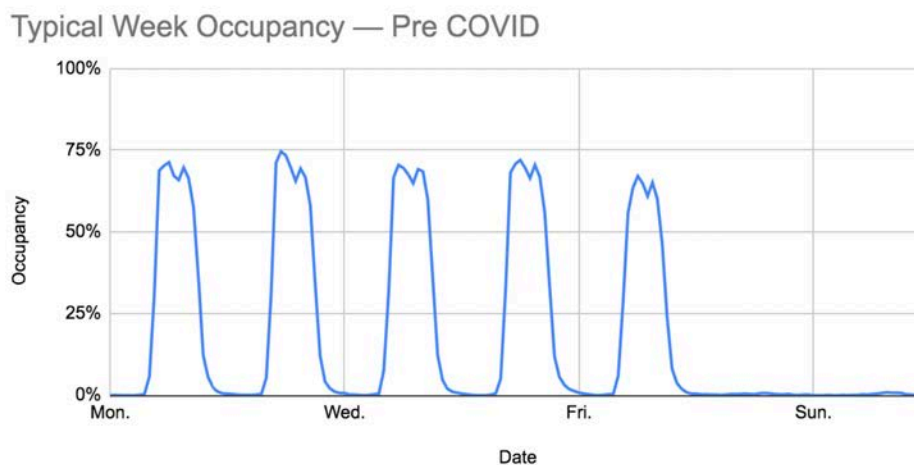


Chart 2. Typical Weekly Occupancy, pre-COVID levels.

⁵ Source: Colliers International, Real-time data to navigate the post-COVID-19 workplace, April 2020

Overview of scenarios based on the impact of WFH adoption on occupancy rates

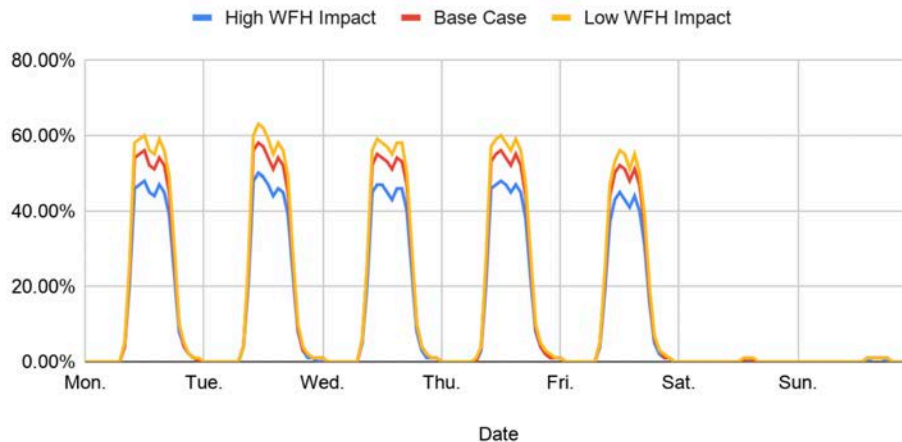


Chart 3. Impact of WFH adoption on occupancy levels.

The overall impact of WFH adoption could be even more significant, as the employees who were already used to working from home will be working from home even more. In order to estimate this impact, the model can be expanded to include the assumptions related to post-COVID behavior changes among the mobile employees and visitors.

2. Supply Side: Changing attitudes to CRE and acceleration of the Hub & Spoke model

CRE costs are typically 9-12% of a total company cost base, with the majority directly correlated with footprint. In a post-COVID world, firms now more than ever are seeking to realise opportunities through rightsizing their real estate portfolios, reducing this cost to c. 5-6%, through adopting a greater balance between core / flex.

The shift will inevitably accelerate the “hub and spoke” strategy, a move away from centralised headquarters, to the dispersed office model. While the total office footprint for some businesses will remain largely unchanged, Hub headquarters could be about 10% of their current size.

Some companies are planning to take a more extreme approach, cutting fixed locations by 70-80% and striving to achieve greater utilisation through shift patterns and rotations. We expect this trend to strengthen, with each solution requiring a bespoke set of performance metrics:

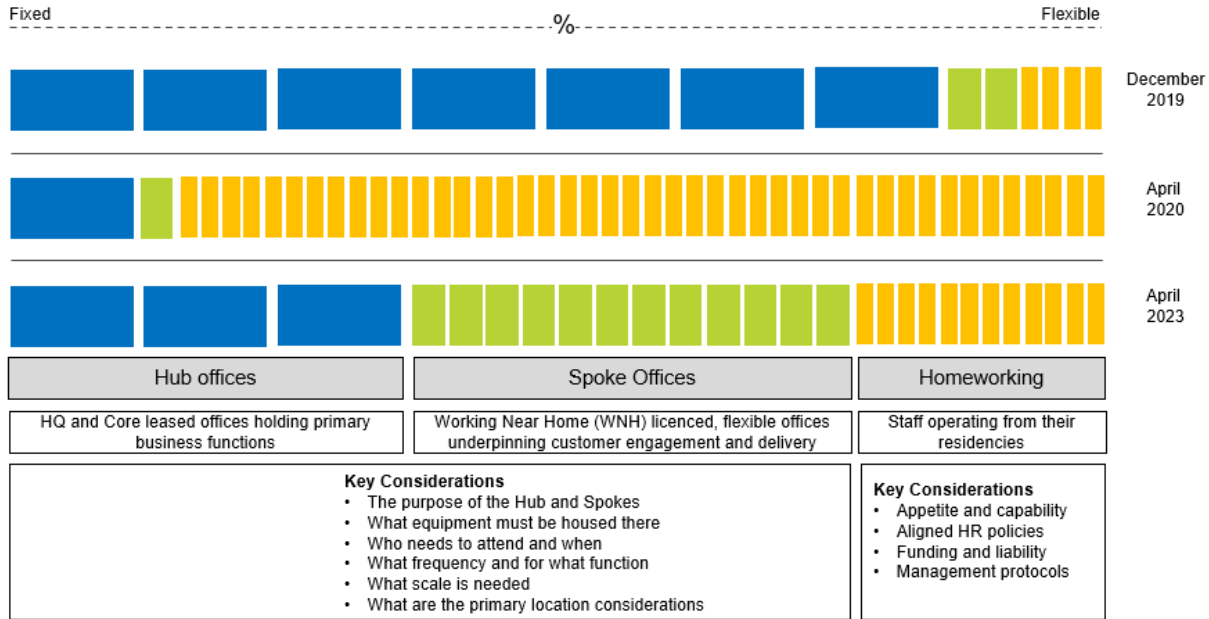
1. A Hub / HQ core leased office, holding primary business functions within it. Built around a necessity for collaboration spaces and an engaging environment. At lower densities, spaces will be tracked on a space per head basis through greater utilisation studies enabling consistent live-time monitoring and reporting and a direct link to reviewing a sites productivity.
2. The emergence of local office “spokes” aligned to transport networks – or Work Nearer to Home contingent. Shorter-term space commitments - licenced, flexible offices will allow workers to come together to fill personal contact voids without commuting into the “Hub” office.
3. Homeworking Staff - operating from their residencies. This growing contingent of staff will require “*touchdown facilities*” for varying durations to ensure productivity through a “work where you need” offering.

All these solutions carry implications for space metrics. In the near term we’ll see the de-densification of space placing greater and lasting demand for improved hygiene and facilities services. In the flex market, operators will raise density standards and/or occupiers will be procuring additional desks to off-set density

concerns, increasing space provisions to 75 sq ft or 100 sq ft per desk in the shorter term, but committing to aggressive agility ratios of 0.6 or for some 0.4 desks per head.

In the medium to longer term, we expect a return to higher densities, as businesses seek cost reductions depending on business activity. However, the larger WAH contingent will continue to refocus CRE heads on pushing agility through regular site utilisation reporting, while monitoring productivity levels in tandem.

Metro Planning in the 'new normal' – The Dispersed Office



How does the Dispersed Office come together?

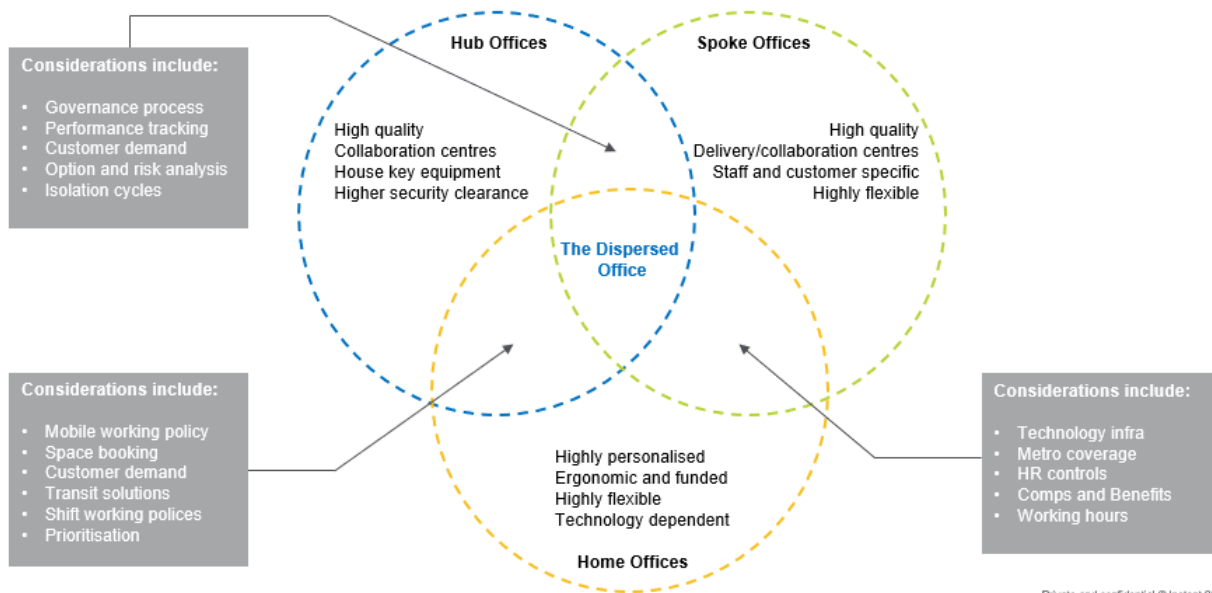


Diagram 1-2. The Dispersed Office model. Source: The Instant Group, 2020

3. New metrics to track: office readiness, transportation employee risk categories

To respond to COVID challenges in the workplace effectively and quickly, CRE will need to adopt a set of new additional metrics, some of them will keep their significance in the long term, even after the immediate crisis is over.

These new office measurements will be based on four principle areas: The Building, Staff work from home (performance and satisfaction), Transport, Office readiness and New Worker profile.

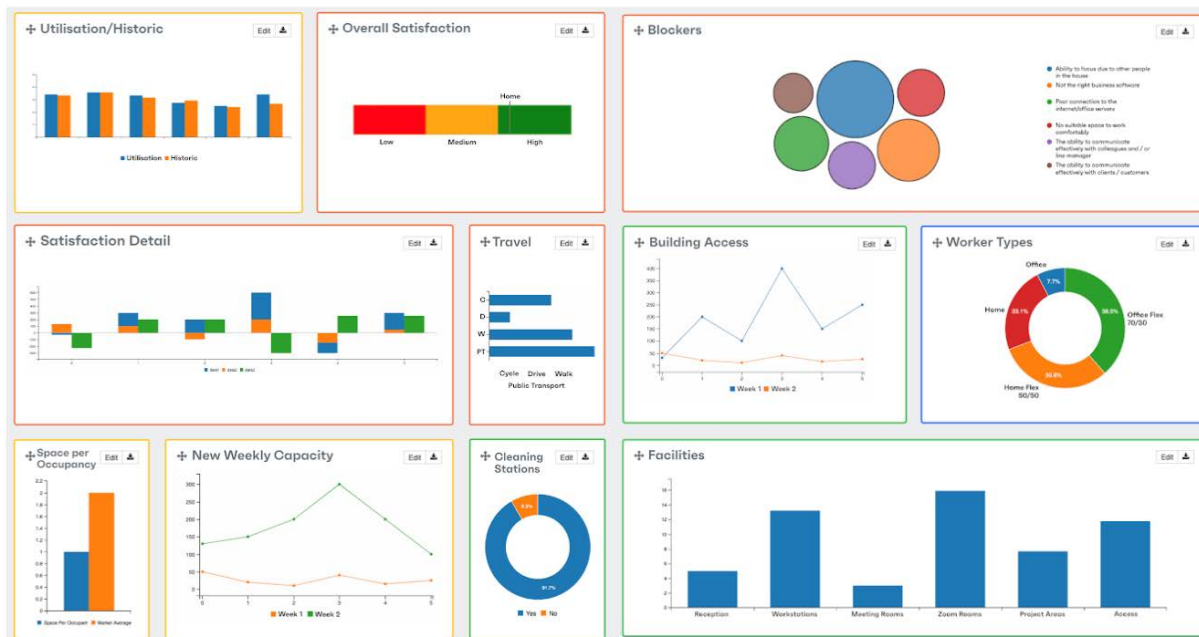
The Building: The traditional methods of measuring office performance will not be totally dismissed, but the weighting on importance that will influence real estate decisions will certainly change.

Office Utilisation & Desk Density: Space utilisation of the office and Density measurement of space versus desks. Ensuring desk space for individual working reflects the new safe collaborative space and supports the employee work experience.

Transport: Especially important for the initial return to office, transport to and from work is now a major consideration, to inform on the risk to both workers and the office-based staff. Early returners are those who can walk, cycle and drive to the office. There should be a time-shift strategy for those using high density transport such as trains and buses.

Office Suitability: With new levels of workers' sensitivity around hygiene, new metrics will need to be considered to track the safe number of employees in the office. Measures include: building access to elevators and reception, office facilities and FM support, access to workstation and safe working distance.

Worker type new profiles: Worker profile and level of agility metrics are traditionally used to enable higher density working. Here's an example of new worker profile topology based on the time spent in the office and WFH: Home worker (100%), Home Flex (50/50%), Office Flex (70/30%) and Office (100%).



Example of a dashboard layout with new workplace metrics. Source: SuperByte, 2020