



Lean and Green Real Estate Planning and Management with IWMS for Pharma and Biotech

Process Brief



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The Business Opportunity

Today's market pressures and opportunities as well as advances in science and increased consumer demand are driving a convergence in the life sciences amongst pharmaceuticals and biotechs which produce drugs, diagnostics and medical devices. All are in the process of trying to grow their businesses in a climate of diminishing returns from R&D, increasing cost pressures and heightened competition.

By crossing over boundaries and converging fields there are new opportunities for product innovation and business growth. At the same time, in the complexity of convergence, real estate is one area that must be under control to make sure that the right resources are ready at the right time and at the right cost to ensure the success of these new opportunities.

The mature pharmaceutical sector is experiencing slowing revenue growth, decreasing profit margins, and increasing research and development costs. These companies are constantly looking for new ways to innovate, improve the effectiveness of R&D, and increase efficiency and profitability. In the growing biotechnical arena, many smaller companies are being picked up by the large pharmas and the pressure is on these merged companies to profitably merge operations.

In the past many pharmas and biotechs viewed real estate as risky fixed assets which had a long lifespan (if owned) and did not require much active participation on their part. For some corporations, these asset portfolios are quite complex and often include headquarter office buildings, laboratories, warehouses, data centers and regional offices.



What many studies have determined is that these real estate assets are not being managed anywhere near as tightly as other financially significant resources. The main problems appear to be:

- Lack of a unified and centralized approach to managing the entire real estate portfolio;
- Unclear lines of authority and communication between the C-suite and the CRE/FM management;
- No consistency among CRE and FM business processes;
- Lack of concern about significantly reducing operating and occupancy costs;
- Lack of financial tools to professionally manage the real estate portfolio.

This overlooked area of financial control for life science companies is worth studying to learn how these problems can be solved. Dramatic results await the executive who understands how the cost of real estate can greatly impact financial performance. Insightful chief executive officers are assisting real estate professionals in applying the same level of fiduciary analysis to real estate as to other cost centers in the organization and thus increasing their financial IQ. There are now enterprise technologies available to provide CFOs and their real estate and facility management groups the information needed to make informed decisions on this expensive asset base as they determine where their capital should best be deployed.

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The Business Opportunity (cont'nd)

By calculating the total cost of occupying real estate assets, and then monitoring, controlling and reducing these expenses, it has been estimated that a potential gain of over 35% in shareholder value can be achieved based on only a 15% reduction in these costs. One can only imagine what the ability to get a research facility up and running ahead of schedule could mean for potential revenue.

The Manhattan Integrated Workplace Management System

Manhattan's Integrated Workplace Management System (IWMS) is one of the leaders in Gartner's IWMS Magic Quadrant. It is designed for the organization that requires an enterprise system to provide accurate and complete information about the entire real estate infrastructure. Manhattan is the only global IWMS that has full financial management capabilities. It is built with Web 2.0 technology and is designed for the worldwide real estate market with multi-language capabilities. Manhattan also includes the best-in-class spatial management capabilities of the CenterStone product line.

With Manhattan, life science companies all over the world are enhancing their business decisions, providing required transparency, reducing the total cost of occupancy and returning precious capital back to the business. Applications in this rich suite of products include software for planning and managing real estate, facilities, operations, maintenance and projects. Manhattan provides a new way for real estate and facility management professionals to work and easily integrates with other corporate information systems.

The Manhattan IWMS solution includes:

- Manhattan Real Estate
- Manhattan Facility Management (includes Asset Management)
- Manhattan Operations and Maintenance
- Manhattan Project Management

Manhattan Analytics underpins all the above applications. We will focus on how a fictitious pharmaceutical company uses Manhattan after a redesign of their existing CRE and FM business processes and how they automated these new ways of working.

Agile Pharma Chooses Manhattan for Corporate Real Estate and Facility Management

Agile Pharma is a large global pharma and biotech institution headquartered in Europe with offices (42% of portfolio), labs (34%) and pilot and specialty facilities (24%) in 30 countries with over 10,000 employees in 6M square feet. Agile Pharma recognized that they had to make better decisions on how to invest capital while decreasing their operating expenses. At the same time, they needed to innovate their corporate real estate and facility management operations. A management consultancy firm was hired to analyze the way they did business currently around the world and re-engineer or outsource those processes which were not productive or cost effective. The outside firm immediately realized that the CRE/FM group needed more accurate and reliable data to make key real estate decisions.

After doing a detailed requirements analysis and interviewing all the key stakeholders, they determined that they needed an integrated workplace management system (IWMS) to replace the many point solutions currently used to track and manage their portfolio around the world.

The consultancy issued a Request For Proposal to select the best software technology for life sciences from leaders in Gartner's IWMS Magic Quadrant; after a thorough review they chose Manhattan Software.

¹ Siems, Ole and Morten Dehli, "European Automotive Real Estate Benchmark Study," MBA Thesis for Univeriteot Muemrpde, September 2004.+

Portfolio Inventory (Supply Side Database)

The management firm worked with both the vendor and Agile Pharma's staff and implemented the solution a year ago. The following scenario describes how the North American business unit uses this software on a SaaS (Software as a Service) platform (i.e. remote hosting), along with other enabling technologies, to make both tactical and strategic capital, operating and sustainability decisions. By doing this they demonstrated that they are the best lean and green CRE and FM group in the life sciences sector and have recently won the CoreNet Innovators Award for their efforts.

Portfolio Inventory (Supply Side Database)

The first thing the implementation team did was set up an existing inventory of space tracked from the space and floor level up to the building and site and then rolled up to the regional and global level. On the floor level the space was tracked using the Open Standards Consortium for Real Estate (OSCRE) space classification standards which describes the type and function of space and includes the capacity of that space and who occupies it. The total space for each floor then was rolled up to the building and site level. Reports could now be run that determined how each space was utilized or under utilized across the portfolio. Major equipment in laboratories and mechanical/electrical components of the building were also tracked by location.

Business and Space Forecasts (Demand Side Database)

The consultants worked with each of the business units to forecast what their plans were for scientific output (pipeline forecasts), technology (lab and manufacturing equipment) and staffing for 2010 through 2015, and what was going to be done in-house vs. what would be outsourced. This meant meeting with senior market researchers and forecasters, strategic planners and product managers as they attempted to predict demand for new and in-line products and how this would affect their future needs for space and equipment.

Strategic Planning

These forecasts were translated into square footage numbers in the Manhattan Strategic Planning module and compared with the portfolio inventory to determine any opportunities for consolidation and expansion. Dan then rationalized these numbers with the CFO, Bill Aquire, to reconcile with the his company-wide forecasts. It was then determined that business units would be 'charged back' for the space they occupied; this would incentivize management to optimize space utilization. They found that in their existing buildings at least 30% of the space was not utilized in any given day. They also wanted to get a handle on this 'phantom or shadow' vacancy problem.

Since they were projecting expansion in the next few years and many of their leases were coming due (as viewed in the Lease Administration Module), Dan and his advisors decided to choose a new location for a discovery research facility. They worked with a developer to lease a build-to-suit facility on a long term lease deal on their north of San Francisco pharma/biotech campus which had various expansion locations. Janeen France, the Agile Pharma Space Planner, used the Manhattan Stacking Module to determine where each group should be located on which floor for maximum collaboration efficiency; she used the Blocking Module to determine each group's location on an ideally configured floor plate. Collaboration and cross-pollination were critical to Agile Pharma so this exercise was very important to ensure future productivity.

Site Acquisition and Transaction

Tilda Swinburne, the NA Transaction Manager, began the hunt for the perfect location on the site by talking to commercial real estate brokers, using property websites and talking to her colleagues at the local CoreNet chapter. She used a GIS system connected to Google Earth and linked to the corporate Manhattan database. It can show graphically which groups are in specific buildings scattered all over the campus. Tilda created a new project in the Project Management Module for this selection process so she could capture all the data in one location and ensure that the project was completed on time.

Site Acquisition and Transaction (cont'nd)

Five locations were chosen and each was tracked in Manhattan as a 'Potential Property' with basic information on each site. It was then easy to associate documents relevant to each property (i.e. site diagrams, maps, location analytical reports, seismic and demographic data, land use requirements, city comprehensive plans, transportation studies, building codes, zoning ordinances, design review guidelines). After Tilda analyzed all of this information via reports created from Manhattan's Business Analytics application, she chose a location which had a great deal of open space surrounding it. This would mean when employees did come to work in the research facility (an alternative workplace strategy was also instituted), they could flourish in a healthy, relaxing environment. Tilda had been influenced by reading how Jonas Salk had chosen his location overlooking the Pacific Ocean in La Jolla, California to increase the possibility of innovative breakthroughs happening in a beautiful peaceful serene environment (that area is now home to many of the major pharma/biotech firms also seeking the same results).

She then used the workflow capability of the Project Management Module to send her choice and findings to relevant managers and executives both in the United States and abroad. The system routed the standard review and approval process with anticipated completion dates. The approved project was then routed to the real estate broker who worked as an intermediary between Agile and the developer.

Site and Building Development

Both the European headquarters and North American management were excited with this new project. It was an excellent way for them to create an image aligned with their commitment to sustainability. A 'green' architecture firm, Corbu Architects, was hired by the developer since they had experience in using Building Information Modelling (BIM). The use of a 3-D model for the design of the new building was key to ensuring that the building was designed in the most energy efficient way possible and could gain a Gold LEED rating (as many of Agile Pharma's competitors were winning in their new and existing building designs). Seth Hardgrove became the Agile Pharma Project Manager for the new building and he began the new project using the data collected by Tilda for her selection project. This project data could be accessed by all the building team, both inside and outside consultants (architects, civil engineers, interior designers, etc.).

The first step for the architectural firm was accessing the strategic planning requirement data and using that as the base data for the architectural program. From there, they interviewed various employees to flush out additional requirements (personnel, space, equipment and adjacencies) and to understand in greater detail how Agile Pharma wanted to collaborate and work in the new building environment. Lucy Loo was chosen as the Project Architect by Agile Pharma because all of her experience working with BIM, which she would use to ensure maximum energy efficiency and that there would be no interference amongst the building components, which might delay construction. She was careful to use a well thought out set of naming standards when describing the building components and spaces as this data would need to be transferred to 2D-CAD and then to Manhattan's Space Management Module. By utilizing the Project Management capabilities, the building was completed ahead of schedule and cost less than the original budget estimate; this contributed to the business competitive advantages both in terms of faster product development and reduced costs.

Lease Administration

Mary Maning, in charge of all the leased properties, uses OSCRE²'s abstract format, defined as a best practice template in the Manhattan Lease Administration Module (Agile Pharma has a long term 15 year lease with two 5 year options). Since it is integrated into the financial system, it automatically updates accounts payable data. The invoices from the landlord can be reconciled electronically by comparing them against the lease terms in the abstract and, once reconciled, payment is generated. This is a substantially easier and quicker process than it was. Before the implementation of Manhattan there was a high occurrence of late payment fees and interest charges.

The new research building includes many amenities including space for emergency medical care, a health club and dry cleaning facilities which are sub-leased to outside vendors.

²The Open Source Consortium for Real Estate is a global organization working on standards for the entire life-cycle of the real estate profession. Manhattan is on committees to create these standards and integrates these standards into the software

Lease Administration (cont'nd)

Sublease agreements are established and the tenants are invoiced for rent each month. This becomes Accounts Receivable information and is tracked through the abstracting process. The obligations of the new tenant are tracked, invoices are matched with rent payments and collections are ensured. These transactions are managed by the user-designed workflow set up by the implementation team and any exceptions are flagged for problem resolution.

They used Manhattan blocking diagrams for scenario planning to test out their ideas for a 2,500 sf area which would include a library, a 'community table' for meetings and lunches, an internet café as well as a theater setting for lectures during the day and for jazz performances at night.



Financial Management

Manhattan has the most comprehensive fully integrated financial management systems in the market. This allows Agile Pharma to transfer information to their enterprise resource management system, SAP, automatically. Previous to the Manhattan implementation, there were five different asset repositories all with their own cost data. Now it is possible to easily report on the exact operating costs of the new building, particularly those which involve energy spending.

Besides the EHS Manager, Doug Englehart, two other people are benefiting from Manhattan's financial system. They are the North American Tax Director and the SOX Compliance Officer. Peter Townsend now is confident that costs are being allocated correctly and depreciation can now be applied to fixed assets automatically and correctly. In addition, expenses are appropriately defined as operating costs for each bank branch, which means Pete can track each retail location's tax liability. Also, Tom Dyson can now have confidence in the cost reports he needs to run for SOX analytics and compliance.

Space Management

Janeen, the Space Planner involved in the strategic planning process, now has baseline space data (the categorization of space used the OSCRE standard when it was first entered in the BIM model). This data was transferred from BIM to 2-D CADD floor plans and then transferred into the Manhattan Space Planning module. Each space has a unique identifier attached to each of the 5 floors of the 270,000 sf new building housing the 1500 employees. Janeen has to associate the employee data (interfaced with the telecommunications system) with the occupied space; this also includes outside contractor data. Since there are 80 meeting rooms in the building, she has also set up an automatic room reservation system accessed through the Employee Self Service (ESS) Portal from the Manhattan application.

A manager of any of the business units can also request a move in the ESS; the move request is automatically routed to Janeen's space planners where the built-in workflow tool manages the entire process from request to move-in (and updated space information). This tool was invaluable in managing the move from the six leased buildings to the new facility. A Facility Closure Checklist was sent to each Business Unit and notifies EHS, Legal, Tax, Risk Management, IT and HR of the impending move and exit from the existing buildings. Workflow manages this entire process including notification of tasks for the move and status reports.

Operations and Maintenance

The Facility Management department outsources janitorial services (using Manhattan to calculate the floor area for carpet cleaning cost estimates), but handles minor equipment repairs and reactive and preventive maintenance in-house. Any problem with the facility (i.e. the airflow system underneath an employee's feet is blocked) is logged into the ESS portal and routed to the maintenance department. All maintenance workers are equipped with mobile devices and can receive any urgent request while they are in the field.

Since this is a new building, all warranty and service scheduling can be easily captured for capital assets. These maintenance schedules, determined by the manufacturers, trigger work orders for the maintenance department. This regular scheduled maintenance ensures maximum life spans for fixed assets.

Operations and Maintenance (cont'nd)

Data from the HVAC system is integrated to the Operations and Maintenance Module and added to other information to calculate the carbon footprint of the building on a daily basis.

Performance Measurement and Business Analytics

Now that the building is built and occupied, it is necessary to monitor its performance. Manhattan has a Business Intelligence layer of reporting which overlays the entire system and allows for analytical reporting which allows managers make informed real estate decisions from visual graphics in a Web browser.

Jane Leavy, the manager of the business analytics group, has worked with the VP of CRE to set up the key performance indicators for NA and those that the Global Sr.VP of CRE wants to see for global analysis. One major focus for Jane was understanding the Total Cost of Occupancy (TCO) and comparing the operating costs of the new building to the costs of operating the other buildings in the portfolio. Manhattan allows for detailed cost reports using the IPD Property databank classifications³ for breaking down real estate occupation costs, renovation and equipment costs, building operation costs, business support costs and occupancy management costs. Using this standardized coding system, NA costs can be benchmarked with occupancy costs around the world.

Manhattan: The Only Global CRE and FM GPS System

Manhattan was designed from its inception not only for real estate and facility management operations, *but for strategic planning and financial management of an organization's occupancy spend wherever they are located in the world.* As more and more Corporate Real Estate Executives report to the Chief Financial Officer, Manhattan has become their critical GPS system to navigate the sea of financial data needed to be reported up the corporate ladder.

Manhattan is one of the only IWMS which has been designed from a financial point of view for real estate and facility management groups.

Since the first users of the system were institutional investors, their real estate asset class had to be planned for and managed as accurately and specifically as any other asset class in their investment portfolios with a clear view of financial value. They required a software solution which could give them detailed information to make critical decisions about whether they should add to, leverage or dispose of assets depending upon their value to their business.

Now corporate real estate and facility management groups all use the same set of tools to plan for any changes to their portfolios, manage these assets to avoid disruptions, reduce costs, and support the business of their organizations. The Manhattan application suite helps achieve the following financial goals for an organization:

- Reduce operating costs and capital expenses
- Produce the highest revenues in the shortest time periods
- Maximize return and profit
- Manage and avoid risks
- Achieve shorter time to market
- Minimize turnover

The functionality throughout Manhattan focuses on two main areas: creating and maintaining operating budgets and providing capital project management financial analysis and reporting. These are the communication tools used for liaison between real estate accounting and corporate accounting's ERP system, as well as between external auditors, landlords and tenants. Real estate requires a much finer breakdown in costs than ERP systems normally track; these costs can then be rolled up to the higher level categorization required for corporate enterprise reporting.

Manhattan is also the tool to ensure compliance with GAAP, FAS 13 and Sarbannes Oxley. It includes a Real Estate General Ledger with full accounts payable/accounts receivable and includes a chart of accounts modeled on the Occupiers Property Databank for financial performance benchmarking on Total Cost of Occupancy. Since Manhattan was created for the global marketplace, currencies and measurement and tax systems are provided for each location, wherever you are in the world.

³ International Property Databank (IPD) International Total Occupancy Cost Code, 2008, UK.

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