CBRE **MARKETVIEW**

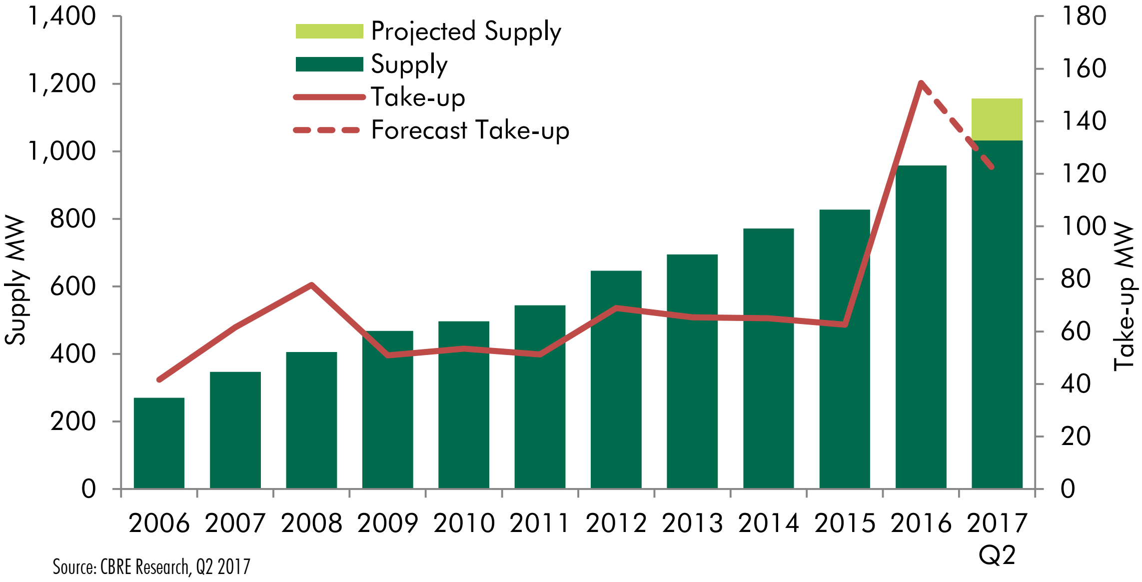
Europe Data Centres, Q2 2017

Strong pipeline of new supply as market flourishes

Supply 3.6% | Availability 4.5% | Colocation Take-up 16.9%

*Arrows indicate change from previous quarter

Figure 1: Europe Colocation Supply, Take-up and Year-End Projection as at Q2 2017



Source: CBRE Research, Q2 2017

QUARTERLY REVIEW

There has been a 20% increase in new colocation supply across the FLAP markets of Frankfurt, London, Amsterdam and Paris in the past year. One-sixth of all colocation supply in these markets has been brought on in the last 12 months. The levels of new supply show no signs of abating as a number of further schemes are scheduled for the coming quarters. This new supply indicates strong confidence towards future take-up.

Q2 2017 is only the fourth quarter on record to see more than 30MW of take-up across the four markets. This places 2017 ahead of 2016 for the equivalent H1 period. CBRE forecasts 120MW of take-up for the year, which is lower than 2016 because we are unlikely to see the same level of build-to-suit transactions this year.

Q2 SNAPSHOT

- 31MW of take-up in Q2, and 58MW in the first-half of 2017. On course for a strong year.
- The four major European markets reach over 1,000MW in total size, with the launch of new facilities in London and Amsterdam.
- CBRE forecasts 120MW of new supply between now and the end of the year, which would push vacancy rates to 19.7%, from 14.9% at the beginning of the year.

SUPPLY & AVAILABILITY

The four major markets breached a combined 1,000MW in total supply for the first time during Q2. 173MW of new supply has been brought on by providers in the FLAP markets in the past 12 months alone – a stark contrast from the 53MW of new supply in the 12 months prior.

CBRE forecasts that another 120MW of new supply will come online before the end of 2017 from a mix of pan-European providers, local operators and brand new companies across all four markets. Continued high levels of take-up in each of the past seven quarters has led to operators bringing on new facilities and expansion phases quicker than they may have done otherwise to capture their share of take-up while it is plentiful.

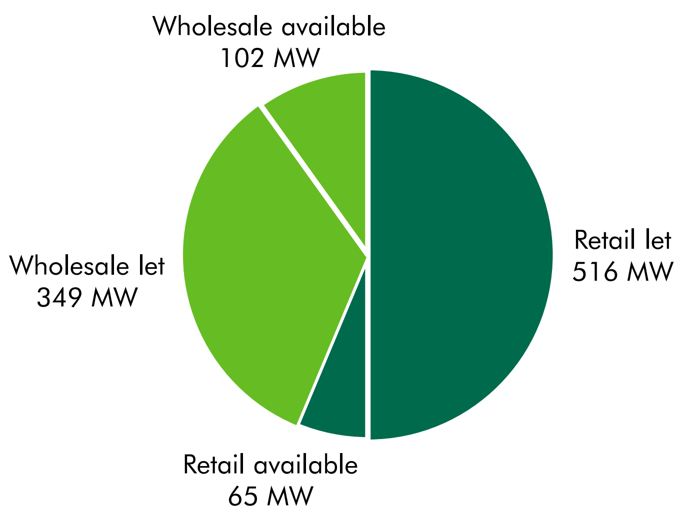
A large proportion of the 36MW of new supply in Q2 came from two wholesale facilities. Digital Realty launched its new 12MW wholesale facility at de President Business Park in Hoofddorp, Amsterdam, and Gyron provided an extra 10MW of wholesale supply to the London market with the second building at its Campus site in Hemel Hempstead.

CBRE predicts that we will see 57MW more supply than take-up in the second half of 2017. This would give us 223MW of vacant supply across the four markets.

This would be the highest amount of vacant MW on record and we would therefore end 2017 with an aggregate vacancy rate of 19.7% across the FLAP markets, an increase from 16% we currently have. This vacancy rate is healthy and should be considered equilibrium.

Some providers have been successful in securing substantial pre-lets to offset the risk of financing a new facility whereas, for others, the age-old dilemma of whether to speculatively build or wait for a pre-let to anchor a facility before going ahead is more prevalent than ever. Getting this right will continue to determine success in the coming year.

Figure 2: Europe Colocation Supply and Availability as at Q2 2017



Source: CBRE Research, Q2 2017

TAKE-UP & DEMAND

Take-up across Frankfurt, London, Amsterdam and Paris in Q2 was 31MW, reaching 58MW in total for the first-half of the year. This is the highest first half of any year on record, surpassing the 55MW in H1 2016.

Initial indications from the market suggests that H2 will be as strong as H1, which will get us to 120MW for the year. If you were to exclude the build-to suit transactions, then 2016's total take-up would have been 120MW as well.

London was again the top performing market in Europe with 15MW of power sold in the city during Q2. Take-up in London was again dominated by wholesalers. However, there were a notable number of transactions signed under the 1MW level, by enterprise and tech companies, which provides a balance to the continued wave of demand from the hyperscale cloud companies.

After a quiet Q1, Amsterdam livened up in the second quarter, recording 10MW of colocation take-up. Contrasting London, 70% of this take-up was sold in retail facilities.

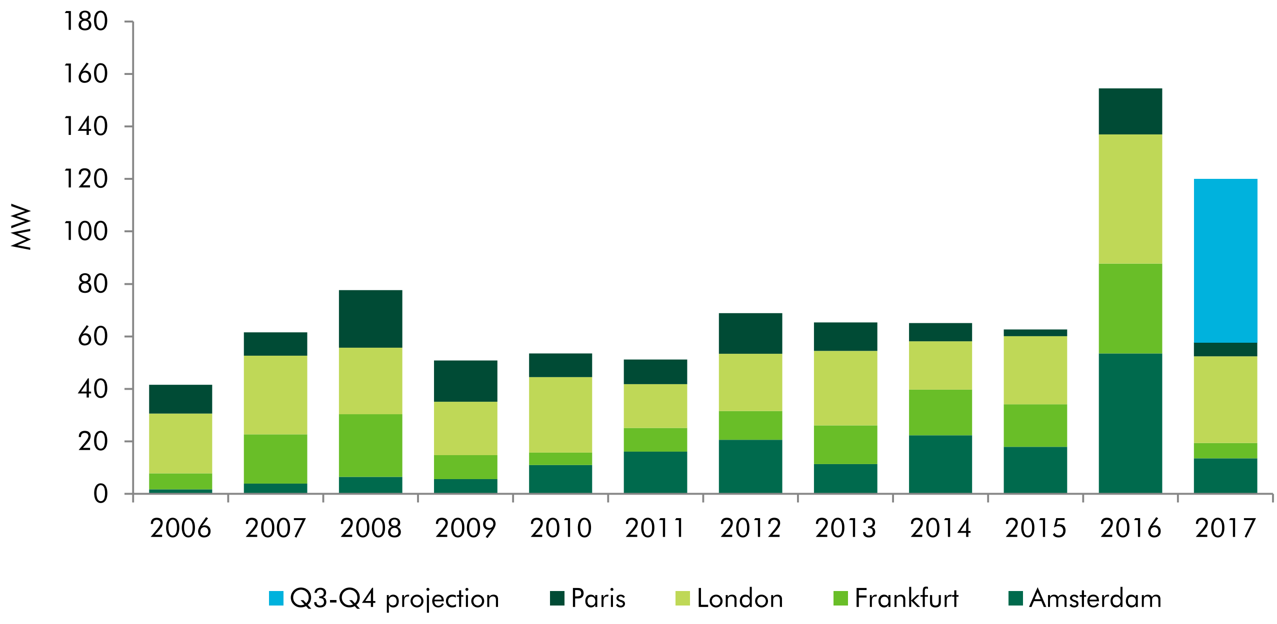
Frankfurt and Paris both saw less than 6MW of take-up each in the first half of 2017. Given the cyclical nature of demand from the hyperscale cloud companies, we expect to see an increase in the rate of take-up once these companies turn their attention back to these two markets.

FEAST OR FAMINE

CBRE analysis shows that in the 18 months from Q1 2016 to now, there has been a stark contrast in the success levels of providers in each country. The top three performing providers in each city have been responsible for two-thirds of all take-up. This means that in each market, just three providers have been responsible for 85% of take-up in Amsterdam, 79% in Frankfurt, 71% in Paris and 61% in London. This shows how important winning the handful of key customers early in their deployment cycle has been.

Furthermore, of the eight companies that have sold over 9MW of power in this time, five are present in only one FLAP market and only three have sites in multiple countries.

Figure 3: Europe Colocation Take-up as at Q2 2017



Source: CBRE Research, Q2 2017

MARKET ABSORPTION

Market absorption in Q2 rose slightly to 2.0 years, and still remains the lowest it has been for five years.

All four markets have absorption rates of under 3.0 years. London and Paris have rates above 2.0 years at 2.6 and 2.3 years respectively.

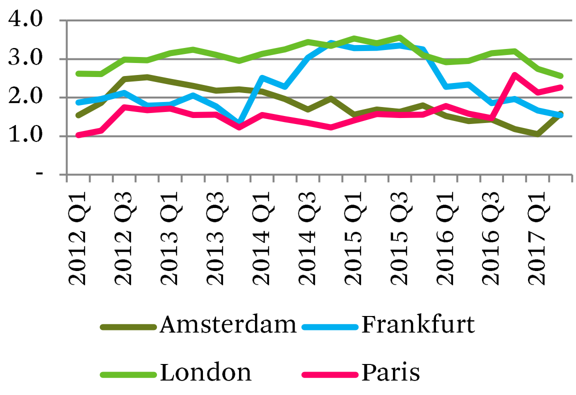
Amsterdam saw market absorption rise to 1.6 years, from what was an undersupplied 1.0 years.

Having seen little new supply this year, Frankfurt's absorption rate has moved from 2.0 years in Q4 2016 to 1.5 years. However, with a number of new facilities scheduled to launch and others breaking ground, we expect this figure to rise rapidly.

Given our predicted 120MW of pipeline supply to the end of the year, the overall absorption rate will rise to 2.4 years. Strong take-up in H2 2017 will be vital to maintain a equilibrium throughout 2018.

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, Q2 2017

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

		Supply	Availability	Take-up (quarterly)	Take-up (year to date)
Amsterdam	Q2 2017	234	40	10.0	13.5
	Q2 2016	164	25	1.8	4.7
Frankfurt	Q2 2017	213	29	2.6	5.9
	Q2 2016	194	32	10.5	18.8
London	Q2 2017	433	74	15.5	33.0
	Q2 2016	371	66	15.8	21.7
Paris	Q2 2017	152	24	3.0	5.3
	Q2 2016	129	14	7.5	9.7
European Tier 1 Total	Q2 2017	1,032	166	31.1	57.7
	Q2 2016	858	136	35.5	54.9

Source: CBRE Research, Q2 2017

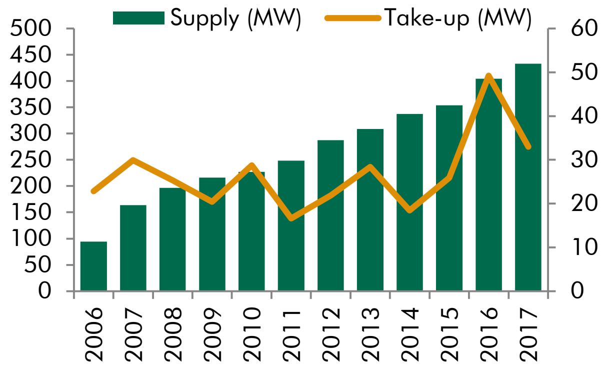
LONDON

London saw more take-up in the first-half of 2017 than any other European market. In total, the UK capital was responsible for 57% of take-up across the major markets in H1.

Gyron brought on a new facility in the London market and Kao Data should launch their maiden facility as a brand new operator in Harlow before the end of the year.

London will provide a fairly limited share of new supply that could come to market in the next two quarters. There has been a flurry of new supply in the past year which has put London in a good position to benefit from continued strong demand and remain in a heathy state of equilibrium. London's 74MW of availability ensures plenty of competition for key new requirements that come to the market.

Figure 6: London Supply and Take-up 2006-2017 Q2



Source: CBRE Research, Q2 2017

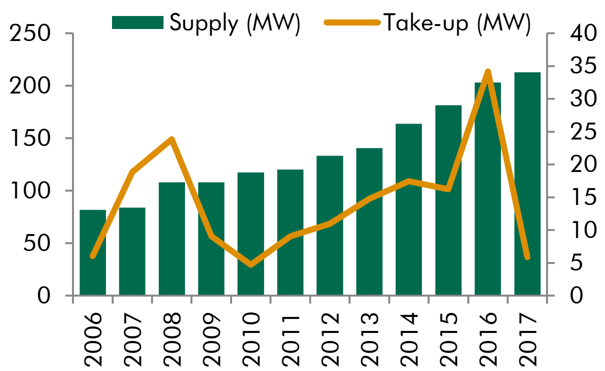
FRANKFURT

Frankfurt is primed for significant growth as a market with a number of new schemes or buildings from established operators such as: Colt, Digital Realty, e-shelter, Equinix, Interxion and Zenium, all under active development. New entrant Maincubes will enter the market this year.

Given that there has been little transaction activity in operational facilities in the Frankfurt market so far in 2017, the providers above will be hoping for an upturn in market requirements if they have not already secured significant pre-lets.

Despite Frankfurt's slow start to the year, our belief is that the new supply coming online will bring heightened confidence and transactions in the market will begin to materialise as this happens.

Figure 7: Frankfurt Supply and Take-up 2006-2017 Q2



Source: CBRE Research, Q2 2017

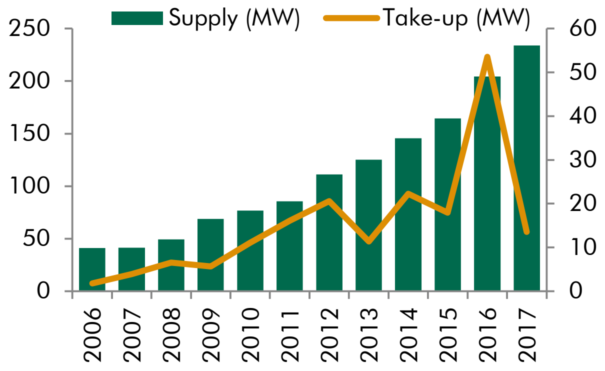
AMSTERDAM

Market activity in Amsterdam picked up in Q2 after a quiet start to the year. However, it is worth bearing in mind that the market would have also been relatively quiet in 2016, barring large build-to-suit requirements in Q4.

Digital Realty brought new wholesale product to Amsterdam, which helped significantly increase market absorption and bring it closer to equilibrium.

Equinix will bring new retail product on in Q3 with the launch of its AM4 facility on the Science Park. This will add new premium retail stock to the ecosystem in Amsterdam. There is room for more to come before the end of the year with datacenter.com and Maincubes also bringing on supply as new entrants to the market.

Figure 8: Amsterdam Supply and Take-up 2006-2017 Q2



Source: CBRE Research, Q2 2017

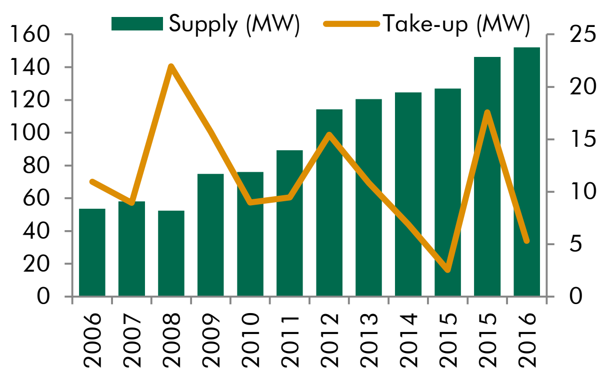
PARIS

Paris has remained the quietest of the major four markets during the first half of the year. The French capital has been responsible for 5.3MW of take-up and 5.9MW of new supply in YTD 2017.

Though Paris has been somewhat quiet in the first half of the year, it has been well balanced. New supply and take-up have been in sync so its absorption rate remains healthy at 2.3 years.

CBRE believes that there will be an increase in demand coming to the Paris market from the cloud service providers in the coming 12 months as companies look to tap into France's high cloud adoption rates and consequently migrate more systems to cloud.

Figure 9: Paris Supply and Take-up 2006-2017 Q2



Source: CBRE Research, 2017 Q2

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.

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 DATA CENTRE SOLUTIONS

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.

To learn more about CBRE Data Centre Solutions group, please visit: http://www.cbre.co.uk/uk-en/services/global_corporate_services/data_centre_solutions. To access additional research reports, please visit the Global Research Gateway at: www.cbre.com/researchgateway.