



Strategic Space Planning Simplified

Novel Tips & Techniques for Today's Space Planners



The Challenge

Organizations worldwide face the challenge of balancing real estate costs with the selection and utilization of facilities in a manner that best contributes to their mission. Often unpredictable macro- and microeconomic factors exacerbate this challenge.

A facility leased two years ago on a five-year lease might not meet the occupant organization's target space utilization rate of 85% if the organization cannot meet its hiring targets. Lease costs for the unused space now represent a sunk cost if the lease cannot be renegotiated without penalty. Similarly, a facility that meets the location and gross area requirements for a move from one campus to another might require extensive refitting that could delay the move beyond an acceptable timeframe. These examples describe just some of the challenges facing corporations as they make facility selection and occupancy decisions to execute on larger corporate objectives.

Research conducted by CBRE (see Figures 6 and 7 in Appendix) provides insight into how difficult the challenge can be to maintain a high level of space utilization and lower the amount of unused space. Figure 6 shows the average percentages for various stages of occupancy in six major countries around the world. The data indicate that the average percentage of completely empty space across all the countries studied is ~40%. All else being equal, this means that 40% of space being paid for is producing no return on investment!

Figure 7 in the Appendix provides further insight into space utilization by industry for the same six countries researched in Figure 6. Some empty space identified in these industries can plausibly be attributed to the unavoidable need for assigned permanent space (e.g., business consultants who often hold offsite client meetings, but still need space to do paperwork). However, such large percentages of empty space highlight the need for well-planned space selection and occupancy allocations that can contribute to productivity and substantially lower overall cost of occupancy. How can this be achieved?

The answer lies in strategic space planning.

Strategic Space Planning: What Is It?

The link between an organization's strategic plans and its allocation of space to satisfy the needs of such plans is best explained as follows.

An organization such as an academic or financial institution, government agency, manufacturing company, or real estate management company may decide, as part of their business strategy, to introduce a new client program, develop new products, or serve new markets. Doing so requires that the organization plan space allocations for the new business initiative.

In simple terms, strategic space planning can be defined as the process of identifying the space needs for one or more of these business initiatives, exploring space allocation options to meet those needs, and prioritizing the acquisition, disposition, and allocation of space in a manner that aligns with the organization's strategic priorities.

In particular, strategic space planning takes into consideration the ramifications of project-specific space allocation plans on enterprise-wide space allocation, utilization, capacity criteria, and other factors, as described in the next section.

IMPORTANT BENEFITS OF STRATEGIC SPACE PLANNING

- Helps identify challenges and risks during the planning process by exposing shortfalls or excesses in the real estate portfolio
- Provides a structured and disciplined framework for decision-making and helps to prepare for changes in the organization and business
- Reduces uncertainty by setting a direction of where growth will be accommodated or where projects are needed to adjust the space inventory
- Easily reflects changes to a strategic space plan in the organization's capital plan and budget, such as early lease termination

Ultimately, a strategic space plan conveys where and how an organization is positioning assets to help enable the business.

Strategic Space Planning Phases and Attributes

Strategic space planning may take place over three phases, shown in Figure 1. In some instances, the long-term and mid-term phases may be combined in a single phase.



Figure 1: Three phases of strategic space planning with associated attributes

This consolidation of phases may be driven by factors such as the size of the real estate under consideration, how closely corporate real estate plans and business strategy align, the rate of change of macroeconomic and microeconomic conditions, and the decision-making model adopted by the organization.

Long-term plans set the context and direction for mid-term plans, which in turn provide structure for near-term tactical plans and implementation.

Strategic Long-term Planning

A long-term strategy demonstrates how the organization aligns space to support its business goals, outlining where the business is expanding, contracting, or holding steady three or more years into the future. Inputs include macro forecasting, real estate market information, headcounts, products, and the capital budgeting plan. High-level assumptions and assertions are documented, differentiated, and understood.

At this level, the organization is considering big, far-reaching decisions such as whether to extend or terminate a lease, build on owned land, or acquire facilities in new geographic regions. The planner's output is a high-level "what-if" scenario showing large spatial allocations by region, accompanied by a predictive analysis of how the long-term plan transforms to a space portfolio vision. The planner assesses the alignment of the space portfolio vision with business objectives, and develops a plan to help the business grow in the region. In short, the long-term plan aligns real estate portfolio decisions and occupancy allocations to strategic business goals. The long-term vision shapes the mid-term plan.

Tactical Mid-term Planning

The mid-term plan is a two- to three-year view of how the planning team intends to transition from where they currently are to what is envisioned long-term. Portfolio and allocation scenarios are developed and evaluated based on known or anticipated forecasts. Scenarios are created around options based on known assertions and accepted assumptions. The goal is to translate business, operational, and cultural objectives into high-level space strategies. The result is a physical interpretation of the organization's business needs.

Strategic space planning shows special value at the mid-term planning level, being not as broad-based as the long-term plan. Executives begin to appreciate that the decisions they are making have a real impact on their organization. Deliverables include large-scale allocation scenarios showing who occupies the portfolio by function, migration plans (move programs), and visuals of the future-state portfolio.

For example, given a headcount forecast, planning must demonstrate how growth can be accommodated with several scenarios as options when the forecast suggests there will be a shortfall of space (a "space gap"). Planners create two scenarios: Scenario #1 without any need for physical expansion/additional space and Scenario #2, requiring additions to the portfolio. Both scenarios support the headcount and enable the organization to accommodate the forecast.

Tactical Near-term Planning

Tactical plans view how projects and operations are managed up to two years into the future. The short-term time frame allows for the development, implementation, and management of space planning projects and for the buildings' sustaining functions.

As the forecast is realized, near-term plans are implemented, perhaps on a quarterly basis. Using the mid-term plans' direction and analysis, tactical allocations are made within the area set by the plan created at the higher levels.

Implementation and governance play important roles at tactical levels. Here, a migration plan becomes a detailed move list, showing requirements to relocate individual groups.

Details about space inventory, utilization, and reporting are maintained at this level. Allocation plans from mid-term planning guide tactical strategies and decisions at the departmental or functional group level. In essence, tactical plans validate the input variables used in long-term and mid-term planning.

Accommodating Changes to Business Objectives

If business requirements change from prior assumptions, long-term and mid-term plans are reviewed and revised, as needed. Because the business cycle is dynamic, plans at all levels, at least early on, evolve.

Rather than create a single hard-copy plan, planners are better served by creating a planning framework that establishes how and by whom changes in business requirements will be reflected in the evolving plan. As change occurs, variables are added, deleted, or modified in response. As the business shifts direction and adjusts priorities, space planners must review and revise the current plan and strategy. Strategic space planning evolves at all levels in response to changing business priorities. As assumptions become clearer and projections become reality, the plan is validated or revised.

The Space Planner's Steps to Implementing a Strategic Space Plan

Let's take a closer look at the space planner's steps to implement a strategic space plan. These can be applied to long-term, mid-term, and near-term phases. While the general process does not change for each phase, the planning team members involved and inputs to the planning process do. These changes depend on the planning team stakeholders' different responsibilities and the scope of the planning initiative. Figure 2 lists several stakeholders who might comprise a planning team for each of the three phases of strategic space planning.

Long Term Planning	Mid-Term Planning	Near-Term Planning
CEO CFO Corporate Real Estate Executives Corporate Human Resources Executives Core Business Division Executives Corporate Space Planning Staff	Core Business Division Finance Executives Core Business Division Operations Executives Core Business Division Human Resources Executives Real Estate Portfolio Manager Site Managers Campus Facility Managers	Local Core Business Executives Local Core Business Department/ Project Managers Campus Space Planner Facility Managers Move Manager Local Renovation and Trade Teams

Figure 2: Stakeholders who might comprise a planning team for each phase of strategic space planning.

For purposes of this discussion, all stakeholders on the planning team are considered to play the role of *space planner*. While some space planners provide input to the planning process, others may actively engage in developing space allocation scenarios; still others may perform analyses and make decisions based on options presented to the planning team.

Figure 3 illustrates the steps to implement a strategic space plan. This process by necessity requires the collaboration of various stakeholders in the organization and the assimilation of a substantial variety of data from different sources. While this can make space planning daunting and tedious, it is absolutely essential to fulfill an organization's mission.

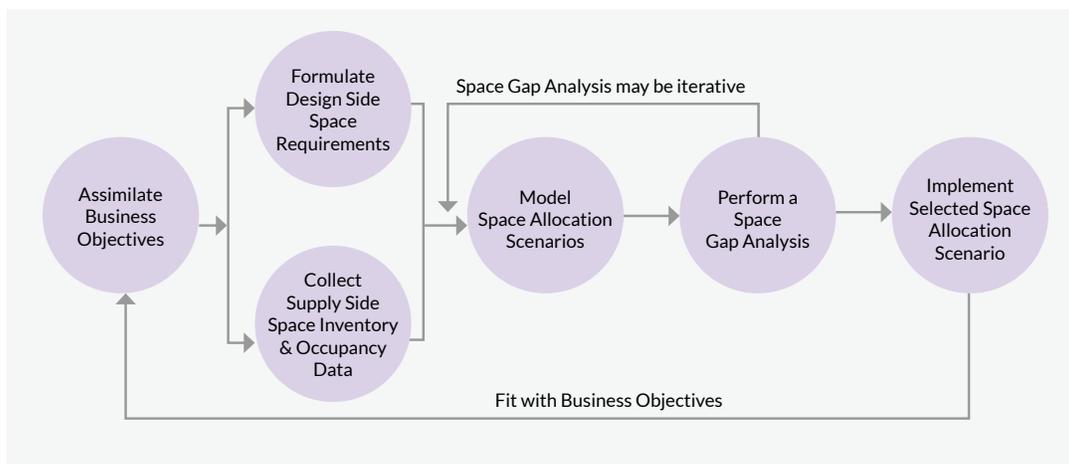


Figure 3: The space planner's steps to implementing a strategic space plan (any phase).

Fortunately, modern enterprise-class Integrated Workplace Management Systems (IWMS) give organizations a powerful set of automation and collaboration tools to help achieve these objectives. Data assimilation and analysis that may have taken weeks or months can now be accomplished in minutes. Figure 8 in Appendix lists the powerful, essential capabilities of enterprise-class IWMS solutions that are indispensable for a strategic space planning initiative.

Assimilate Business Objectives

The entire planning team must gain an understanding of the goals specific to each planning phase. In the long-term phase, senior executives decide on strategic business goals that they disseminate to team members, who assimilate this information and input into the planning. Later, during the mid-term phase, the division finance manager, for example, with a clear understanding of the long-term plan, is better able to develop allocation options for the portion of the long-term plan that pertains to his or her division only. In the near-term phase, local site managers and facility managers, with information assimilated from the mid-term phase plan, are able to tailor and justify allocated space to the specific needs of individual departments and project teams.

When the assimilation and dissemination of plan information is executed well, space planning stakeholders in each phase are well positioned to achieve their phase objectives on schedule and within budget.

Formulate Demand-Side Space Requirements

All needs specified for a particular space planning initiative are categorized as demand-side requirements. Demand-side requirements are an essential planning input to two downstream steps: performing a gap analysis and developing space scenarios.

Demand-side requirements are formulated at every planning phase, albeit with different levels of granularity. Table 1 lists examples of demand-side requirements and their levels of granularity for each planning phase.

All planning team members must have a good grasp of the space requirements pertaining to their phase of involvement. Moreover, the stakeholders who perform the gap analyses and create scenario options must have detailed, documented requirement specifications from which to work. Modern enterprise-class IWMS solutions allow stakeholders to assemble space requirements within the software itself and import these into scenarios being developed.

Requirement	Long Term Planning	Mid-Term Planning	Near-Term Planning
Space Planning Reason	Revenue forecast, mergers, acquisitions, new business initiatives	Long Range Plan	Intermediate Range Plan
Location Selection Granularity	Country, Region, State, City	Site, Campus	Buildings, Floors, Rooms, Team Spaces
Location Features Selection	Macro and microeconomic factors, fit to purpose	Macro and microeconomic factors, fit to purpose	Fit to purpose
Space Allocations Required for	Business Units	Divisions under Business Units	Departments, Functional Groups
Functional Group Affinities	Business Units with other Business Units	Divisions with other Divisions	Departments with other Departments, Functional Groups
Headcount Forecast Summarized by	Business Units	Divisions	Departments, Functional Groups
Area Allocations Defined by	National, State, or City Space Standards	Local City, County, or Town Space and Zoning Standards	Industry Space Standards for Specific Business Functions
Area Requirements Measured In	Square feet or square meters	Square feet or square meters	Square feet or square meters

Table 1: Demand-side requirements with different levels of granularity for each planning phase

Collect Supply-Side Space Inventory and Occupancy Data

Similar to the case with demand-side requirements, stakeholders who perform gap analyses and create scenario options must possess a detailed, documented collection of supply-side space inventory and occupancy data to create and offer the best possible scenario options to the planning team. This collection of supply-side information may be vast, with a number of correlations and dependencies that determine its interpretation.

Fortunately, once again, modern enterprise-class IWMS solutions allow stakeholders to input space inventory and occupancy data directly into the space scenarios being developed. This highly automated process saves the space planner hours and even weeks of otherwise laborious manual work that also would be prone to error.

Commonly utilized supply-side space inventory and occupancy data include:

- Current space capacity, allocated area, and allocation rate at various levels of granularity (sites, buildings, floors)
- Upcoming additions to and removals from the real estate portfolio
- Site, building, and floor capabilities and amenities
- Current space allocations to business units, divisions, departments, functional groups, project teams
- Past space allocations to business units, divisions, departments, functional groups, project teams
- Current headcount at the aggregate, location, and subgroup levels
- Leased vs. owned status of facilities
- Lease start and end dates
- Internal and external gross areas for potential new facilities
- Past space forecasts

Model Space Allocation Scenarios

With both demand-side requirements and supply-side data available, the space planner begins modeling space allocation scenarios.

For ease of understanding, we can work through the steps of the scenario modeling exercise illustrated in Figure 4.

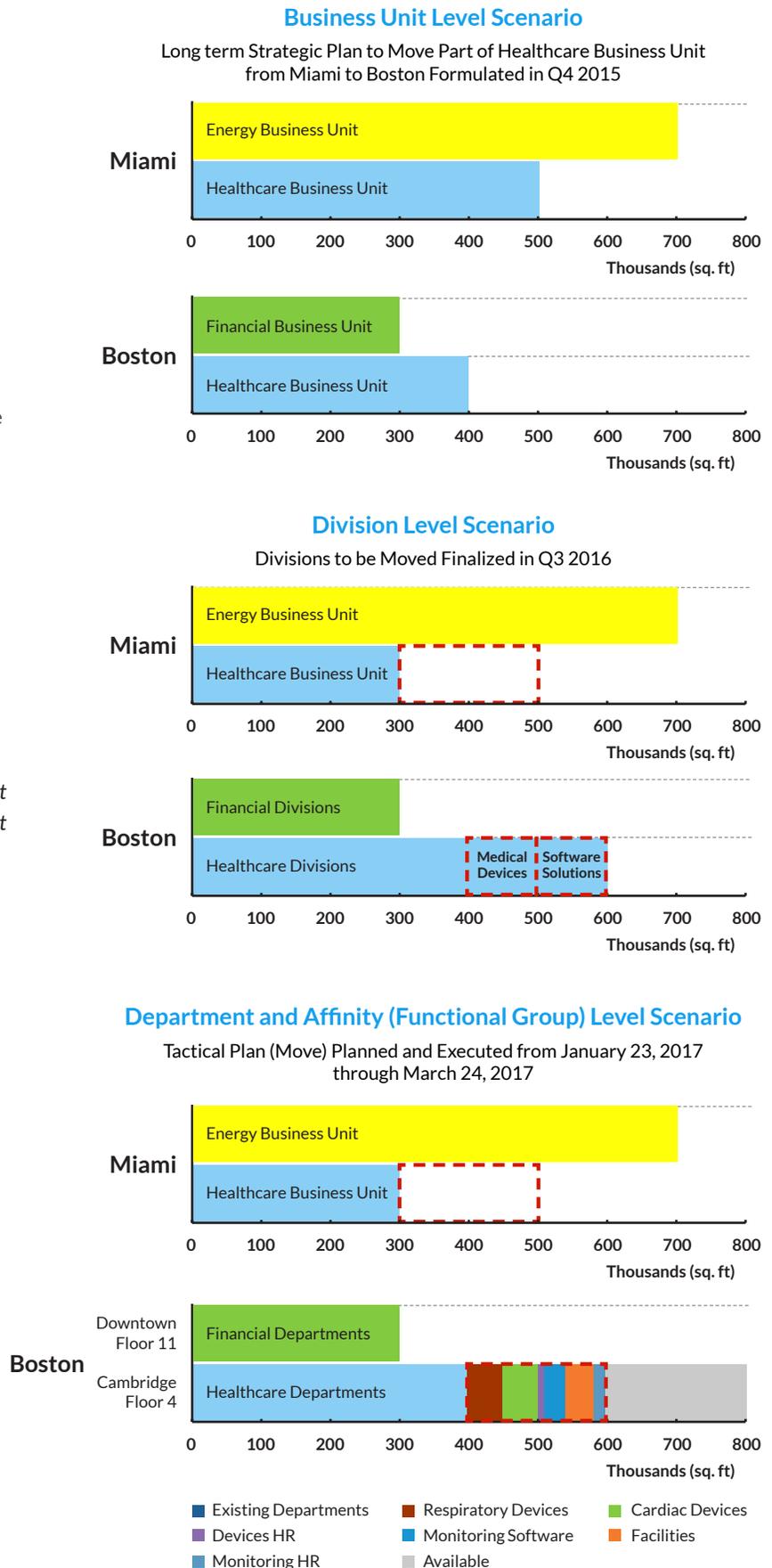
To attract talent, a multinational company makes a strategic business decision to move selected divisions from its healthcare business unit in Miami to the talent-rich healthcare hub of Boston. The strategic planning team uses a state-of-the-art enterprise-class space planning application to create a baseline scenario that provides inventory and occupancy data at the business-unit level in both cities.

As the planning progresses, the planning team decides that two divisions within healthcare, the Medical Devices Division and the Software Solutions Division, will be moved to the Boston area. The Business Unit level scenario is further developed into a division-level scenario for the Miami and Boston areas. The total available area in Boston is 400,000 sq. ft. Using the convenient drag-and-drop capability within the space planning system, the space planner can easily move space inventory blocks in the working scenario from one location to another, as shown by the red dotted blocks in Figure 4. In this example, the two divisions from Miami, each 100,000 sq. ft., can be dropped into the Boston area stack, reducing available space in Boston by 200,000 sq. ft.

The tactical planning team in the Boston area utilizes the division-level scenario developed earlier to refine a department-level scenario that includes specific affinity needs for each department. The team also decides that all departments from the two divisions can be accommodated in the city of Cambridge, just outside Boston. This is illustrated in the department-level scenario of Figure 4: the legend identifies the various departments in the two healthcare divisions that are being moved from Miami to Boston.

With the plan accepted by all stakeholders, the actual move is scheduled by the planning team to begin on January 23, 2017, and continue in phases to completion on March 24, 2017. The enterprise IWMS permits space planners to graphically visualize and compare changes in inventory status after each stage of the move is completed.

Figure 4: Scenario progression through different phases of a strategic space planning project



Perform a Space Gap Analysis

A space gap analysis gives space planners an accurate picture of the gap between demand-side space inventory and supply-side space inventory. A gap analysis may be viewed on a graphical time scale showing variations in total space capacity, percentage of space allocated, and total area allocated.

Space planners may perform a space gap analysis at various times during the planning process, including:

- Immediately after creating a baseline scenario consisting of existing supply-side space inventory and required demand-side space inventory for the regions, cities, campuses, or buildings being considered in the project
- While making test changes to an existing scenario to find the best possible allocation options that meet the demand-side requirements
- After creating alternative scenarios for a project, to evaluate variations in space gaps with each scenario and what costs and resources would be expended to fill each gap

Space gap analyses are extremely useful at any planning phase. In long-term planning, a gap analysis can quickly reveal insurmountable challenges to developing desired sites. For example, a gap analysis that reveals less available owned space in a city with high lease rates helps the planning team understand that increased investment would be needed to develop sites in that city.

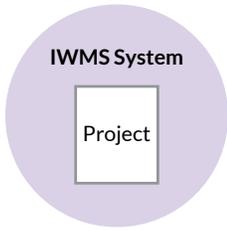
Midway through the mid-term planning phase, an unexpected increase in a headcount forecast may cause an unanticipated increase in the space gap. A space gap analysis immediately alerts the space planner to the reduction in supply inventory that now can be expected.

In the near-term tactical planning phase, a space gap analysis helps the space planner make smaller but necessary adjustments to space allocations on a campus, building, or floor basis. Using the example in Figure 4, a space gap analysis for the Cambridge building in the Boston area may reveal a space gap for the 4th floor in that building, making it impossible to fit an additional hundred new hires from the respiratory department on that floor. The local space planner can immediately take steps to overcome this challenge using the gap area information provided by the gap analysis.

Implement Selected Space Allocation Scenario

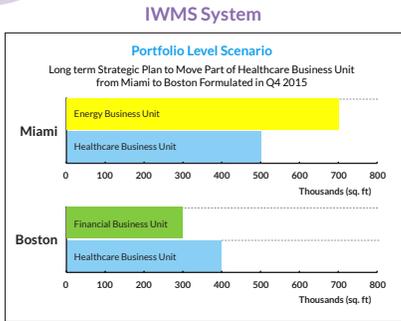
After a scenario has been approved by the cross-functional planning team, larger implementation teams are brought in. This takes place at all levels of planning: for the long term, mid term, and near term.

For example, the long-term planning team hands off the long-term plan agreed upon to regional executives for execution. The regional executives then hand off the more detailed mid-term plan derived from the long-term plan to site executives and space planners for execution. The local planning team develops a tactical execution plan based on time-based phases of the mid-term plan, which is used by a larger group of local stakeholders to actually implement the plan at the campus, building, and floor levels. The workflow described is shown in Figure 5.



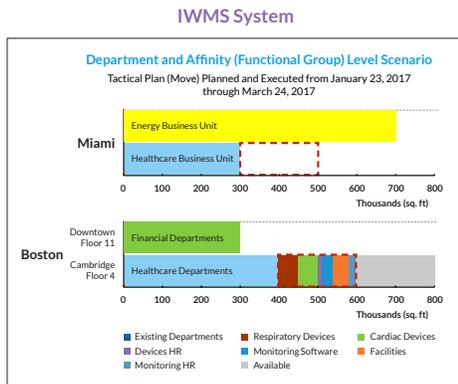
1 Begin New Strategic Space Planning Project

Figure 5: Workflows and information sharing on a strategic space planning project



Strategic Long Term Planning Team

2 Create Space Requirements & Plan or Forecast at Portfolio Level and Analyze Space Gap



Tactical Mid-Term & Near-Term Planning Teams

3 Develop Scenarios for Campuses, Individual Buildings and Floors



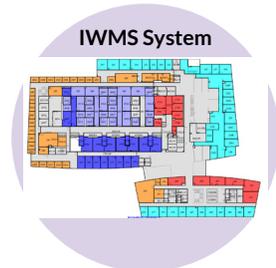
Site Managers, Local Business Unit Executives, Department Managers



Space Renovation Teams, Painters, Carpenters, MEP technicians, Move Managers

4 Share Planned Allocations with Stakeholders & Execute Space Allocations

5 Update IWMS Space Inventory with Final Allocations



Information Sharing in Space Planning Teams

Figure 5 also illustrates various planning data that can be shared by planning team members. Long-term and mid-term planning teams view and share alternative scenarios and gap analyses to arrive at a consensus on the best decision, going forward. The near-term planning team shares similar information at the local campus, building and floor levels.

In addition, an extended set of tactical team members consisting of executives and managers of soon-to-be occupant departments, renovation teams, craftspersons (such as painters, carpenters, and MEP technicians), and move managers can also share information with each other to accelerate their individual tasks toward completion. Figure 5 illustrates a marked-up floor plan that can be reviewed by local site and department managers prior to beginning floor renovations and room assignments. A marked-up floor plan accessible by craftspersons and move managers is also shown.

Key Takeaways

In any organization, strategic planning is a purposeful activity undertaken to realize a business objective. Business objectives always drive strategic space planning initiatives—not the reverse. Space planning teams can successfully plan and execute strategic long-term, tactical mid-term, and near-term plans when team members are committed to careful planning, encourage clear communication among team members, and use the right technology and planning tools to communicate expectations and goals to stakeholders. The steps, workflows, and communication methods described in this paper will help cross-functional space planning teams, at any of the described planning phases, to achieve their strategic space planning objectives.

Appendix

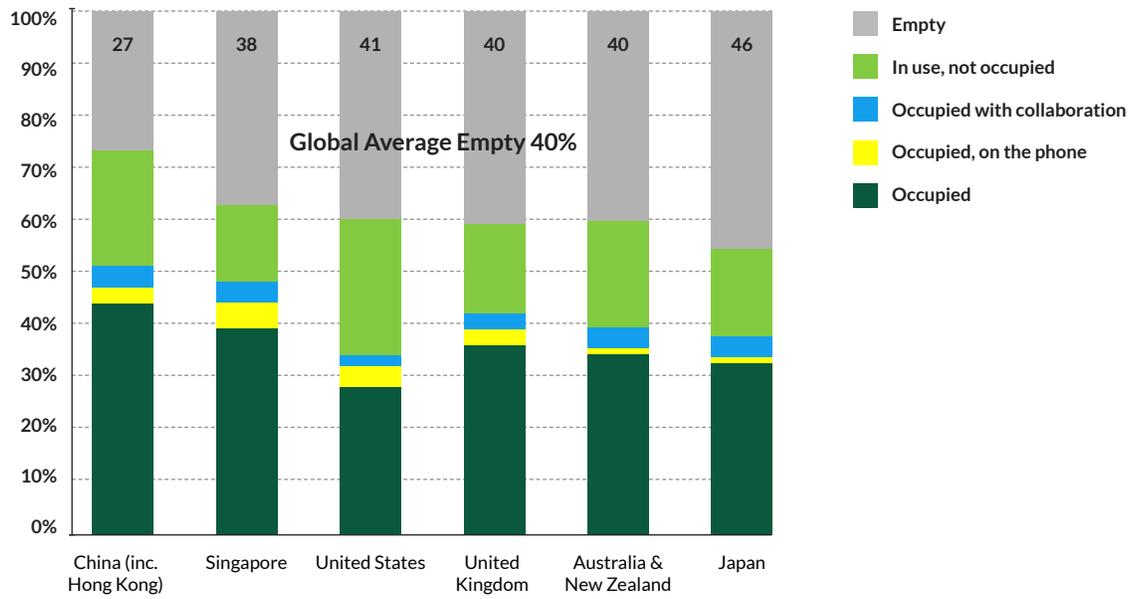


Figure 6: Space utilization by country

Source: CBRE, Workplace Strategy – Mobility Profiling Tool (MOBY), September 2015

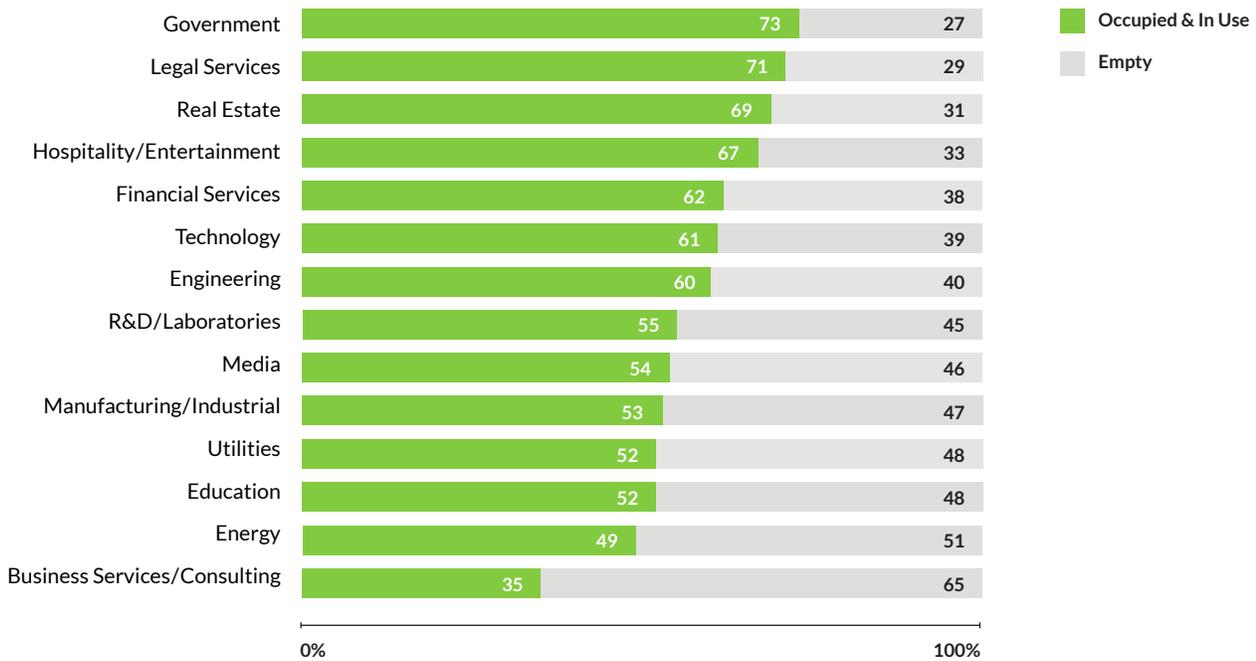


Figure 7: Space utilization by industry across markets surveyed in Figure 6

Source: CBRE, Workplace Strategy – Mobility Profiling Tool (MOBY), September 2015

Appendix

SPACE REQUIREMENTS	SPACE MODELING	SCENARIO ANALYTICS AND COLLABORATION
Type of Space Requirement Tactical Need Driven Forecast Driven	Scenario Inputs Space Requirements Potential New Space Inventory Additional Existing Inventory	Space Gap Analysis Capacity Data Allocated Area Data Allocation Rate Data Compare Gap Analysis for multiple scenarios
Granularity of Requested Space Business Unit Division Department Functional Group (Affinities)	Scenario Modeling Capabilities Stack Plan Allocation View Drag and drop space allocation elements Space Allocation Event Tracking Add/Edit/Split Space Allocations Multiple Scenarios Development	Metrics for Scenario Inventory Building Metrics Floor Metrics Room Metrics
Space Inventory Involved Sites Buildings Floors		Collaboration Print Scenarios Mark up/share scenario floor plans Mark up/share action items for scenario Link scenario to applicable project View scenario markups for linked project
Desired Allocations Summarized by Building Floor		
Desired Area Allocations Summarized by Area Room Standards Employee Headcount		

Figure 8: Key strategic space planning capabilities of an enterprise-class IWMS solution



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