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FLAP Market Stats and current Market Trends

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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.

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 push out deals and deployments

2,029
MW!

+ 17% compared
to Q2 2020

Colocation Total Supply

402 MW

+13% compared
to Q2 2020

Colocation Availability

48 MW

-48% compared
to Q1 2021

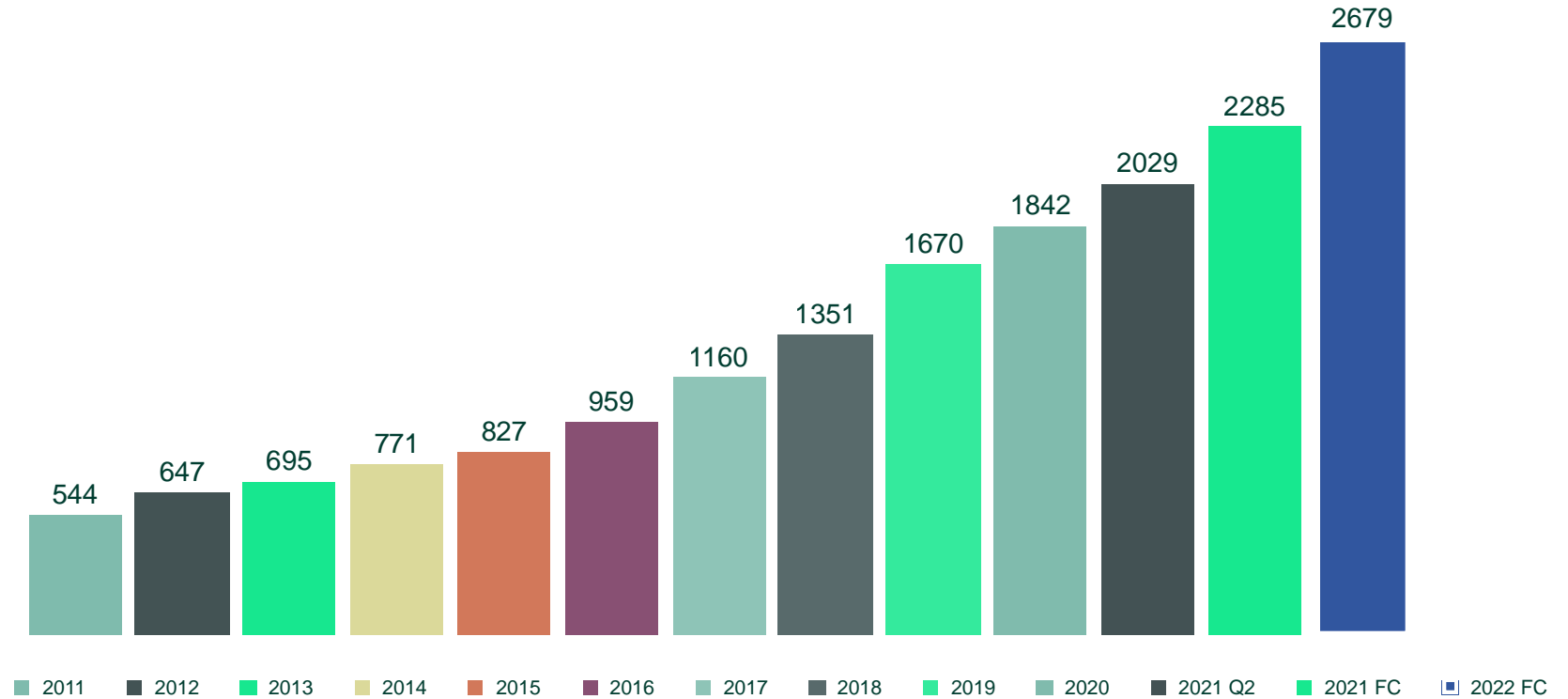
Quarterly Take-up

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



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 demand



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
- Challenges: Competitive site selection and access to power



Continuous growth and individual pledges regarding Sustainability announced during Q2

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

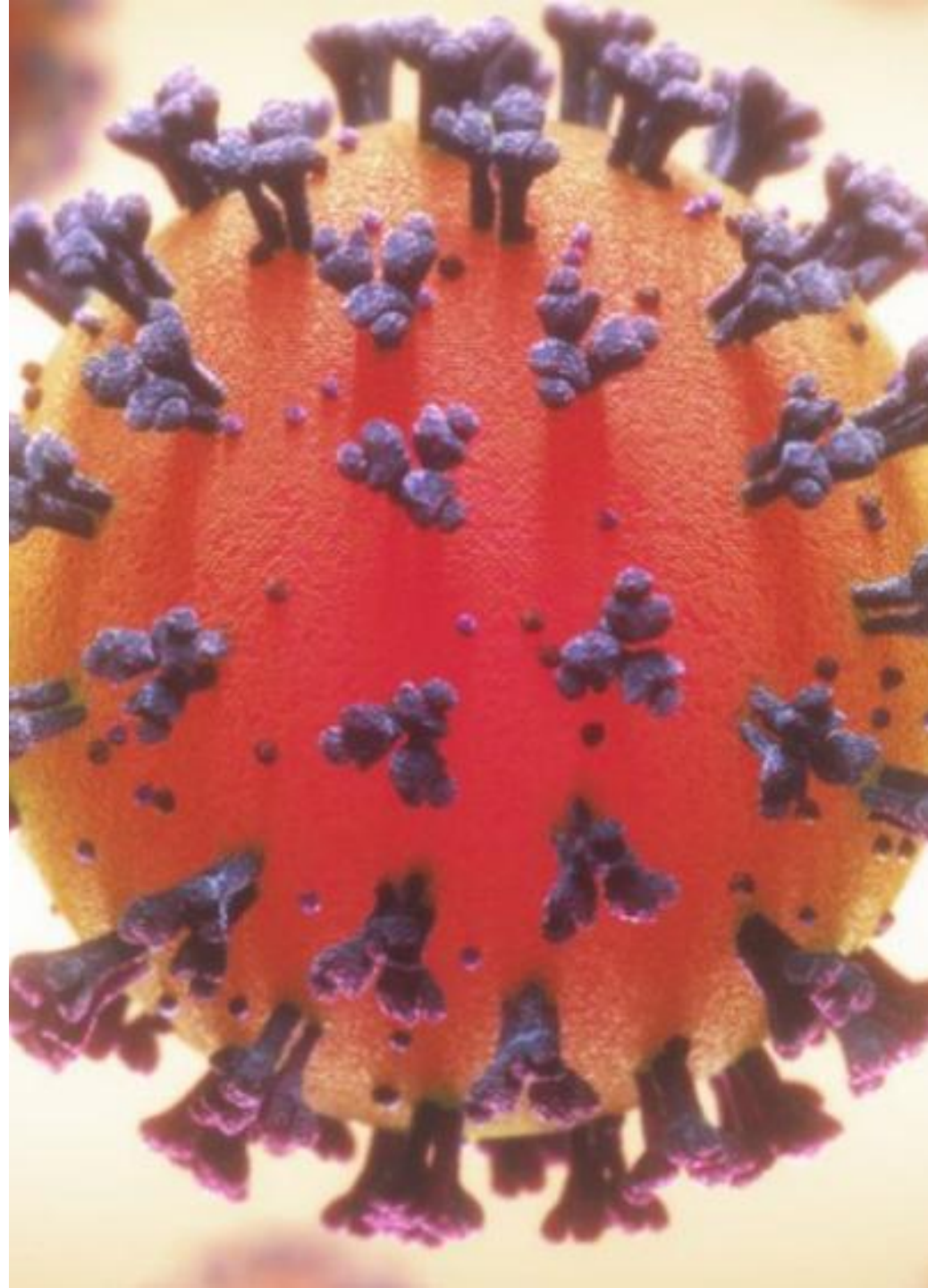
Providers that made individual pledges include:

- **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

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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

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 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 overview – key projects

GlobalConnect:
Opened its new data center in Aarhus in 2020. They operate most colo sites in Denmark.

Interxion CPH3:
Interxion to expand their capacity by commencing third data center campus in November 2020.

Apple Data Center:
First phase expected to become operational by 2021.

Facebook Data Center:
First phase operational. ODN3 currently being built. 5-6 expected to commence in early 2022

Bulk Data Center:
Modular data center, fully operational. Capacity for future expansions.

Penta Infra (Sentia)
Acquired Sentias Data Center in Copenhagen.

Viking Link
UK-Denmark Electricity Cable

HAVFRUE Network
New Jersey-Denmark
Connectivity cable

COBRACable
Netherlands-Denmark
Electricity Cable

DigiPlex land purchase:
Expected to commence construction of 4 data halls in Taastrup.

Google Data Center:
Purchased 75 hectares of land in Fredericia. Phase 1 operational.

Microsoft:
To build and operate 3 data centers in Zealand. Location and timelines yet to be confirmed.

Google land purchase:
Google's second purchase of 131 hectares of land near Aabenraa

SAP land purchase:
SAP purchased two sites in Aabenraa municipality in 2019.

Active builds

Increasing investments and M&A activity

Sentia Denmark

Penta Infra has announced its expansion into the Nordics

(announced 14th June 2021)

DigiPlex

Now owned 100% by IPI Partners

(announced 27th July 2021)

Acquired land for expansion in Copenhagen area

(announced 22nd Feb 2021)

Bulk Infrastructure

Partnership with BentallGreenOak (BGO), a global real estate investment manager, as a strategic partner and investor

(announced 22nd Dec 2020)

Google

Google buys additional land in Fredericia – to be able to expand their campus in Denmark

(announced 12th October 2021)

Facebook

Facebook buys 212 hectar land in Esbjerg

(announced 13th Oct 2021)

Denmark dubbed “Best place to build a data centre”



Denmark tops the Data Centre Ranking 2020

Rank	Country	Overall Index Score
1	Denmark	78.70
2	Sweden	78.25
3	US	75.96
4	Netherlands	75.60
5	Finland	75.39
6	Norway	73.70
7	UK	70.03
8	Canada	70.03
9	Germany	69.91
10	Estonia	66.15

Tak!
Takk!
Thank You!
Tack!