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	Q3 09	Q4 08
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## EXECUTIVE OVERVIEW



It has been a very difficult year for all real estate sectors. The data centre sector has not been as badly affected as many asset classes, however, it has still been one of the toughest years we have witnessed with annual total take-up across the five Tier 1 markets being the lowest recorded since 2003.

Over the last year we have seen an increase in total Carrier Neutral Hotel (CNH) stock, with the most notable rises in the Paris and Amsterdam markets. Over the last 12 months, in Paris, total supply increased by 23% from 82,440 m<sup>2</sup> to 101,180 m<sup>2</sup>, as new facilities (particularly retail facilities), were brought to market to ease the pent-up demand locally – which was a consequence of a lack of new supply throughout 2008. Over the coming year, we expect to see further new supply in London, Paris, Amsterdam and Frankfurt.

Total market take-up for 2009 was 48,660 m<sup>2</sup>, which was a significant reduction on the 2008 total of 147,380 m<sup>2</sup>. As we have commented throughout the year, the most notable decline has been in corporate activity. In 2008 corporate take-up accounted for 59% of total take-up (87,330 m<sup>2</sup>), in 2009 it accounted for just 18% (8,940 m<sup>2</sup>). Data centre take-up has reduced significantly since its peak in 2007. This has been driven by the lack of large, predominantly corporate, Self-build data centres in the five Tier 1 markets, that accounted for 50% of the 2007 total. This is due to the lack of capital available to, and appetite of, large corporates, particularly investment banks, to invest in such large scale projects.

An interesting dynamic through 2009 was the continued evolution of the Midi Market. This was created as a consequence of the reduction in size of requirements with tenants looking to deploy short-term tactical solutions, which require new tier III data centre space at high power density (1,500 watts per m<sup>2</sup>), but prepared to take shared infrastructure. These requirements are typically 200 m<sup>2</sup> to 700 m<sup>2</sup> and as such sit between the offerings of Retail and Wholesale Colocation providers. The growth in this sector has led to some Wholesale Colocation operators looking to speculatively build out fully-fitted space to sell to these users. We look at this in more detail in the Forecast section.

CB Richard Ellis has now been monitoring the five Tier 1 data centre markets since 2000, and as such, given we have now reached the end of the decade, we have included as a focus a review of events over the 10 years, to track the events that have driven demand and supply over this period.

# SUPPLY

## CNH SUPPLY

Total stock was apportioned across the five Tier 1 cities as follows: 278,020 m<sup>2</sup> (42%) in London, 177,020 m<sup>2</sup> (27%) in Frankfurt, 101,180 m<sup>2</sup> (15%) in Paris, 74,460 m<sup>2</sup> (11%) in Amsterdam and 36,240 m<sup>2</sup> (5%) in Madrid.

Compared with the same quarter last year, total stock has increased by 8% (47,340 m<sup>2</sup>), with the most notable rises of stock being in the Paris and Amsterdam markets. Over the last 12 months, in Paris, total supply increased by 23% from 82,440 m<sup>2</sup> to 101,180 m<sup>2</sup>, as new facilities (particularly retail facilities), were brought to market. Total stock in the Amsterdam market has increased over the last year by 18% (from 63,160 m<sup>2</sup> to 74,460 m<sup>2</sup>). This is due to the introduction of two new facilities to our statistics: EvoSwitch in Haarlem and the Kroon development in Almere.

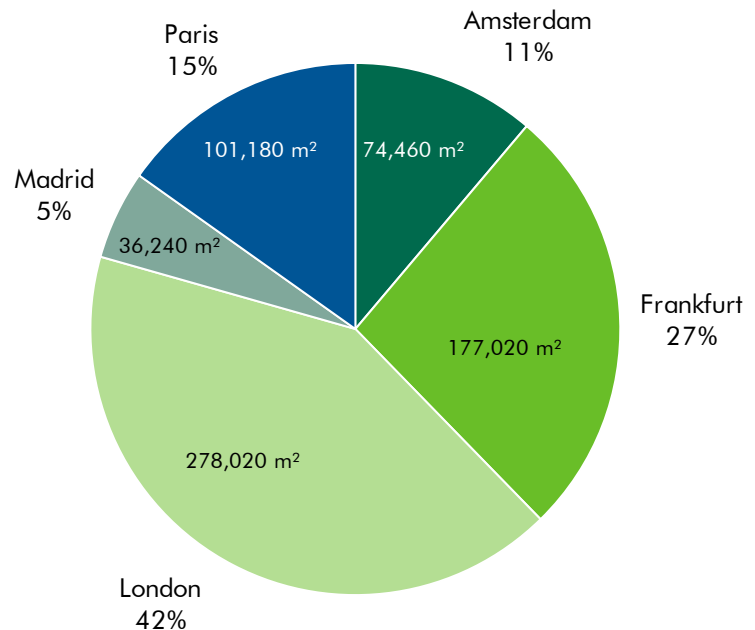
We expect to see additional new supply in the London, Paris, Amsterdam and Frankfurt markets in 2010.

## RETAIL COLOCATION EXPANSION LIMITED TO SELECTED OPPORTUNITIES

2009 saw a reduction in the amount of expansion activity amongst colocation operators, compared to the previous year, with the majority of announcements focused on traditional data centre markets within Europe and generally involving the larger colocation operators. This is perhaps not surprising considering the difficult finance-raising environment for all but the most experienced companies, allied to the fact that it followed a period where the data centre sector witnessed a strong and prolonged growth phase. Whilst these factors have undoubtedly helped to limit the threat of oversupply across most markets – leaving the colocation industry in a relatively healthy state of balance – they may also have allowed a few established operators to increase their dominance across Europe at the expense of the smaller service providers.

Over the course of the year, operators such as **Equinix**, **TelecityGroup**, and **Interxion** all increased their footprints in traditional locations such as Paris, Frankfurt, Amsterdam and London.

## TOTAL CNH STOCK PER TIER 1 MARKET



Source: CB Richard Ellis Research

During the last few months of the year, **TelecityGroup** announced that it has opened their third data centre in Paris, totalling 3,400 m<sup>2</sup>, whilst **Interxion** reported that it has opened their fifth data centre in the same city offering up to 4,000 m<sup>2</sup> of technical space.

More recently, **Equinix** confirmed the opening of the first phase of its Frankfurt FR4 facility – a total of 6,000 m<sup>2</sup> to hold up to 1,700 cabinets, around half of what is achievable once fully developed – and the expansion of its Frankfurt FR2 scheme by a further 2,500 m<sup>2</sup>.

However, it would be wrong to suggest that there was no recent activity outside of the major centres. In the south west of England, **C4L** announced the opening of their Bournemouth data centre providing 930 m<sup>2</sup> of technical data centre space. In addition, **Virtus Data Centres** announced the installation of its 8MVA power supply, whilst **The Bunker** secured funding to further upgrade and expand their Ash and Newbury data centres.

## WHOLESALE COLOCATION DEVELOPMENT ACTIVITY STIFLED

Market sentiment amongst real estate developers and investors in data centres appeared relatively cautious, with only a few actual construction starts amongst a wave of proposed schemes and planning applications. By far the most advanced is **Highbridge Properties** who have virtually completed the shell building of DC1 at Cobalt, Newcastle and are considering the fitout of 1,000 m<sup>2</sup> Phase 1 speculatively of a total of 4,000 m<sup>2</sup>.

In addition, **Ark Continuity** announced the opening of the first phase of their Spring Park, Corsham facility, **Infinity** has started construction on its Romford, east of London facility for its first tenant and **e-shelter** commenced demolition of the industrial buildings at its High Wycombe scheme.

During the year, planning applications were granted to **Ark Continuity** for its 23,990 m<sup>2</sup> Farnborough scheme, **Lockerbie Data Centres** for their 250,000 m<sup>2</sup> data centre scheme in Lockerbie, Scotland and **Aegis Data Store** for their new £45 million data centre facility in Godalming, Surrey. Situated on the site of a former metal finishing works, the facility will eventually offer around 1,900 m<sup>2</sup> of net technical space. Most recently planning approval was reported by **Galileo Connect** for its 24,000 m<sup>2</sup> data centre hub at Val d'Europe, Marne-la-Vallée close to Paris. This last scheme could include three buildings each providing 8,000 m<sup>2</sup> in technical area and split into data halls of 1,000 m<sup>2</sup>.

Raising investment has been a key issue since the start of the global economic malaise, and successful capital raising announcements amongst developers have been few during 2009 with the clear exception of **Highbridge** at **Cobalt**.

**Internet Villages International** reported that they had secured the £600 million for its planned 278,000 m<sup>2</sup> scheme at Annandale, Scotland from an as-yet unidentified investor, and more recently **Verne Holdings** reported that the **Wellcome Trust** have provided investment which will fund the completion of the first phase of its campus under construction on the former **NATO** Command Centre in Keflavik, Iceland.

## AVAILABILITY

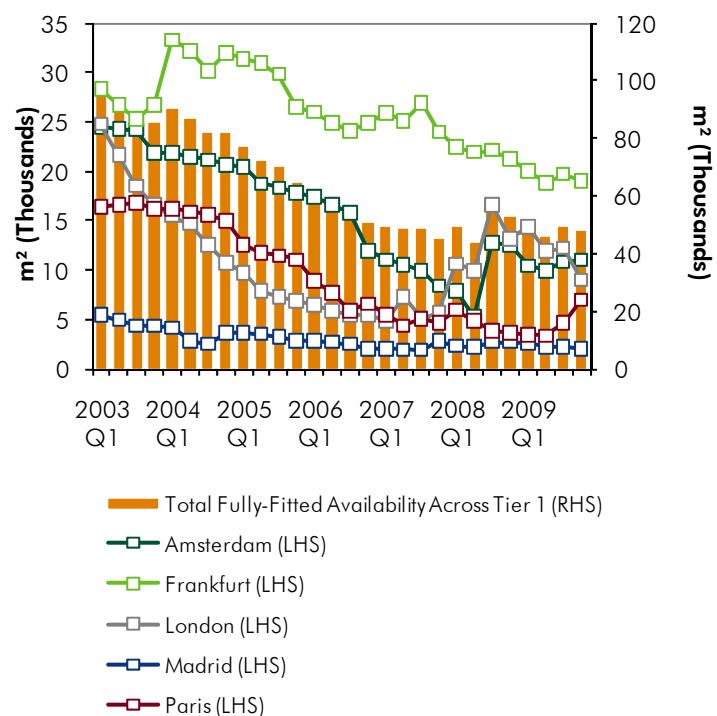
### CNH AVAILABILITY

Overall availability increased this quarter by 11% from 150,740 m<sup>2</sup> to 167,510 m<sup>2</sup>, as a consequence of new schemes coming to market. Of the total availability, 119,690 m<sup>2</sup> (71%) was shell & core space and 47,820 m<sup>2</sup> (29%) was fully-fitted space. The significant increase of shell & core availability was due to the introduction of new shell & core stock in Amsterdam, London and Paris.

The total Tier 1 European CNH market vacancy rate now stands at 25.12%, an increase on the previous quarter (23.63%). However, the vacancy rate has also remained steady compared with the same quarter last year (25.16%).

Fully-fitted vacancy rates dropped on the previous quarter from 10.86% to 10.23% in Quarter 4. The fully-fitted vacancy rate has also declined on the same quarter last year from 12.17%.

### FULLY-FITTED CNH STOCK AVAILABLE PER TIER 1 MARKET



Source: CB Richard Ellis Research

# TAKE-UP AND DEMAND

## MARKET TAKE-UP AND DEMAND

Total market take-up for Quarter 4 was 13,010 m<sup>2</sup>. This represents a decrease on the previous quarter of 28%. 12,550 m<sup>2</sup> (96%) was in the CNH market and 460 m<sup>2</sup> (4%) was in threat stock.

CNH take-up was apportioned as follows: 6,040 m<sup>2</sup> (48%) was in London, 4,620 m<sup>2</sup> (37%) was in Paris, 750 m<sup>2</sup> (6%) was in Amsterdam, 620 m<sup>2</sup> (5%) in Frankfurt and 520 m<sup>2</sup> (4%) was in Madrid. The 460 m<sup>2</sup> take-up in threat stock was in London.

In terms of the source of this quarter's take-up, 7,310 m<sup>2</sup> (56%) was in retail transactions, 3,240 m<sup>2</sup> (25%) was to the technology sector and 2,460 m<sup>2</sup> (19%) was to corporates. No transactions from system integrators were recorded this quarter.

The significance of the amount of retail transactions is reflective of current market conditions where wider economic factors have caused requirement sizes to contract, as end users opt for shorter term tactical solutions.

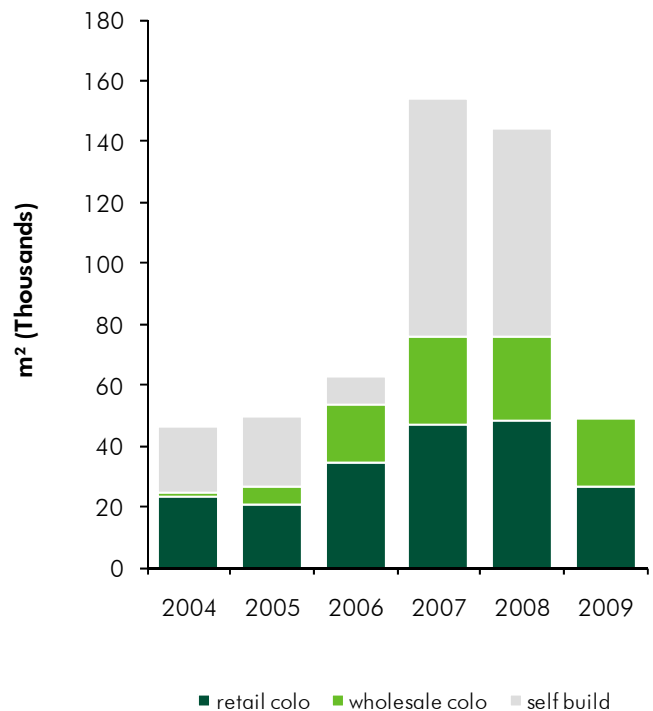
Quarter 4 brought to a close the lowest annual take-up total across the five Tier 1 cities since 2003. Total take-up for 2009 was 48,660 m<sup>2</sup>, which represented a 67% reduction on 2008's total take-up of 147,380 m<sup>2</sup>.

In 2008 corporate take-up across the five Tier 1 cities was 87,330 m<sup>2</sup>, which accounted for 59% of all take-up. In 2009 corporate take-up (8,940 m<sup>2</sup>) accounted for 18% of take-up. The remaining take-up by tenant type for 2009 was apportioned as follows: 19,330 m<sup>2</sup> (40%) in retail transactions, 15,370 m<sup>2</sup> (32%) to the technology sector, and 5,020 m<sup>2</sup> (10%) to system integrators.

Self-build deals accounted for 50% of all take-up in 2008. However, there was no such take-up in 2009. Over the last year Wholesale Colocation take-up decreased by 20% (5,540 m<sup>2</sup>) across the five Tier 1 cities. Retail Colocation take-up also decreased by 46% from 48,220 m<sup>2</sup> to 26,060 m<sup>2</sup>.

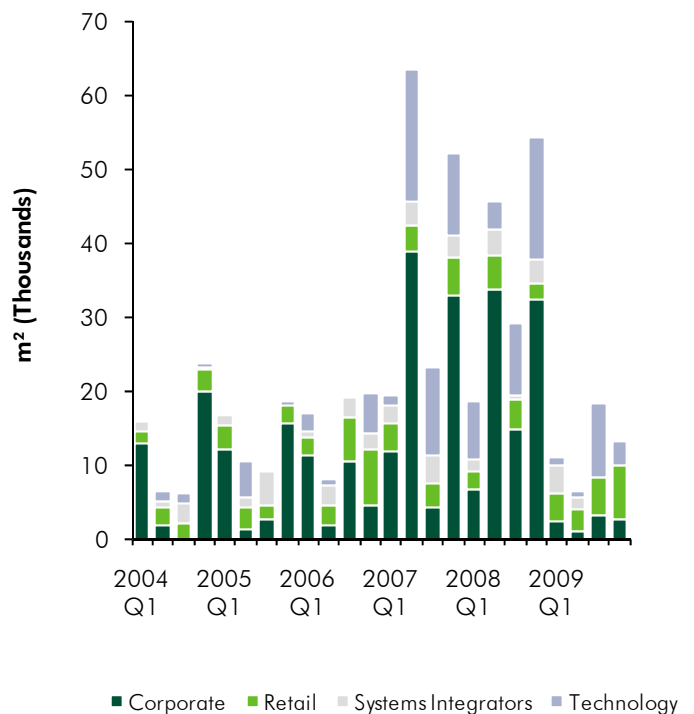
The most notable change in terms of the source of the annual demand has been the decline of corporate activity. Data centre take-up has reduced significantly since its peak in 2007 because of the reduction of IT budgets, virtualisation and headcount reduction within corporate organisations.

## TOTAL ANNUAL TAKE-UP BY MARKET SECTOR



Source: CB Richard Ellis Research

## TOTAL QUARTERLY TAKE-UP ACROSS ALL TIER 1 MARKETS



Source: CB Richard Ellis Research

## CORPORATE/IT INTEGRATORS REMAIN ACTIVE

The role played by IT integrators and managed service providers remains an essential part of the European data centre market with IT outsourcing continuing to provide an invaluable option to end users. Whilst difficult to quantify in terms of technical floor space occupation due to the broad coverage of announced agreements, evidence during 2009 continues to indicate that third party solutions will remain popular, driven by the access to cost saving opportunities these deals offer. For example, in the final quarter of last year Finnish paper maker **Metsaliitto Group**, signed a 3 year IT services contract with **Tieto Oyj** which could result in an annual cost saving of €30 million, whilst **London City Airport** expects its managed service contract with system integrator, **SCC**, to save the company more than 10% of its current IT budget as well as improving services.

The demand for these outsourced managed services looks set to continue, although according to a recent **Black Book** survey, not all European markets are perceived to be equal, with 96% of IT professionals surveyed preferring the UK as their destination for colocation of cloud computing infrastructure, followed by France and Germany. The survey showed that trust, reliability and ease of deployment are the most important factors influencing a company's perception of how satisfactory their IT outsourcing services were.

With a sustained rate of demand, it is unsurprising that this group of data centre owners have continued to expand their footprints over the course of 2009, schemes including **green.ch**'s new build of 10,000 m<sup>2</sup> in Lupfig, Switzerland, **IBM**'s agreement to take space at **Global Switch**'s Paris and Madrid facilities, **Telstra International**'s opening of its new 1,000 m<sup>2</sup> at **Sentrum**'s Woking facility, **Servecentric**'s new turnkey lease expansion at **Digital Realty Trust**'s Dublin facility, and **Hewlett Packard**'s construction of its wind-cooled 35,000 m<sup>2</sup> Wynyrd scheme in the north east of England. The last quarter of the year saw Internet service provider, **IFB**, announce the development of a 1,400 m<sup>2</sup> data centre in Aberdeen, Scotland, and **British Telecom** report its pre-let of 380 racks at developer **Next Generation Data**'s 75,000 m<sup>2</sup> Newport scheme, whilst **Tieto OYJ** started construction on the first 1,000 m<sup>2</sup> phase of its new 6,000 m<sup>2</sup> facility in Espoo, Finland.

## CORPORATES SHOW PREFERENCE TO OUTSOURCE

2009 was dominated by the issue of IT budget availability for corporates, and most importantly how reduced budgets would be allocated. IT outsourcing has benefited corporates – allowing IT projects that promote business growth and have been proven successful, to continue.

In addition, access to potential technologies that would be otherwise too expensive for a corporate to develop or deliver internally – in particular cloud computing services – has added extra weight to the outsourcing argument.

One of the most notable recorded contracts at the end of 2009 has seen **T-Systems** contract with **Royal Philips Electronics** to assume responsibility for the infrastructure of all of their data centres, including locations across South America, Asia, the US, Netherlands, Germany, and other European countries, and provide IT services through cloud technology provisioning. The systems integrator also reported a contract with the **German Aerospace Center** worth some €125 million. Other notable deals recorded include, **House of Fraser**'s announced outsourcing contract with **Capgemini UK**, whilst **Atos Origin** reported a five year, £40 million deal to provide IT services to both **Scottish Enterprise** and **Skills Development Scotland**.

The news that **HSBC** would not go ahead with their previously-planned Monks Cross data centre project in York, continued a trend over the year that saw only a few reported direct corporate developments of stand-alone facilities. This method of occupation still appears to remain the preserve of only a few large organisations that have the financial strength and/or corporate willingness to take on and manage their own sites.

At the start of the year **Google** announced the development of a €160 million data centre in Summa, Finland, whilst in the summer, **Microsoft** reported the opening of its 28,000 m<sup>2</sup> Dublin facility and **Orange** purchased land outside of Paris, for its 10,000 m<sup>2</sup> development. In Iceland, **Reykjavík City Council** has approved the application from software company **Greenstone** to provide options on two sites for a possible data centre in the city.

It appears that 2010 will see growth in corporate IT spending. According to a survey by the **Economist Intelligence Unit**, 63% of corporates in the UK expect their IT budgets to grow, compared to 55% in Spain, 54% in Italy, 44% in Germany and 36% in France. In addition, according to **Gartner**, global tech budgets should expand by an average of 4.6% across the hardware, software, IT services and telecoms market. What proportion of this will be used for data centre acquisition is unclear, however, latest survey evidence commissioned by data centre operator **Telehouse**, indicates that 83% of respondents predict that their data centre capacity will grow over the next 3 years.

## GREEN INITIATIVES SHOULD GATHER SPEED

Although 2009 has been a tricky year in terms of the wider economy, difficult economic conditions have reportedly provided a catalyst for the adoption of green technologies within the data centre market. A recent report from **Frost & Sullivan**, "Green Data Centres – Emerging Trends and Developments", found that the need for cost savings as a result of the economic downturn have emerged as one of the main drivers in green IT initiatives. In essence, in an attempt to cut operational costs, data centre owners are investigating solutions that would enhance the energy efficiency of their data centres.

Whilst there are differences between the theory and reality of running a green and efficient data centre on a day-to-day basis, there is evidence of other economic factors that underpin the importance of green credentials. For example, according to **1&1 Internet's** latest survey, three fifths of British consumers look for green credentials before purchasing online, and over a quarter only purchase from online retailers who state they operate using renewable energy.

Examples of reported innovative thinking with regard to green technologies over the year include **Telehouse's** heat system in its new Docklands facility where waste heat will be used in a district heat network for the local community. In addition a solar array has been designed to provide the facility with 6,000 kwh of power a year.

**Infinity** plan to use anaerobic digester plant biomass generators at their East Anglia facility to create power which they claim means that the facility will be the UK's first operational data centre to be powered entirely using on-site green energy, whilst **Hewlett Packard** has launched its 35,000 m<sup>2</sup> Wynyard data centre in the north east which is entirely air-cooled using eight 2.1-metre stainless steel and plastic intake fans to draw cool air in from the outside.

In France, **TelecityGroup's** recently built Paris data centre uses waste heat from the facility to warm a "climate change arboretum" in a greenhouse built on-site, allowing scientific research into species adaptation in future predicted climatic conditions, whilst in Helsinki, surplus heat from a new data centre located beneath **Uspenski Cathedral** will be used to heat hundreds of homes and businesses across the Finnish capital.

In the UK, a further driver in the desire for energy efficient products is the introduction in April 2010 of the **UK Government's** Carbon Reduction Commitment – the first mandatory UK-only carbon trading scheme. Moving forward the impact of CRC is likely to lead to further initiatives designed to improve levels of efficiency for high level energy consumers, and according to a study presented at the UN Climate Change Conference in Copenhagen recently, the UK is one of the best prepared countries in the world to use IT to cut its CO<sub>2</sub> emissions. In the study, the ICT Sustainability Index modelled and predicted the size of the reductions in CO<sub>2</sub> emissions that could be achieved by using new technologies; only Japan and the US were ranked ahead of the UK.

There are signs that data centre operators, investors and IT integrators are optimistic with regards to prospects for the industry in 2010. One way in which that optimism manifests itself is the greater frequency with which optimistic financial news surrounding capital raising issues continues to be reported.

To this end, **Equinix** recently announced that it intends to raise US\$500 million, using the proceeds for expansion capital and to help with its planned acquisition of **Switch & Data**. In addition, both **Global Switch** and **Interxion** are reported to be talking with banking advisers with a view to a listing on the public markets, the latter having also recently announced a €200 million notes issue.

From an investor's perspective there appears to be evidence to support an optimistic outlook for the European data centre market during the next year. At the **Broad Group** Finance and Investment Forum, attendees reported an over-riding conclusion that the market was characterised by strong demand emanating from a number of sectors – financial, media and government being particularly vibrant sources. Other evidence suggested "brisk" investment activity across the European data centre markets, and notably a growing acceptance of outsourcing data centres in central and eastern European markets: a growth sector in the not too distant future?

## FORECAST

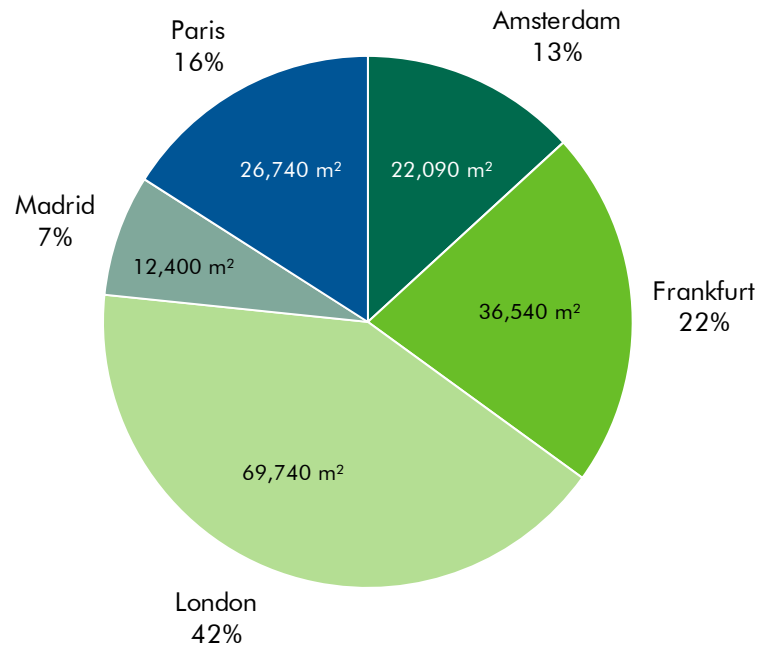
In terms of the five Tier 1 cities, there were no Self-build projects in 2009. The Wholesale Colocation market reduced by 17% and the Retail Colocation market by 55%. In overall terms, therefore, 2009 represented an annual reduction in take-up of 67%.

This is due to decreased IT budgets, virtualisation and headcount reduction. However, based on our conversations with several end users, particularly the investment banks, we believe that the buffer created by virtualisation is likely to be eroded during the course of 2010, and as such we can expect growth from this sector towards the end of the year and into 2011.

The only market segment that saw any growth was the London Retail Colocation sector, which had 15% more take-up than on the previous year. An interesting dynamic through 2009 was the continued evolution of the Midi Market, from which the Retail Colocation sector has been benefiting in London. The Midi Market is a consequence of the reduction in size of requirements with some tenants looking to deploy short-term tactical solutions, which require new tier III data centre space at high power density (1,500 watts per m<sup>2</sup>), but prepared to take shared infrastructure, unlike in the Wholesale Colocation market. These requirements are typically between 200 m<sup>2</sup> to 700 m<sup>2</sup> and as such sit between the offerings of Retail and Wholesale providers. Given the willingness of tenants in this sector to accept shared infrastructure, for time-to-market reasons, it is necessary to speculatively fit out fully-fitted data centre space, as per the Retail Colocation model. In this model a tenant with a tactical requirement would typically commit to a 3-5 year lease, and up to a 10-year lease if the requirement was strategic. We expect to see growth in this sector during 2010 and 2011.

On a wider scale, due to the increasing requirement for IT processing power through technological advancement and headcount expansion, we feel that there will be an increase in demand in 2011, and we expect that this will return to at least equal 2008 demand levels in both the Retail and Wholesale Colocation markets.

## AVAILABLE CNH SPACE ACROSS ALL TIER 1 MARKETS



Source: CB Richard Ellis Research

## TOTAL TAKE-UP

European Tier 1 Cities	Total Annual Take-up (m <sup>2</sup> )
2004	52,250
2005	55,010
2006	63,720
2007	157,660
2008	147,380
2009	48,660

## FOCUS – THE LAST 10 YEARS

CB Richard Ellis (CBRE) has been monitoring supply and demand in the five Tier 1 European data centre markets over the last 10 years. Over this period we have witnessed both highs and lows as the market has grown from a fledgling telecommunications and technology industry to a real estate asset class in its own right.

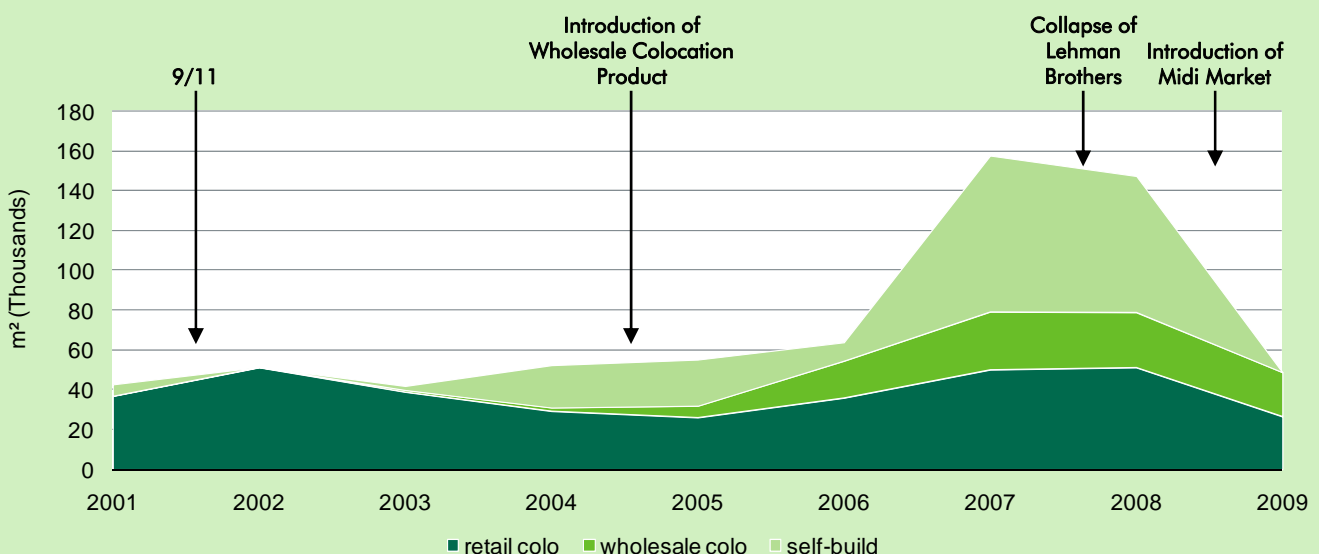
In 2000, when CBRE began monitoring supply and demand the market was rocketing with the dotcom boom (the Nasdaq eventually peaked on 10 March 2000 closing at 5,132.52 points). The boom was fuelled by new internet start-up companies, many of which failed due to over-optimistic business models. During this period there was a rush for landlords to build out fully-fitted technical space. When the dotcom bubble burst, they found themselves having spent significant amounts of capital on fitting out space, with tenants defaulting and a lack of new pipeline.

A number of significant events happened in 2001 which would increase the reliance on data centres. In January 2001, Apple launched iTunes, which was to revolutionise how we brought and stored home entertainment. We also witnessed the catastrophic events of the 9/11 terrorist attacks. The loss of the World Trade Centers made corporations significantly re-evaluate their business continuity plans. In 2001 Retail Colocation dominated take-up across the five Tier 1 data centre markets. However, as corporate occupiers began to focus their business continuity plans on building data centres away from their head offices (but within the synchronous replication distances from headquarters for mission-critical data), over the next five years we saw Self-build take-up increase to 50% of overall take-up (78,400 m<sup>2</sup>) at the close of 2007.

Over the last five years we have also seen the Wholesale Colocation developer become a serious player in the European market. Their product offering enables tenants to benefit from dedicated plant and machinery in a multi-let building, in addition to the e-shelter offering in Frankfurt. In 2005 Sentrum was founded, offering third-party Wholesale Colocation space with bespoke plant solutions and a year later Digital Realty Trust, the world's largest data centre REIT entered the European data centre market. This product is aimed at larger data centre requirements and has become a significant part of the total market (as outlined in the graphic below).

Take-up across the five Tier 1 data centre markets peaked in 2007 with 157,610 m<sup>2</sup> of take-up. The following year the corporate world was rocked by the collapse of Lehman Brothers, and thereafter a number of mergers and acquisitions took place to shore-up financial institutions. Although the data centre market has been hit by these repercussions in terms of demand, the lessons learned from the dotcom crash has meant the established Retail and Wholesale Colocation providers are well prepared to deal with the short term demand hiatus.

Operators no longer speculatively build out large swathes of fully-fitted space, instead opting for modular fitouts of larger shell facilities. This has meant that the market has maintained equilibrium during the difficult period of the last 18 months. At the end of 2001, the total amount of fully-fitted stock across Europe was 263,378 m<sup>2</sup>; of this 36% (94,295 m<sup>2</sup>) was available space. Compared with this, in 2009 the total fully-fitted space available, 47,820 m<sup>2</sup>, is just 10% of the total fully-fitted stock (467,640 m<sup>2</sup>).



# MARKET FOCUS

## LONDON

In Quarter 4 there was 6,500m<sup>2</sup> of take-up in the London market. This brings to a close a very difficult year for London, with 17,460 m<sup>2</sup> of total market take-up in 2009, a decrease on the previous year of 77%. The London market has been severely affected by the economic downturn. In part this is due to the financial service industry (which was severely affected by the downturn) being so dominant in the UK.

Of the 6,500 m<sup>2</sup> of take-up this quarter, 2,840 m<sup>2</sup> (44%) was to the technology sector, 2,200 m<sup>2</sup> (34%) was made up of retail transaction and 1,460 m<sup>2</sup> (22%) was to corporates.

Overall, the 17,460m<sup>2</sup> of total take-up in the London market in 2009 was apportioned as follows: 6,020 m<sup>2</sup> (34%) was to the technology sector; 5,710 m<sup>2</sup> (33%) was to corporates; 5,230 m<sup>2</sup> (30%) was in retail transactions and 500 m<sup>2</sup> (3%) was to system integrators.

The total lack of Self-build transactions in the London market during 2009 has severely affected London total take-up levels. However, this has been to the benefit of the Retail Colocation market. Although overall London take-up declined in 2009, Retail Colocation take-up increased by 15% from 8,120 m<sup>2</sup> to 9,310 m<sup>2</sup>. This is in part due to tenants looking for short-term tactical solutions to meet their immediate needs. Wholesale Colocation take-up declined over the last year by 19%.

In 2009 Retail Colocation accounted for 53% (9,310 m<sup>2</sup>) of take-up and Wholesale Colocation accounted for 44% (7,690 m<sup>2</sup>). The remaining 460 m<sup>2</sup> went to a former corporate facility and is classified as threat stock. In 2008 by comparison, Retail Colocation accounted for 8,120 m<sup>2</sup> of take-up and Wholesale Colocation accounted for 9,430 m<sup>2</sup>.

Total stock increased by 11,660 m<sup>2</sup> in Quarter 4 to 278,020 m<sup>2</sup>. Shell & core space increased on the previous quarter by 8,800 m<sup>2</sup> (13%). Fully-fitted stock increased quarter on quarter by 2,860 m<sup>2</sup> and over the last year fully-fitted stock has increased by 7,450 m<sup>2</sup>.

The overall vacancy rate rose this quarter from 24.07% to 25.08% and the fully-fitted vacancy rate fell from 6.19% to 4.52%.

We expect to see a number of new facilities brought to market over the next 6-12 months, particularly in the retail sector.

## FRANKFURT

Take-up this quarter was 620 m<sup>2</sup> which represents a decrease on the previous quarter of 8,800 m<sup>2</sup>. However, it is worth noting that last quarter's take-up figures included the Data 110 facility, which was brought by Equinix.

Take-up for the whole of 2009 was 12,560 m<sup>2</sup>, a decrease on the previous year of 54%. Take-up was apportioned as follows: 8,950 m<sup>2</sup> (71%) was to the technology sector, 2,950 m<sup>2</sup> (24%) was in retail transactions and 660 m<sup>2</sup> (5%) was to system integrators.

There have not been any Self-build transactions in the Frankfurt market since Quarter 2, 2007. Retail Colocation take-up declined from 24,490 m<sup>2</sup> in 2008 to 3,610 m<sup>2</sup> in 2009.

Total stock has remained steady for the last 18 months in Frankfurt at 177,020 m<sup>2</sup> in Quarter 4, of which 115,170 m<sup>2</sup> (65%) was fully-fitted space. We have seen the oversupply of legacy stock in the Frankfurt market resolved with the purchase of Data 110 by Equinix, and we would expect to see new stock coming to market over the next 12 months.

Total availability declined on the previous quarter from 37,160 m<sup>2</sup> to 36,540 m<sup>2</sup>. Of the total availability, 19,080 m<sup>2</sup> was fully-fitted space and 17,460 m<sup>2</sup> was shell & core space.

The vacancy rate has continued to decline slowly over the last year and now stands at 20.64% compared with 22.61% in the same quarter last year.

## TOTAL TAKE-UP

Take-up (m <sup>2</sup> )	2009 Q3	2009 Q4	Total 2009
Amsterdam	420	750	3,800
Frankfurt	9,420	620	12,560
London	5,260	6,500	17,460
Madrid	0	520	1,980
Paris	3,090	4,620	12,860
Total	18,190	13,010	48,660

Source: CB Richard Ellis Research

## PARIS

Total take-up in Paris this quarter was 4,620 m<sup>2</sup>, an increase on the previous quarter of 1,530 m<sup>2</sup>. The take-up was apportioned as follows: 3,620 m<sup>2</sup> (78%) was made up of retail transactions with the remaining 22% (1,000 m<sup>2</sup>), being wholesale and made up entirely of corporate transactions.

Overall, take-up for 2009 was 12,860 m<sup>2</sup>; this represents a 63% decrease on 2008. The 2009 take-up was apportioned as follows: 6,980 m<sup>2</sup> (54%) was made up of retail transactions, 3,000 m<sup>2</sup> (23%) was to the corporate sector and 2,880 m<sup>2</sup> (22%) to system integrators. As with the London and Frankfurt market, the lack of corporate activity over the last year has had a significant impact on take-up levels.

Self-build transactions accounted for 37% (13,000 m<sup>2</sup>) of the 2008 take-up, compared to none in 2009. We have seen the Retail Colocation operators' market share grow significantly in 2009 – take-up increased by 14% over the last year. Total Retail Colocation take-up for 2009 was 7,360 m<sup>2</sup>, compared with 6,470 m<sup>2</sup> in 2008. There was a decrease in Wholesale Colocation take-up over the last year from 15,710 m<sup>2</sup> in 2008 to 5,500 m<sup>2</sup> in 2009.

Total stock levels increased in Quarter 4 from 95,100 m<sup>2</sup> to 101,180 m<sup>2</sup>, resulting in an increase over the last year of 18,740 m<sup>2</sup>. This reflects the new stock that has been brought to the market with the opening of new Interxion and Telehouse facilities, as well as new buildings at Data IV. The new stock has brought to a close the short term hiatus in the Paris market which was caused by the lack of supply.

This new space has had an effect on availability with total available space now standing at 26,740 m<sup>2</sup> of which 6,580 m<sup>2</sup> was fully-fitted space and 20,160 m<sup>2</sup> was shell & core space.

The Wholesale Colocation market is likely to grow in 2010, with Digital Realty Trust, amongst others, looking for a new site as their existing facility fills up.

## MADRID

Looking at the percentage difference of year-on-year take-up, Madrid had the best year of all the five Tier 1 markets, albeit as a small market. After a quiet Quarter 3, take-up for Quarter 4 was 520 m<sup>2</sup>. This brings total take-up for 2009 to 1,980 m<sup>2</sup> which represents a 6% decrease on 2008's total of 2,100 m<sup>2</sup>. Of the 2009 take-up, 980 m<sup>2</sup> (50%) was to systems integrators, 600 m<sup>2</sup> (30%) was in retail transactions and 400 m<sup>2</sup> (20%) was to the technology sector.

Madrid is predominantly a Retail Colocation market; all recorded take-up in 2009 was in Retail Colocation facilities.

Availability at the end of Quarter 4 was 12,400 m<sup>2</sup> of which 1,810 m<sup>2</sup> was fully-fitted space and 10,590 m<sup>2</sup> was shell & core space.

Total stock in the Madrid market has remained steady for the last three quarters at 36,240 m<sup>2</sup>. The overall vacancy rate was 34.22% and the fully-fitted vacancy rate was 10.11%.

The Madrid market continues to meet demand with additional space requirements being built from shell & core. We would expect to see a need for further space towards the end of 2011.

## AMSTERDAM

Take-up for Quarter 4 in Amsterdam was 750 m<sup>2</sup>, all of which consisted of retail transactions. Total take-up for 2009 was 3,800 m<sup>2</sup> – this is down on the previous year by 47%. Total annual take-up was apportioned as follows: 3,570 m<sup>2</sup> (94%) was made up of retail transactions and 230 m<sup>2</sup> (6%) was to corporates. In 2008 the majority of take-up was in the technology sector, however, no deals in this sector were recorded in 2009.

All of the take-up in Amsterdam was recorded in the Retail Colocation market, even though in some cases they were wholesale transactions. This is typical of the Amsterdam market, where historically the vast majority of take-up has been in Retail Colocation facilities.

Total stock increased in the Amsterdam market with the introduction of EvoSwitch and Kroon to our quarterly statistics. Total stock now stands at 74,460 m<sup>2</sup> an increase on the previous quarter of 18% with shell & core stock doubling (21,260 m<sup>2</sup>).

Total availability increased this quarter from 11,330 m<sup>2</sup> to 22,090 m<sup>2</sup>. Of the availability, 11,290 m<sup>2</sup> was fully-fitted space and 10,800 m<sup>2</sup> was shell & core space; this represents an increase of 10,760 m<sup>2</sup> on the previous quarter. There had been a steady decline in available space over the last year. We would expect to see more space come to market over the next 12-18 months.

The vacancy rate now stands at 29.67% with a fully-fitted vacancy rate of 21.22%.

# DEFINITIONS

## Stock Type

1. **Carrier Neutral Hotel (CNH) Colocation stock:** data centres where the operator allows any carrier to connect into the facility and to connect to third parties within the facility, not discriminating between different carriers and charging only nominal fees for interconnection. This is split into two distinct offerings:
  - **Retail Colocation:** targets smaller requirements in terms of floor space/IT power and offering an element of colocation/managed services.
  - **Wholesale Colocation:** targets larger requirements in terms of floor space/IT power and offering real estate FM services only.
2. **Self-build:** typically land for development or modern empty warehouse which is acquired for conversion to a data centre for use by an end-user who will use the space for their own purposes, i.e. a corporate.

## Space Type

**Shell & Core:** Shell & Core space is the base real estate of a data centre, a wind and watertight structure with exposed floor and ceiling slabs and exposed finishes to the walls. The landlord would obtain permissions for data-centre use and make provisions for tenants to install their own chillers and back-up power generating equipment. In addition, an incoming diverse raw HV (high voltage) power supply would usually be provided.

**Fully-fitted:** Fully-fitted space is ready for tenant IT equipment to be installed almost immediately or subject only to minor works being carried out to account for bespoke equipment and layouts.

## Transaction Type

**Retail Transaction:** individual letting smaller than 185 m<sup>2</sup> (2,000 ft<sup>2</sup>).

**Wholesale Transaction:** individual letting greater than 185 m<sup>2</sup> (2,000 ft<sup>2</sup>).

We do not break down retail transactions across sector type but we analyse wholesale transactions as follows:

**Corporate:** any end user of space – predominantly investment banks

**Systems Integrator**

**Technology:** including telecommunications companies

## Tier 1 Markets

Amsterdam, Frankfurt, London, Madrid, Paris

## Total Market Take-up

This comprises CNH, Self-build and threat stock (either surplus carrier or corporate facilities)

## DATA SOURCE

CB Richard Ellis in association with Jonathan Heap, Director, iXNewsSearch

iXNewsSearch is the leading daily news research service developed for organisations with a strategic interest in the data centre and mission critical facility industries. Groundbreaking at its inception in 2001, the interactive e-mailed document is packed with global news providing invaluable and timely insights into the business of data centres.

### CBRE Technology Practice Group

CB Richard Ellis formed a Technology Practice Group (TPG) in 1994 to address the specialised technical real estate needs of high-tech firms such as telecommunications companies, data centre operators and corporates.

Core technical real estate services provided by the TPG include:

- Investment
- Disposal – one-off assignments, multi-site marketing campaigns
- Acquisition – one-off assignments, worldwide network rollouts
- Consultancy – consolidation strategies, Mergers & Acquisitions
- Asset Valuation – Bank, Corporate
- Project Management, Development Monitoring, Due Diligence, Building and M&E surveys
- Research – market reports, statistics, take-up forecasting

CB Richard Ellis has monitored worldwide Carrier Neutral Hotel supply statistics since 1999. This bulletin relates only to the European Carrier Neutral Hotel Tier 1 markets. Additional market statistics are available on request.



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