



## BERENBERG INFRASTRUCTURE & ENERGY

### **Data centres – an evolving asset class for infrastructure debt that is suitable for environmentally-aware investors?**

To date, funding of datacentre projects often falls between chairs of infrastructure lenders and commercial real estate lenders. This seems to be at the verge of changing. Even mezzanine is now available to improve the capital structure of such projects. At the same time, with the global data centre sector growing strongly, its massive hunger for power and its environmental impact are closely regarded by funders. However, sustainable financing criteria are also progressively becoming applicable to data centre projects.

New data centre capacity totalling 800MW is expected to be built until 2023 in the FLAP (Frankfurt, London, Amsterdam, Paris) markets alone, resulting in a new growth record<sup>1</sup>. Due to its long-term growth profile and structural tailwinds, the data centre sector is increasingly becoming attractive for equity investors and debt providers alike<sup>2</sup>.

At the same time, the funding structure of data centre projects in Europe is changing. Until recently, the sector was dominated by (senior commercial) real estate lenders, a group which consists of banks, institutional investors or dedicated real estate debt funds. An independent market observer could gain the impression that these parties mainly used conventional office or retail real estate financing techniques and as a result are often struggling with high fit-out costs and relatively low alternative-use prospects, which are both typical for data centres. Triggered by new market entrants discovering the sector, the financing approach is now slowly changing.

#### **Datacentre projects seem to fulfil basic infrastructure project loan criteria**

Some senior infrastructure (project finance) lenders have already defined data centres as a new infrastructure asset class and are applying an alternative financing approach. Whilst real estate lenders mainly rely on market values of the underlying real estate asset (LTV covenants) and consequently on the value of the mortgage which serves as collateral, infrastructure lenders predominantly focus on cashflows to be generated by the respective asset. Key infrastructure funding criteria seem to include (i) long-term stable cashflows, (ii) long technical lifetime of the underlying asset, (iii) strong market position (i.e. demand exceeding supply) and (iv) a solid security package.

However, some infrastructure lenders continue to find it challenging to accept certain characteristics inherent in data centre projects. In particular, two main characteristics determine risk perception:

1. Single-tenant (e.g. hyperscalers) data centres with long-term lease agreements in place, which seem to be a very good fit for infrastructure lenders.
2. Colocation data centres with shorter-term lease agreements and changing lessee base over time, which seem less of a fit.

Other criteria are also crucial to the individual risk perception and lending appetite, such as e.g.

- greenfield vs brownfield assets,
- size (MW, sqm, capex),
- location (edge vs regional vs FLAP),
- counterparties (experienced developers vs new entrants),
- layouts and fit-outs or
- project finance – like date certain, turnkey, fixed-price EPC contracts.

<sup>1</sup> Compare "European data centres research – Q4 2020" by CBRE dated 3 March 2021

<sup>2</sup> Compare "Real Estate Data Centres" research report by Berenberg Capital Markets dated 25 August 2020



### **Different lenders for different risks – as in other established asset classes**

Going forward, we expect infrastructure lenders to gain more knowledge and comfort on certain asset characteristics, thereby establishing an individual niche focus within the data centre sector. This development could also be observed in other more mature infrastructure sectors such as fibre optic networks. Transactions ranged from “no brainers”, such as publicly backed optic fibre networks in tendered areas securing a monopolistic position (like in France), to more complex and privately funded networks including short-term customer contracts with a limited number of small-sized customers. With increasing familiarity of the sector, some lenders were prepared to accept a different risk pattern compared to other lenders.

Driven by increasing liquidity and additional lending competition in the sector, real estate lenders and infrastructure lenders will, in our view, get increasingly comfortable with data centres as an asset class. As a consequence, we expect an increasing amount of senior debt to be available to the data centre market in the coming years.

### **Mezzanine is available and allows to optimise the capital structure**

Aside from and complementary to senior debt, mezzanine financing should also be considered for data centre projects. Other mature infrastructure asset classes such as renewable energies have registered a strong increase in the availability of mezzanine debt amounts. So far, we have not yet observed this type of development in the data centre market as it is still at an earlier stage. However, including mezzanine in the financing structure can benefit data centre developers and owners by (i) limiting the equity bound to their investments, (ii) making use of freed up equity for new developments / investments and (iii) increasing equity return. Also, mezzanine debt is an attractive investment class which is open to investors directly and indirectly via dedicated funds.

Further, for environmentally-conscious investors and lenders, mezzanine or senior, projects in the data centre sector are fit to incorporate their sustainability criteria which need to be complied with before funds are made available.

### **Sustainability criteria need to be considered for funding of projects**

On top of the general project financing criteria for data centres, investors and lenders to digital infrastructure projects are becoming increasingly wary of their environmental responsibility. In the past, sustainability of infrastructure projects has been tracked by adherence mainly to the Equator Principles, a social and environmental standards framework for project financing. Today, many providers of funding have already adapted their investment criteria to reflect an extended set of sustainability goals. This comes as part of a renewed pledge towards improving the environmental and social impact of their investments, but is also driven by recent, sustainability-focussed updates in regulation. Consequently, the possibility to fund projects is becoming increasingly dependent - if not contingent - on evidence of their sustainable nature.

### **Significant potential of the expanding data centre infrastructure is driving the need for sustainable solutions**

Due to their high energy usage, the significant amounts of water used for cooling and the emission of ample excess heat, data centres have a tangible environmental impact amidst times of increasing environmental awareness.

Data centre power usage is currently estimated to constitute c. 1% of the entire global energy demand and is forecasted to increase even more in the coming years<sup>3</sup>. In Germany, power usage of data centres in 2020 made up c. 2.9% of total power demand<sup>4</sup>. It is certain that the number of data centres will have to strongly increase in the future, only to meet digitalisation targets of today. Numerous applications driving the social and industrial digitalisation are only

<sup>3</sup> Compare Masanet, E. et al. (2020), Recalibrating global data center energy-use estimates, Science, 367(6481), 984-986

<sup>4</sup> Own calculation based on 1) Hintermann, R. (2021), Rechenzentren 2020. Cloud Computing profitiert von der Krise. Energiebedarf der Rechenzentren steigt trotz Corona weiter an. and 2) Statista (2020), Bruttostromverbrauch in Deutschland in den Jahren 1990-2020, <https://de.statista.com/statistik/daten/studie/256942/umfrage/bruttostromverbrauch-in-deutschland/>



possible on a large scale, if sufficient data centre capacity is available. These applications include high-performance modelling in the health, meteorology, automotive and finance sectors as well as artificial intelligence and machine learning. Considering the undisputable economic and social opportunities data centres are enabling, the leading questions are how to limit their environmental impact and how to justify their extensive use from a sustainability perspective, with a view to responsibly fund the large investment amounts needed for their development.

### **Ample opportunity to increase environmental friendliness of data centres**

Developers and operators of data centres are already acknowledging the need to become more sustainable, which is reflected in a large share of high energy efficiency and low-emission developments currently being implemented, especially in “green data centre” projects. This trend is further supported by the recent EU digital strategy, which includes the target of European data centres becoming climate-neutral by 2030<sup>5</sup>.

To mitigate the recent environmental shortcomings of the data centre sector, the main areas of activity to increase efficiency will be the following<sup>6</sup>:

- Using green power from renewable energy sources
- Increasing power usage efficiency (i.e. decreasing the amount of energy not directly used for data processing)
- Implementing alternative cooling solutions to minimise water usage
- Using excess heat to decrease the power usage for generating heat elsewhere (e.g. district heating)
- Extending the useful life of buildings and components through repairs, upgrades and recycling

For investors and lenders, in cooperation with their technical advisors, key investment criteria and performance indicators can be derived from the action points above, allowing an initial sustainability due diligence and the subsequent monitoring of social and environmental goals for each project. This ties in with the recent adoption of ESG principles (including, but beyond the so far used Equator Principles) and sustainability reporting requirements. Equally, data centre developers and operators are adhering to similar self-imposed environmental responsibility and (public) reporting policies in light of the required actions towards greener data centres.

### **Sustainable data centres are already existing and being financed today**

Based on the above, and taking into account that in recently developed data centres, required measures, which consider and conserve resources have been implemented from the beginning, data centres that match the criteria listed above can be classified as sustainable assets already.

Funding is, however, still contingent on

- assessing on a deal-by-deal basis that a set of externally validated, sustainability-focussed investment criteria are being complied with, and
- the possibility to ongoingly monitor defined sustainability performance indicators in adherence e.g. to internal or external ESG criteria.

<sup>5</sup> Compare European Union (2020), Supporting the Green Transition, [https://ec.europa.eu/commission/presscorner/api/files/attachment/862091/Supporting\\_the\\_green\\_transition\\_en.pdf.pdf](https://ec.europa.eu/commission/presscorner/api/files/attachment/862091/Supporting_the_green_transition_en.pdf.pdf)

<sup>6</sup> Compare Climate Neutral Data Centre Pact (2020), [https://www.climateutraldatacentre.net/wp-content/uploads/2021/01/20210115\\_Self\\_Regulatory\\_Initiative.pdf](https://www.climateutraldatacentre.net/wp-content/uploads/2021/01/20210115_Self_Regulatory_Initiative.pdf)



In the future, with still increasing focus on resource efficiency, we expect an even more rigid framework of environmental goals, both among responsibly acting developers and operators as well as investors and lenders. Sustainability will likely become a key criterion in deciding whether funding can be provided for a project. Rating agencies (inter alia providing ESG ratings) and funders' technical experts will play a central role in enabling and supporting these decisions. The compliance with sustainability goals in the data centre sector will however be enabled through

- i. the development of more efficient IT and cooling technology,
- ii. use cases for data centre emissions (mainly heat), and most importantly
- iii. a reduced impact of the required resources on the environment.

Concerning the latter point especially, it is key that only green, i.e. carbon-neutral power must be used, tying the growth of the data centre sector closely to the existence of a reliable renewable energy sector, sufficiently catering for data centres' power demand.

**Berenberg's dedicated Infrastructure & Energy Team sets up and manages funds in both the digital infrastructure as well as the renewable energy sector, offering attractive mezzanine and unitranche debt investment opportunities in green- and brownfield projects. Please feel free to contact us if you would like to learn more about our fund solutions.**

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