KEYNOTE INTERVIEW

Building a future-proof data center strategy

Data center requirements have changed significantly, led by growing demand for scalable facilities that can accommodate AI and cloud workloads, says PIMCO's Kirill Zavodov

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What was once considered a niche real estate sector has been catapulted into the spotlight with the rapid proliferation of AI. Data centers are seeing a surge in demand, leasing volumes and interest from investors that view the sector as critical to the development of long-term infrastructure for technology companies and the global economy at large.

These forces have also led to changes in the data center model. Hyperscalers have become the dominant tenant base, and these facilities now need to have greater installed data center capacity to accommodate their requirements of scale. Kirill Zavodov, executive vice president and portfolio manager at PIMCO, considers how operators, developers and asset managers can build a data center strategy that can thrive in these changing times.

Q What is the current state of the global data center market from a demand and supply perspective?

Three key drivers underpin the global data center market currently: growth in content generation, increasing cloud penetration and the commercialization of generative AI. According to sector analysis platform datacenterHawk, over the last 12-18 months, there have been record leasing volumes globally. In Q1 2024, there was 1,800MW of leasing, sevenfold the average quarterly leasing volume of 200-300MW three years ago.

In Europe, however, the data center market remains undersupplied compared with the US. Data from DC Byte shows that today the installed capacity in the US is about 40 watts per capita, while in Europe it is only at about 13 watts per capita.

While the European market

currently lags the US by approximately five years, installed capacity levels are expected to converge between the two regions due to strong demand tailwinds in Europe, particularly the drive for low latency and growing digital sovereignty requirements. Today, only 30 percent of European data is stored and processed in Europe, so governments across the region are looking to bring more of the data onshore and train AI models on local data sets rather than on one large, globalized model.

Q Which European markets have the strongest demand potential for data centers?

We are seeing more demand in Tier 2 and 3 markets such as Madrid, Milan, Zurich and Berlin, which historically had less installed data center capacity compared to Tier 1 markets like Frankfurt, London, Paris and Amsterdam. There are two key reasons for this: Tier 2 and 3 markets do not have as many power transmission infrastructure constraints as Tier 1 markets, and they also receive meaningful support from local governments that are making a strong push to expand their digital infrastructure.

In the data center industry, Tier 1 markets are those markets that have installed data center capacity in excess of 400MW, whereas Tier 2 markets have less than that. Looking at the development pipeline and demand, we expect that these Tier 2 markets will become Tier 1 markets in terms of their installed data center capacity over the next three years.

Q What constitutes a strong AI-backed data center strategy today? Are these factors different to what you would have considered before the proliferation of AI and the cloud?

An important element right now is the growth in overall data center requirements. A typical site of 10-20MW was interesting three years ago. However, there is now greater focus on larger, scalable sites that are in excess of 100MW of capacity.

The second element to consider is that hyperscalers are now a dominant force in the market. A well-defined data center strategy needs to have a clear USP for hyperscale tenants because they are currently the main client base. It is no longer enough to simply sell them a product; you need to be able to solve their problem of deploying capacity at scale across Europe, which tends to be quite a fragmented place.

With this in mind, there are three key factors to consider when building a data center strategy. First, having the right technical expertise and track record is key because this is ultimately about developing critical infrastructure for large technology companies. Second is having strong powered land sourcing capabilities across Europe, and on-the-ground presence across all of its key markets. And third is having access to capital to maximize gains from these larger developments.

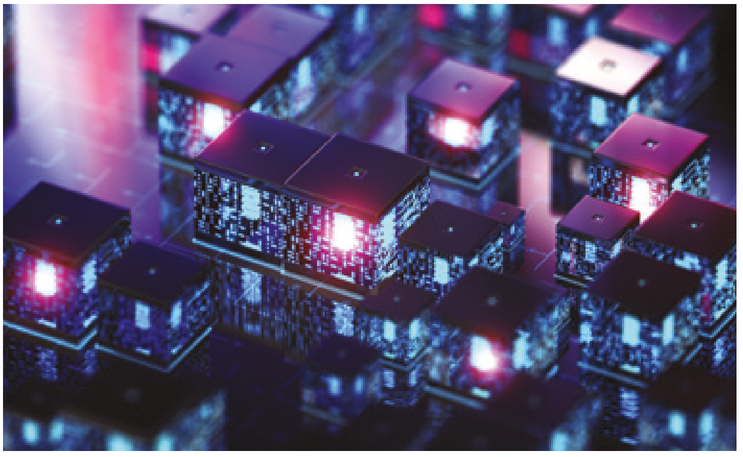
Q How are institutional investors responding to the booming demand for data

Q Given supply and power transmission infrastructure constraints in the sector, what is the scope for refurbishing other asset classes into data centers?

Existing buildings that consume significant amounts of power, such as manufacturing and industrial facilities in energy-intensive industries, can potentially be good candidates for refurbishment. In some cases, the building structures are sufficiently robust, so developers and managers can simply fit the data center inside these buildings.

This approach can reduce the time involved in obtaining a building permit, because the building envelope does not have to be changed, it is just about refitting the insides of the facility. It may also be beneficial from a sustainability perspective, as it helps to reduce the embodied carbon.

However, looking at it from an operational and design perspective, converting decommissioned manufacturing facilities can sometimes create certain inefficiencies. As such, in some cases it might be better to demolish the existing structure and reuse the materials recovered on site to rebuild a new dedicated data center facility that is optimal from a power usage effectiveness standpoint, and which also fits the more recent sustainability criteria that hyperscalers and local governments may be targeting.



centers?

A lot of investors are looking to increase exposure to AI more generally because it is going to play a big part in their portfolios over the coming years. Investing in data centers allows them to do this without needing to pick specific winners in the AI race, given the complex nature of technology.

Investors are also seemingly drawn by the fact that the sector is developing critical infrastructure, with long-term leases to some of the best-capitalized technology companies in the world, including Amazon, Microsoft and Google, and has secular demand tailwinds driven by the cloud and AI.

Q How are owners and operators thinking about the development, build out and overall asset management strategy for an AI-specialized data center?

The data center market has changed quite a bit over the last few years because of the scale of the requirements for cloud and AI workloads. This means that developers, operators and asset managers need to be a lot more flexible when working with hyperscale tenants.

In the old co-location model, the developer built the facility and fully operated it, and the tenant would just come in and take capacity. Now, for larger requirements in the form of build-to-suit facilities, the tenant can take either the entire building or, as is often the case more recently, the entire data center campus.

Therefore, to be successful, it is necessary to be able to work constructively with hyperscalers all the way from the due diligence phase of the site acquisition to the design, pre-construction and ultimately the development phase of the data center facility to make sure that it is best suited for them.

Once the building is completed, there needs to be flexibility when it comes to operations. In some cases, the tenant may need to outsource the operation of the facility, and in other cases they might prefer to take full control of operations since they are the sole occupier of the data center facility.

"While the European market currently lags the US by approximately five years, installed capacity levels are expected to converge between the two regions due to strong demand tailwinds in Europe"

This significant shift in the model means that developers need to have very strong technical teams that have credibility and experience working with hyperscalers, with people who are considered to be thought leaders when it comes to more advanced data center designs, and who also understand the constraints within which tenants operate.

Ultimately, the job of the developers today is not just to build a data center and sell the product, but to help clients solve their European deployment needs at scale.

Q What is driving the growing appeal of data center campuses instead of standalone buildings?

Significantly more campuses are being built because hyperscalers like to have scalable capacity. These tenants have to commit to substantial capital expenditures in order to connect the site to their existing data center infrastructure in a particular geography. So, it helps if they can go into one campus and spread out those expenditures over a greater number of buildings or megawatts of capacity.

Q What are the current challenges impeding further institutionalization of the European data center market?

Historically, one of the biggest factors that constrained the data center market was the lack of available product, since the majority of these assets are held for the long term. There have also been fewer development and operating platforms with a European focus and the right level of technical expertise. Over the coming years, we expect to see greater institutionalization of the sector as more data center capacity is developed and transacted. ■

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