

DCByte[®]

COUNTRY FOCUS ON

DENMARK

PREPARED IN PARTNERSHIP WITH



DATACENTER
FORUM



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About DC Byte & Datacenter Forum



DC Byte is a data centre research and analytics platform. We map data centres around the world and track the developments of new supply, sold power, available capacity, supplier details and market acquisitions. The in depth granularity of our data help businesses to stay up to date with the latest data centre developments and the risks or benefits that entail entering a specific market.

<https://dcbyte.com/>



Founded in 2014, Datacenter Forum is home to the biggest community of data centre professionals in the Nordics. It hosts events throughout the region that bring together vendors, operators, and other stakeholders across the data centre industry and wider information technology & digital infrastructure sector. As of 2022, Datacenter Forum hosts events in Norway, Finland, Denmark, Iceland, and Sweden.

<https://datacenter-forum.com>

A Year-In-Review

Denmark

2022

- Apple announced plans to expand its data centre campus in Viborg.
- Bulk Fiber Networks set into operation the HAVSIL cable connecting Norway and Denmark, and Havhingsten cable connecting Denmark, UK and Ireland in early 2022.
- Bulk Data Centers signed an option with Esbjerg municipality for the adjacent 30ha plot to its existing facility.
- Microsoft started to work on a data centre region in Zealand.
- GlobalConnect began installation of Digital E4 cable system between Island of Bornholm and Sweden.
- Fuzion launched a facility in Copenhagen.
- Meta stopped development of its Odense campus terminating a 2.4 billion DKK contract it signed with Per Aarsleff Holding A/S. The hyperscaler has announced plans to focus on developing data centres to accommodate AI driven data.

2023

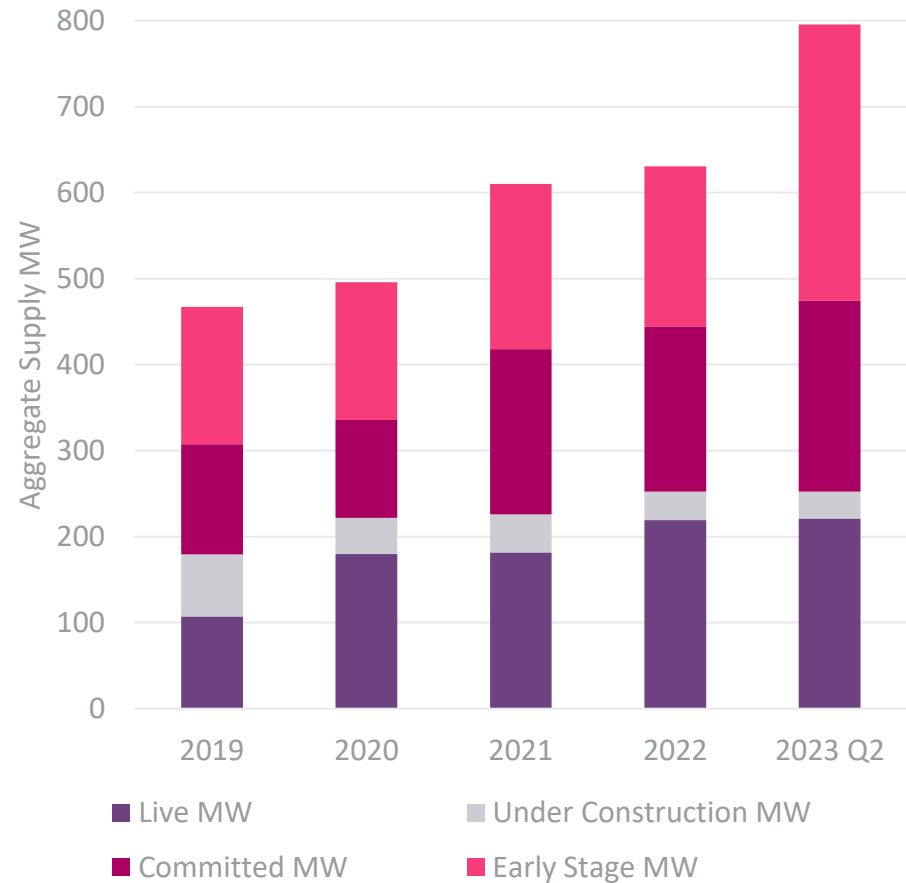
- Prime Data Centers announced plans to build 3 hyperscale data centres in Denmark, at 45MW of IT capacity each.
- Digital Realty is still developing its CPH03 facility.
- Penta Infra completed the expansion of its facility in Copenhagen.
- In September, Cibicom plans to open a new data centre in Aarhus.

Market Supply

Denmark

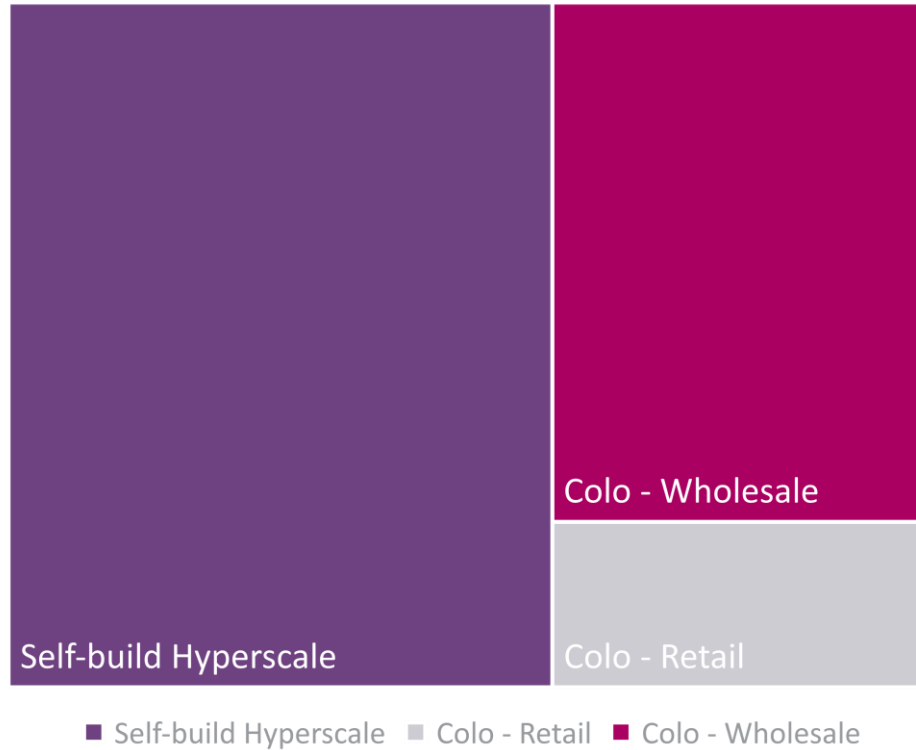
Hyperscale activity in Denmark has been unorthodox, with initial deployments located far from metropolitan Copenhagen. This is unlike what we have seen in the FLAP-D markets where early deployments were in city districts. This behaviour is now becoming more common across the Nordics, with hyperscalers developing where there is more land and power. Therefore, when talking about Copenhagen data centre market, people often are referring to the whole of the country. Denmark has one of the highest market shares (estimated to be at 66%) of self-build hyperscale data centres as a proportion of its total data centre market capacity in Europe, a similar market composition to Dublin. The big difference between the two locations is Denmark's self-build market is anticipated to continue to grow substantially whereas Dublin is expected to see more wholesale development.

The graph illustrates the size of the Danish market on a yearly basis since 2019.



Future Developments – Market Composition

Denmark



The chart illustrates the market share of future capacity in the pipeline, in terms of type of development.

The table is based on the top five companies with the most under construction, committed and early stage capacity as of Q2 2023.

Position	Company Name
1	Apple
2	Meta
3	Google
4	Prime Data Centers
5	Digital Realty

2023: Challenging Year Ahead?

Denmark

- The power constraints in the FLAP-D markets will continue to drive demand into different regions.
- Given most of the American hyperscalers have self-build campuses in Denmark, we would expect to see expansion on existing facilities before new schemes are announced.
- The Danish parliament set a target for the electricity system to become fully independent of fossil fuels by 2030, meaning that the energy produced by solar and wind sources would have to quadruple while the amount of power generated from offshore wind would need to increase five times. Although, heavy reliance on wind and solar energy is an advantage in itself setting the country ahead of other European states in the race towards achieving national sustainability goals, it also creates a challenge. When the production of renewable energy is low, Denmark needs to depend on its neighbours to import electricity needed to cover the energy shortage. An increase in the number of large energy consumers, such as hyperscale data centres, raises the question whether the national sustainability goals could be met in time.
- With the European Union Energy Efficiency Directive guidelines, new data centre developments are becoming more governed. The operators whose facilities have the need for 1MW or higher capacity will be requested to show solutions on how the new projects would connect to the local district heating networks, before any works on the project start. This is likely to impose challenges for smaller wholesale operators but should not stop the domestic retail operators who are anticipated to continue seeing an increase in demand.

Thank you

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