



THE PHARMACEUTICAL SECTOR: REAL ESTATE IMPLICATIONS OF INDUSTRY-WIDE CHANGE

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INTRODUCTION

As a truly global consumer of the widest range of property asset types and the most expensive buildings, the pharmaceutical sector is of significant importance to the real estate industry. The sector faces wide ranging structural challenges that will lead to unprecedented levels of portfolio activity in the coming years in both mature and emerging markets. This report aims to highlight these challenges, identify the approaches industry is adopting to address them, and provide some commentary on the likely implications for real estate.

To help validate assumptions and provide depth to our analysis, CB Richard Ellis (CBRE) undertook a benchmarking survey with the leading companies in the sector. We invited real estate leaders in each of the top ten global pharmaceutical companies to participate in a questionnaire based survey, focused on the issues facing the industry. The results indicate strong potential for changes within the industry to generate a range of real estate activity in the coming years.

OVERVIEW

CBRE's survey of key industry decision makers demonstrates that the top ten global pharmaceutical (pharma) companies occupy at least 430m sq ft of office, manufacturing and specialist research space around the world, of which approximately 75% is owned - one of the highest ownership ratios of any corporate sector.

Significant change is already being seen and is likely to accelerate as companies address the challenges of maintaining product pipelines, and improving both margins and return on investment. Our survey shows the immediate and ongoing impact on real estate as companies respond through increased M&A activity, partnering and collaboration, and by seeking to optimise both the location of business activities and how they invest research budgets.

The key real estate trends illustrated by our survey include:

- Significant levels of post-merger real estate consolidation; firstly with offices followed by R&D and manufacturing space
- Increased monetisation of owned assets; again led by the office portfolios but also likely to include specialist assets

- Manufacturing overcapacity in mature economies, coupled with growth in lower cost economies, will lead to ongoing closures and dispositions. Some sites will be sold to contract manufacturing organisations (CMOs) as going concerns
- R&D optimisation will lead to the opening of established research sites to external parties and the acquisition of facilities in established open innovation hubs.

The survey endorses our experience that shareholders and business leaders in the pharma sector expect rapid advancement of these activities. This is leading to a change in both the organisational structure of internal real estate teams and their relationship with global real estate advisers.



SECTOR CHALLENGES

When we see pharma companies participating in the property market, this is usually a response to a long chain of events that started as an attempt to address the challenges facing the industry, as well as their specific businesses, which include:

Patent Expiries:

The 20 year period of exclusivity that a patent provides is typically consumed by ten years of development before a product receives regulatory approval and sales can commence. Before turning a profit, the revenue generated for the remaining period of the patent must recoup both the costs of development and manufacturing and also the costs of the numerous other potential products that will have inevitably failed during the earlier stages of development. At patent expiry, the producer loses its exclusivity and the drug becomes a generic commodity that can be manufactured by generic specialists that have no drug discovery pipeline to fund and operate a minimum cost/low margin business model.

As widely reported in the press, in the next five years the top 10 pharma companies face losing approximately €90bn (US\$135bn) in annual revenues from patent expiries. In 2010, this will include many global blockbusters including for example Lipitor, which currently generates c. €8.5bn (US\$13bn) in annual sales.

Pipeline Deficiencies:

Historically pharma companies have been able to maintain a pipeline of new products that have come to the market in time to replace revenue lost from patent expiries. This is no longer the case, as a combination of late-stage new product failures and poor returns from R&D spend have reduced the number of high revenue generating products due to come to market.

Pharma companies have responded to pipeline deficiencies by developing partnerships with younger, more entrepreneurial companies, agreeing licensing deals with the owners of IP (intellectual property) and by significant levels of M&A activity. At the same time, internal R&D models are being reviewed and changed to improve return on investment.



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Revenue Pressures and Increasing Costs:

Although technological breakthroughs such as high throughput screening and the new research methods developed by the biotechnology sector have delivered efficiency improvements to the drug discovery process, the costs of maintaining a new product pipeline has continued to increase. At the same time, the largest customers for drugs – State/Federal healthcare agencies that ultimately pay for or subsidise prescriptions – have become much more aggressively focused on getting value for money and cutting budgets as they address the wider global recession.

It is expected that the pressure on margins from higher development costs and reduced healthcare budgets will continue and pharma companies will step up cost reduction/containment strategies to counteract this effect, including an increase in the use of contract research and contract manufacturing organisations (CROs/CMOs).

SECTOR TRENDS – RESPONSE TO INDUSTRY CHALLENGES

The sector is addressing the challenges it faces with a number of overlapping strategies:

M&A:

M&A activity in recent decades has occurred via several well-spaced steps, starting with the creation of AstraZeneca, GlaxoSmithKline and Sanofi-Aventis in the mid to late 90s; followed by Pfizer's acquisition frenzy in the early 2000s (absorbing Upjohn, Pharmacia and Warner Lambert); and the recent period characterised by piecemeal strategic acquisitions, including Roche's acquisition of Genentech and the mega-mergers of Merck with Schering Plough and Pfizer with Wyeth.

The mergers of the early 2000s have not generally delivered the lasting solution that was hoped for at the time and in some cases margin performance has been weaker post-merger. It is clear though that key lessons have been learnt from earlier acquisitions and subsequent restructuring that have dictated a different approach for the current crop of mergers. It is expected that the merged organisations will be brought together much more rapidly this time round with consolidation being accelerated, particularly amongst the predominantly office based sales and marketing/administrative functions.

Merging R&D and manufacturing remains a complex challenge that demands a more measured and careful approach; but in many cases the merger will act as a catalyst for the wholesale reorganisations of these functions that has been ongoing in the pre-merged entities.

Rather than advocating the mega-merger, some top ten companies have approached the need to fill the product pipeline through a series of much smaller acquisitions of younger, smaller biotechnology companies, which, in addition to securing IP, has exposed these companies to a different, more agile operating and product development model, and a different approach to property.

Location Optimisation:

Many pharma companies can trace their history back to the early part of the 20th century – and many still occupy sites that were acquired decades ago or during the early years of their existence. Some of these sites evolved to become all-purpose campuses containing manufacturing, R&D, sales, marketing and administration functions. It is common to find that these individual functions are operating in locations that are sub-optimal for their particular needs, although the costs and disruption of a move have often prevented a viable relocation.

It is certainly true that companies created during the biotechnology boom in the late 90s have chosen markedly different locations than those established by the pharma companies. The pharma sector is beginning to gravitate towards these more optimal locations.

The pressure to reduce cost and improve margins, and the desire to improve returns from R&D, amongst many other factors, have driven the trend to move different functions to locations that are optimal for their needs. Specifically:

Location Preferences by Function, Nov 2009

Function	Location Preferences
Manufacturing	Generally moving to locations with a fair balance of low cost, technical capability and reliable utilities. Robust demographics, favourable tax and availability of local incentives are also important.
R&D	Favour established R&D clusters that show strong success criteria, such as; existence of a skilled workforce, presence of other R&D entities, established science networks, active market in laboratory buildings and opportunities to collaborate with academic/institutional research entities.
Sales & Marketing	Moving to mainstream office locations with easy access to customers, government entities, international transport hubs and with mature office markets.

IMPLICATIONS FOR REAL ESTATE

These sector challenges will have a direct impact on the global property market and addressing these challenges will be demanding; requiring CRE leadership to be proactive and prepared, ensuring advanced planning and financial capability.

Consolidation:

The first wave of activity during the next 12 months will see the consolidation of office accommodation as post-merged entities drive efficiency savings through the least complex part of their business, eliminating the numerous duplicated sales and administration offices that will be present in most global cities.

Drive for Efficiency:

We may also see the sector accelerating the deployment of space efficiency initiatives that are well established in other sectors, such as global workplace standards and alternative work programming.

Monetisation:

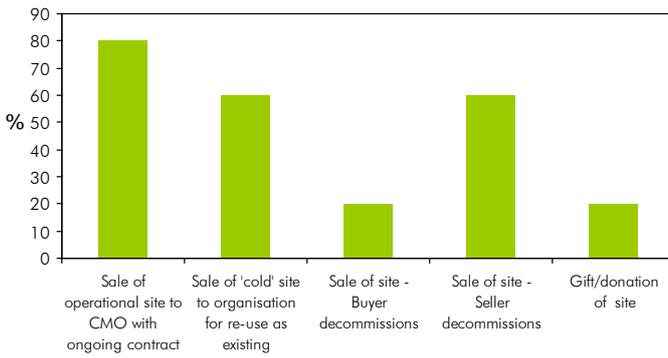
At the same time the high proportion of owned assets that are typical of mature pharma companies may be monetised either through sale and leaseback or vacant sale – 80% of our respondents confirmed that they are considering or already undertaking monetisation projects for generic assets (offices, warehouses etc). This will free up funds to help offset merger costs and pay down debt. Initially this is most likely to be generic office space but we may see specialist assets (such as laboratories and production plant), and perhaps whole campuses being monetised via the same routes or through joint ventures.

Few respondents thought that specialist assets would be considered for monetisation, while this perhaps confirms the view that the benefits of ownership for this asset type are still worth more than the cash that could potentially be released, it probably also points to a lack of demand for specialised assets from the mainstream investment market. This may change as the number of landlords that understand the dynamics of specialist assets increases.

Manufacturing Disposals/Relocation:

Post M&A re-structuring will lead to over-capacity of manufacturing and the closure of surplus sites. Closures will be predominantly in mature markets in Europe and North America – a small number of such sites will continue in use either by being acquired by other companies in the sector, by CMOs that will continue production under contract or be converted to manufacture different non-pharma products. The majority will be sold and redeveloped for alternative use.

Successful Disposal Routes for Manufacturing Sites (04-09)



80% of respondents confirmed that whilst their manufacturing capacity was not in optimal locations, the huge cost and timescales associated with these assets presented a significant challenge to overcome before a relocation can be undertaken.

Ranked Criteria for Manufacturing Location Optimisation

Rank	Criteria for Manufacturing Location Optimisation
1 st	Skilled labour / availability to attract skilled labour
2 nd Joint	Presence of robust legislation / regulation
2 nd Joint	Government support
3 rd	Presence of existing pharma manu.
4 th Joint	Transport infrastructure
4 th Joint	Partner presence eg. CMOs

An increasing proportion of pharma products will be manufactured in lower cost economies such as Eastern Europe, India and China, accelerating a trend already started by the big generic manufacturers. The scale-up process from laboratory to mass production (making use of pilot plants) and some smaller scale highly complex manufacturing will remain in mature economies. State drug regulations may also necessitate retaining localised production.

R&D Location Optimisation

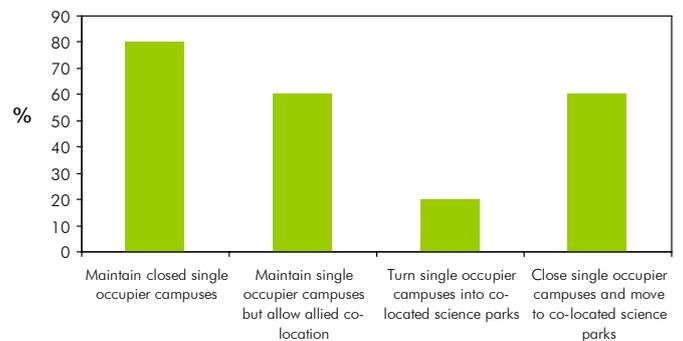
For R&D, the trend that favours locations that facilitate open innovation and collaboration with third parties as opposed to the more traditional closed single occupier sites will accelerate. Pharma companies are already making use of science/innovation park environments either directly by acquiring space for their own occupation or indirectly by the purchase of smaller biotechnology companies that are already present.

Ranked Criteria for R&D Location Optimisation

Rank	Criteria for R&D Location Optimisation
1 st	Availability of/ability to attract skilled labour
2 nd	Effective scientific networks/infrastructure
3 rd	Robust legislation/regulation
4 th Joint	Existence of support services
4 th Joint	Supportive policy environment
4 th Joint	Entrepreneurial culture
5 th	Presence of existing R&D/big Pharmas
6 th	Availability of finance

Given the huge cost of laboratory buildings and associated specialist facilities, pharma companies will also continue to look to remodel existing closed campuses to encourage third party occupation – making an expensive move unnecessary and effectively converting these sites to science parks. For smaller enterprises in the sector these parks may provide access to specialist facilities, scientific services and other amenities that they could not otherwise afford and are often not available at more traditional science parks.

Preferred Medium to Long Term R&D Strategy



New Corporate Real Estate Model:

Our survey firmly illustrated a desire for a more centralised, fully mandated real estate team in order to facilitate the demanding program of change and escalate the importance of real estate within these companies. Most respondents admitted to not having an established real estate component to their M&A process and many had a strong view that real estate was not sufficiently catered for when undertaking M&A activity.

THE FUTURE

- High levels of disposition activity in mainstream office locations globally
- Increasing levels of monetisation of generic assets in mature/developed markets
- Selective monetisation of specialist assets where market will support
- Creation of JVs of large campuses in some markets
- Significant levels of manufacturing site dispositions in mature markets
- Increasing levels of demand for manufacturing capacity and sites in emerging markets/low cost economies
- Transfer of sites via business sales and outsourcing to CMOs and CROs
- Increasing use of specialist R&D environments such as Science and Innovation Parks
- Creation of open, multi-occupied science parks from existing closed single occupier campuses

ABOUT CBRE LIFE SCIENCES GROUP

CB Richard Ellis' Life Sciences Group provide advice specifically tailored for occupiers of life sciences related commercial real estate who are seeking to maximise the value from property expenditure.

We are staffed throughout the major life science regions in the United States and Europe. Our people pay attention to the local, regional and global bioscience environment and anticipate how these business and economic drivers will affect your business as well as how facilities and real estate decisions support your business objectives. We are passionate about solving the unique real estate challenges faced by life science firms.

FOR FURTHER INFORMATION

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Nick has over 20 years' experience working with multi-national corporates, investors and the public sector. In particular his expertise extends across the global pharmaceutical sector, providing advice to the full spectrum of the industry from global pharmaceutical clients to UK public sector organisations. In recent years Nick has been involved in the creation of new R&D environments including leading the creation of the Harwell Science and Innovation Campus and Colworth Park Joint Ventures as well as the monetisation of specialist assets such as manufacturing plant, laboratories and infrastructure.

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