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FLAP Market Stats Market Trends What's going on in Finland?

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Market Stats FLAP

Definitions_{Supply}

- Retailer colocation supply - comprises fitted data centre space only; unbuilt shell phases of the data centre are excluded.
- Wholesaler colocation supply – includes both fitted and shell data centre space. Typically, wholesaler operators sell shell space which is built out to suit customers.

Availability

- Retailer availability is based on fully fitted space that is vacant and available to sell.
- Wholesaler availability
 is based on all vacant space.

Vacancy Rate

 Measured by available supply divided by total supply.

Colocation take-up

 Data centre space sold at operational retail and wholesale colocation facilities in the relevant quarter.

3

FLAP datacentre markets record start for 2021!

- Supply: Q2 quieter after a record Q1
- High number of pre-lets: more take-up H2 forecast: 229 MW compared to H1: 141 MW
- Activity expected to regain pace in Q3 challenges in supply chain for IT, mechanical and electrical equipment have continued to cpush out dealsoande, inc. deployments

2,029
MV!
+ 17%
compared to Q2
2020

402 MW +13% compared to Q2 2020

Colocation Availability

48 MW

-48% compared to Q1 2021

Quarterly Take-up

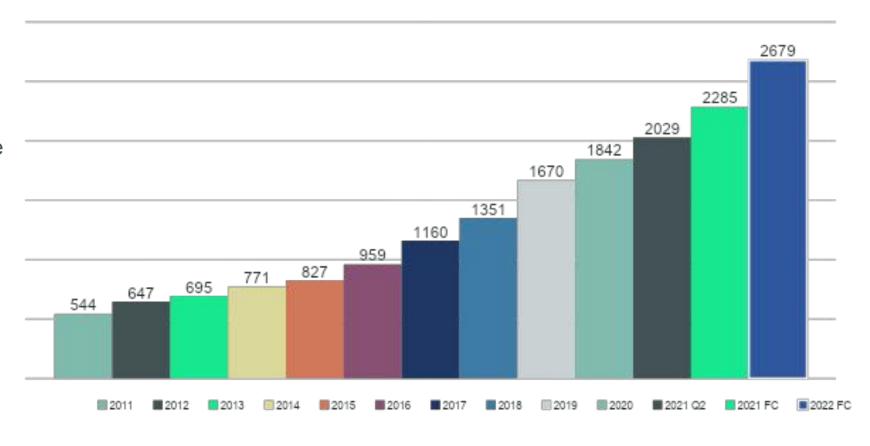
Colocation Total Supply

FLAP Market Total Supply (MW)

A Rapidly Growing Market

Supply is now growing at twice the speed

- 2011-2016 (five years) 415 MW added
- 2016-2020 (four years) 883 MW added
- 2020-2022 (two years) 837 MW added



Frankfurt

- Total supply: 500 MW
- Vacancy: 65 MW
- >100 MW to come online in H2
- ~ 100 MW take-up in H2
- Government to place constraints
- Opportunities: Q2 increasing interest cloud, gaming and Chinese hyperscale providers, enterprise and others
- Challenges: Possible government restrictions, increasing construction costs and lack of supply Confidential & Proprietary | © 2021 CBRE, Inc.



London

- Total supply: 810 MW
- Vacancy 184 MW
- Slight increase in demand from smaller colo deals – some ending up in wholesale facilities with pockets of supply to spare
- Managed service providers also expanding
- Increase in enterprise interest after Brexit and COVID-19
- Opportunities: Hyperscalers seeking additional supply – deals in Q3 to come up?
- Challenges –access to land and power and increasing construction costs



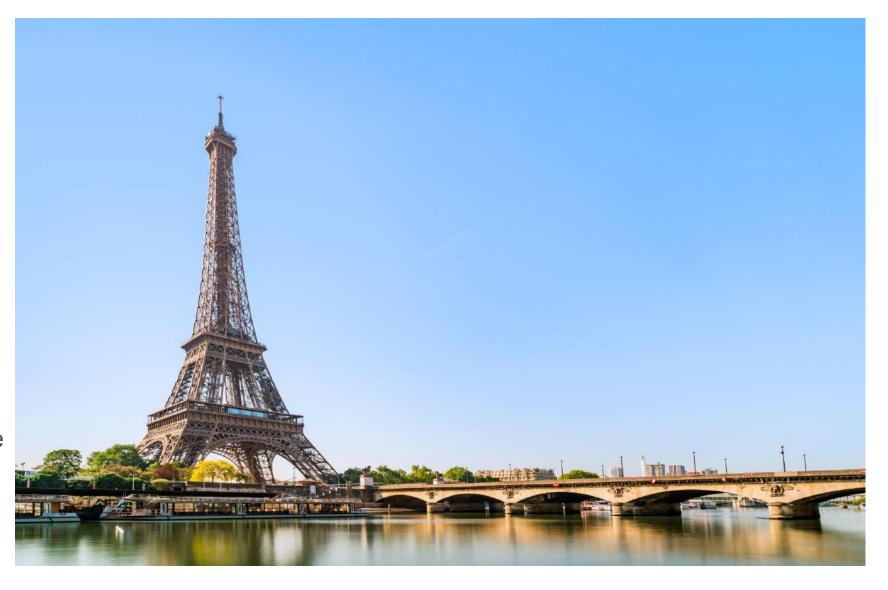
Amsterdam

- Total supply: 446 MW
- Vacancy: 121 MW
- Several large pre-let facilities for cloud are scheduled around Schiphol-Rijk this year
- Only 23 MW of the 88 MW scheduled to come online for the year and only 12 MW of forecasted 70 MW take-up
- Opportunities: Increasing interest from cloud platform providers building out availability zones, AI, IoT, media and hosting companies
- Challenges: power, planning and limited hyperscale



Paris

- Total supply: 273 MW
- Vacancy: 32 MW
- Record take-up in Q1 of 43 MW but only 4 MW in Q2
- Increased activity expected in H2
- Both hyperscale and enterprises are very active as well as government customers
- Opportunities: High number of sub-2MW requirements



Continuous

growth and

individual

regarding

announced

during Q2

Sustainability

pledges

Market Highlights

 Equinix announced 32 xScale data centres with GIC, 19 of which are in Europe. Frankfurt, Madrid, Dublin, London, Madrid, Helsinki, Milan and Warsaw

- In the London market Global Technical Realty announced a 40.5MW campus in Slough due online in Q4 2022 and Iron Mountain announced a second data centre LON 2 (27MW) also in Slough. Pure Data Centres announced a 50MW campus at Borehamwood
- DATA4 Group secured €620m in debt financing to pursue growth across Europe including entry into Warsaw with a 50MW campus
- Interxion, a Digital Realty Company, broke ground on its fourth facility in Marseille and connected its portfolio of data centres in London with fibre creating a virtual campus
- NTT announced new data centres at its campuses in Frankfurt, Bonn and Berlin

Climate-conscious Commitments and Pacts

The European Climate Neutral Data Centre Pact took its proposals to the EU with a pledge to make the sector climate neutral by 2030

Providers that made individual pledges include:

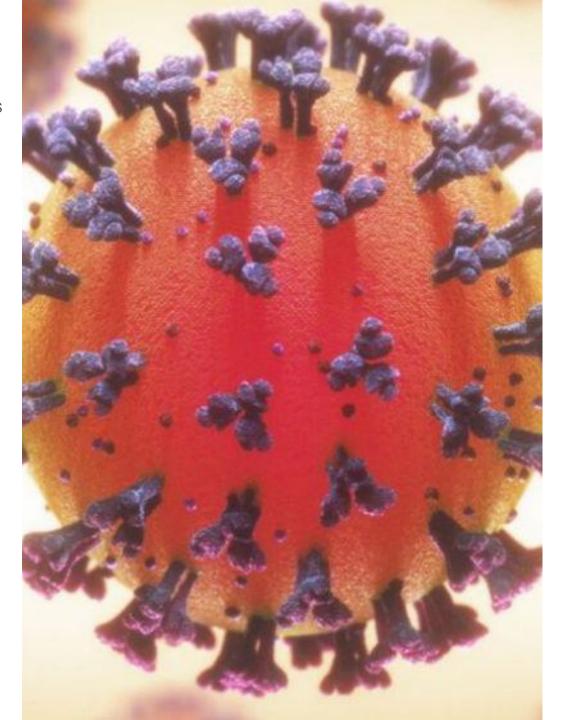
- Equinix commitment to be climate-neutral across operations and supply chain by 2030
- CyrusOne/Colt 100% renewable power
- DATA4 joined French Planet Tech'Care manifesto to reduce environmental impact
- Iron Mountain tracking renewable power use by the hour
- Digital Realty signed up to Science-Based Targets Initiative for sustainability



Market Trends

MARKET TRENDS

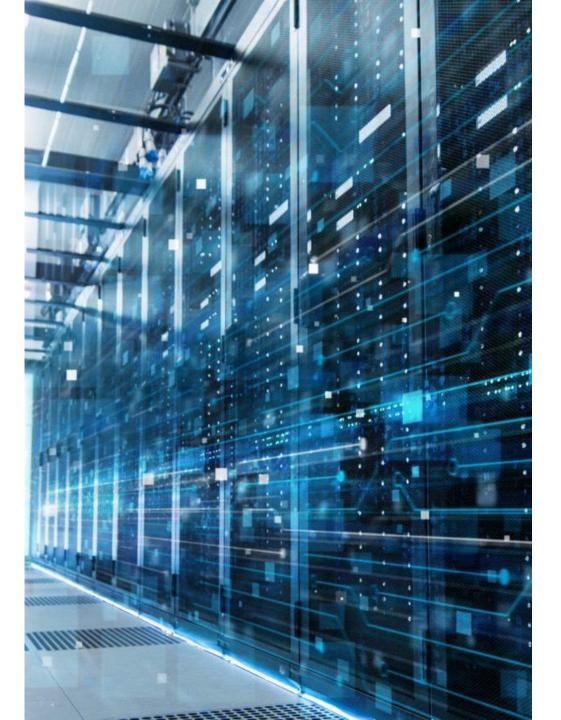
Covid-19 emphasised things... and created challenges



- Demand for connectivity-focused colo and hyperscale wholesale supply grew
- Increased investor interest
- Pushed enterprises to rethink IT strategies, with a focus on cloud
- Access to sites/ new build pipelines
- Delayed customer/ enterprise interest
- Increased competition for M&A, land and for customers!

MARKET TRENDS

What is happening right now?

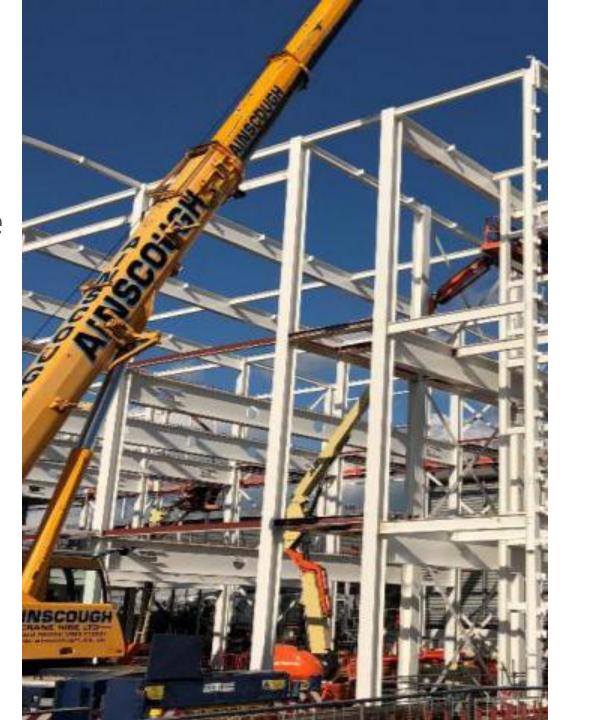


- Business models are changing
- Build-to-suit is growing
- Hyperscalers are encouraging build-to-suit and are exploring self-builds further

MARKET TRENDS

Supply requirements are growing...

... and Demand is shifting



- Campus growth
- Higher density builds
- Introduction of build-to-suit
- Increasing appetite for investor and provider investment
- Hyperscalers accounted for around 80% of leased DC demand and will continue to do so
- Enterprises started leveraging colo as a cloud onramp
- Colo:s a vehicle for connectivity



What's going on in Finland?



"Digita Oy has unveiled plans for a "significant investment in its data centre business" in the form of a new facility to be built in Helsinki, Finland. Set to come online in 2023, the new centre will be located in the immediate vicinity of Digita's current location..."

"Equinix is continuing to invest in growing its data center capacity in Finland expanding two Helsinki data centers, HE5 and HE7, with a €32 million investment..."



HYPERCO_

"Hyperco plans to invest approximately EUR 200 million in existing and new data centers over the next two years. In five years, Hyperco aims to manage more than one billion euros worth of data centers in the Nordic countries."



"Fortum seeks data center partner for district heating in Finland..."



"LUMI, one of the EuroHPC world-class supercomputers and leading platforms for artificial intelligence, will be located at CSC's data center in Kajaani, Finland. Operations will start in 2021."

The budget for the EuroHPC JU in 2019–2020 is over 960 million Euros, 202 million Euros in Finland

"Russia's Yandex seals wind PPA to support data centre in Finland..."



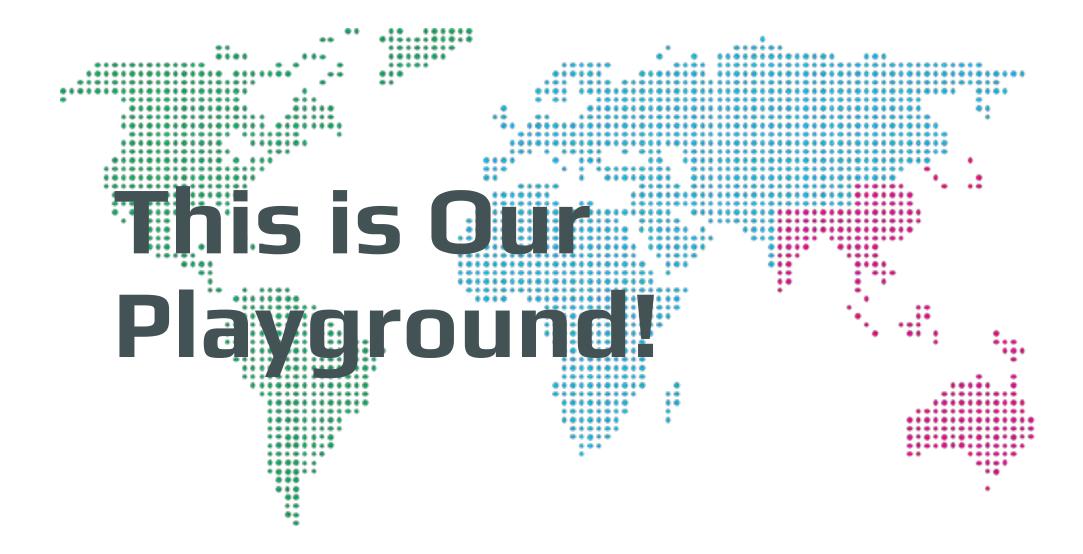


- Lower taxes for DCs under 5 MW and heatpumps for reuse of datacenter heat? From 1.1.2022?
- International ISO standards working group to set standards for sustainable development of datacenters
- Training coorporations between schools to increase talent pool
- Started cooperation on a Nordic level
- EU requirements

Finland a top 5 country on the "Best place to build a data centre in the world" list

Frank Knight ranking together with Denmark, Sweden, US and the Netherlands







Kiitos! Tack! Thank You!