

CBRE Global Data Center

2022 Investor Sentiment Survey Results

2021 Market Review & 2022 Outlook

CBRE Data Center Capital Markets
MARCH 2022



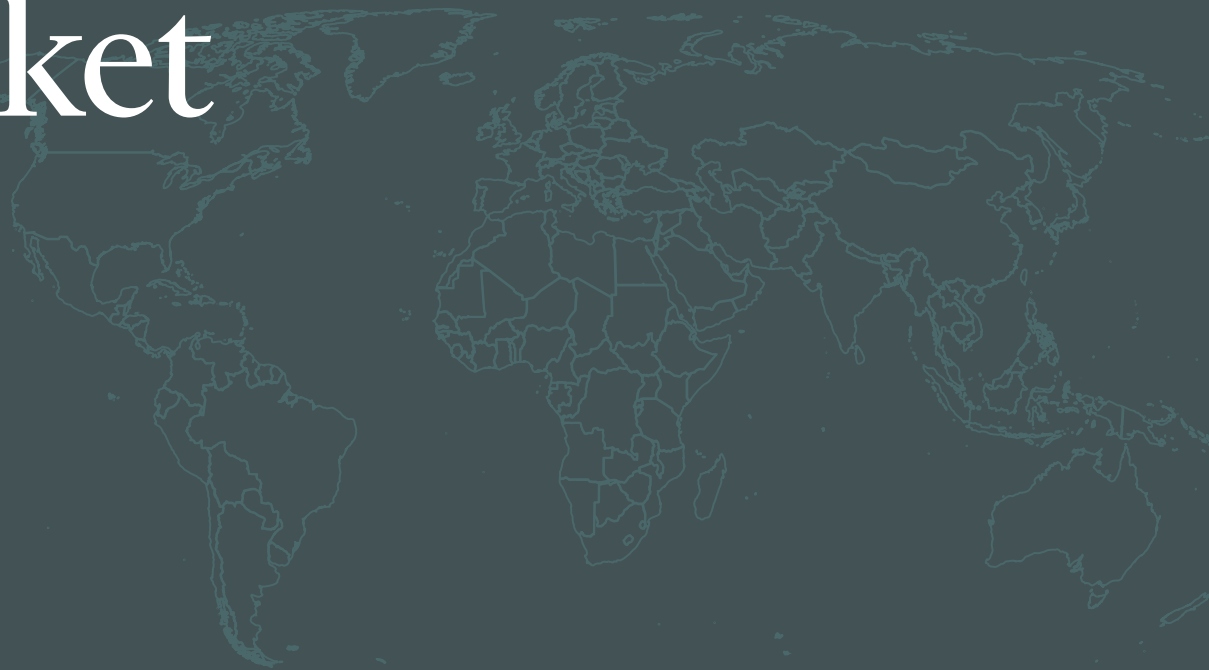
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01

Global Data Center Market

OVERVIEW



Global Data Center Market Overview

95% of respondents plan to increase their investment in the data center sector in 2022.

45% of respondents anticipate continued cap rate/yield compression in 2022.

Demand for data centers by global investors remained robust in the second half of 2021, with record-breaking M&A activity. Investors of all types increased their capital allocations to the alternative asset class. Despite the prospect of interest rate increases and the on-going pandemic, data center asset yields/capitalization rates compressed in 2021, with select trades in the mid-to-high-3% range for core product. The imbalance between the growing capital allocated to the sector and the relatively limited supply of for-sale assets resulted in a highly competitive global marketplace. Investors eager to capture higher yields have broadened their geographic reach to developing markets and regions, further globalizing and institutionalizing this highly resilient and defensive asset class.

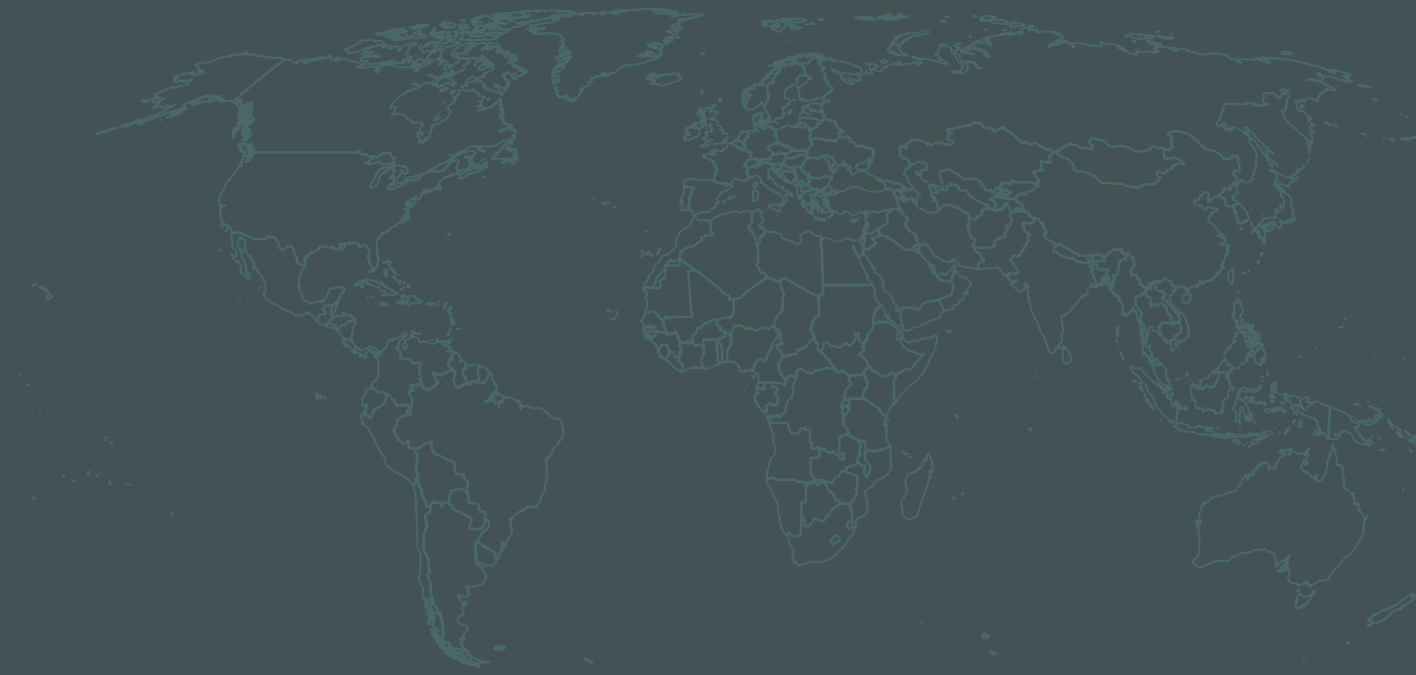
Nearly 95% of respondents to CBRE's 2022 Global Data Center Investor Sentiment Survey, many of whom are the world's largest institutional real estate investors, plan to increase their capital deployment in the data center sector this year. None of the more than 115 respondents plan to decrease their investment.

Investor interest remains robust across the risk spectrum, with approximately 50% of respondents expressing interest in opportunistic/new development, value-add and core-plus offerings. Interest in core offerings, however, declined to 40% from 50% year-over-year, as valuations reached record highs for core product. While many investors cited high valuations, intense competition and limited availability of for-sale assets as their greatest challenges to achieving their current investment strategies, 24% also responded that the limited number of qualified management partners made investment difficult. There remains significant opportunity for experienced investment and operating professionals to partner with global investors looking to benefit from their sector expertise. Growing investor interest, coupled with a limited number of direct investment opportunities, has resulted in a continued decline in data center assets yields/cap rates over time. Nearly half of survey respondents expect further yield/cap rate compression in 2022.

02

Regional Market

OVERVIEWS



Regional Market Overviews

North America

Investor interest in the North American data center market remained robust in the second half of 2021.

Record M&A activity, fueled by the acquisition of CoreSite by American Tower and of QTS by Blackstone, accounted for nearly all of the data center investment volume last year. Total data center asset sales remained on par with recent years, ending 2021 just shy of \$5 billion. Data center capitalization rates remained relatively unchanged for the year, with select trades in the mid-to-high-3% range for core product. Foreign investors accounted for approximately half of total North American data center investment volume in the second half of 2021, reflecting growing global investor interest in the alternative asset class.

2022 kicked off with the announced \$15 billion acquisition of CyrusOne by KKR and Global Infrastructure Partners and DataBank's acquisition of four CyrusOne data centers in Houston for \$670 million. Despite the prospect of rising interest rates, overall capital allocated to the highly competitive and mature North American data center market remains very robust.

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Global investor interest in North American data centers remains robust. With far more capital allocated to the sector than investment opportunities, market conditions continue to strongly benefit investors eager to monetize existing assets and operators seeking new capital partners.

Kristina Metzger

Leader, CBRE Data Center Capital Markets
North America

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NOTABLE H2 2021 INVESTMENT TRANSACTIONS:

- American Tower's acquisition of CoreSite for \$10.1 billion.
- Blackstone's acquisition of QTS for \$10 billion.
- Cyxtera's SPAC merger with Starboard Value Acquisition Corp, valued at \$3.4 billion.
- Mapletree's acquisition of the Silas Realty Trust Portfolio of 29 data centers for \$1.3 billion.
- Prudential & Digital Realty's joint venture sale of 10 powered shell data centers for \$581 million.
- DigitalBridge's Vantage SDC acquisition of CA22, a 24 MW hyperscale data center, for \$539 million.

NOTABLE 2022 INVESTMENT TRANSACTIONS:

- KKR & Global Infrastructure Partners acquisition of CyrusOne for \$15 billion.
- DataBank's acquisition of four CyrusOne data centers in Houston for \$670 million.

Regional Market Overviews

EMEA

2021 was a record year for European data center investment, with total volume of more than €1 billion. Nearly 70% of these assets were in the UK. CBRE expects further investment growth as colocation operators become more comfortable leasing powered shells, particularly in "hyperscaler availability zones" that provide higher availability, redundancy and disaster recovery protection and are powered by independent electrical substations. Further platform consolidation took place as a number of European M&A deals saw intense competition from investors and colocation operators alike.

The European market experienced extremely high levels of investor interest in the second half of 2021, with buyers no doubt drawn in by the defensive nature of the data center asset class during the pandemic. Data center market growth, particularly by hyperscale cloud providers, continued to support bullish underwriting assumptions, which led to further cap rate compression. Prime yields are now well below 4%.

The market also saw some extremely high EBITDA multiples paid (>30x) for European platforms with surplus power, land and existing hyperscale cloud commitments, although the strong pricing often reflects already committed future ramp ups from their key customers.

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Europe witnessed a very significant uptick in data center investment volume in 2021 on the back of heightened investor interest and significant yield compression.

Paul Mortlock

Leader, CBRE Data Center Capital Markets
Europe

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NOTABLE H2 2021 INVESTMENT TRANSACTIONS:

- IPI Partners acquired the dominant Nordic operator Digiplex.
- Iron Mountain acquired a turnkey facility in Frankfurt from Keppel Data Centers for €76 million.
- Antin Infrastructure Partners acquired leading U.K. managed-services provider Pulsant.
- Azrieli purchased colocation operator Green Mountain in Norway for 7.6 billion NOK.
- Blackstone acquired a triple-net facility leased to Equinix in London Docklands for £196.5 million.
- Keppel DC REIT acquired two triple-net facilities, one in the Netherlands and the other in the U.K. for a combined total of more than €100 million.
- Digital9 Infrastructure acquired Verne Global, a dominant Icelandic colocation provider for £231 million.
- AtlasEdge, the recently formed edge operator backed by Liberty Global, Digital Bridge and Digital Realty, acquired a portfolio of 12 assets from Colt Data Centers.

NOTABLE 2022 INVESTMENT TRANSACTIONS:

- KAO Data, backed by Legal & General Capital, Goldacre and Infratil, have acquired two data centers in West London via a sale and partial leaseback.
- Digital Realty agreed to acquire a majority stake in Teraco, Africa's leading carrier-neutral colocation provider, from a consortium of investors, including Berkshire Partners and Permira, as well as Medallion Data Centres in Nigeria.

Regional Market Overviews

Asia-Pacific

Investor demand for Asia-Pacific data centers remained strong in the second half of 2021.

User demand was largely driven by recent government regulations on data storage, security and sovereignty. China's Data Security Law, effective September 1, 2022, has prompted corporations to construct new facilities to store all locally generated data in market. Eager to capture the growing demand, hyperscale cloud service providers and third-party operators announced plans to expand in H2 2021, establishing new facilities and availability zones across the region. New entrants included Stack Infrastructure (backed by IPI Partners), Flow Digital Infrastructure, PAG Real Estate and Evolution Data Centres. Announced new market locations included Mainland China and Hong Kong SAR, signaling a continued broadened perspective and adoption of the Asia-Pacific region as a whole.

Total Asia-Pacific data center investment volume was a record \$5 billion in 2021, with \$3.2 billion of that activity in the second half of the year alone.

Mainland China accounted for the highest share of total investment volume. Noteworthy transactions included the acquisition of a 50% stake in the Songjiang Internet Data Centre in Shanghai by GLP, as well as GDS's purchase of a data center in Beijing from CITIC Group. The largest transaction of 2021 was the acquisition of Hong Kong-based PCCW by Vantage Data Centers.



The Asia-Pacific data center market remains a key focus for many global investors. Many traditional real estate investors sought exposure to the operational side of the data center market in 2021. Due to the limited opportunities relative to demand, CBRE believes this trend will accelerate in 2022.

Tom Fillmore

Leader, CBRE Data Center Capital Markets
Asia-Pacific



NOTABLE H2 2021 INVESTMENT TRANSACTIONS:

- Vantage Data Centers and lead investor DigitalBridge acquired Hong Kong-based PCCW and Agile Data Centers.
- GLP acquired a 50% stake in Songjiang Internet Data Centre in Shanghai.
- Digital Edge acquired five data centers in Japan for \$230 million.
- Equinix entered the India market through the acquisition of GPX India.

NOTABLE 2022 INVESTMENT TRANSACTIONS:

- Equinix to form \$525 million joint venture with GIC in South Korea.
- Keppel Capital to close \$1.1 billion data center fund.
- Mitsui announced intention to invest \$2.7 billion to develop data centers in Japan.
- GLP announced plans to develop 900 MW of data centers across Tokyo and Osaka and totaling \$12 billion.

Regional Market Overviews

Latin America

Robust investment activity in the Latin American data center market last year is expected to continue in 2022. Major urban centers in Brazil, Mexico and Chile have experienced high levels of demand for digital services, which accelerated in the pandemic era.

In response to increased demand, cloud service providers have expanded in the region, sometimes in partnership with third-party operators. Microsoft, AWS, Oracle, Google and Huawei have announced significant investments in the form of new data centers/cloud regions and other infrastructure projects. Additionally, the first high-capacity undersea cable route between Europe and Latin America became fully operational in 2021.

U.S., European and Asian investors continued to increase their Latin American data center portfolios in 2021 through asset acquisitions, joint ventures with local operators and platform investments. M&A activity among Latin American data center operators also increased in 2021. This underlying trend of elevated investment activity is expected to continue in 2022 as Latin America offers the opportunity for investors to deploy capital at attractive risk-adjusted returns vs. those in the more developed North America and European regions.



Global investors continue to pursue new data center investment opportunities in the Latin American region due to attractive risk-adjusted returns and the prospect for high long-term growth.

Alison Takano

Leader, CBRE Data Center Capital Markets
Latin America



NOTABLE H2 2021 INVESTMENT TRANSACTIONS:

- Piemonte Holding acquired Globo's Data Center in Rio de Janeiro.
- Squared Capital acquired KIO Networks, a leading data center operator in Mexico.
- Goldman Sachs Asset Management invested in Piemonte Holdings' Brazilian edge data center platform Elea Digital.
- EllaLink and Equinix delivered the first undersea cable between Europe and Latin America.

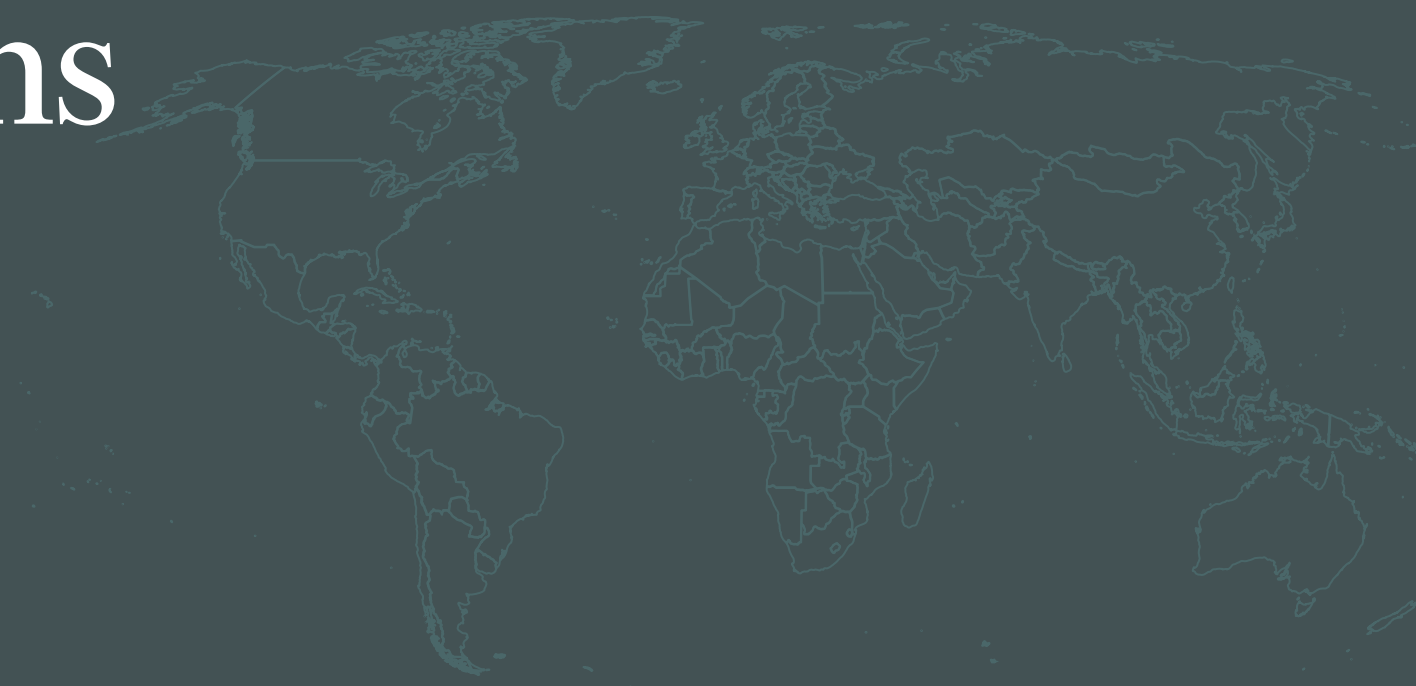
NOTABLE H2 2021 HYPERSCALE ACTIVITY:

- Equinix opened a hyperscale facility in São Paulo and announced plans for two more in Mexico City and another in São Paulo.
- Ascenty launched two data centers in Rio de Janeiro and Hortolândia.
- DigitalBridge-owned Scala Data Centers began construction on two hyperscale data centers in Brazil, with one fully leased to a cloud provider.
- Tencent Cloud launched its first Brazilian data center.
- Ascenty plans to build its fourth data center in São Paulo.
- Microsoft announced plans to establish a Chilean data center region.

03

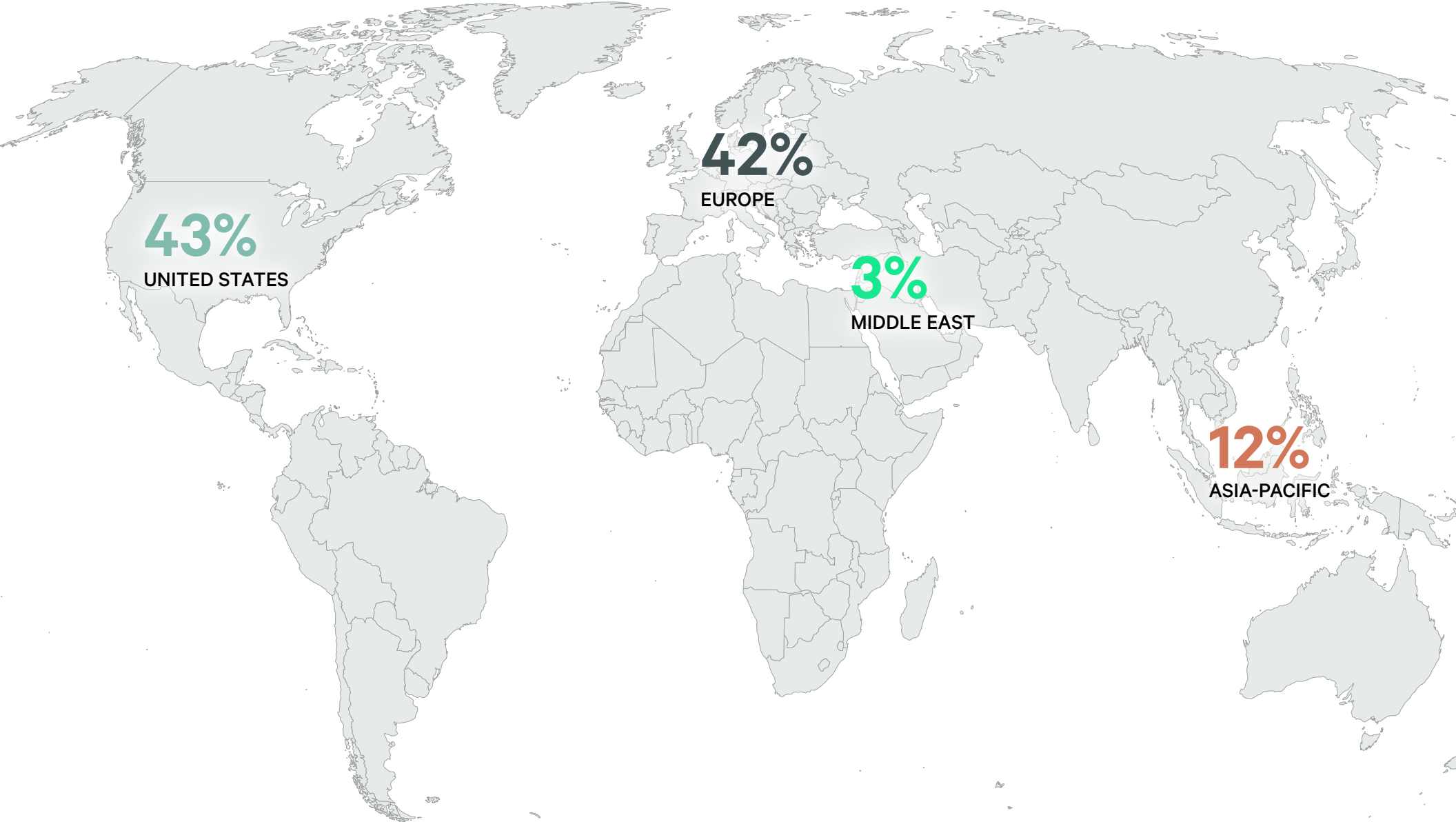
Investor Intentions Survey

RESULTS

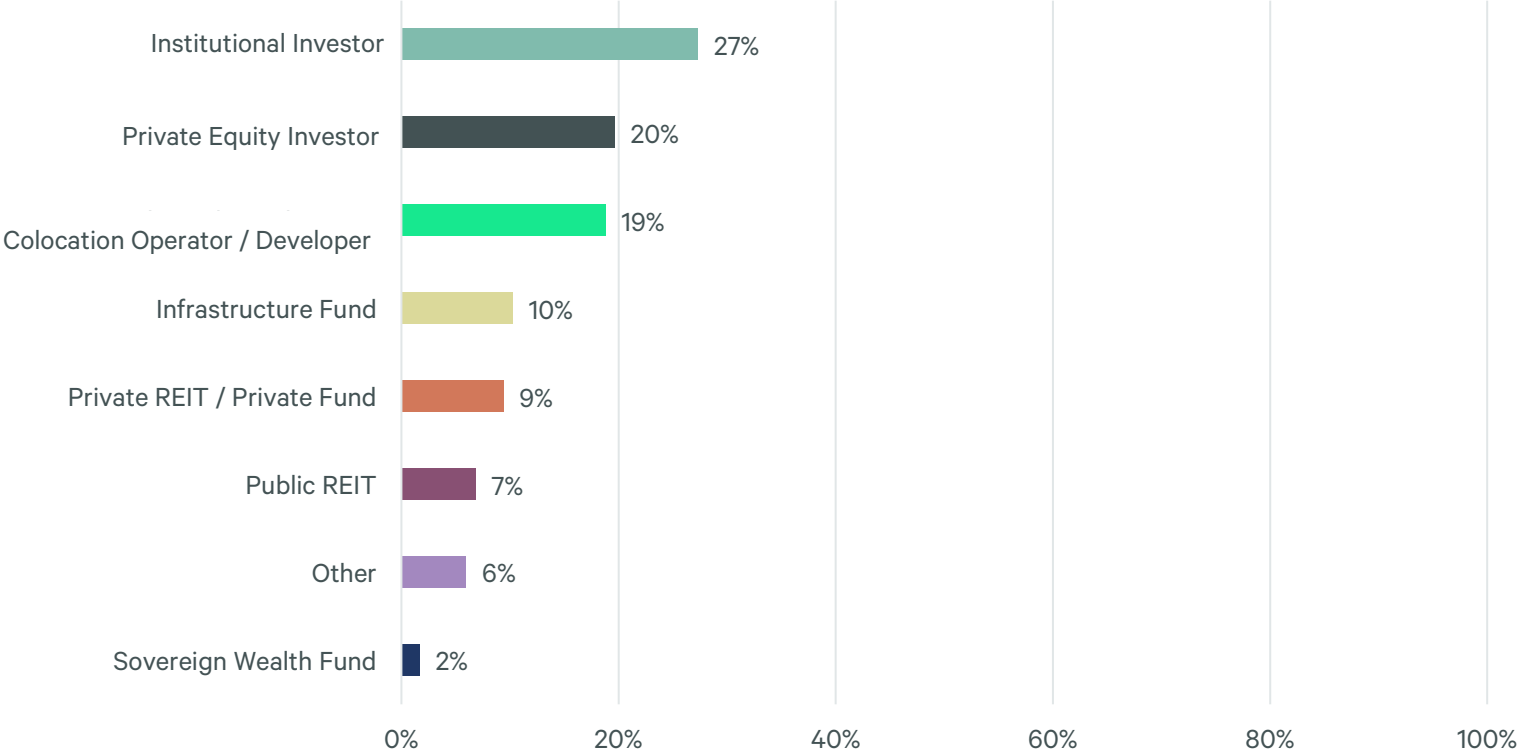


Where is your organization based?

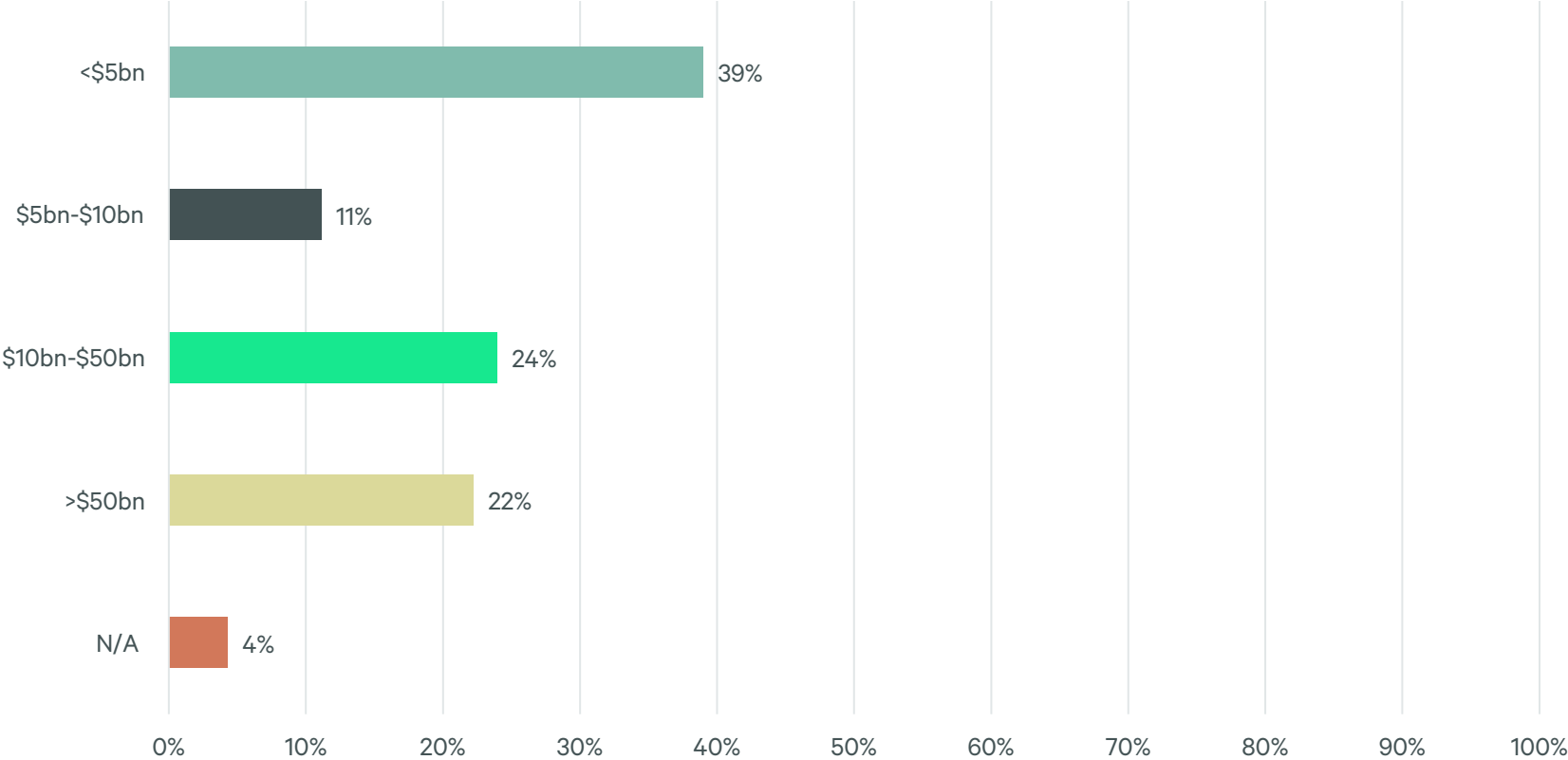
Over **80%** of respondents participated in a CBRE Data Center Capital Markets marketed data center investment offering process in 2021.



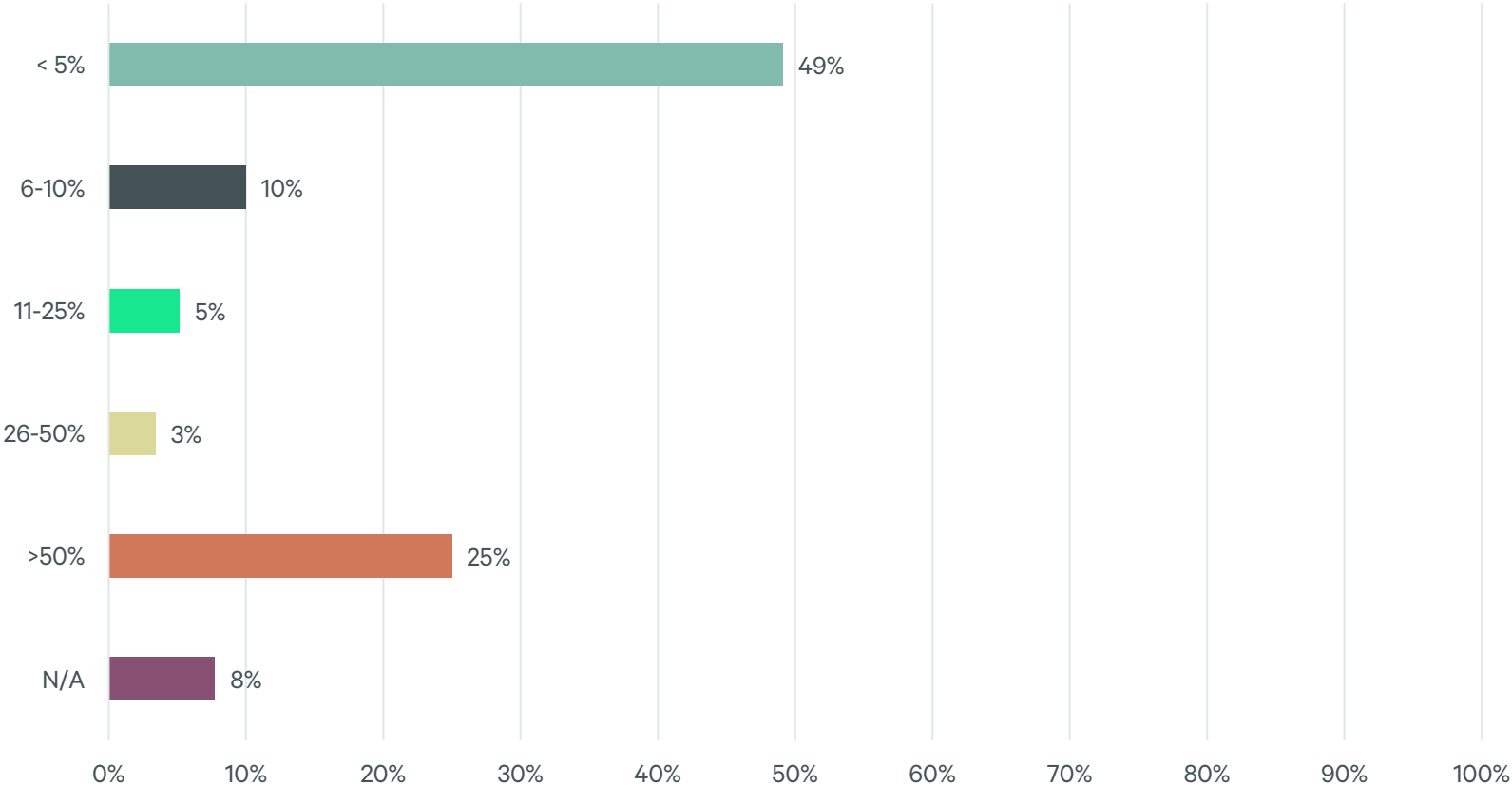
Which best describes your organization?



What is the approximate dollar value of your organization's real estate assets under management globally?

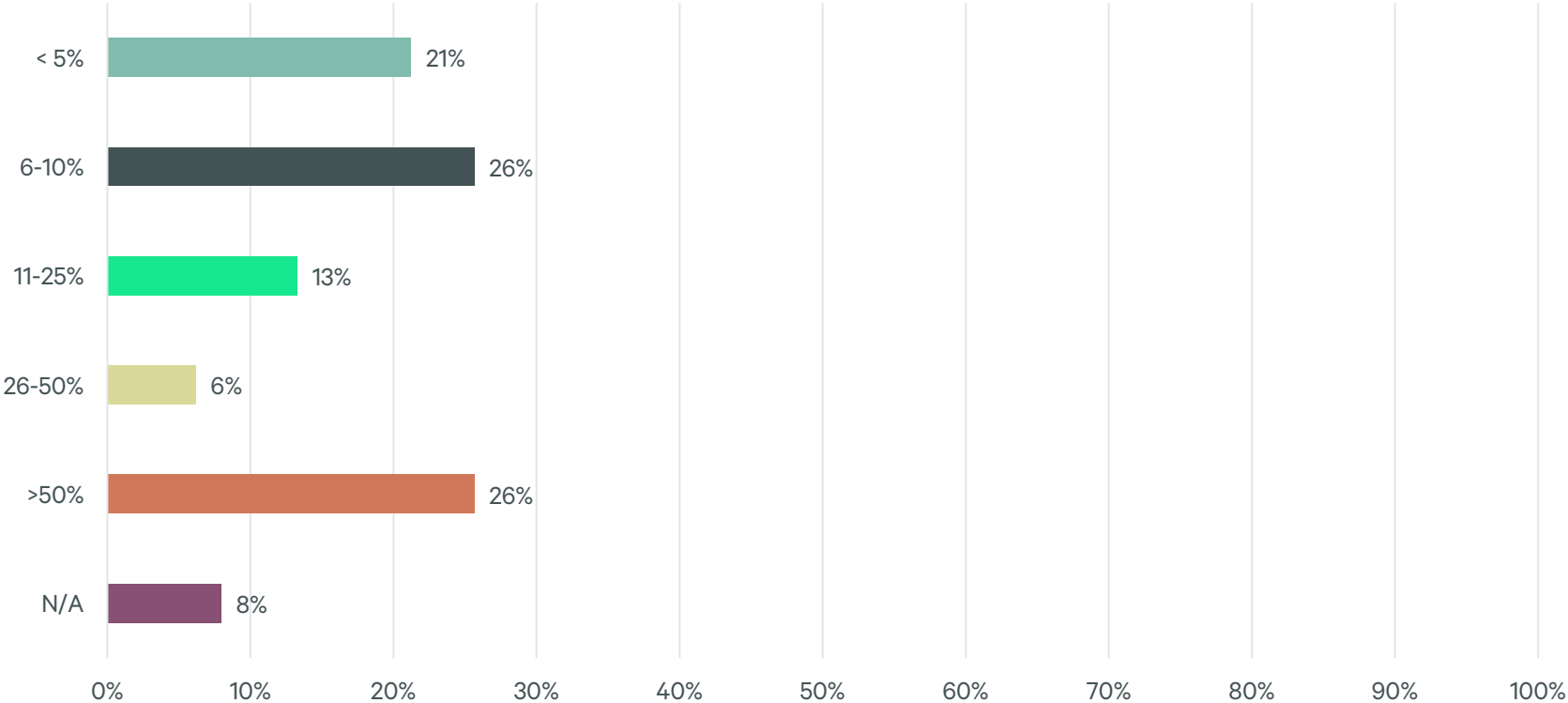


What is the approximate percentage of your organization's real estate assets under management globally that are data centers?

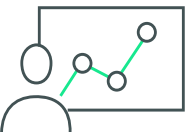


What is the target of your organization's data center assets under management as a percentage of real estate assets under management over the next five years?

Investors intend to materially increase their overall percentage of data center assets over the next five years. While 49% of respondents currently have <5% exposure to data centers, only 21% of respondents expect to have < 5% in five years.



How are you currently invested in the data center sector?



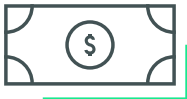
57%

Real Estate - Equity



44%

Operating Platform



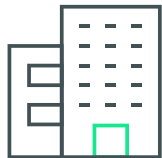
17%

Fund Vehicle



16%

No Current Data Center Investments



10%

Real Estate - Debt



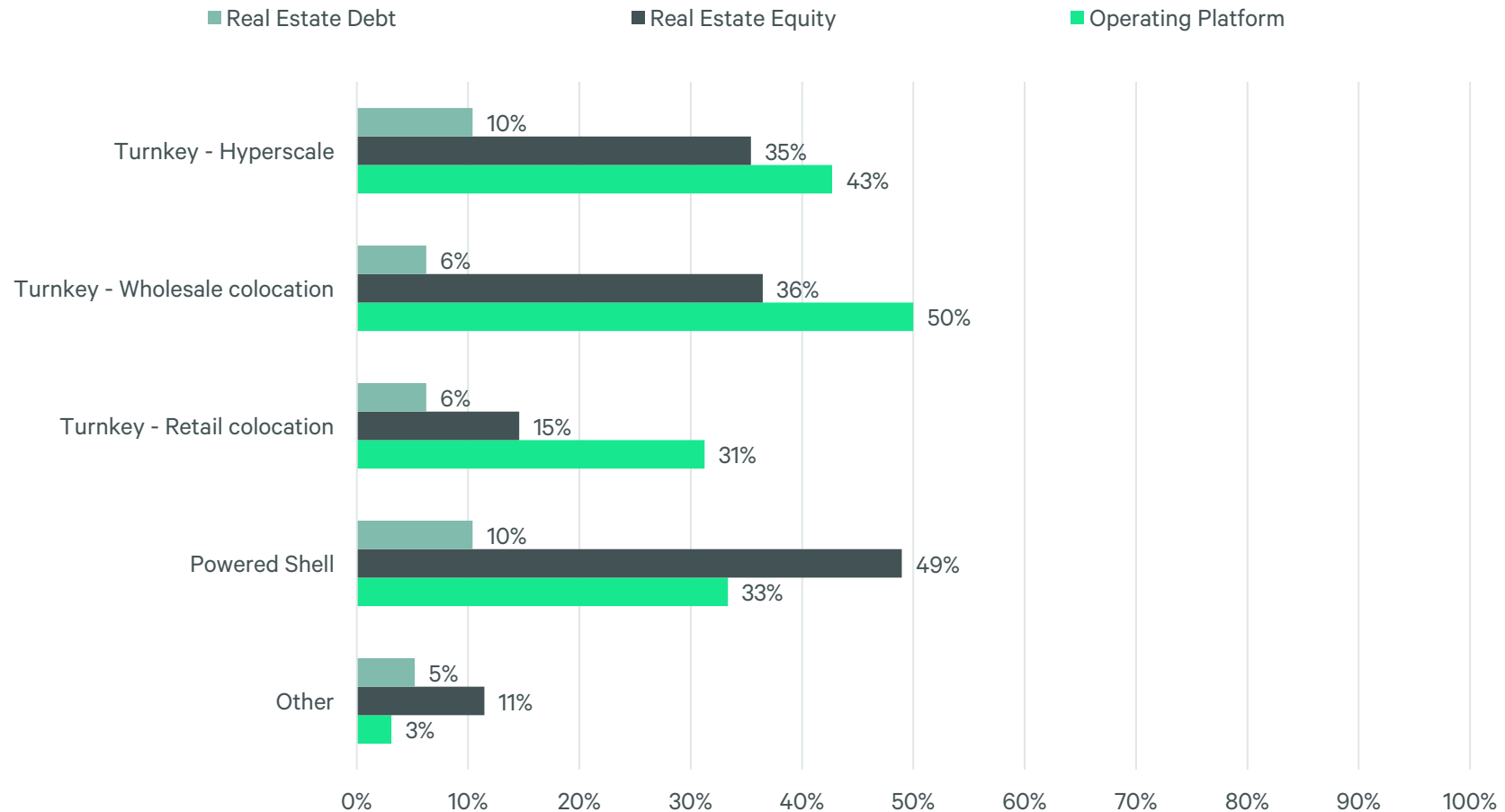
3%

Other

Percentages may not sum to 100% due to multiple answers chosen.

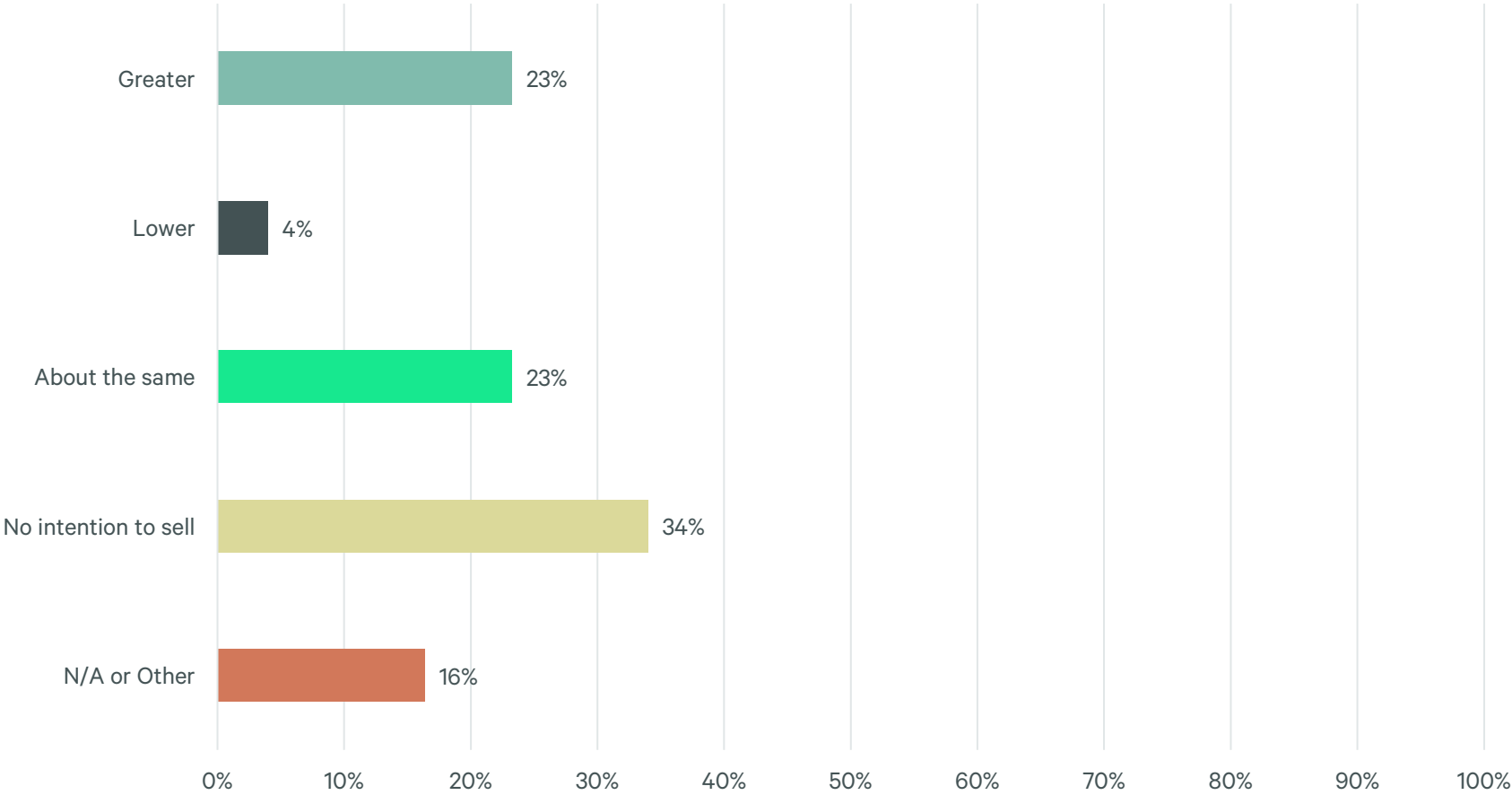
Please select which segment of the market you are currently invested in:

Historically, consistent with the complexity of the underlying operating model, investors have favored turnkey exposure through operating companies and tend to own powered shell equity directly.



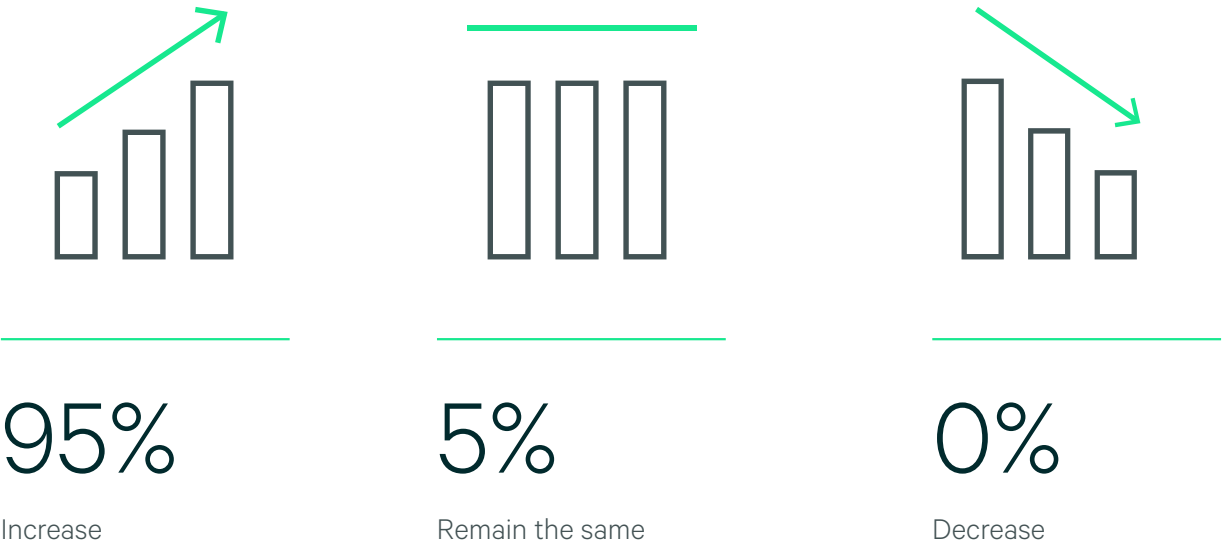
Percentages may not sum to 100% due to multiple answers chosen.

Compared with 2021, do you anticipate your selling activity in 2022 will be greater, lower or about the same?

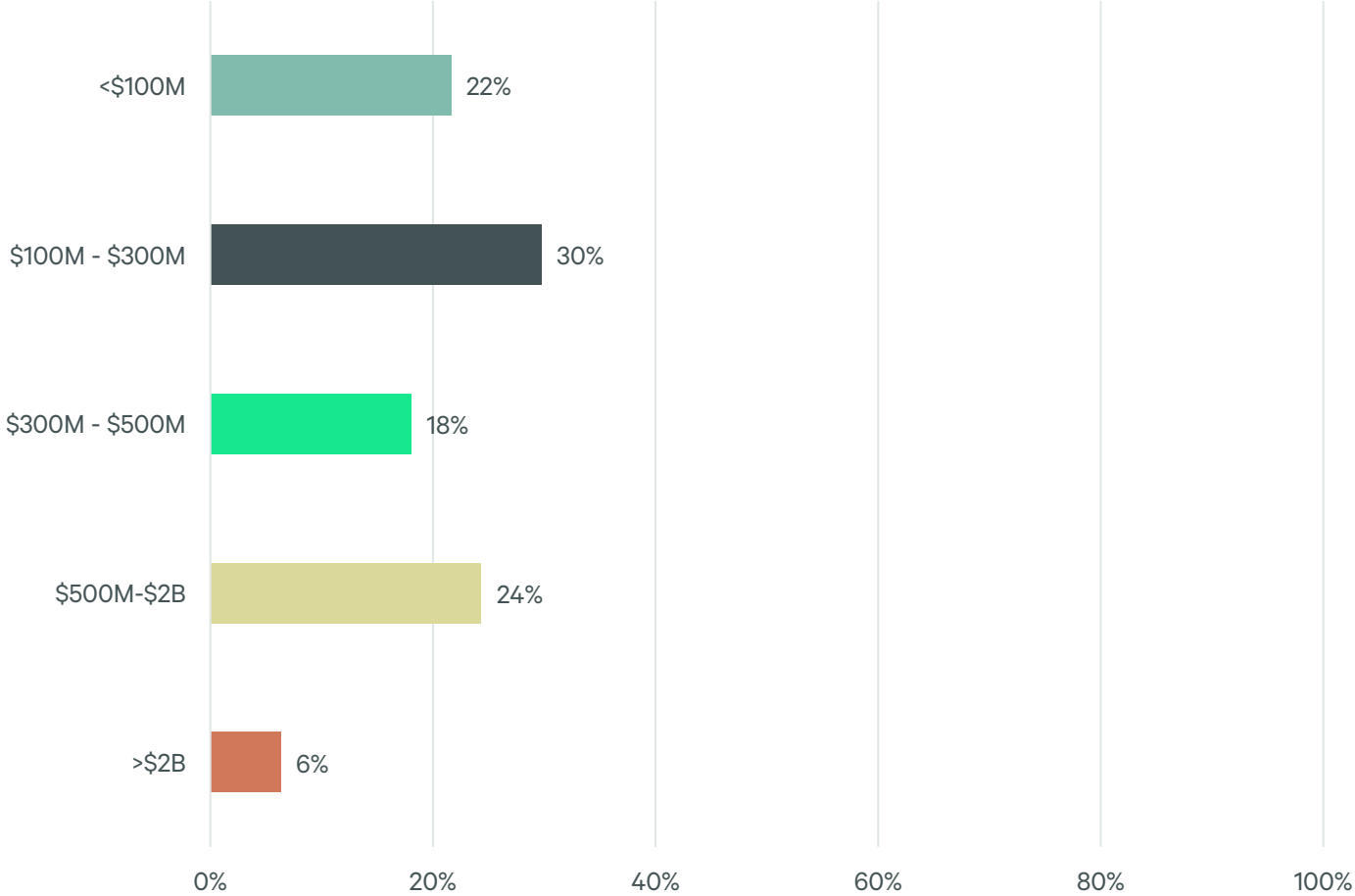


Are you planning to increase, decrease or maintain your overall investment in the data center sector in 2022?

95% of survey respondents, many of whom are the world's largest institutional real estate investors, plan to increase their capital deployment in the data center sector in 2022.

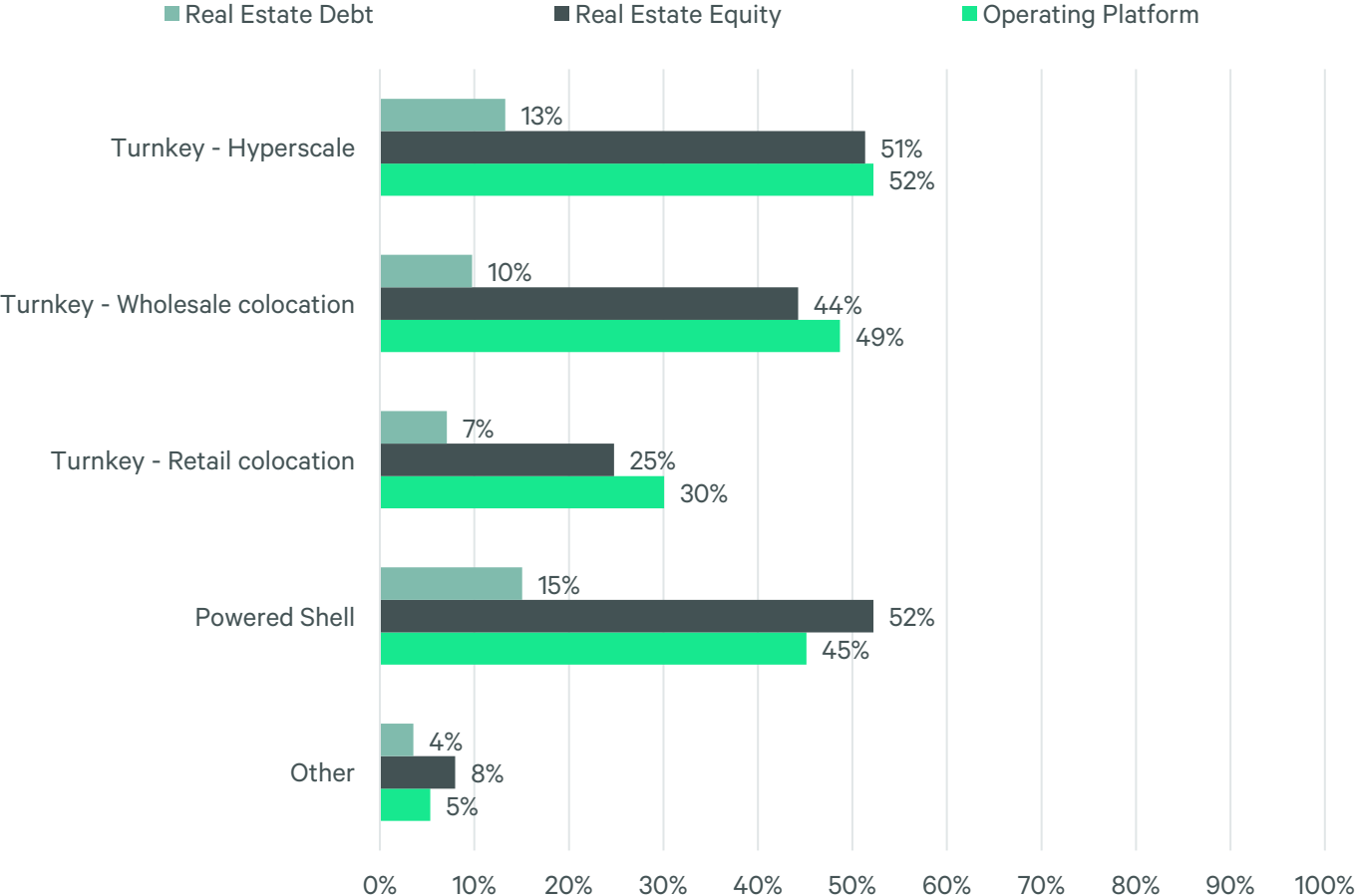


What is your 2022 capital allocation (equity) to the data center sector?



78% of respondents have allocated more than \$100 million of equity to the data center sector for 2022, with 48% allocating more than \$300 million.

In 2022, what segments of the market are you most interested in investing?



As investors grow increasingly comfortable with the data center asset class, they have a growing interest in direct equity investments in turnkey product.

Percentages may not sum to 100% due to multiple answers chosen.

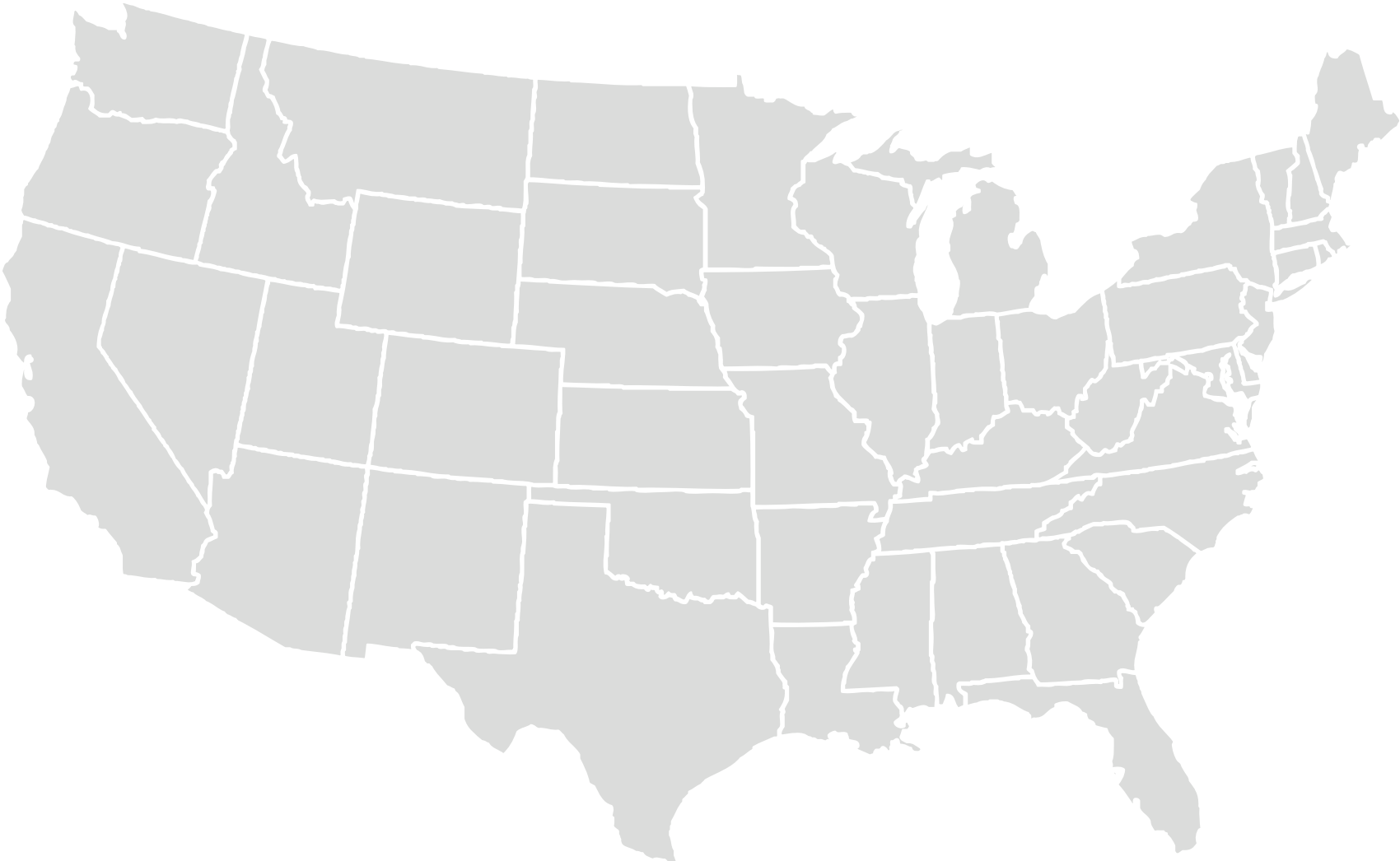
Where are you interested in investing and why?

North America

THIS MAP IS INTERACTIVE

Click on the ● to view % of investors interested in investment opportunities in that market location and their primary reasons for targeting that market.

● Primary Market ● Secondary Market



Where are you interested in investing and why?

Europe

THIS MAP IS INTERACTIVE

Click on the ● to view % of investors interested in investment opportunities in that market location and their primary reasons for targeting that market.

● Primary Market ● Secondary Market



Where are you interested in investing and why?

APAC

THIS MAP IS INTERACTIVE

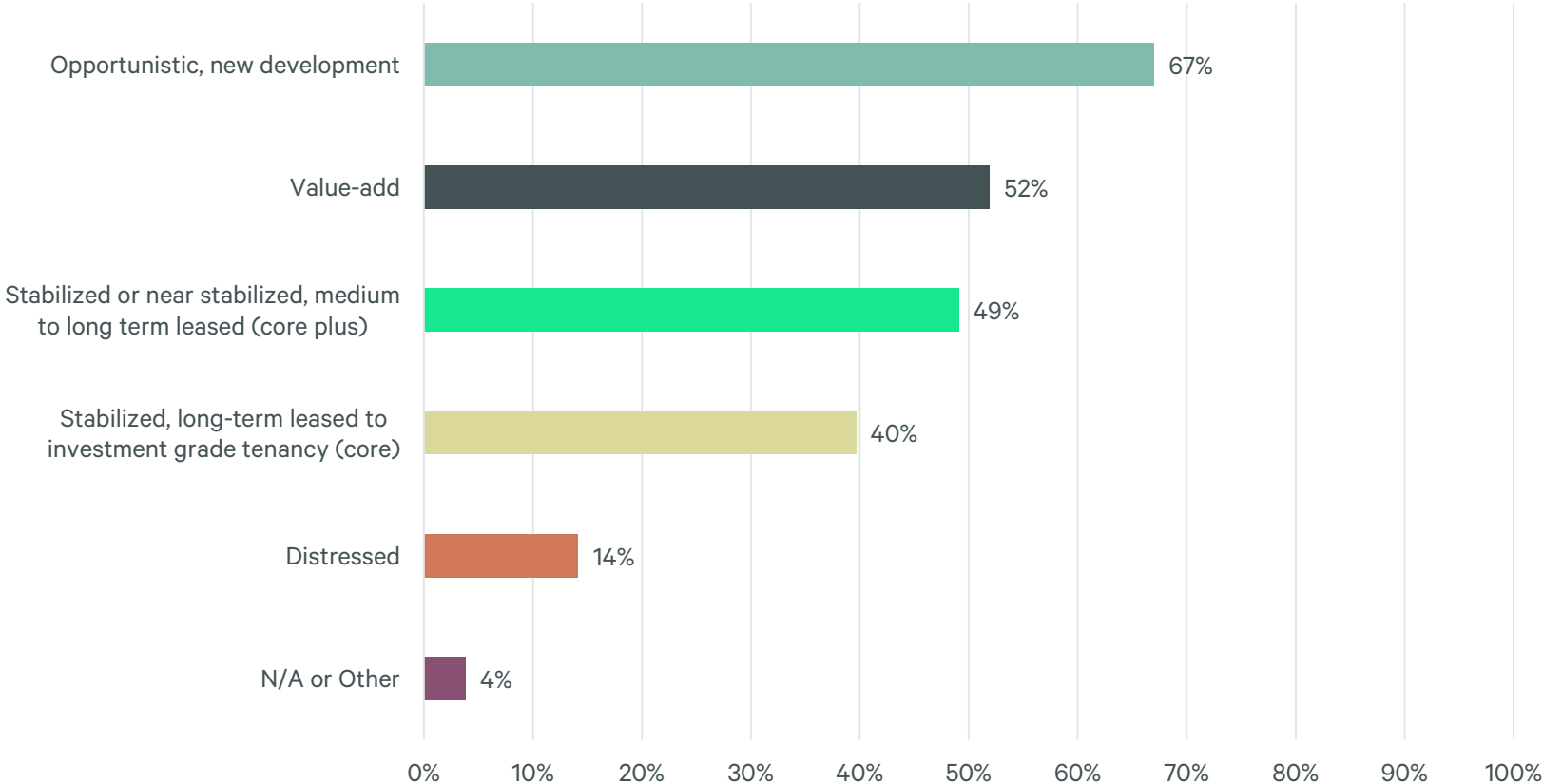
Click on the ● to view % of investors interested in investment opportunities in that market location and their primary reasons for targeting that market.

- Primary Market
- Secondary Market



What is your primary investment strategy for data center asset purchases in 2022?

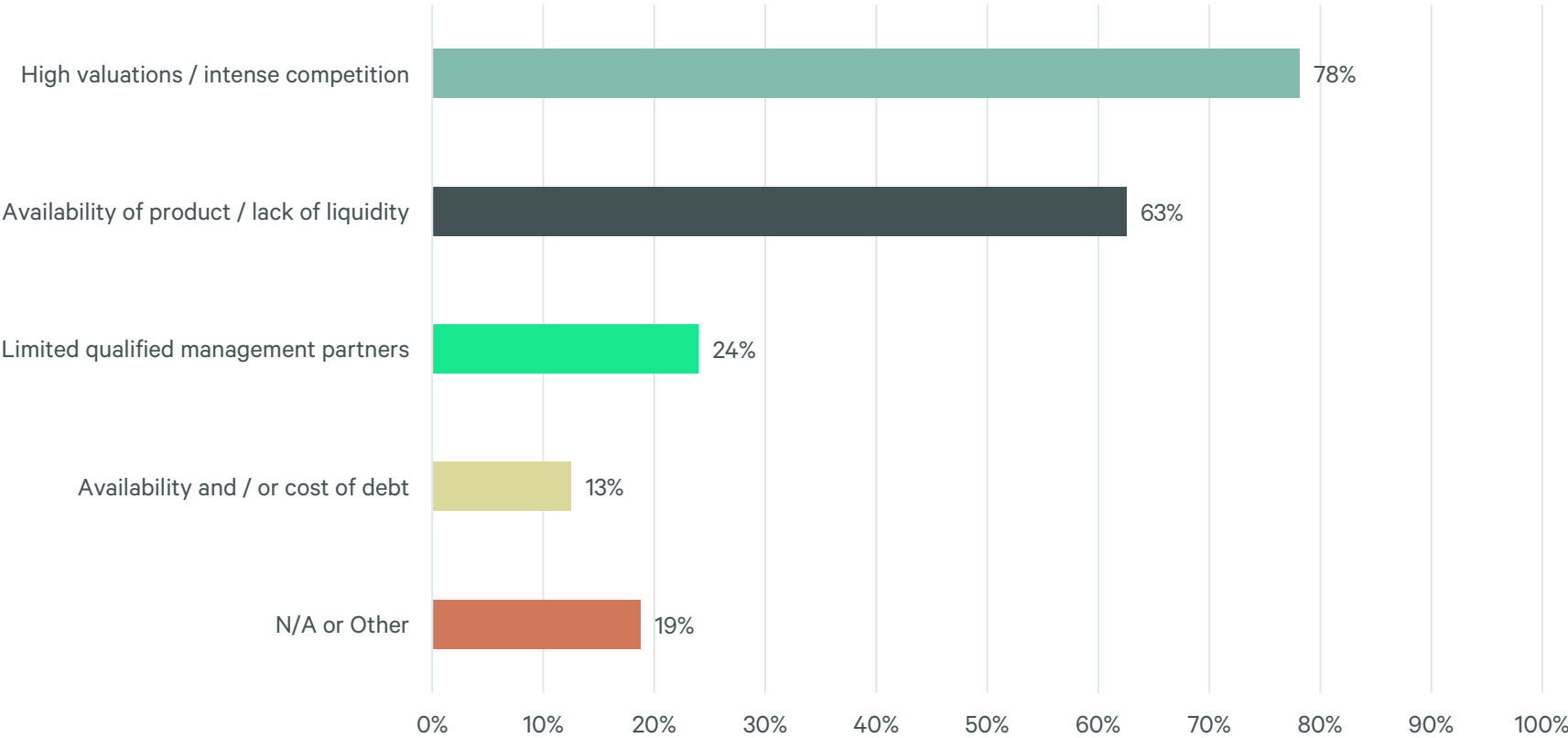
Investor interest remains robust across the risk spectrum, with 50% or more expressing interest in opportunistic/new development and value-add and 40% or more expressing interest in longer term leased, core plus and core offerings.



Percentages may not sum to 100% due to multiple answers chosen.

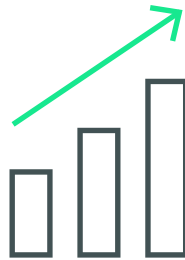
What are the greatest challenges to your current investment strategy in the data center sector?

While investors cite high valuations, intense competition and limited availability of for-sale assets as their greatest challenges to achieving their current investment strategies, 24% also responded that the limited number of qualified management partners made it difficult to invest.



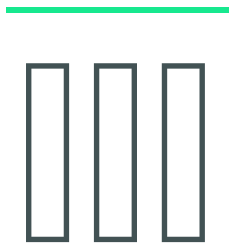
Percentages may not sum to 100% due to multiple answers chosen.

In 2022, do you think investment returns (initial yields/cap rates) will increase, decrease or remain the same?



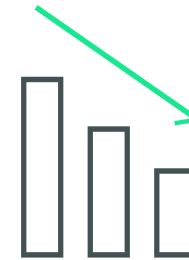
12%

Increase



43%

Remain the same



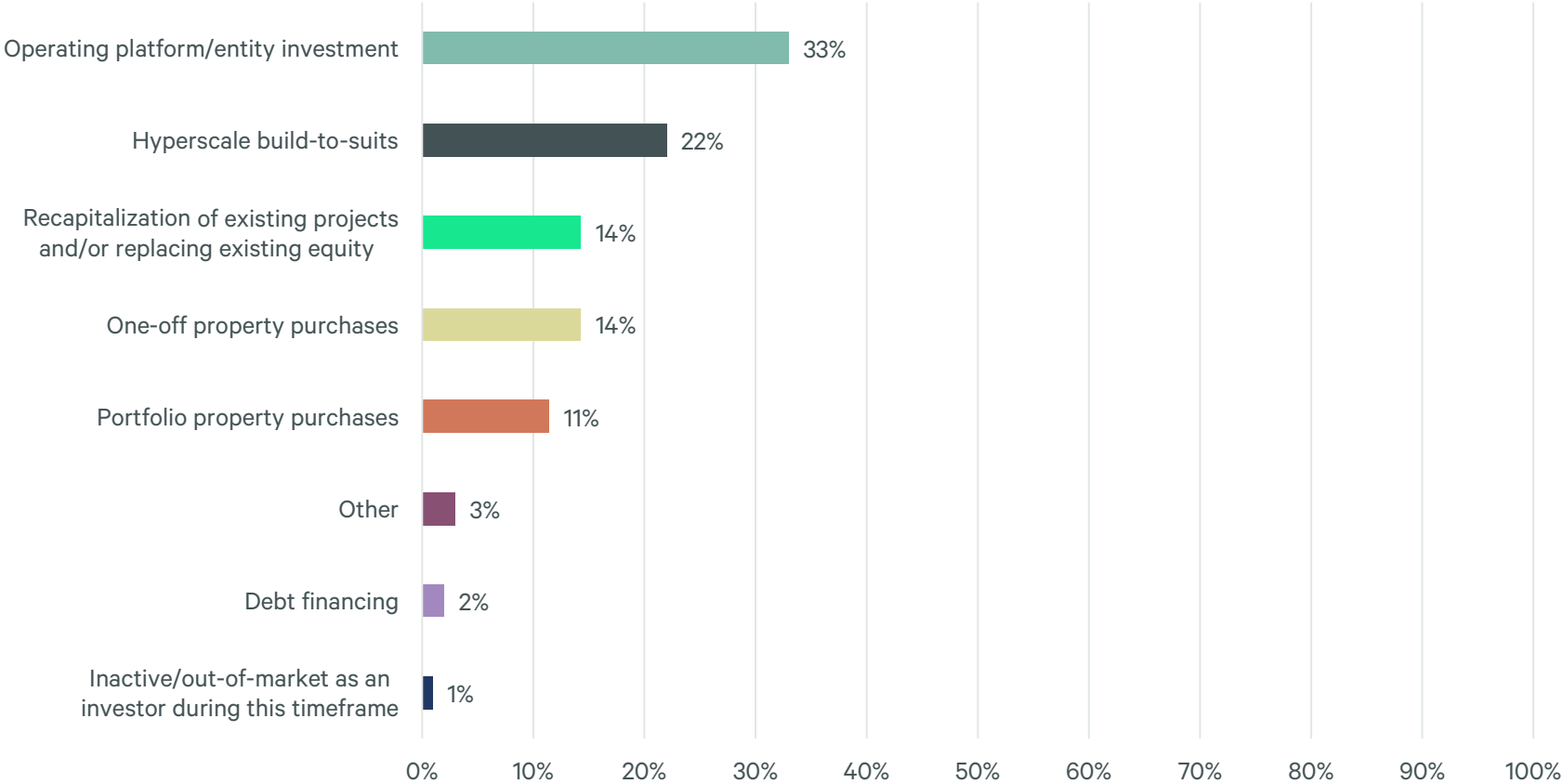
45%

Decrease

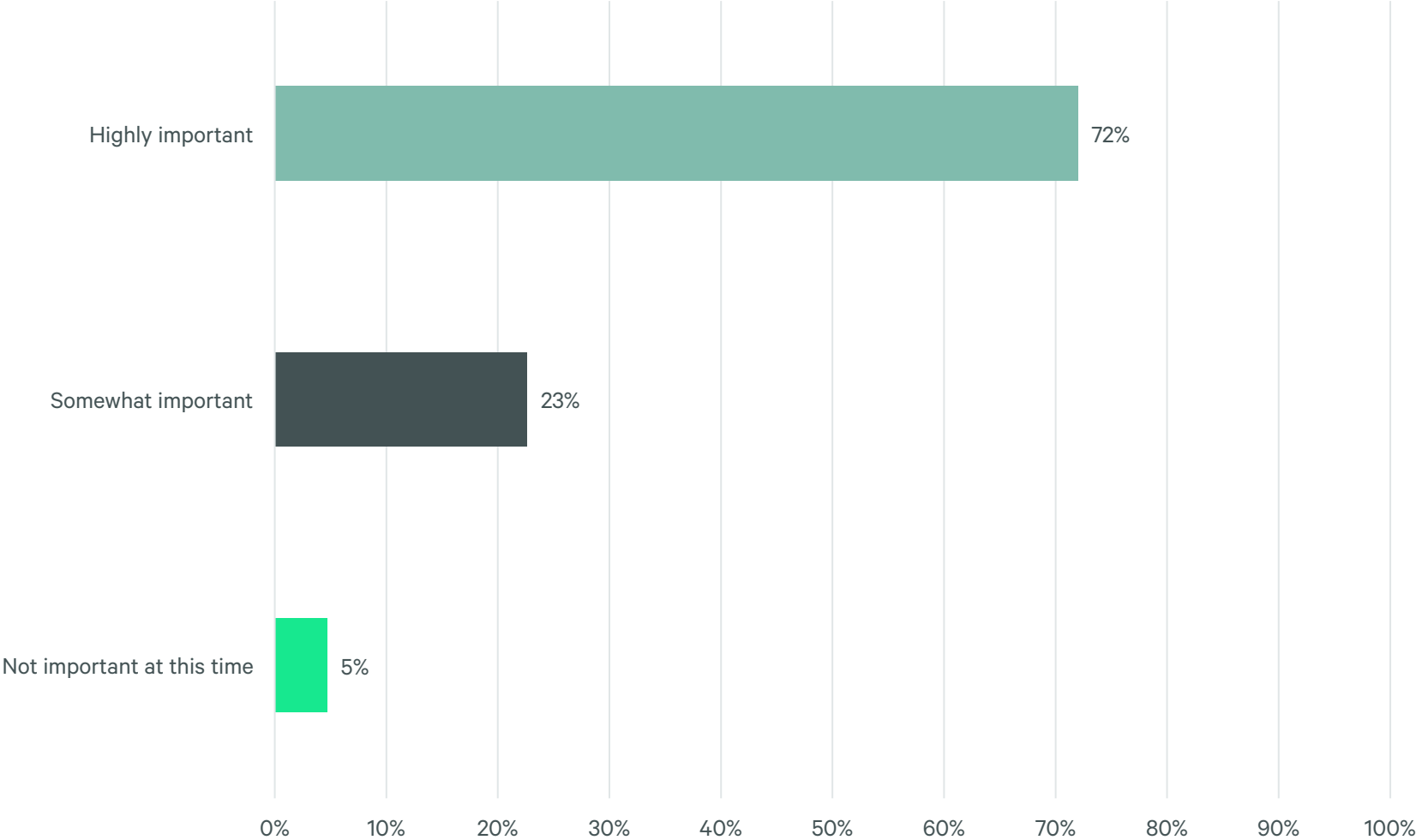
Growing investor interest, coupled with a limited yet growing number of direct investment opportunities, continues to lower initial yields/cap rates. **45%** of survey respondents say that they expect this trend to continue in 2022 with further market yield/cap rate compression.

Where do you see the greatest opportunity for data center investment over the next 12-24 months?

Over the next 12-24 months, 32% of respondents see operating platform/entity investments as the greatest opportunity for data center investors, while 22% see hyperscale build-to-suit investments as the greatest opportunity.



How important are Environmental, Social and Governance (ESG) considerations in your overall data center investment strategy?



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The CBRE Data Center Capital Markets team combines data center real estate sales, advisory, financing and investment banking into a single, unparalleled global offering. Supported by the world's largest data center facilities operating and leasing platform, CBRE Data Center Capital markets provides investors with acquisition, disposition and debt & equity recapitalization strategies, assists data center operators with strategic capital planning and advises enterprises in the disposition and structuring of sale leasebacks.

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