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TECH TITANS BUOY EUROPE'S OCCUPIER MARKETS: HOW THE NEW TECHNOLOGICAL REVOLUTION IS IMPACTING REAL ESTATE MARKETS

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OVERVIEW

At a time when many businesses are delaying decisions and reducing their footprint, technology and telecommunication (T&T) companies have proved among the most active occupiers and have been responsible for a series of notable deals across several European office markets. London, Dublin and Berlin in particular are among the cities which have benefited most from this increased activity. However, not all companies within this broad sector are faring alike. Consequently, from a real estate perspective the property needs and the focus of real estate strategies also vary significantly. There are nonetheless a number of issues, such as access to talent and the need for flexibility, that are intrinsic to this fast changing and innovation-driven industry. In turn, these factors are shaping and impacting the locational and portfolio decisions of T&T organisations.

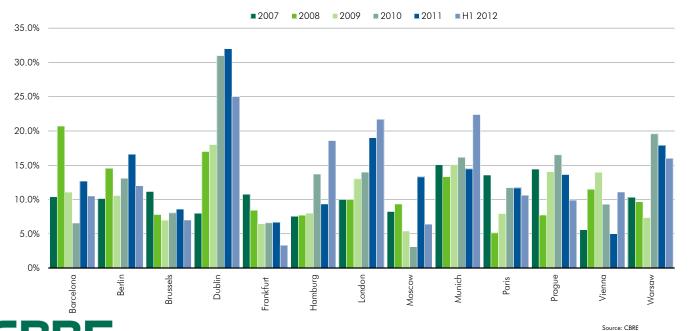
Although the T&T sector is not immune from another financial crisis, we expect it to continue to play a leading role in the European office markets, driven by expansion plans of fast-growth companies and space requirements of new entrants. The continuing efforts of more established T&T firms to optimise or consolidate their portfolios, along with the anticipated increase in merger and acquisition (M&A) activity, is also seen as another important generator of activity.

INTRODUCTION

The uncertainty surrounding the economic recovery in Europe continues to be reflected in relatively weak levels of occupier activity across many cities. Due to this ambiguity surrounding the economic situation even in the short-term, businesses are exercising increased caution and often opting to delay capital decisions. Against the backdrop of increased tenant hesitancy, CBRE data has revealed a remarkable rise in the recent activity of IT and tech-related companies' across several European office markets.

London is a city where this trend has been particularly apparent. Last year, the TMT (technology, media and telecommunications) sector accounted for approximately 19% of annual take-up, against a 2007-2010 average of around 12%, and rose further to over 20% in the first half of the 2012. In London's West End, where TMT companies are mainly concentrated, take-up from these companies more than doubled between 2008 and 2011, lifting the sector's contribution from 12% to as much as 25% of total West-End take-up over the same period.

Technology occupier contribution to leasing activity



Dublin, and more generally Ireland, is also on the radar of T&T organisations. Recent data shows that 60% of new jobs announced in Ireland by Foreign Direct Investment (FDI) companies over 2012 are in the T&T sector. In particular, this investment has been led by U.S. companies either entering or expanding throughout the country, including Apple in Cork, IBM in Dublin and HP in Kildare and Galway. Many of these companies are attracted by the relatively low corporation tax rate (12.5%) and the availability of a young, skilled and English speaking workforce. Subsequently, the country is often seen as a gateway for further expansion in Europe. This interest is mirrored in take-up levels. In Dublin, between 2004 and 2009 the proportion of overall office take-up signed by T&T occupiers averaged 17% of total space leased, and has increased to an average of 30% since 2009.

Recent lease transactions from T&T occupiers in Europe

DATE	CITY	COMPANY	SQM
Q1 2012	Berlin	Rocket Internet GmbH	8,800
Q2 2011	Berlin	Amazon	8,300
Q4 2011	Berlin	Groupon	7,500
Q1 2011	Dublin	Google	19,800
Q2 2012	Dublin	BSkyB	3,200
Q3 2011	Dublin	Dell	3,060
Q1 2012	Dublin	LinkedIn	2,090
Q2 2012	London	Skype	8,300
Q2 2011	London	Google	14,600
Q4 2011	London	UBM	9,600
Q4 2011	London	Nokia	5,400
Q4 2011	London	Telefonica	4,700
Q4 2011	Moscow	Mail.Ru	29,900
Q3 2011	Moscow	Kaspersky Lab	29,800
Q2 2011	Munich	Lantiq	12,700
Q2 2012	Munich	NTT Data/Cirquent	9,000
Q1 2011	Paris	Google	11,000
Q2 2011	Paris	Telindus	9,200
Q2 2012	Warsaw	T-Mobile	27,000
Q4 2010	Warsaw	Asseco	8,500
Q1 2011	Warsaw	Signity	5,500

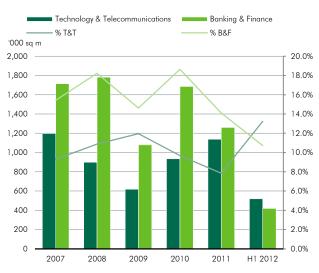
Source: CBRE

Other cities across the continent are also benefitting from the increased activity of T&T occupiers. In Berlin, they generated almost 17% of annual take-up in 2011. The city, host to prestigious research institutes and renowned for its creative and vibrant cultural scene, is luring a growing number of companies in this sector and is becoming one of the European hotspots for T&T and creative businesses, particularly internet start-ups.

Munich, Warsaw and Moscow have also seen a hike in the sector's contribution of late. In the Russian capital it reached over 13% in 2011, boosted by two of the largest transactions recorded across the whole market last year.

Brisk demand from these companies has benefitted local occupational markets, partly helping to make up for the reduced demand emanating from other sectors, especially from the banking and finance (B&F) sector. In the first half of 2012, T&T companies overtook B&F companies in terms of total leased space in European cities for whom data is available. The data also shows that T&T companies' relative contribution to leasing activity in Europe has been stronger in times of economic downturn, such as in 2009 and in the first half of 2012.

T&T vs. B&F sector take-up



Source: CBRE

* Data for London, Vienna, Paris, Brussels, Prague, Zagreb, Frankfurt, Hamburg, Munich, Berlin, Budapest, Warsaw, Moscow, Bratislava, Barcelona, Dublin.

A NEW TECHNOLOGY BOOM?

The strength of demand from T&T occupiers highlights the relative resilience of the industry to the unfavourable economic climate. Despite the moderate stock-market performance - the Nasdaq 100 Technology Index lost 7% of its value last year amid increased market volatility - T&T companies have generally fared better than most other industries.

Many companies are capitalising on the opportunities created by the development and rapid diffusion of new technologies and systems, such as cloud computing, big-data, and the growth in mobile devices use such as smart phones and tablets. Many of these products did not even have a market until a few years ago. According to recent forecasts from Gartner, more than 103 million tablet devices will be sold in 2012, with sales expected to triple to 326.3 million in 2015.



In the same vein, Gartner expects enterprise public cloud services spending to grow by nearly 20% this year on the previous year to \$109 billion, compared to a predicted overall IT spending growth of 3%.

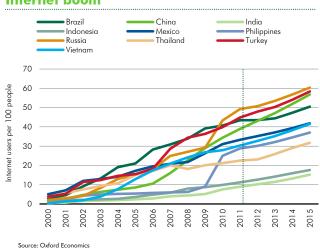
Some of the most successful companies are harvesting the fruits of their innovation. They have hoarded substantial cash reserves on their balance sheets despite the economic turmoil, which they can now use to fund their growth. This cash also serves to reduce their dependence on debt and jittery financial markets. It is estimated that the cash reserves of the 10 largest T&T companies amount to approximately \$300 billion.

Much of the recent fervour around the T&T sector is not solely linked to new product innovation, but equally to the application of technology to other fields, such as media, advertising, fashion and sales. New companies have emerged in this space, some of which have recently made their debut on the stock market at impressively high valuations, partly contributing to the revival of fears of a new bubble.

Nonetheless, this new "boom" – if it can so be called – seems to differ from its predecessor in the early 2000's. Investor exuberance, which characterised the dot.com period, seems generally to have given way to a more prudent approach. During the dot.com bubble, a lot of money was poured into companies which were making virtually no profit and had no clear business plan. Nowadays, more attention is paid to the sustainability of businesses. Companies that want to access funding must demonstrate a credible business model and that they can generate a sustainable stream of profits.

In addition, whilst some well known firms, mainly from the U.S. Silicon Valley, have registered a steep rise in their stock quotations, the Nasdaq remains well below the peak reached in the early 2000's before the bubble burst. Moreover, the use of internet and other technological devices is now far more widespread than it was just ten years ago.

Internet boom

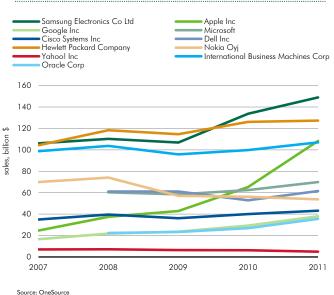


This, combined with the growing competition in the marketplace to meet frenetic consumer demand, indicates the innovation momentum will continue. Taking into account all these elements, worries of a new bubble, seem, retrospectively, less justified than in the past.

A MULTIFACETED SECTOR

The buzz around the technology sector however masks a growing polarisation within the sector itself, with some sub-sectors performing better than others. This is partly a reflection of the ongoing shift from hardware-centred industry, to one of service and software-driven. This shift is remodelling the competitive landscape and strengthening the position of some companies at the expense of others. For example, some relatively young companies, particularly in the less saturated IT and media space, are currently experiencing a rapid growth of their business and revenues.

Not all faring alike



Most of them have lean organisations and are quickly building their sale, marketing, and research and development (R&D) networks, and increasing penetration in new markets. These companies have been responsible for many of the acquisitions registered across Europe of late. More established T&T companies that have capitalised on opportunities and taken the right strategic decisions, have also been able to position themselves ahead of their competitors and are faring well.

In contrast, there are others that have lost some ground against competitors. Many of these companies belong to the first generation of single-product telecom providers and generally to the category of "late movers". Companies that have been slow to embrace technological change and readapt their product offering to shifting consumer tastes, and are now seeing the consequences of their inertia.



To stem market share loss, some of these organisations have been forced to review their business strategies, and are now going through a substantial transformation of their business, almost always entailing substantial job cuts. Generally, the sector is extremely dynamic and companies' fortunes can shift rapidly, as exemplified by Samsung's rapid market share growth in the tablets market over the last few years.

From a real estate perspective, different business priorities entail different approaches. Whilst the focus of new generation, fast-growing companies is on ensuring their portfolio is in line with rapid business growth, most of the mature high-tech firms such as IBM, Dell, Oracle, Microsoft and Intel already have well-established operations, and are focused more on portfolio optimization and driving greater efficiency. Some others, including several telecom infrastructure providers, grew their portfolio size significantly in the past, but have been undergoing large portfolio restructuring as a way to reduce costs in response to faltering demand for their products.

Bearing in mind all these distinctions, it is possible to identify a broader range of issues that are critical to most T&T firms and that have, directly or indirectly, an impact on these companies' location decisions, the way they occupy space and manage their real estate portfolio.

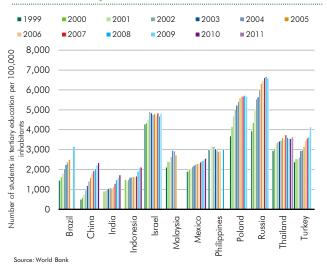
THE GLOBAL QUEST FOR TALENT

One of these issues has to do with talent sourcing. In an industry where innovation is a fundamental part of the business, the ability to secure access to the right staff is of primary importance to T&T companies. The pattern of expansion of global hightech firms' R&D networks suggests they are increasingly looking beyond their domestic borders to do so.

The T&T sector is no exception to the well established practice of off-shoring lower value manufacturing and assembling functions, along with back office and administration activities. However, the offshoring of more strategically important units such as R&D is relatively more recent. Hi-tech firms are playing a leading role in this field, being among the first to transfer R&D outside their domestic markets. Perhaps unsurprisingly, emerging economies, with the availability of a large pool of specialised talent, untapped markets, and competitive cost bases, are viewed as ideal locations for expansion, and R&D off-shoring. As a result, they have been among the main recipients of this kind of investment from hitech companies over recent years. The continued shift of economic power in favour emerging markets and the lamented growing shortage of highly skilled personnel in more mature markets are both factors that point to a continuation of this trend.

The availability of human capital is therefore one of the key variables to monitor to predict the direction of the next wave of expansion of talent-hungry technology companies.

New markets, new talents



M&A

In parallel, many companies have been pursuing an aggressive acquisition strategy over the last few years. Due to its dynamic nature, the T&T sector is a particularly fertile ground for M&A activity. According to Ernst & Young, the value of M&A Technology deals in the U.S. market amounted to approximately \$125 billion in 2011, up from \$107 billion in 2010.

A few companies in particular have recently announced strategic transformations of their business. In many cases this has been followed by new acquisitions, such as HP's purchase of Autonomy, a software company. This shift in strategic direction is evidence of some companies' efforts to diversify their product range, move away from declining segments of the market and to refocus their business towards more profitable areas. The stiff market competition, the constant need for innovation, the opportunities created by the emergence of cloud computing and T&T companies' large cash balances are all factors pointing to increased M&A activity and to growing consolidation in this sector in the near future. This expectation is shared by the large majority (over 75%) of the T&T companies that took part in CBRE's latest European Occupier Survey.

At the same time, there are also a number of potential issues that may constrain M&A. One of these is linked to the technological compatibility between the systems and products used by the acquirer and the target company.



Incompatibility can restrict the number of potential targets and undermine the success of M&A activity. It requires an in-depth assessment of the degree of compatibility between technologies and products of each of the parties involved in the process, and more generally of the potential business synergies between them.

The valuation of intellectual property (IP) is being more closely linked to overall company worth than ever before. Having processes to capture, manage and protect IP aspects is also crucial for the successful outcome of a M&A transaction, as well as being vital for long term company growth. Generally, there is increased recognition among T&T firms of the importance of effective protection and safeguard of IP rights. Companies are now taking greater precautions to ensure their investments are properly rewarded.

From a real estate perspective, one major challenge is preserving the flexibility of portfolio following acquisitions. Many T&T companies have grown significantly through M&A in the past, and some are still dealing with legacy portfolios. Those companies able to ensure that real estate does not hamper their operations are those best placed to reap the full benefits of the new acquisitions.

THE NEED FOR FLEXIBILITY

Flexibility is a critical issue for T&T occupiers. Over recent years, the rapid acceleration in the pace of technological innovation, and the consequent shortening of product lifecycle, have further heightened the importance for firms to have flexible organisations and portfolios that respond quickly to market developments and to the changing competitive landscape. In the current economic climate, for many this need must also be balanced with cost effectiveness, which typically needs a longer term and more certain outlook.

One way many T&T companies traditionally seek to achieve greater flexibility is through shorter leases. Companies like HP for example are committed not to sign long term leases in all business cases. In many cities, leases signed by T&T occupiers are typically shorter than those signed by other occupier groups. In Dublin for example, it is rare for T&T companies to commit to leases longer than 5 years, compared to a more typical 10-year lease.

Flexibility does not only serve footprint reduction objectives. For many fast growing T&T companies, who do not know what their requirements are going to be even in the short term, having expansion options to accommodate potential business growth is often a prerequisite in building choice.

REDEFINING THE WORKPLACE

Technology has a profound impact on our everyday life, and has deeply changed the way we communicate, socialise and interact. In a similar vein, technological innovation is continuously redefining the dynamics of the workplace and driving shifts in workspace utilisation and working habits. The quick spread of hot-desking and homeworking for example is a manifestation of this process. CBRE's European Occupier Survey shows that over 65% of the respondents expect technology to have an impact on their real estate strategies over the next two years, with cloud computing expected to have the biggest influence.

T&T companies are not only passively driving change with their products, but are also playing a leading role in the transformation of traditional workspace and pioneering new work styles. The interest in alternative and more flexible space configurations is not solely confined to this sector. For a variety of reasons, other businesses are increasingly receptive to changes in workspace use. However, there are a number of specific factors that are facilitating the adoption of these from certain T&T companies.



Source: Giuseppe Boscherini, Creative Director , CBRE Ltd

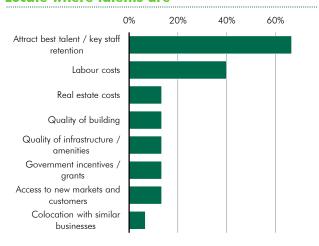
One of these is again related to the issue of talent attraction and retention. To meet the aspiration of their young and creative workforce, and to foster a more collaborative work environment, many technology companies prefer open and flexible layouts, where interactions are easier and the delineation between work and leisure is typically less sharp. This is particularly true of new generation companies, for many of whom the physical environment plays a critical part in defining their business 'culture', and is a powerful tool to differentiate from competitors.

Within more traditional T&T companies, or companies where traditional forms of workspaces are dominant, the interest or ability to adopt these models may be more limited. Also limiting is the relatively high capital expenditure required for initial fit-out and maintenance at a time when many companies are looking to rein in their spend.



The prominence of talent attraction and retention considerations in tech companies' real estate decisions is illustrated by the results of the latest CBRE's European Occupier Survey. Questioned about the factors influencing their location and building choice most, the majority of T&T occupiers interviewed indicated staff attraction and retention as the main driver. Real estate costs, the factor that attracted the highest number of responses for the entire sample, comparatively was cited only by a small number of tech occupiers.

Locate where talents are



Source: CBRE 2012 European Occupier Survey

LOCATIONAL PREFERENCES

Partly for this reason, many T&T companies are keen to locate in urban centres which offer the amenities and the environment most of their staff want to work in. In Dublin for example many tech companies are concentrated in the city centre, mainly in the Docklands or the CBD, where it is easier for them to attract or retain staff.

This urbanisation is partly an indirect consequence of the changing nature of technology. In the past, technological innovation was to a greater extent based on hardware and infrastructure development, that required different levels of resource and different types of space to accommodate them. The gradual "dematerialisation" of technology, particular the shift towards cloud based applications, has contributed to change the space requirements of T&T companies. New technology businesses can be set up and thrive even with smaller staff and footprints. For many companies, being in proximity to other firms and/or around knowledge centres as research institutes, campuses universities), where they can have access relevant business networks can be as important.

The "Silicon Roundabout" in London's Shoreditch district is a clear example of the advantages of clustering and of locating in an urban environment.

The area has recently seen a proliferation of new start-ups, which has turned it into one of the hot spots for digital businesses in the city.



Source: Giuseppe Boscherini, Creative Director, CBRE Ltd

Yet the locational preferences of T&T companies are not uniform. In Paris, many large tech companies, including several telecoms operators, have clustered in the city's southern outskirts around the Saclay technology campus and within nearby municipalities of Issy-les-Moulineaux, Boulogne-Billancourt and Meudon, where they can have access to a greater availability of quality space suitable for their activities. By contrast, most of the younger internet companies traditionally prefer the urban backdrop offered by central districts.

within Likewise, locational each company, approaches vary across the portfolio. Especially larger hi-tech companies, have complex organisations, encompassing a variety of roles and functions, each with different tasks and needs. While for representation and creative functions (such as programmers), being in the right building and "setting" matters, partly for the reasons discussed above, for lower added-value divisions such as support and back-office, for whom skills are also generally more abundant, location is typically a less stringent building selection criteria and cost minimisation usually plays a greater role.

For some T&T companies, however finding the right type of space is becoming increasingly difficult. In Berlin for example, the availability of the kind of "loft-style" space sought by certain occupiers is relatively limited, and insufficient to meet larger demands. This has recently pushed two large internet companies to review their plans and take space into more traditional buildings at higher rents in the Mitte (CBD). Beside the Mitte, most technology occupiers are located in the trendy and more alternative Prenzlauer Berg and Kreuzberg districts, where rents are cheaper but large units of creative space are in short supply.

A consequence of this is that many T&T companies still require extensive build-outs for their offices, something not all landlords are prepared to contribute given the relatively short leases these companies typically seek.



CONCLUSION

Boosted by growing consumer demand for technological devices and new innovations, the T&T sector has outperformed most other industries, and T&T occupiers as a result are driving office demand and take-up in many European markets. The following points summarise some of key trends and issues faced by these companies that have been analysed and discussed in this report.

A repeat of the early 2000's crash seems unlikely: the technology sector fundamentals appear healthier than during the dot.com bubble. Reminiscent of those times, investors appear to have become more discerning and cautious. Similarly, many young technology companies seeking funding are demonstrating viable business models, which was not always the case in the past. In addition, the use of technology is now more widespread than ever and the emergence of cloud computing and other systems is widening the spectrum of opportunities for T&T companies to diversify and develop further their product offering. Last but not least, a lot of recent buzz around the sector is linked to the application of technology in other areas rather than the final innovation product itself. Companies in this new space are by in large making more than respectable profits.

London, Berlin and Dublin are European hotspots: these three cities are among those that have benefitted most from the recent wave of T&T occupiers deals. Their dynamic and creative environments are luring a variety of younger and more established businesses and seeing a proliferation of new start-ups. Berlin's once decaying eastern districts are host to a growing number of internet companies. Similarly, the "Silicon roundabout" in London has become a hotspot for digital businesses in the city.

Securing access to the best talent is, and will remain, quintessential: in a knowledge-based industry, perpetuating innovation and staying ahead of the competition will require access to the best brains and skills available. As CBRE's recent occupier survey demonstrates, T&T companies are well aware of this and are keen to locate where these resources are most abundant. Locally, for many, especially smaller, new generation companies, this means locating in proximity to other competitors and in stimulating and amenity-rich urban environments, where most of their prospective workforce prefer to be. Locational approaches however vary from one business to another, reflecting the diversity of the sector and of specific space requirements between companies.

T&T companies are at the forefront of workplace transformation: T&T companies are moving away from traditional workspace uses and adopting more open and flexible space configurations that foster collaboration and innovation, and facilitate the exchange of ideas. For many companies, particularly new generation, the physical environment plays a critical role in defining corporate culture and is used as a tool to differentiate from competitors in order to retain and attract talent. Not all companies have got as far down this path. For more traditional T&T companies, when interest exists, the ability to undertake more radical changes in workspace utilisation often clashes with the restrictions put in place by many on capital spending and the configuration and size of existing portfolios.

Maintaining operational flexibility will remain a key challenge: in an industry where the competitive landscape can change quickly and product lifecycle is increasingly short, T&T companies want to have flexibility, and portfolios allowing them to adjust footprint in line with the demands of business. This drive is reflected in the shorter leases typically sought by many hi-tech occupiers. With the pace of technological innovation gathering speed and new companies entering the market, this quest for flexibility is likely to become an even more important element of T&T companies' real estate strategies.

Expect increase in M&A activity: several recent acquisitions from large technology players have underlined strategic shifts in business direction and a broader desire to diversify product offerings into new areas. In the near future, these are likely to be followed by further acquisitions as other companies seek to keep up with the competition. Also impacting activity is that many have ample cash reserves on their balance sheets. This is likely to lead to increased convergence within the sector and across product ranges, which in turn is likely to further heighten the importance of IP and patent protection. Systems' technological compatibility is another issue that needs to be explored before committing to a deal. Also essential is ensuring that after the transaction, the real estate component does not weigh down the business and that flexibility is maintained.

Although growth in the T&T sector is not immune from financial crises there are the opportunities for these companies to continue to play a leading role in the European occupational markets. The expansion plans of fast-growing companies and new entrants will continue to fuel the T&T sector's office space requirements and feed through into new transactions. The continuing efforts of more established T&T firms to optimise or consolidate their portfolios, along with the anticipated increase in M&A activity, is also likely to be another important generator of activity.



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