EUROPE DATA CENTRES

Q3 2020

FRANKFURT, LONDON, AMSTERDAM, PARIS + ZURICH

CBRE

COVID DELAYS DRIVE RECORD SUPPLY GROWTH FOR 2021

Colocation supply
1,748MW (+15%)

Colocation availability
332MW (+26%)

Colocation take-up
197MW (+8%)

Note: Arrows indicate change from same quarter in previous year. For take-up, this is the 12 months ending 30 September 2020 compared with the 12 months ending 30 September 2019

QUARTERLY REVIEW

COVID-19 continued to impact the European data centre markets through Q3. Providers have had to carefully balance increasing requests for supply from the hyperscale market (take-up increased on a quarterly basis by 23%) with supply constraints. Shifts in enterprise demand created further challenges.

We now know of almost 130MW of supply due to come online in 2020 that has been rescheduled for 2021. This is expected to contribute to what we predict will be a tsunami of new supply entering the market through next year, with at least 400MW already scheduled to come online. More than 200MW of that new supply is pre-let. The number of pre-lets signed across the market by hyperscalers grew through Q2 and Q3 with hyperscalers looking up to two years out to secure supply for expected new demand.

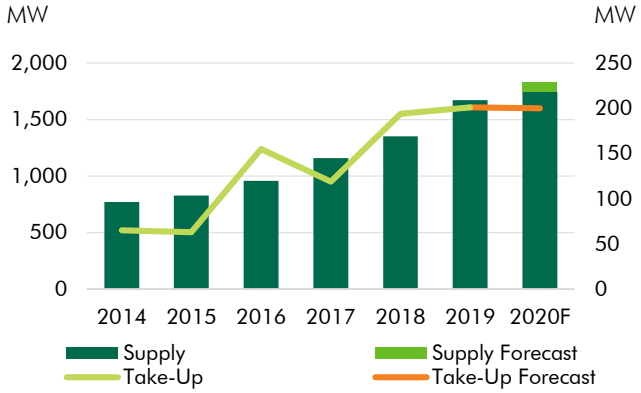
This has occurred alongside the first sign of interest in hyperscale self-build activity outside of Amsterdam in the Frankfurt, London, Amsterdam and Paris (FLAP) markets (the largest four markets in Europe by supply). Such activity has led some to question what hyperscale demand for third-party leased sites will look like in the future? CBRE's view is that hyperscale self-build and colocation will co-exist across the FLAP markets, with cloud providers creating new availability zones that will require additional colocation developments to meet rapid time scales.

The FLAP markets have drawn an increasing amount of attention from investors looking for retrofit, greenfield and brownfield opportunities through 2020. Opportunities, however, are difficult to come by. This is fuelling interest in second-tier markets. We continue to see investment announcements across Europe, especially in locations such as Zurich (which we cover this quarter on Page 7). This quarter, we also take a look at what Equinix Metal means for the market as well as COVID-19's influence on the enterprise markets.

SNAPSHOT

- 2021 is shaping up to be a record year for new supply, with 400MW already in or through planning for development. More than this amount is already scheduled to come online across FLAP in 2022.
- Frankfurt has the highest amount of new supply scheduled for 2021, with 140MW. London currently has the highest amount of new supply scheduled for 2022, with 177MW.
- 129MW of new supply scheduled for 2021 is a result of projects that were due to be delivered in 2020.
- There is currently 85MW of supply scheduled to come online across FLAP in Q4. We suspect local lock-down measures will lead to a reduction in this amount across Q4.
- Vacancy rates for 2021 and 2022 are currently forecast at 22% and 27% respectively, however, many of these sites are not yet under construction. Current vacancy across the FLAP markets is 19%.

Figure 1: FLAP market supply/take-up Q3 2020



Source: CBRE Research, Q3 2020

COVID-19: A MIXED TALE OF SUPPLY AND DEMAND

The pandemic, and ensuing lock-downs, have created opportunity and woe for European data centre markets. Through Q1 and Q2, hyperscale cloud, content providers and distribution platforms scrambled to increase reach and capacity to serve customers' needs for connectivity and access to new applications and services. Through Q3, we heard that enterprise activity was slowing but we saw managed service providers and systems integrators show more interest in rolling out collocated environments.

The IT service provider community has been engaged to help customers move to cloud and carry out migration projects. So while we have seen a reduction in enterprise business this year, it is believed that many businesses will come back to colocation indirectly through different channels – cloud, or managed services, for example.

Wholesale and retail colocation providers continued to face challenges around access to some mechanical and electrical equipment (though many have used the last quarter to rethink supply chain strategies and have tried securing equipment way in advance). Government planning limitations in some markets have also been a concern, along with reduced access to sites (not only for construction teams but for new customer site visits). Despite these challenges, we must commend the industry, as it has proven – yet again – that it is capable of keeping the lights on and attaining ongoing positive growth, even through a global pandemic.

PRE-LETS GROW AS HYPERSCALERS LAY CLAIM TO PLANNED SUPPLY

Hyperscalers are well aware of the capacity they require to keep the lights on. They foresee demand resulting from the pandemic as well as new services that are coming online. Cloud adoption is growing, along with the power density required by some applications. The problem has been that leased data centre providers haven't always been able to provide additional supply for hyperscalers at the break-neck speeds required (usually in line with large contract wins). This has led hyperscalers to think differently about how they procure data centre capacity.

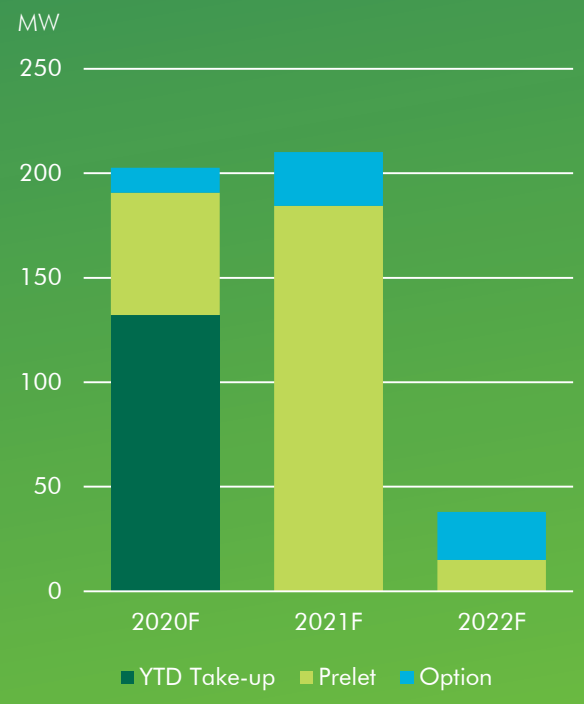
Through the last few quarters we have seen an increasing number of pre-lets or options for leased data centre supply. Some of these contracts are arranged to secure provision up to two years out. The markets where we tend to see most of this activity are home to cloud availability zones that are fast expanding. This has been especially evident in the space-constrained market of Frankfurt.

We have seen a build-to-suit army grow across Europe in response to this need – providers that work with anchor tenants on customised builds designed to allow fast-time-to-market. We have even seen hyperscalers consider acquiring land themselves with the intention to self-build.

All the while, data centre growth across all European markets is leading to increasing land costs for data centre developers and increasing competition with sites earmarked for logistics use. The logistics industry is also seeking new development options as it expands to meet our new online retail requirements that have risen as a result of COVID-19.

Q4 lock-downs are expected to lead hyperscalers and other customers to consider how they might ensure growth for future quarters, and years. This is contributing to an increase in pre-let activity across the FLAP markets. In other cases, pre-lets are a natural part of the equation as providers push buildouts to future quarters, many of these already being contracted to customers.

Figure 2: FLAP market take-up, options and pre-lets 2020-2022



Source: CBRE Q3 2020

SUPPLY

So far, around 78MW has been added across the FLAP markets this year. This is in contrast to 2019, when 318MW hit the market.

Q3 has been the quietest quarter yet with only 13MW coming online. More than half of this was in Frankfurt (attributed to a single wholesale project). The other additions were seen in retail colocation facilities where providers had additional phases to bring online.

There is currently 85MW of supply scheduled to come online across FLAP in Q4. We suspect local lock-down measures will lead to a reduction in this amount but projects won't be halted. In most cases they will be scheduled for H1, 2021.

There are plenty of projects planned for 2021, which is shaping up to be a record year for new supply. We so far know of 400MW due to come online. More than this amount is scheduled for 2022.

Frankfurt (with 137MW) will see the highest amount of new supply in 2021, followed by London then Paris. London currently has the highest amount for 2022 with 177MW scheduled to come online. Telehouse announced a new site in Paris that will launch early 2021 to complement its connectivity hub – Telehouse Voltaire – as well as a new build in London's Docklands. Interxion announced a new campus – Neckermann – in Frankfurt. NTT announced its Dagenham data centre is now ready for customers. We also saw announcements across the rest of Europe, with Interxion announcing growth in Vienna, Zurich and Marseille (as well as the acquisition of Altus IT in Croatia) and Equinix announcing expansions in Milan, Warsaw and site acquisitions in Manchester. These are only a few of the announcements made in this quarter.

AVAILABILITY AND MARKET ABSORPTION

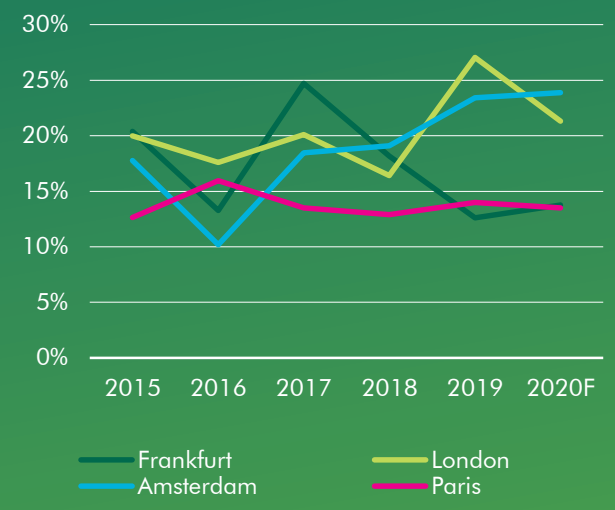
Vacancy rates continued to fall across the FLAP markets, dropping to 19% in Q3, a figure not seen since 2019. Frankfurt and Paris have the lowest vacancy of the FLAP markets with 12%. Scheduled new supply additions mean both markets' vacancy rates should increase to just under 14% by the close of 2020. London and Amsterdam – both markets with around a quarter of their supply vacant – are expected to remain relatively unchanged. Projects that get carried from 2020 into 2021 may not massively impact vacancy rates across FLAP, with a number of new builds being pre-let (220MW of pre-lets have already been signed for 2021).

We expect to see only slight shifts in market absorption rates before the end of this year. Our figures show at the current rate of supply and demand Frankfurt could easily fill capacity in a year and a half, and Paris just under 2.0 years. London and Amsterdam still have relatively high absorption rates – above 2.75 years.

London and Frankfurt are the only markets to see wholesale supply surpass that of retail colocation.

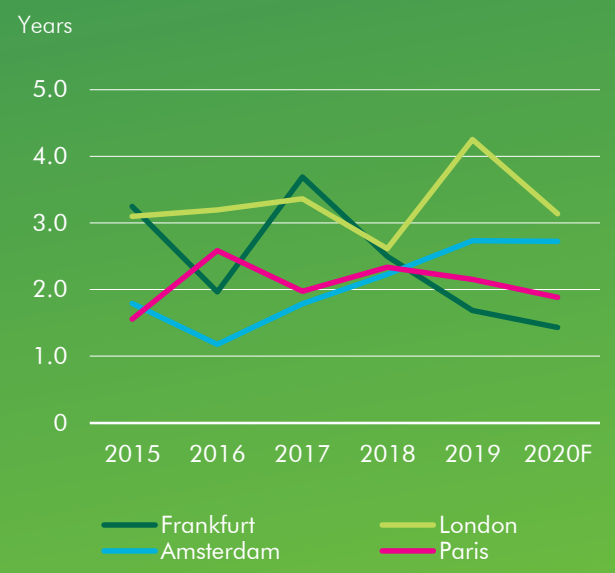
We expect, over time, as more wholesale providers enter the markets and choose to build speculatively, we will see such rates across the whole of Europe increase. We also expect that over the coming year, as some enterprises reach end of contract and start discussing renewals, we could see more supply come to market in some older facilities where customers are now moving to cloud. Such moves tend to bring opportunities for providers to enhance their sites, adding power and space in some cases, so they can bring even more provision to market. In the meantime, these shifts will contribute to larger gaps between supply and demand.

Figure 3: Vacancy rates Q3 2020



Source: CBRE Q3 2020

Figure 4: Market absorption Q3 2020



Source: CBRE Q3 2020

TAKE-UP

Take-up through Q3 was higher than previous quarters in 2020. It was a quarter where people were able to travel again and business was a bit less disrupted by COVID-19 lock-downs.

Across all markets, almost 60MW was contracted (excluding options and pre-lets).

A number of medium-sized hyperscale cloud deals were signed in Frankfurt and London. We also saw some smaller wholesale deals realised across all markets along with 100-500kW retail colocation deals (largely customers seeking connectivity options for gaming, content, media etc). These included a handful of enterprise deals – mostly transformations that were on the agenda prior to COVID.

Such activity highlights that while the market has seen reduced enterprise take-up across the last few quarters there is still some interest in colocation as companies continue with digital transformation plans.

Currently, there is more than 220MW worth of pre-lets and options signed for the market across 2021.

One trend we have heard about – resulting from COVID-19 – has been a decrease in interest for business continuity supply, which is sometimes tied in with data centre contracts. We've heard customers have been rethinking disaster preparedness strategies now they have been forced to enable work-from-home and other virtual arrangements, particularly the financial services industry, which was previously averse to such working arrangements.

ENTERPRISE PROCUREMENT TRENDS

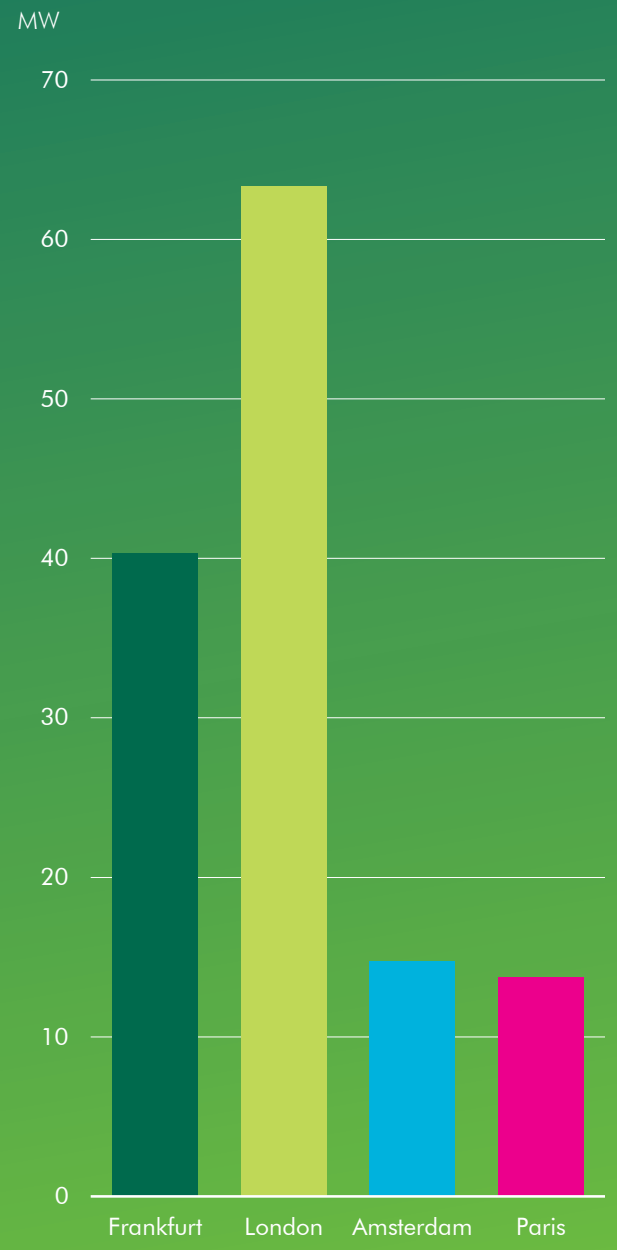
Retail colocation providers have been able to place enterprise customers into two distinct buckets over the last two quarters. **1.** Existing customers that took supply and are now coming up to the end of a contract (some having already consolidated IT footprints but now facing further transformation with the cloud). **2.** Newer customers seeking cloud onramps as they digitise their estates. Both have posed some challenging moments for the market.

Enterprises battling with COVID restrictions did enhance connectivity options (think of private connectivity into platforms such as Zoom and Microsoft Teams) at the start of COVID. Many also signed up for a swathe of remote services as staff were locked out of the data centre. Over time, these customers have gone back to the drawing board to fast-track digital transformation efforts (many plans would have been on the agenda already) to ensure a move to more dynamic cloud environments. This allows for greater flexibility of contracts, as well as agility and lower operational costs. Some colocation providers say the result has been a reduction in enterprise power requirements when it comes to the time for renewals. In a handful of cases, enterprise customers have struggled to meet financial commitments.

Other enterprises considering colocation have been forced to hit 'pause' while they reconsider their IT strategies. Providers across Europe suspect these customers will continue using colocation but in some cases will return to colocation through an indirect channel of managed service provider partners.

To accommodate the enterprise, providers are increasingly considering flexible options that allow customers to be more agile through COVID, looking at valuable add-ons with cloud test labs, enhanced security options and portability of some environments.

Figure 5: 2020 Year to Date Take-up



Source: CBRE Q3 2020

FRANKFURT

Frankfurt continues to see some of the highest demand across FLAP. It also has some of the most constrained supply. Providers were already experiencing challenges in finding land and bringing sites online prior to COVID. At the end of Q2, we predicted 114MW was due to come online in 2020 – in contrast to 82MW in 2019. This is now revised to 62MW, of which only 36MW has come online. This could change, with Germany, like many other countries, facing further lockdown measures.

We already know of almost 140MW earmarked to come online in 2021. This could be more than 150MW with Q4 2020 capacity being carried over. A further 130MW is already planned for 2022. Much of this is pre-let. Frankfurt has the lowest vacancy rate of the FLAP markets in Q3, with 12%, a figure expected to increase to just under 14% in Q4.

CBRE expects to see continued interest in other markets across Germany through 2021 and 2022, in particular Berlin and Munich.

LONDON

London's market has seen increased interest from build-to-suit providers through 2020, with many acquiring land for hyperscale-focussed developments. This has contributed to larger vacancy rates in recent years, and will continue to do so throughout 2021 and 2022. The market currently has 711MW of supply, and we expect it could grow a further 50MW in Q4. 110MW is already earmarked for 2021 and around 180MW for 2022. Vacancy rates are expected to grow from 22% in Q3 2020 to almost 23% in 2021.

News of Google acquiring land in Waltham Cross could renew interest in the north and east of London, which has not attracted the same attention as the west due to its lack of cloud availability zones. This could help fill some of London's excess capacity sooner than originally thought.

London has seen a lack of enterprise activity through Q3, but we expect this will pick up through 2021. We also expect to see more hubs arise as land prices impact growth in the west.

AMSTERDAM

Amsterdam has struggled to regain its pace of growth following development restrictions imposed by the governments of Amsterdam and neighbouring Haarlemmermeer. Concerns over access to power have pushed many providers to consider new locations such as Zeewolde and Almere. The Dutch Data Center Association is working with the government to ensure the industry has locations identified that will enable market growth with suitable power, connectivity and sustainability initiatives.

The government says there are around 30 prospective projects scheduled for coming years and is positive about the market's ability to grow. New substations are planned and providers are looking at land options. Schiphol-Rijk alone could see a further 80MVA added in the next three years.

Amsterdam grew by 4MW and currently has the highest vacancy of all FLAP markets with 26%. It is also likely to see the lowest growth of the FLAP markets through 2021.

PARIS

Industry reports last quarter suggested Paris was likely to fall behind Dublin in terms of market growth in the coming few years. CBRE's figures, however, when counting only carrier-neutral retail and wholesale colocation supply, show a different scenario. Paris's market will grow to 350MW by the end of 2022, compared with Dublin, which will grow to 230MW. Paris currently has 208MW of supply, while Dublin has 131MW.

The Paris market welcomed an addition to one of its main connectivity hubs through Q2 with KDDI Telehouse announcing its new build – Leon Frot – alongside its Voltaire facility. It is a positive step for the market, which has been seeing increasing interest from hyperscale cloud and SaaS providers, as well as French enterprise customers across its retail and wholesale markets.

Vacancy in Paris is predicted to rise to 13.5% by the end of this year as new supply comes to market.

ZURICH DEMAND HITS THE TIPPING POINT FOR CLOUD

Providers have been seeking expansion across most second-tier data centre hubs in Europe through 2020. Zurich is one of those where we see a growing amount of this activity, with providers acquiring campuses for large-scale builds to cater for increasing hyperscale cloud requirements.

New customer wins with financial services firms, a growing fintech sector, and continuing migration to cloud by Switzerland's home-grown international companies, have encouraged cloud providers to build cloud regions in Switzerland. Switzerland also has its own data protection requirements that encourage sovereignty, but allow international companies to operate with a European base without having to comply with European Union requirements such as the General Data Protection Regulation (GDPR). The country has tax agreements with the UK and Germany and is part of the European Free Trade Association.

AWS announced a new Infrastructure Region for Switzerland in November – AWS Europe (Zurich) – which will comprise of three Availability Zones (AZs). It follows similar announcements by Microsoft and Google, which last year opened regions in the country. Oracle also has a cloud region in Zurich.

Zurich, being the largest and most connected data centre hub in Switzerland, is where most cloud regions, or AZs, are expected to be located. Geneva – 225km away – has seen more limited cloud demand and Geneva tends to be seen as a market for DR purposes or to serve local, Geneva-based needs.

Zurich currently offers 68MW of carrier-neutral supply. This is in comparison to Milan, which has 60MW, and Dublin, with 131MW. The market is growing, with 45MW of new supply scheduled to come online through 2021. The current market vacancy stands at around 20%.

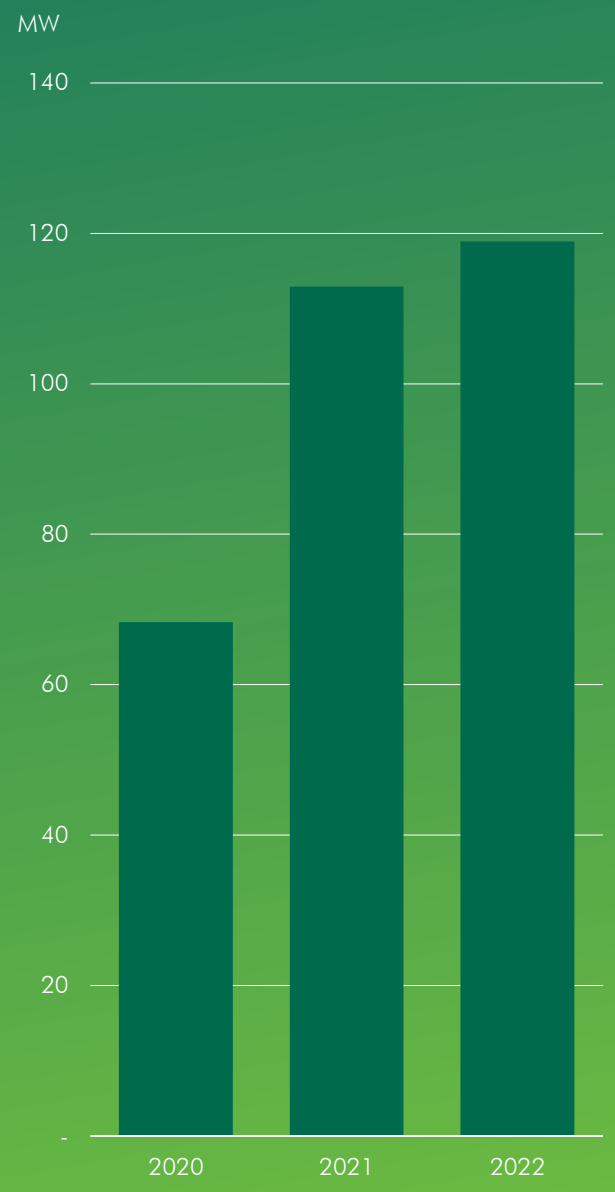
The market is currently comprised of a mix of wholesale and retail providers: Colt DCS, Equinix, Interxion – a Digital Realty Company, IX Swiss, Green Datacenter and NTT Global Data Centers. New providers are entering the market. Safe Host is building in the market, as is Vantage Data Centers, and investors are also seeking options across the market.

Like many of Europe's data centre hubs, Zurich has challenges with providing land and power for data centre builds. As a result, providers are looking further away than Zurich's city centre – Vantage, for example, is building in Winterthur, north east of the city, and Safe Host in the north. Other providers are considering sites to the east and west.

Even once land is located, the market can be challenging to build in, with Swiss requirements leading to long planning processes. Over time, we expect Switzerland's cantons, which take issues around environment and sustainability seriously, will also pay closer attention to the power draw of this fast-growing market. We expect hyperscaler requirements to grow. If London and Frankfurt offer any lessons, it is that once a cloud availability zone gains traction, it will expand, leading to spiralling requirements across the city.

CBRE is launching a series of detailed market reports, starting with Zurich this month. For more information contact Penny.Madsen-Jones@cbre.com

Figure 6: Zurich Current and forecast supply



Source: CBRE Q3 2020

PROVIDER SNAPSHOT: EQUINIX BUILDS BARE METAL SERVICES AFTER POCKETING PACKET

US-based retail colocation provider Equinix stopped referring to itself as a colocation provider a few years back. First, it focussed on connectivity. Now it is focused on its 'platform', a term previously reserved for cloud providers. It is a shift the industry should be taking note of. Equinix is one of the world's largest retail colocation and interconnection providers. It started in a market where hosting and other service provider customers preferred not to see their colocation provider compete. That is changing, however, as more enterprises seek options that enable access to the cloud and flexibility for more agile data centre deployments without the added complexity of multiple contracts and providers.

Through Q3, Equinix formally announced a new bare metal service – called Equinix Metal – put together after acquiring Packet (a venture-backed bare metal cloud provider founded in 2014). Packet brings dedicated servers and automation capability into Equinix's product mix.

For Equinix, it is all about enabling fast deployments and access to new markets (a requirement exacerbated by COVID – think of remote workforces with fluctuating needs or companies wanting to set up new online environments temporarily, including managed service providers).

From a colocation perspective, the bare metal offering allows Equinix to capture the interest of businesses that may have otherwise gone only to the cloud. It enables more capabilities from a colocation base while providing a platform from which to provision the hybrid cloud. It builds on a portfolio that already provides hyperscale data centres (xScale), internet exchanges, an interconnection network fabric to connect clouds, networks and enterprises (Equinix Fabric, formerly known as Equinix Cloud Exchange Fabric), edge services, and security (SmartKey). It also lays the foundation for Equinix at the edge, allowing it to cater to customer demands without always investing in new data centres. Equinix is planning rollouts in 14 metros globally by early 2021 – and in many leading European markets. It is targeting managed service and other providers as well as enterprise customers.

Test and Dev services are another candidate, especially for cloud. Behind this service is Equinix's vast web of connectivity options, allowing interconnection in and across data centres, in and across regions and the world, underpinned by software-defined capabilities that enable provisioning within minutes.

Equinix won't be the only provider to open up its service offerings over time. We have already seen wholesale providers become retail providers, and retail providers become wholesale providers – the lines have been blurring for some time. Rackspace and other hosting providers also dabble in colocation and telcos have tried their hands at almost everything. The difference is, we are now seeing colocation providers starting to find new benefits from the connectivity options they have built up over the years and customer ecosystems.

Equinix is not the only provider to have investigated needs for 'agility' and 'portability' but it is the first to build out a global digital infrastructure offering based on these business needs.

- Equinix Metal brings Packet's bare metal service into Equinix's own footprint so customers can migrate services to new locations fast and bring them down with a similar level of flexibility at the push of a button.
- It means Equinix now also plays in the hosting market, though Equinix foresees some of its managed service and hosting customers will also leverage this service.
- The service is available in Amsterdam, New York, Silicon Valley and Washington, D.C. and is expected to be available in 14 global metros by early 2021.

CBRE'S PREMIER COLOCATION REPORT

CBRE has created the sector's Premier Colocation Report to provide the industry with the most in-depth market analysis in Europe. The report provides access to the key metrics specific to each FLAP market on a quarterly basis.

This data includes: take-up, supply, availability, absorption (all of which are forecasted) as well as market maps, new schemes in the supply pipeline, colocation pricing analysis and occupier and investment commentary.

For more details or to register for a demo of the report click here

Click here to download the full Premier Colocation Report

CONTENTS		MARKET VIEW	PREMIER SUBSCRIPTION
Supply	Aggregated, annual and YTD – chart	✓	✓
Let and available capacity	Aggregated, annual and YTD – chart	✓	✓
Take-up	Aggregated, annual and YTD – chart	✓	✓
High-level market commentary and quarterly highlights		✓	✓
Key metrics	by market, current quarter – table		✓
Supply	by market, annual and YTD – chart		✓
Let and available capacity	by market, annual and YTD – chart		✓
Take-up	by market, annual and YTD – chart		✓
Net absorption	by market, annual and YTD – chart		✓
Supply projection, 2 years	by market, annual – chart		✓
Vacancy projection, 2 years	by market, annual – chart		✓
Take-up projection, 2 years	by market, annual – chart		✓
Market balance analysis	by market, annual and YTD – chart		✓
Supply pipeline, 2 years	by market – table		✓
Market map: key colocation hot spots in the market	by market – map		✓
Colocation pricing	by market, annual and YTD – table		✓
Detailed market commentary and quarterly highlights			✓
Occupier focus			
Occupier take-up review and trends			✓
Colocation pricing analysis			✓
Leading market focus			✓
Investment focus			
Corporate M&A tracker			✓
M&A market commentary			✓
Investment market commentary			✓
+ All charts and data available by individual market			✓
+ Data table with time series available for all charts			✓
+ Wholesaler and retailer split where appropriate			✓
+ Data tables available in Excel for in-house design and analysis			✓

CBRE WEEKLY NEWSLETTER

Keep on top of the most important industry advancements and receive updates on CBRE's data centre coverage by signing up to our newsletter here.

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. CBRE measures data centre supply in megawatts (MW).

AVAILABILITY

Retailer availability of space is based on fully fitted space, vacant and available to sell.

Wholesaler 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 retailer and wholesaler colocation facilities in the relevant quarter.

FLAP (MARKETS)

The four largest colocation markets in Europe. FLAP is an acronym of Frankfurt, London, Amsterdam and Paris.

EUROPEAN DATA CENTRES

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

MARKET ABSORPTION

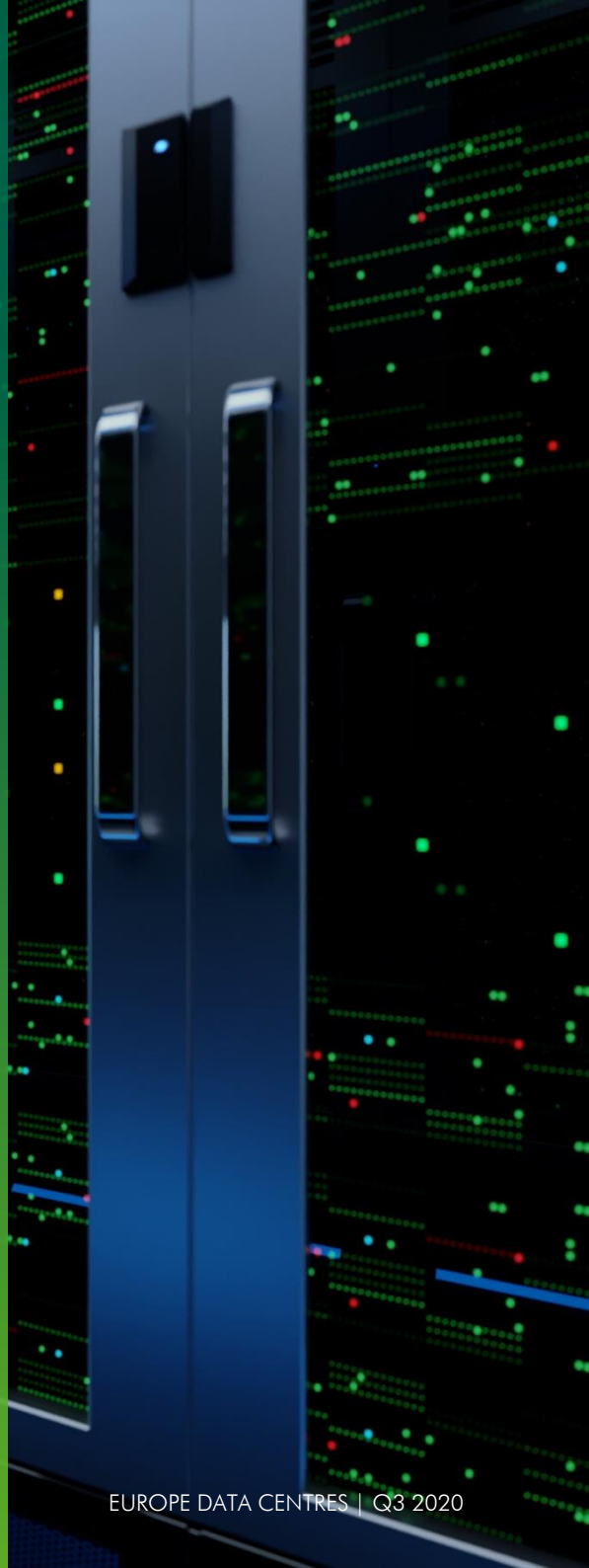
Market Absorption is the number of years it would take current vacant supply to be fully let based on the fixed average take-up of the previous five years (i.e. not including take-up in the current year).

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 makes 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.



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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 – due diligence and transactional services
- Consultancy – consolidation strategies, mergers & acquisitions
- Asset Valuation – bank, corporate
- Project management, development monitoring, due diligence, building and M&E surveys
- Research – market statistics, forecasting
- IT Consultancy

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:

www.cbre.co.uk/services/industries-and-specialties/data-centre-solutions

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