Europe Data Centres, Q3 2017

Continued strong demand is driving record investment

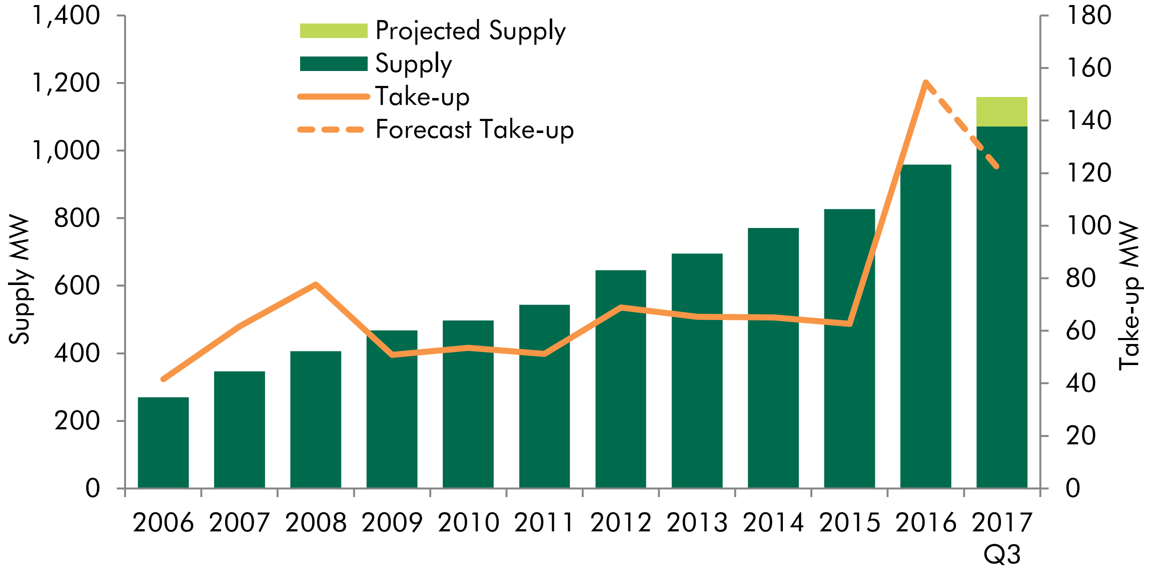
Supply 4.0%

Availability 10.8%

Colocation Take-up 10.2%

*Arrows indicate change from previous quarter

Figure 1: Europe Colocation Supply, Take-up and Year-End Projection as at Q3 2017



Source: CBRE Research, Q3 2017

QUARTERLY REVIEW

Q3 has continued the trend of strong investment in the sector. There has been over $18 billion of M&A investment in the data centre sector globally in H1 2017; more than the previous three years combined. The global trend is very evident in Europe.

Interest in the European sector from investors is driven by the consistently high levels of take-up and new development over the past two years. Only two years ago a total of 15MW of take-up per quarter was considered the par across the four markets. However, over the last eight quarters we have seen an average of 32MW per quarter.

Q3 SNAPSHOT

- STT and Iron Mountain lead the investment activity in Europe for Q3.
- 28MW of take-up in Q3 and 85.7MW in YTD 2017 across London, Frankfurt, Amsterdam and Paris.
- 2017 is on course to become the second consecutive year to see over 100MW of annual take-up across the major markets in Europe.
- There has been 115MW of new supply across the four markets in the first three quarters of 2017.
- Total supply cross the major markets reaches 1,073MW.

SUPPLY & AVAILABILITY

A further 41MW of supply was added to the FLAP markets of Frankfurt, London, Amsterdam and Paris in Q3. This takes total supply across these markets to 1,073 MW.

The majority of new supply came in Frankfurt, which saw 28MW of new supply in the quarter, responsible for two-thirds of the Q3 total.

We have now seen 194MW of new supply come online in the past 12 months, with 115MW in the first three quarters of 2017. Heading into Q4, there is a significant pipeline of supply that will still come on this year – over 80MW.

This pipeline includes several new facilities opening across the main markets including offerings from datacenter.com, Digital Realty, Interxion, Kao Data and maincubes as well as further expansions in existing facilities.

The continued increase in supply has led to an all-time high of overall vacant MW in the major four markets of 184MW. However, this represents a healthy overall vacancy rate of 17% across these markets.

TAKE-UP & DEMAND

There was 28MW of take-up across the four markets in Q3 2017, bringing the YTD total to 85.7MW. This represents the highest ever figure of any year at the Q3 stage.

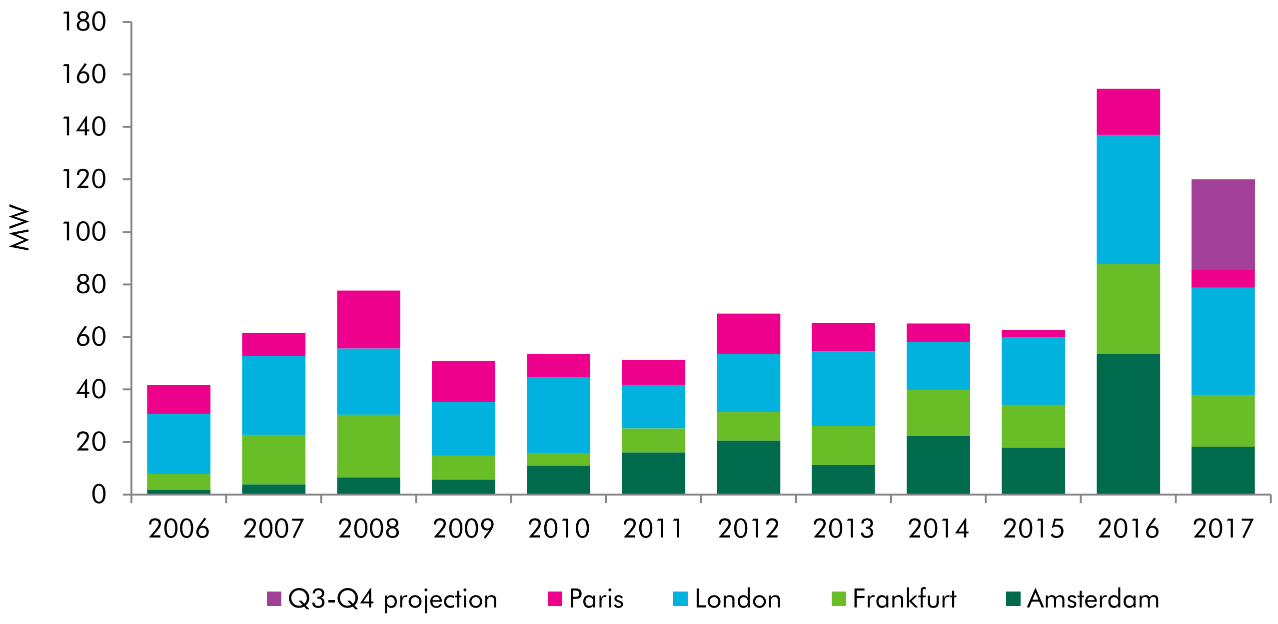
Given the significant current requirements in major markets, we are forecasting a strong end to the year. Consequently, 2017 is set to rival 2016's take-up level (if you remove the 35MW build-to-suit requirements) of 120MW.

Frankfurt came alive during Q3 with 13.9MW of take-up in the quarter, bringing its YTD total to 19.8MW. It has leapfrogged Amsterdam as the second most in-demand market of the year at the Q3 stage.

London still leads the way with 40.8MW of take-up in the year, adding 7.8MW in Q3. Amsterdam saw 4.7MW in Q3 and Paris was relatively quiet with 1.6MW, leaving the two at 18.2MW and 6.9MW of YTD take-up respectively.

Our projection is that Q4 will provide a heightened level of take-up in the core markets, with prospective tenants looking to secure colocation space in these key hubs before the year-end.

Figure 2: Europe Colocation Take-up as at Q3 2017



Source: CBRE Research, Q3 2017

INVESTMENT

The scale of recent M&A activity globally cannot be overstated. The level of transactions has grown exponentially since 2011, culminating in over $18 billion in H1 2017 alone.

This investment continued post-H1 and since then we have seen major investments from the likes of Mapletree purchasing the Carter Validus data centres in the US for $750mn, STT acquiring the remaining 51% ownership of VIRTUS in the UK and Iron Mountain purchasing two data centres, one in London and one in Singapore, from Credit Suisse.

These two investors both hail from Singapore and, alongside companies like Keppel, are indicative of the reach of investors looking for access to the European market.

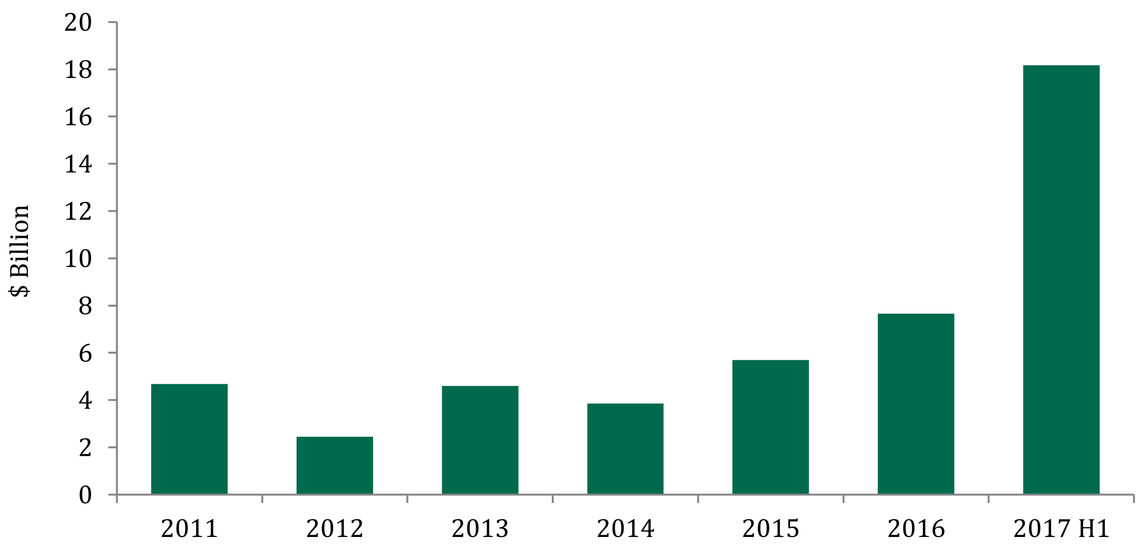
A key reason for this level of investor interest in the sector is the high barrier to entry to the market. For a new company, having experience developing and operating data centres can be invaluable. This, coupled with the need to develop an ecosystem, makes gaining successful entry into the sector difficult but very rewarding.

There is also a two-tier market developing whereby those with huge amounts of low cost capital can pay more to grow.

We are also seeing the longer-term infrastructure funds enter the market. For example, InfraVia has purchased Etix Everywhere and NGD, Digital Bridge, the owner of mast sites, has bought Vantage and BC Partners / Medina Capital completed their deal for CenturyLink for $2.2bn.

As demand for data centre capacity in Europe continues to grow and consequently drive consolidation, the pool of available target companies and assets becomes smaller. This will intensify the need for prospective investors to act quickly and decisively if they are to deploy capital in the sector. With this in mind, we expect more significant transactions in the coming months.

Figure 3: Global Data Centre M&A Investment 2011 – H1 2017



Source: CBRE Research, Q3 2017

MARKET ABSORPTION

Aggregate market absorption remains in equilibrium at the Q3 stage, rising slightly to 2.2 years.

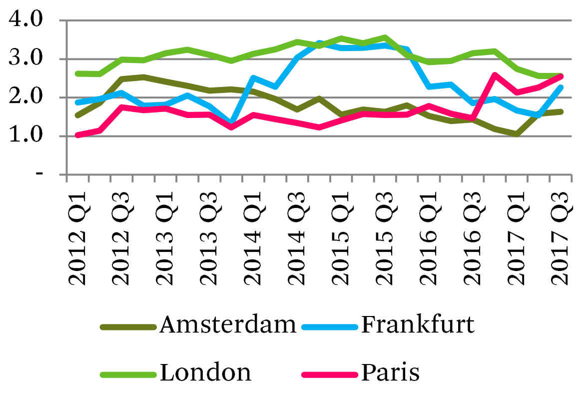
Frankfurt, which had the lowest absorption rate, 1.5 years, at the end of Q2, has seen this figure rise to 2.3 years. Significant new supply in Q4 could see this rise even further by the year-end.

Amsterdam is now the only market with an absorption rate of less than two years. Though its supply and availability is similar to that of Frankfurt, its exceptional take-up in 2016 has led to a significantly higher 5-year average for take-up, which has resulted in a lower absorption rate.

London and Paris have absorption rates of 2.5 years and 2.6 years respectively, both of which are considered equilibrium.

Market Absorption
Market absorption is the number of years it would take current vacant supply to be fully let based on the fixed average take-up of the previous five years (i.e. not including take-up in the current year).

Figure 4: Market Absorption Based on Average Take-up of Previous 5 Years



Source: CBRE Research, Q3 2017

Figure 5: Key Colocation Statistics – year on year comparison (MW)

		Supply	Availability	Take-up (quarterly)	Take-up (year to date)
Amsterdam	Q3 2017	240	41	4.7	18.2
	Q3 2016	166	25	4.8	9.6
Frankfurt	Q3 2017	240	42	13.9	19.8
	Q3 2016	199	25	11.5	30.3
London	Q3 2017	437	74	7.8	40.8
	Q3 2016	384	70	7.0	28.7
Paris	Q3 2017	156	27	1.6	6.9
	Q3 2016	129	13	1.3	11.0
European Tier 1 Total	Q3 2017	1,073	184	28.0	85.7
	Q3 2016	879	134	24.7	79.6

Source: CBRE Research, Q3 2017

LONDON

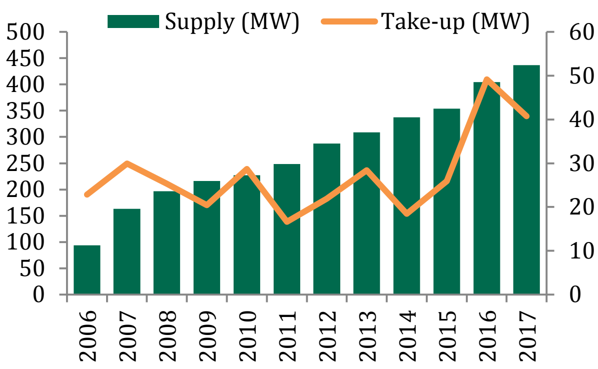
Market size: 437MW | Vacancy: 74MW

London is in line for its best ever year and has reached 40.8MW of take-up at the end of Q3. We expect Europe's largest market to surpass its 2016 record total of 49MW as Q4 takes shape.

Ark and Telehouse had particularly strong quarters in Q3 building on the strong platform set by the market in the first half of 2017.

London is expected to benefit from further cloud demand in the coming quarters. Demand will continue to be driven by the US tech companies and we expect to see the first moves into the market from the major Asian, predominantly Chinese, cloud and telecommunication companies.

Figure 6: London Supply and Take-up 2006-2017 Q3



Source: CBRE Research, Q3 2017

FRANKFURT

Market Size: 240MW | Vacancy: 42MW

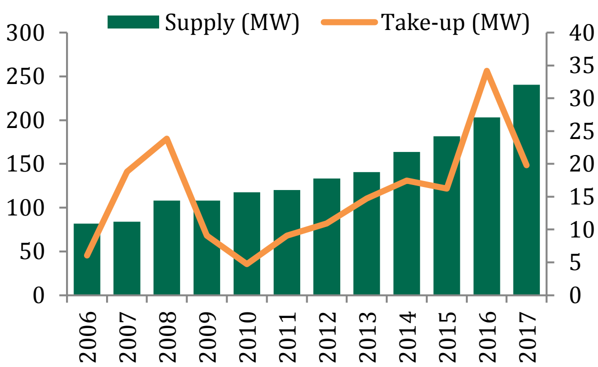
Frankfurt bounced-back in Q3 2017 following an unusually quiet H1 period. The market saw 70% of its 2017 to-date take-up occur in Q3, which represented 13.9MW.

The major story in Frankfurt continues to be from a supply and development angle. Frankfurt saw 27.5MW of new supply in Q3, largely from e-shelter and Equinix, the latter of which opened its newest facility in the market, FR6.

Frankfurt is also primed for further substantial new supply in Q4, with Digital Realty, Interxion and maincubes all set to launch new facilities and other providers preparing to expand existing ones.

The delivery of new facilities will not stop there as Zenium will launch its second facility in the market during 2018, with Interxion, Colt and others poised to follow suit.

Figure 7: Frankfurt Supply and Take-up 2006-2017 Q3



Source: CBRE Research, Q3 2017

AMSTERDAM

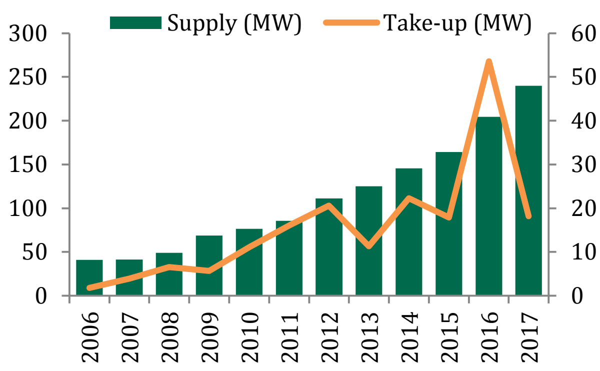
Market Size: 240MW | Vacancy: 41MW

Amsterdam is going like-for-like with Frankfurt – both markets have a near-identical market size and vacancy rate, as well as a similar YTD take-up.

There has been 18.2MW of take-up in Amsterdam in the year so far, with 4.7MW of this coming in Q3. Given the large take-up in 2016, it would be easy to think that 2017 is shaping up for a slow year in Amsterdam but actually, excluding 2016, represents a strong performance.

Equinix opened its AM4 facility in the quarter on the well-connected Science Park. Much of this year's expected development in Amsterdam has taken place already this year, but datacenter.com will launch as a new provider in the European market during Q4.

Figure 8: Amsterdam Supply and Take-up 2006-2017 Q3



Source: CBRE Research, Q3 2017

PARIS

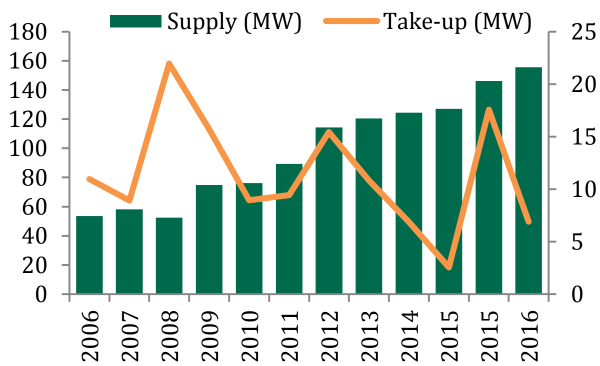
Market Size: 156MW | Vacancy: 27MW

Paris saw fairly limited market activity during Q3, with 1.6MW of take-up in the quarter. This brings Paris to 6.9MW for the YTD. Our view remains that the cloud providers and wider IT companies, driving so much demand elsewhere, will be more active in Paris during 2018.

Data4 has been one of the most active providers in the French capital over the last two years and opened a new building at its Marcoussis campus during Q3.

Online SAS – iliad Datacenter continues to work on its DC5 facility, gearing up to deliver the first modules inside the facility during Q4. This facility will add 26MW of supply to the Paris market when completely fitted out.

Figure 9: Paris Supply and Take-up 2006-2017 Q3



Source: CBRE Research, 2017 Q3

DEFINITIONS

SUPPLY
Retail colocation supply comprises fitted data centre space only; unbuilt shell phases of the data centre are excluded.

Wholesale colocation supply includes both fitted and shell data centre space. Typically wholesale operators sell shell space which is built out to suit customers.

AVAILABILITY
Retail availability of space is based on fully fitted space, vacant and available to sell

Wholesale availability is based on all vacant space.

VACANCY RATE
The vacancy rate is a product of availability/total supply.

COLOCATION TAKE-UP
This comprises data centre space sold at Retail and Wholesale colocation facilities in the relevant quarter.

EUROPEAN DATA CENTRES
We use the four largest markets in Europe: Frankfurt, London, Amsterdam and Paris (FLAP Markets) to represent the European colocation market.

SPACE TYPE
Shell: 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 obtains permissions for data centre use and make provisions for tenants to install their own chillers and back-up power generating equipment, or the landlord would provide these on a build-to-suit basis. In addition, an incoming diverse raw HV (high voltage) power supply would usually be provided.

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.

MARKET ABSORPTION
Market absorption is the number of years it would take current vacant supply to be fully let based on the fixed average take-up of the previous five years (i.e. not including take-up in the current year).

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CBRE formed a Data Centre team 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 CBRE Data Centre Solutions team include:

- Acquisition – one-off assignments, worldwide network rollouts
- Disposal – one-off assignments, multi-site marketing campaigns
- Investment
- 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

CBRE has monitored worldwide colocation supply statistics since 1999. This bulletin relates only to the four largest European Colocation markets. Additional market statistics are available on request.

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