Vantage Data Centers Germany Borrower LUX S. à r.l.

Data centre backed notes – Germany

Rating

Note class	Rating	Notional (EURm)	LTV[2] (%)	Coupon	Anticipated repayment	Final maturity
Class A-1 VFN[1]	NR	Max. 80.0	N/A	1-month Euribor[4] + 2.25%[5]	June 2027	June 2050
Class A-2	A-$_{SF}$	590.0	62.8%	4.292%	June 2030	June 2050
Class B	BBB-$_{SF}$	50.0	68.2%	4.929%	June 2030	June 2050

[1] Class A-1 variable funding notes may be drawn after the closing date subject to certain conditions. Class A-1 notes' undrawn portion carries a commitment fee of 0.70% per annum. Class A-1 notes' anticipated repayment date ('ARD') may be extended for two one-year terms.

[2] LTV is calculated as the ratio of the excess, if any, of the notes' amount over the liquidity reserve to the market value of the properties.

[3] Additional interest of 5.0% will start to accrue on the corresponding class of notes post-ARD.

[4] Floored at 0%.

[5] Class A-1 VFN margin increases by an additional 0.15% per annum after each extension option exercise.

Scope's quantitative analysis is based on the latest lease portfolio data, available information and documentation up to May 2025. Scope's Structured Finance ratings constitute an opinion about relative credit risk. Class A-2 notes' rating reflects the timely payment of interest and the ultimate repayment of principal on or before the final maturity date. Class B notes' rating reflects the ultimate payment of interest and principal on or before the final maturity date and timely payment of interest once class B notes become the most senior class of notes outstanding. The ratings assigned to the class A-2 and class B notes do not address payment of any additional interest post the anticipated repayment date in 2030.

Transaction details	
Purpose	Refinancing
Issuer	Vantage Data Centers Germany Borrower LUX S.à r.l.
Joint lead managers	Barclays Bank Ireland PLC, Deutsche Bank AG, Natixis, ING Bank N.V., London Branch.
Issuer Account Bank	Barclays Bank Ireland PLC, Luxembourg Branch
Propco account bank	Barclays Bank Ireland PLC, Frankfurt Branch
Cash manager and VFN Agent	U.S. Bank Global Corporate Trust Limited
Agent bank, principal paying agent	U.S. Bank Europe DAC, UK Branch
Registrar and VFN Registrar	U.S. Bank Europe DAC
Trustee	U.S. Bank Trustees Limited
Corporate Services Provider	Trustmoore Luxembourg S.A.
Data centre managers	Vantage Data Centers Europe S.à r.l. Vantage Data Centers Germany GmbH
Servicer and back-up manager	Jones Lang LaSalle Limited
Closing date	5 June 2025
Payment frequency	Monthly (28th of each month)

The transaction is a securitisation of real estate and data centre lease receivables, related to four data centres in Frankfurt and Berlin, in Germany. The issuer, Vantage Data Centers Germany Borrower LUX S.à r.l., has used the EUR 640.0m proceeds from the issuance of the class A-2 and class B notes to refinance existing debt, fund several transaction reserves, finance third-party transaction costs as well as for general corporate purposes, including the development of data centres. Class A-1 variable funding notes may only be issued after the closing date, up to the total committed amount of EUR 80.0m and subject to conditions. Once issued, the class A-1 notes will rank pari passu to the class A-2 notes. Class A-1 and class A-2 notes (together, the class A notes) will rank senior to the class B notes at all times.

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Related Methodologies

CRE Loan and CMBS Rating Methodology, December 2024

General Structured Finance Rating Methodology, February 2025

Counterparty Risk Methodology, July 2024

Related Research

European CRE/CMBS: bumper start to the year, April 2025

European real estate funding squeeze forgotten; refinancing challenge lies ahead, February 2025

European CRE loan/CMBS outlook, January 2025

European CRE/CMBS: only six of 20 loans have repaid or been refinanced October 2024

Disclosure/warning

This rating report is accessible to the general public

Rating rationale (summary)

The ratings reflect: i) the transaction's legal and financial structure; ii) the quality of the underlying collateral; iii) Vantage Data Centers group's ('Vantage') experience and incentives as data centre operator and manager; and iv) the transaction's exposure to key counterparties.

The ratings are primarily driven by the characteristics of the properties and the lease receivables, with strong tenant covenants (very good credit quality, fixed rent escalation, and long weighted average unexpired lease terms until the first break option or 'WAULB'). The ratings are also supported by protective structural features which help to amortise the rated instruments prior to their legal final maturity. The ratings are constrained by the transaction's high initial leverage and sensitivity to structural vacancy rate, the liquidity risk due to the leases' maturity schedule only partially mitigated by the liquidity reserve, and the risk associated with the completion of ongoing fit-out works.

The transaction is exposed to the following key counterparties: i) Barclays Bank Ireland PLC as issuer and propco account bank; ii) Factory Mutual Insurance Company, Zurich American Insurance Company, Ascot Special Insurance Company and other insurance companies as insurers; iii) Vantage Data Centers Europe S.à.r.l. and Vantage Data Centers Germany GmbH as data centre managers; and iv) U.S. Bank Europe DAC, UK Branch as principal paying agent. The counterparty risk is mitigated by the credit quality of the counterparties, structural mechanisms such as replacement rating triggers, limited time exposure, and the long-standing data centre operating expertise of Vantage. We have assessed the credit quality of the counterparties considering public information and our own ratings where available.

Rating drivers and mitigants

Positive rating drivers

- **Strong tenant covenants.** As at closing, the properties are fully let to three tenants rated AA- or above over a 10-year WAULB. The largest tenant, accounting for 57% of the on-line capacity and 53% of the income, is publicly rated AAA and features a 14-year WAULB.
- **Strong structural protection.** The transaction features several financial covenants which provide extensive protection to the noteholders against both a decrease in collateral value and in income compared to similar commercial real estate transactions. After the ARD, excess cash is used to amortise the notes sequentially regardless of the financial metrics.
- **High-quality data centres and experienced sponsor.** The properties have been built to high industry standards including an average designed power usage effectiveness ('PUE') score of 1.23 together with efficient cooling methods and adequate back-up systems (100% historical uptime). Furthermore, Vantage has a global track record in developing and operating data centres.
- **Strong fundamentals in the data centre market.** Demand for data centres is growing, driven by digitalisation, artificial intelligence, cloud computing, and the extensive demand for data, while supply is limited. High costs, time need of construction, and power capacity constraints are significant entry barriers. This is an incentive for tenants to renew the existing leases, which contributes to maintaining healthy cash flows, and supports sustainability of the properties' market value.

Negative rating drivers and mitigants

- **High note leverage at inception.** Note-to-value ratios based on stressed value of collateral properties as calculated by Scope ('Scope NTV') are above 100% at inception and significantly higher than comparable transactions. The strong tenant covenants and income profile combined with the long legal term and full cash sweep after the ARD partially mitigate the high leverage.
- **Liquidity risk.** The transaction features a liquidity reserve providing protection against short-term liquidity shortfalls. The reserve covers only three months of interest and commitment fee due on the notes amongst other items such as certain expenses. Under stressed void period assumptions, we see the class A-2 notes suffer from interest shortfall. The liquidity risk is partially mitigated by the tenants' high credit quality and high incentives to extend their leases.
- **Rental income concentration.** Tenant and geographic diversification is limited to three tenants of the same industry on two locations. The risk is partially mitigated by the strong tenant covenants, together with the attractiveness of Frankfurt as the second largest European data centre market.
- **Obsolescence of data centres.** Unlike traditional commercial real estate asset types, data centres are heavily reliant on the fast-changing high-tech environment. We believe in the short-term demand for data centres will remain high, but the total 25 years until the final maturity may provide room for development of new technologies or tightening in artificial intelligence regulation, resulting in declining demand for data centres. In addition, the grid operator can reduce the capacity if the data centres are underutilised.
- **Fit-out risk.** 8MW capacity remains to be delivered by February 2026. Any delay in handovers would hinder cash flow stabilisation, which would be further jeopardised, should the termination rights be exercised. Nevertheless, Scope deems severe delays as well as the termination rights' exercise unlikely, as it is against the tenant's interest, which is not only already committed to the location but also has invested significantly in the property.

Rating change drivers

Changes to the levels or parameters of the transaction's key quantitative assumptions based on observed performance or new data, as well as significant modifications to its collateral and structural features, could affect the ratings. Additionally, a shift in our credit views on the transaction's key rating drivers may also impact the ratings. See section 7.2 for more information.

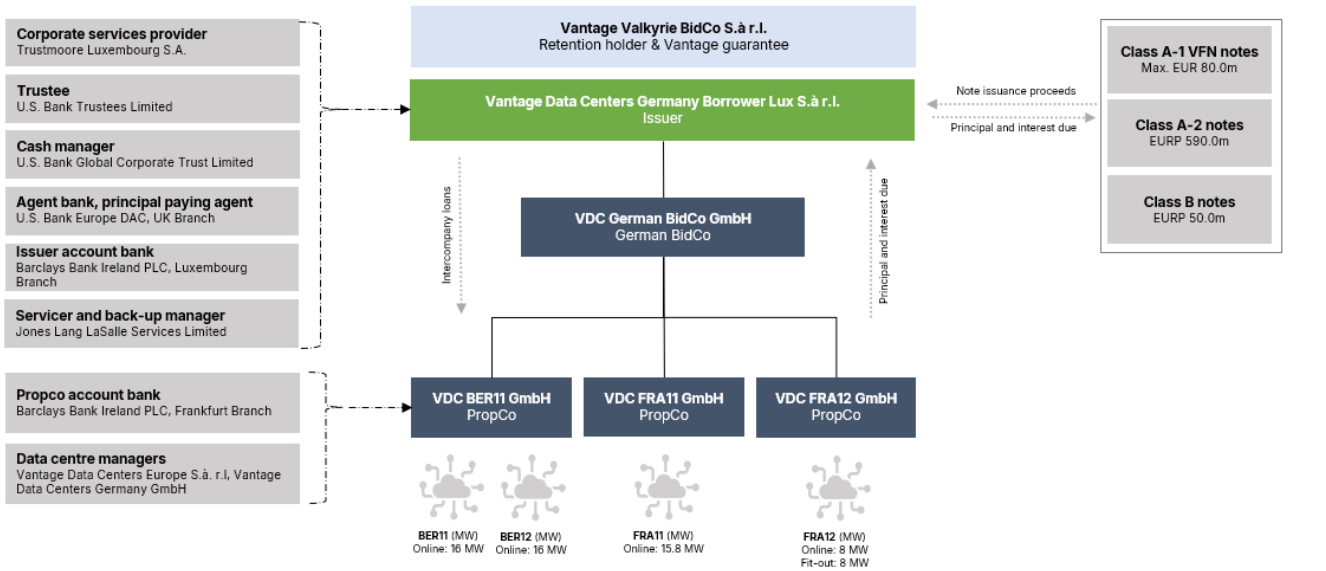
1. Transaction summary

The transaction is a securitisation of real estate and tenant lease receivables in four data centres managed by Vantage. The issuer, Vantage Data Centers Germany Borrower LUX S.à r.l., has used the EUR 640.0m proceeds from the issuance of the class A-2 and class B notes to refinance existing debt, fund several transaction reserves, finance third-party transaction costs as well as for general corporate purposes, including the remaining fit-out work in one of the properties. The class A-1 notes, which will finance further general corporate purposes, may only be issued after the closing date, subject to conditions which include a rating agency confirmation. Once issued, class A-1 notes' payment of interest and principal will rank pari passu to the respective payments on the class A-2 notes.

The lease agreements rent out power capacities in four data centres across two campuses in Germany, two in Berlin (BER11 and BER12) and two in Frankfurt (FRA11, FRA12). The properties are owned, operated and managed by different subsidiaries of Vantage. The properties located in Frankfurt are held under heritable building right ('*Erbbaurecht*'), equivalent to a leasehold. Most of the assets are ready for service with only 8MW of fit-out work remaining in FRA12. As of the cut-off date (February 2025), total income amounts to EUR 60.4m for 55.8mW of on-line capacity (excluding rent free periods). The combined market value of the properties was estimated at EUR 928m as of February 2025. Therefore, the financing has taken place at 69.0% note-to-value (NTV) at closing.

The notes pay monthly interest. The coupon on the class A-2 and class B notes is fixed at 4.292% and 4.929%, respectively, while the class A-1 notes will pay a commitment fee of 0.70% p.a. for the undrawn part and a margin over 1-month Euribor for the drawn part. The class A-2 and class B notes feature an anticipated repayment date in 2030, five years after closing, when the issuer may redeem the notes. The class A-1 notes' anticipated repayment date is in 2027, two years after closing, which can be extended twice by a year. There is no scheduled principal amortisation, but if the debt service coverage ratio is lower than 1.50x, up to EUR 17.7m p.a. can be repaid annually from excess cash. If the notes are not repaid at their respective ARD, additional interest will start to accrue on the corresponding class of notes, and a periodic sweep of the excess cash will grant principal amortisation until the legal final maturity in 2050, 25 years after closing. As described in the pre-enforcement priority of payments, interest and principal payments on the class A-1 notes rank pari passu to those payments on the class A-2 notes, while the class B notes rank junior to the class A notes.

Figure 1: Simplified transaction diagram



Source: Scope Ratings, transaction documents

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Figure 2: Transaction summary

Notes details	Class A-1	Class A-2	Class B
Notes amount (EURm)	80	590	50
Note type	Variable funding notes	Term notes	Term notes
Interest rate type (reference rate)	1-month Euribor	Fixed	Fixed
Margin (or interest rate)	2.25%	4.292%	4.929%
Remaining term to ARD (years)	2.0 + 1.0 + 1.0	5.0	5.0
Remaining term to final maturity date (years)	25.0	25.0	25.0
Amortisation rate (p.a.)	0.0%	0.0%	0.0%

Structural enhancement	
Senior credit enhancement[5]	8.2%
Liquidity reserve (# of IPDs)	3
Interest rate hedging	N/A

Transaction metrics[1]	Class A[2]	Class B[2]
LTV	62.8%	68.2%
Initial NRI[3] debt yield (% of total debt)	6.9%	
Initial NRI investment yield (%)	4.7%	
Physical occupancy (% capacity)	100%	
WAULB / WAULT / WAULTtoLF[4] (years)	9.8 / 21.4 / -3.6	

Financial covenants	Soft covenant	Hard covenant
Debt service coverage ratio	150% conditional amortisation[6] 135%: cash trap 120%: cash sweep	N/A
Class A LTV[6]	70%	N/A

Diversification factor	Diversification discount
Asset (#)	0.06%
Asset type (#)	0.00%
Location (#)	0.05%

Collateral details	On-line[2]	Leased capacity	EUR / kW
Properties (#)		4	
Units (#)		14	
Total MV (EURm)		928.0	16,630
Power capacity (kW)	55,800	63,800	
Freehold properties		2	
Single-tenant let properties		3	

Asset type	% of MV	% of capacity
Data centre	100.0%	100.0%
Macro location	**% of MV**	**% of capacity**
Germany	100%	100%
Micro location	**% of MV**	**% of capacity**
Berlin	45.6%	50.2%
Frankfurt	54.4%	49.8%

Tenancy details	On-line[2]	Leased capacity
Tenants (#)		3
Leases (#)		14
Gross rental income (EURm)	61.12	69.20
Net rental income (EURm)	43.58	50.81

Tenants	Rent (%)	Capacity (%)	WAULB/T (y)
Tenant #3	52.9%	57.3%	13.7/30.1
Tenant #2	23.6%	22.2%	6.1/12.1
Tenant #1	23.5%	20.4%	4.7/.11.1
All tenants	100%	100%	9.8/21.4

Transaction parties					
Issuer	Vantage Data Centers Germany Borrower LUX S.à r.l	Sponsor	Vantage Valkyrie BidCo S.à r.l.	Property managers	Vantage Data Centers Europe S.à r.l. Vantage Data Centers Germany GmbH
Lead manager	Barclays Bank PLC, Deutsche Bank AG, Natixis, ING Bank N.V., London Branch			Servicer	Jones Lang LaSalle Limited

[1] Calculated on a day-one basis, not forward-looking. Metrics are based on Scope's definitions which may differ from transaction-specific calculation methods detailed in the transaction documents. [2] As at the cut-off date, excluding rent free periods. [3] Net rental income = gross rent – non-recoverable costs (as defined by Scope). [4] Weighted average unexpired lease term until the first break option, weighted average unexpired lease term, weighted average unexpired lease term to the legal final of the notes. [5] Credit enhancement is the ratio of the class B notes over the total notes' amount. [6] class A loan-to-value, which is the ratio of: i) the excess of the class A notes' principal amount over the liquidity reserve ledger, and ii) the market value of the properties.

Source: Scope Ratings, transaction documents

2. Macroeconomic environment

2.1 Economic outlook

Strong and well-diversified economy

As Europe's largest economy, Germany benefits from a strong and well-diversified exporting sector including the production of motor vehicles, electrical goods, machinery and equipment, and chemical goods, which supported economic resilience over the Covid-19 pandemic crisis. Nevertheless, the country's high value-added, export-oriented and energy import-dependent economy has been slow to recover compared against the recoveries of European peer economies due to global supply-chain disruptions and the sharply-higher inflation directly following escalation of the Russia-Ukraine war. Economic output resultantly declined by 0.3% in 2023 and stagnated in 2024, and we foresee a low recovery of 0.2% this year.

The German labour market has stayed tight, however, with the employment rate reaching historic highs of 77.5% in Q4 2023 and remaining near this peak in Q3 2024 at 77.4%. This resulted in real wages rising in 2023 and 2024, following the sharp declines of 2022. However, slow economic momentum recently has caused for some easing of labour-market tightness, with the unemployment rate ticking up in 2024 (standing at 3.3% in November 2024 compared to 3.1% in November 2023) and unfilled vacancies gradually declining from their highs reached during the middle of 2022. We expect the labour market to stay tight medium run, with the unemployment rate averaging 3.4% for 2024 before 3.3% in 2025. Average harmonised inflation declined to 6.0% in 2023 from the peaks of 8.7% in 2022, and it further fell to 2.8% in December 2024 compared to December 2023, averaging 2.4% in 2024. We foresee inflation to stay at a similar level in 2025, at 2.4%.

Federal and state debt-brake laws, introduced for the federal government in 2009 and binding for the state governments since 2020, restrict structural budget deficits to 0.35% of GDP a year for

the federal government and 0% for the state governments. This helped place Germany's general government debt on a clear declining trajectory over the decade leading up to the pandemic, from 82% of GDP as of 2010 reaching 60% by 2019. The Constitutional-Court ruling of November 2023 on the federal supplementary budget of 2021 and the strict interpretation of debt-brake borrowing limitations have not only reinforced the rigidity of the nation's fiscal rules but also intensified domestic debate concerning their possible reform.

A broad agreement whereby the SPD agrees to the CDU-demanded supply-side reforms and the CDU in turn agrees to exploit additional fiscal space, mostly on defence and investment, could help improve Germany's competitiveness and medium-term growth outlook. Considering the recent election's results, however, reform of the debt brake will remain challenging as the three leading centrist parties hold just under the required two-thirds parliamentary majority needed to amend the constitution. Any changes would therefore require support from the far-right AfD or far-left Linke parties, which are both reluctant to increase defence expenditure. We project the government debt-to-GDP ratio staying at 63% in 2025 before gradually easing further to 60% by end-2029.

Figure 3: Scope forecasts for major economic indicators

Indicator	2021	2022	2023	2024E	2025F	2026F
Real GDP growth, AVG	3.6%	1.4%	-0.3%	0.0%	0.2%	1.4%
Headline CPI (HICP) inflation, AVG	3.2%	8.7%	6.0%	2.4%	2.4%	2.1%
Unemployment rate, AVG	3.6%	3.1%	3.0%	3.4%	3.5%	3.3%
ECB deposit rate, EOP	-0.5%	2.0%	4.0%	3.0%	2.25%	2.0%

Source: Scope Ratings, Eurostat, German Federal Statistical Office, ECB

2.2 Jurisdiction and sector risks

From data sovereignty to power grid outage or water consumption limit, regulatory changes are the main risks to the sector.

GDPR increased the European IT capacity demand from worldwide hyperscalers. EU AI Act encourages AI innovation further increasing capacity demand.

The European Union first introduced the general data protection regulation or 'GDPR' in 2018. It applies to all EU member states, but affects businesses worldwide as any company, including the US cloud leaders or hyperscalers (Amazon Web Services or 'AWS', Microsoft Azure, Google Cloud Platform or 'GCP' and Meta), must comply with it if it processes personal data of EU citizens. As a result of the regulation, most hyperscalers have had to expand in the region leading to a large increase in IT load. The EU also introduced the first artificial intelligence ('AI') legal framework which aims to regulate AI, the EU AI Act, in 2024. It bans harmful AI, limits biometric identification, and requires transparency for AI systems and models, amongst other things. While the EU AI Act aims to encourage EU-based AI innovation, the high regulatory burden and expensive compliance requirements are likely to have an opposite effect leading the less-regulated AI firms from the US or China to expand and continue to dominate the space.

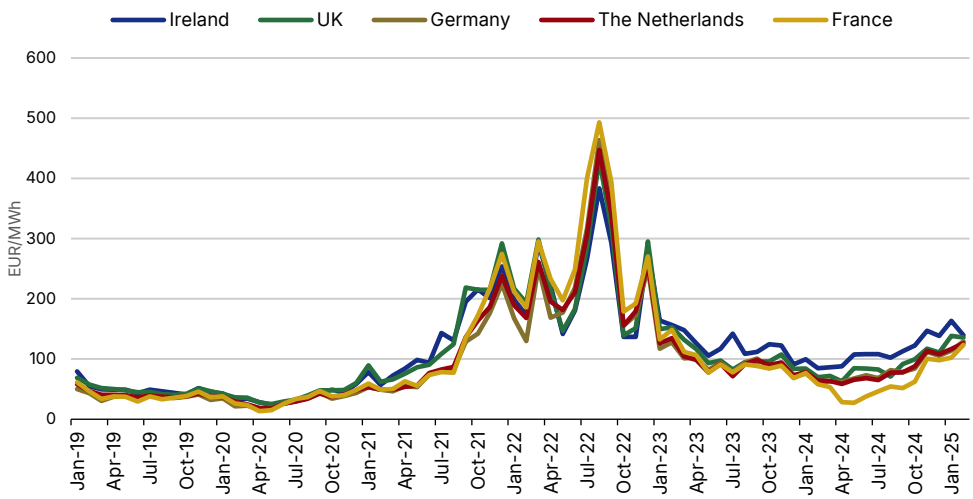
Strict energy efficiency regulation in Germany

Germany has been the most audacious in applying the European energy efficiency directive through its energy efficiency act adopted in 2023 introducing strict PUE score requirement within a few years as well as emphasising the use of renewable energies, amongst other things. The four data centres are compliant and may benefit from the obsolescence of other data centres that do not have such favourable metrics (please refer to section 12 for more details).

While Germany benefits from a high level of power supply security, the grid operator may reduce the grid connection capacity if the data centres are underutilised

Data centres consume massive amount of power to run servers, storage, networking equipment and cooling systems. While London, Amsterdam and Dublin are suffering from temporary restrictions on data centre constructions due to power outages, Germany benefits from a high level of power supply security. After recent lows in the beginning of 2024, electricity prices have started to increase again from the middle of 2024, albeit remaining significantly below the recent highs driven by the bottlenecks of COVID and the conflict in Ukraine. The grid operator is however entitled to adjust the propcos' capacity down if they do not meet their required minimum amount of grid connection capacity.

Figure 4: Wholesale electricity price evolution in FLAP-D markets from January 2019

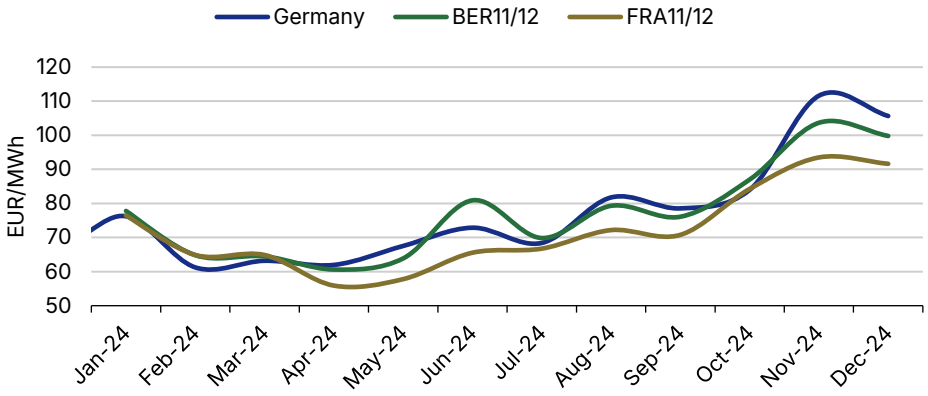


Source: Scope Ratings, Ember

Looking specifically at the German market, Vantage conducted an analysis on power costs from January to December 2024: over the period, the average electricity costs for BER11 and BER12 were EUR 0.40 lower than the Ember wholesale electricity price, with the electricity costs for FRA11 and FRA12 EUR 5.70 lower.

Strong electricity cost management from Vantage generally outperforming the market

Figure 5: Wholesale electricity price comparison between Germany and the data centres

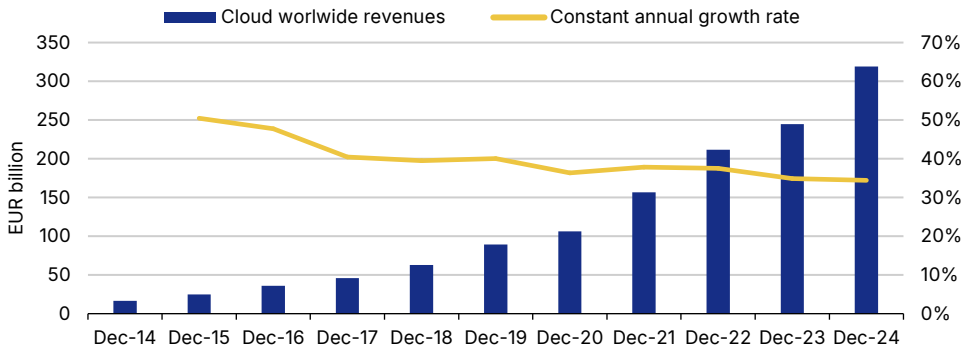


Source: Scope Ratings, Ember

Cost optimisation has led to the dominance of enterprise cloud models in the last few years. A prolonged office real estate crisis with significant vacancies may lead to enterprises opting for on-premises or hybrid cloud models that combine on-premises infrastructure with cloud solutions, potentially reducing demand for external data centres. However, for now, cloud infrastructure continues to grow massively with cloud worldwide revenues showing double digits constant annual growth since 2014 and reaching EUR 319bn in Q4 2024 according to a Synergy Research Group publication dated 6 February 2025. Since OpenAI introduced its first ChatGPT-3.5 model November 2022, cloud revenues have increased by 50% from EUR 212bn to EUR 319bn. Three US companies dominate and total more than 60% of the market share: AWS (30%), Microsoft Azure (21%) and GCP (12%).

Cloud revenues have increased significantly in recent years

Figure 6: Historical worldwide cloud revenues and constant annual growth rate



Source: Scope Ratings, Eurostat, Synergy Research Group

Finally, AI, amongst other factors such as blockchain and machine learning, currently contribute to a large portion of the current IT load demand. As edge and quantum computing gains traction, data compression improves processing and storage, thus potentially shifting IT capacity away from centralised data centres. Low-cost AI models such as DeepSeek's R1 released early 2025 have been likened to Jevons paradox during the industrial revolution: when technological advancements make a resource (IT load) more efficient to use it would generally result in an overall demand increase causing total resource consumption to rise. While we are not aware of any of tenants running AI models in the data centres, less powerful chips that do not require as many technical specifications can only contribute to reduce the obsolescence of existing buildings, while potentially decreasing speculative development of data centres, thus reducing supply. Operators' capital expenditures to improve or maintain the property infrastructures and in particular upgrade the cooling systems may also be positively impacted.

2.3 Data centre sector outlook

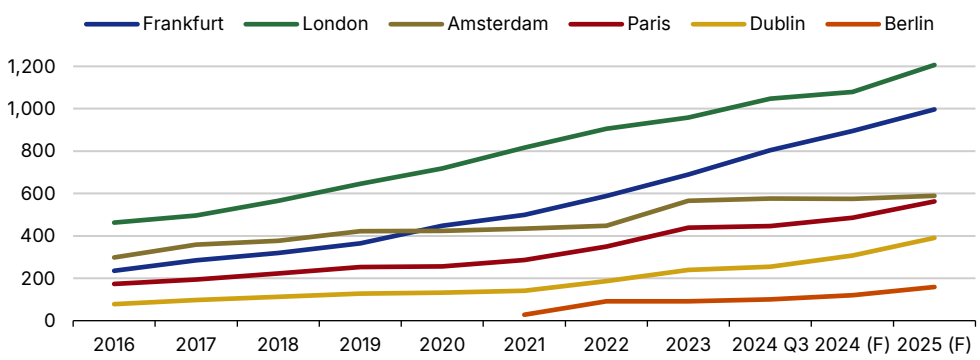
Positive outlook driven by digital transformation, increasing cloud services demand and the recent AI boom

We have a positive outlook for data centres driven by the digital transformation across industries, rising demand for cloud services, and the recent AI boom fuelled by the huge uptake from consumers of chatbot type of interfaces like ChatGPT, Claude, Gemini and more recently DeepSeek. Demand is also supported by the continued growth in entertainment and leisure content (streaming services, gaming platforms, social media, etc.) which also requires efficient delivery to consumers with low latency and compliance with local data protection requirements.

Frankfurt is a major data centre market and Berlin is gaining traction as a secondary market

As such, growth in the sector is not slowing down. On the one hand, the major and historical markets of Frankfurt, London, Amsterdam, Paris and Dublin ('FLAP-D') are expected to continue growing by 16% and 12% in 2024 and 2025, according to JLL's latest EMEA data centre report as of Q3 2024. On the other hand, developers have been looking outside core markets where power and land have become scarce and more expensive. As a result, secondary markets such as Berlin are experiencing a rapid growth in capacity or 'IT load' (see Figure 6).

Figure 7: FLAP-D and Berlin markets total IT load

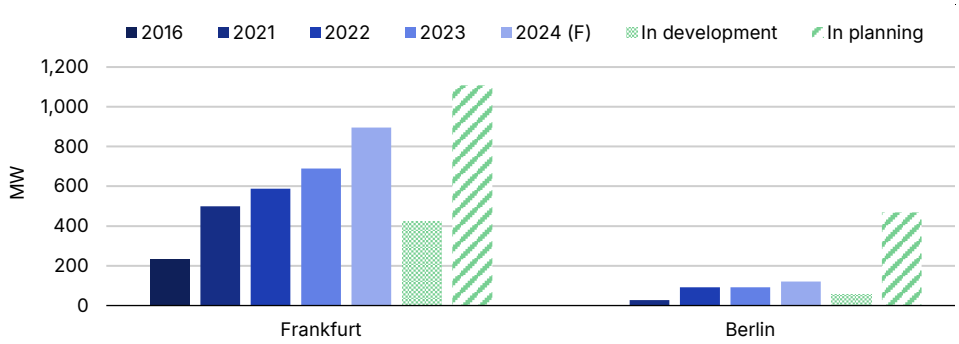


Source: Scope Ratings, JLL

Frankfurt has experienced a constant annual growth rate of 17% from 2016 to 2023 and is expected to grow a further 30% and 11% in 2024 and 2025 according to JLL. With 805MW on-line IT load as of Q3 2024, 423MW in development and a further 1,108MW in planning, Frankfurt is set to become the most important European location with a total IT-load of 2,336MW ahead of London's 2,207MW (1,048MW on-line, 475MW in development and 684MW in planning). Berlin is also set for a fivefold increase in capacity with a further 57MW in development and 469MW in planning compared to the Q3 2024T-load of 100MW (see Figure 7).

Frankfurt is the second largest European data centre market as of Q3 2024

Figure 8: Recent evolution of IT load pipeline in Frankfurt and Berlin



Source: Scope Ratings, JLL

3. Vantage overview

3.1 Vantage as sponsor

Vantage is a global operating owner, developer and manager of data centres founded in the United States in 2010, where it completed its first data centre construction in 2013. In 2017 the company was acquired by a consortium led by DigitalBridge, a global alternative asset manager which invests in digital infrastructure. Vantage expanded into Europe in 2020 and into the Asia-Pacific region in 2021, through large acquisitions. The company has significant experience with 35 campuses across North America, EMEA and the Asia-Pacific region with over 2.6GW power. More specifically, it owns 14 campuses EMEA with 600MW of total IT load as of February 2025: approximately 300MW on-line, 300MW under construction.

Vantage's core business is to own, build and lease data centres, to provide space, power, cooling, and physical security. The IT equipment such as server racks inside the data halls are therefore generally owned, operated, and maintained by the tenants. The business model targets hyperscalers: letting to high quality tenants under long term lease agreements. The cost of power is paid by the tenants, but Vantage has a duty to monitor power prices under the service level agreements (SLAs) and switch to the most cost effective one to the tenants if required.

We deem Vantage to have significant experience with data centre management and to have the knowledge, skills, systems and resources which are necessary for the subsidiaries in the group to perform the key role as data centre managers of the properties which are backing the rated notes. We consider the sponsor to be of strong quality thanks to its market position, investment experience and risk management.

Significant experience and knowledge in operating and managing data centres

Furthermore, Vantage has extensive experience with data centre securitisation with several transactions issued since 2018. This transaction marks the company's second issuance in Europe and Vantage's eleventh data centre ABS globally.

Seasoned ABS issuer in the US, second European issuance

3.2 Vantage's operational duties and obligations

Vantage Data Centers Europe S.à r.l. acts as the master services manager and Vantage Data Centers Germany GmbH as the management and facility services manager.

The master services manager primarily caters for administrative and strategic management support, while the management and facility services manager is responsible for day-to-day facility

Dedicated master service manager and facility manager

and management services of the data centres such as managing customers and suppliers contracts, technical facility management, providing security services, and maintenance and repair services amongst others. It will also monitor and report on the remaining fit-out.

Facility manager to ensure uninterrupted levels of electricity, access and cooling to the tenants

All the tenant leases include a schedule of SLAs, which set forth specific terms by which the relevant propco agrees to provide broadly uninterrupted levels of electricity, access, cooling and other matters. The propcos must provide certain services to the tenant. They generally include: i) maintaining the environment (temperature, humidity, ventilation) within the data centre, thus predominantly providing electricity and water in addition to maintaining redundancy systems; and ii) maintaining shared infrastructure and network pathways. It shall also maintain appropriate access control and keep the common areas clean. Most SLAs provide remedies for critical interruptions of essential services typically upon the occurrence of an interruption after an initial grace period or repeated interruptions within a certain period.

SLA breaches represent a negligible risk

Under most tenant leases, the tenant may be entitled to service credits towards future rent, or charges payable under the related tenant lease following such occurrences, which, for prolonged or multiple breaches could exceed in aggregate the total amounts of base rent or charges due for the specified period. Furthermore, most tenant leases provide the tenant with the right to terminate the related tenant lease if a specified number of interruptions occur within a specified time-period. Based on our assessment of Vantage in addition to the property characteristics and historical performances, we assess SLAs breaches to represent a negligible risk.

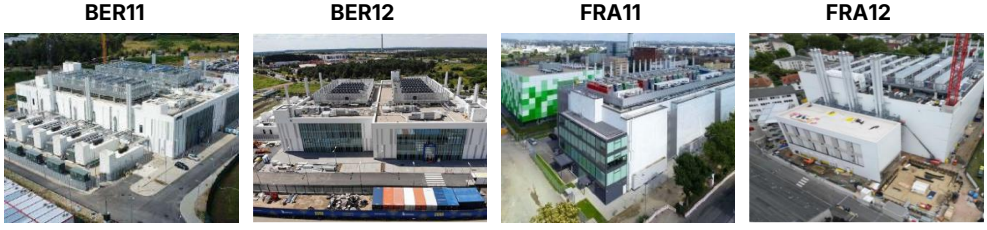
Use of proceeds in accordance with the ICMA green bond principles

The sponsor intends to use the net proceeds of the issuance of the notes to eligible green projects in accordance with the ICMA green bond principles and the green loan principles. As such, not only do the data centres exhibit high specifications and best-in-class PUE but social and environmental risk assessments must be completed along with regular transparent reporting from the sponsor.

4. Asset analysis

The collateral properties comprise four data centres, two located in Berlin and two in Frankfurt, respectively. The campuses also feature other data centres that are not part of this transaction. The data centres predominantly store, process, and distribute data.

Figure 9: Pictures of the collateral properties



Four recent high quality data centres with a combined IT load of 63.8MW, of which 55.8MW are on-line

Source: Scope Ratings, JLL

Figure 10: Properties characteristics as of the cut-off date

Property		Market value (EURm)	Live capacity (kW)	Built capacity (kW)	AABR[1] (EURm)	Rent free (EURm)	Leased rent (EURm)	Number of tenants	Occ.
BER11	Freehold	423.0	16,000	16,000	17.01	0.00	17.01	1	100%
BER12	Freehold		16,000	16,000	16.76	-3.08	16.76	1	100%
FRA11	Leasehold	260.0	15,800	15,800	17.77	0.00	17.77	2	100%
FRA12	Leasehold	245.0	8,000	16,000	9.58	0.00	17.66	1	100%
Total		**928.0**	**55,800**	**63,800**	**61.12**	**-3.08**	**69.20**	**3**	**100%**

[1] Calculated in line with the definition indicated in the offering circular (excluding rent free periods)
Source: Scope Ratings, Newmark valuation reports, data tape

BER11 and BER12 are two-storey buildings built in 2022 and 2024, respectively, offering 16MW of capacity each. FRA11 is a five-storey building built in 2020 offering 15.8MW of capacity, while FRA12 is a four-storey building built in 2025 offering 16MW once fully operational. The total market value was estimated at EUR 928m in February 2025. The fully let portfolio generates an annualised adjusted base rent ('AABR') of EUR 61.1m (excluding rent free periods) expected to rise to EUR 69.2m, once the full capacity is on-line.

Energy and water efficient data centres with best-in-class PUE

The buildings are in excellent condition with no urgent or significant defects which would likely give rise to substantial expenditure in the foreseeable future, or to fall outside the scope of the normal annual maintenance programme. FRA11, the oldest building, only features an air-to-air cooling system, while the three other buildings have closed-loop chilled water-cooling systems and should feature a water utilisation efficiency close to 0 l/kW/hr thanks to the latest cooling design implementation in addition to hyper-efficient cooling with outside air economisation. The properties have maintained 100% historical uptime and have an average PUE score below 1.30.

FRA11 and FRA12 low leasehold costs combined with FRA12's revenue share agreement partially mitigate leasehold associated risk

FRA11 an FRA12 are held by Vantage under a heritable building right. Unlike full ownership of land and all buildings, a heritable building right is a so-called restricted ownership right which is limited to a certain use and for a certain period of time. For FRA11 and FRA12, such agreed use is data centre development and operation for a period pf 30 years with four additional 10-year extensions until 19 February 2089 and 21 August 2093, respectively. Such time periods extend well beyond the notes' legal final maturity. However, the heritable building right agreements for FRA11 and FRA12 contain certain reversion triggers (*Heimfall*), which grant the freehold property owner the right to terminate the heritable building right agreement upon the occurrence of certain adverse circumstances, and request the transfer of the buildings. Such adverse circumstances include breach of material obligations by the FRA11 or FRA12 propcos or arrears in payment of the relevant ground rent by the propcos. We believe the risk to be partially mitigated by the low land lease costs, representing just around 0.5% of the gross revenues, and FRA12's revenue share agreement. Under such revenue share agreement, Vantage pays out 7.7% of the property revenues to the freeholder, hence incentivising the two parties to discuss amicably. The budgeted costs are detailed in Figure 11.

FRA12 has been built as a hybrid data centre with operations to be run by the tenant, hence the reduced operating expenses compared to the three other data centres (Figure 11).

Figure 11: Budgeted costs as of the cut-off date

Operating expenses (kW/month)	BER11	BER12	FRA11	FRA12	Escalation
Repairs & Maintenance	8.2	6.8	10.5	1.4	2.0%
Operations (Labour)	5.8	0.5	6.1	0.1	2.0%
Security	5.5	4.4	5.4	0.0	2.0%
Security (Labour)	0.0	4.9	0.0	0.4	2.0%
Other utilities	0.5	0.0	0.5	0.0	2.0%
Sub-total (kW/month)	**19.9**	**16.6**	**22.6**	**1.8**	
Buffer (+2%)	**20.5**	**17.0**	**23.5**	**2.0**	
Sub-total (EURm)	**3.94**	**3.26**	**4.46**	**0.19**	
Priority Expense (EURm p.a)					
Insurance & property taxes	0.19	0.17	0.28	0.25	2.0%
Buffer (+2%)	**0.19**	**0.17**	**0.28**	**0.25**	
Priority Expense (EURm p.a.)					
Land Leases	0.0	0.0	0.28	0.28	3.0%
Buffer (+2%)	**0.0**	**0.0**	**0.28**	**0.28**	
Revenue Share[1]					
Revenue Share (% AABR)				7.70%	
Sub-total (EURm p.a.)				**0.68**	
Maintenance kW/year					
Total	58.1	55.1	41.5	74.9	2.0%
Buffer (+2%)	59.5	56.5	42.5	76.5	
Start Date	Jan-25	Jun-26	Jan-25	Jun-26	
Sub-total (EURm p.a.)	**0.95**	**0.90**	**0.67**	**1.22**	
Total (EURm p.a.)	**5.08**	**4.34**	**5.69**	**2.82**	

[1]Will increase to EUR 1.36m once the remaining 8MW are delivered to the tenant in year 2.

Source: Scope Ratings, transaction documents, Vantage

5. Tenancy analysis

Concentrated tenant roll with high credit quality hyperscaler tenants

The data halls are let to three different hyperscaler tenants of high investment grade quality. Hyperscalers are cloud service providers that offer on-demand computing, storage and networking at a global scale. They require significantly larger power capacities than enterprise tenants and typically sign longer lease contracts.

Figure 12: Tenancy breakdown as of cut-off date

Tenant	Assumed credit quality[1]	Live capacity		Built capacity		Live rent		Leased rent		WAULB/WAULT
		kW	%	kW	%	EURm	%	EURm	%	years
Tenant #3	AAA	32,000	57.4%	32,000	50.2%	30.69	52.9%	33.77	48.8%	13.7/30.1
Tenant #1	AA	12,400	22.2%	12,400	19.4%	13.69	23.6%	13.69	19.8%	4.7/11.1
Tenant #2	AA-	11,400	20.4%	19,400	30.4%	13.67	23.5%	21.74	31.4%	6.1/12.1
Total		**55,800**	**100%**	**63,800**	**100%**	**58.04**	**100.0%**	**69.20**	**100.0%**	**9.8/21.4**

[1]The assumed credit quality is the second-best rating for each tenant.
Source: Scope Ratings, transaction documents

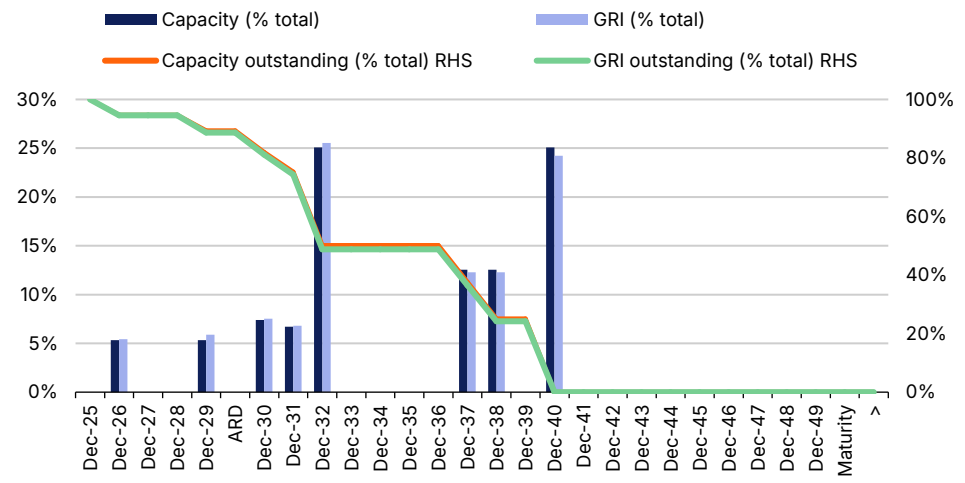
The largest tenant currently accounts for 52.9% of the contracted annualised rent (excluding rent free periods). Upon completion of the fit-out, its share will reduce to 48.8%.

The risk related to the high tenant concentration is partially mitigated by the high credit quality of the tenants with long remaining lease terms. Although the leases feature breaks before expiry, we consider the breaks unlikely to be exercised, as moving to a new location is time consuming and requires significant additional expenses from the tenants.

Low expected tenant churn prior to the ARD

Disregarding potential renewals, 18% of the lease agreements (by rent) will expire before the ARD of the rated notes falling on June 2030. Since most leases provide for a twelve-month notice period, the outcome of the 2026 breaks will be known in August 2025, potentially reducing the lease expiries before the ARD to a mere 5.9%. We also note that Tenant #1 did not exercise its November 2025 and May 2026 breaks representing 72.6% of its leased capacity, effectively rolling the leases over for another five years.

Figure 13: Rent roll to break breakdown at cut-off date



Source: Scope Ratings, transaction documents

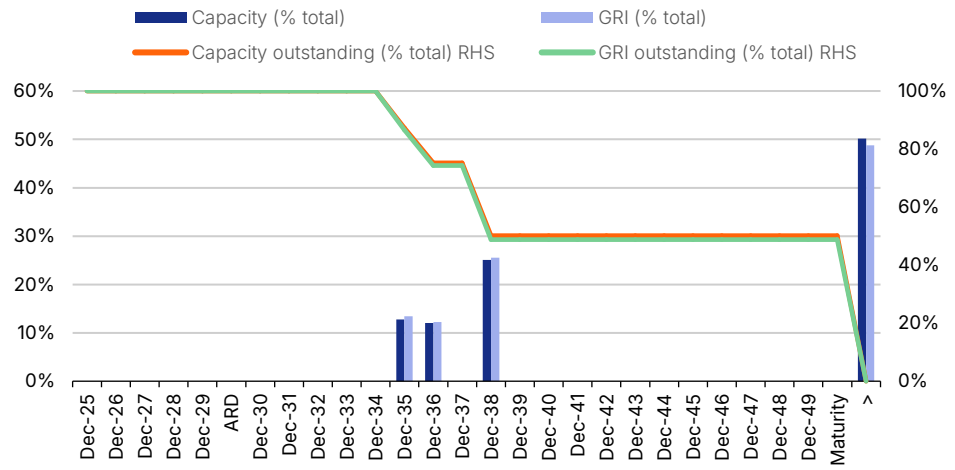
Early terminations are unlikely, given the significant early termination fees

Early termination is possible, but in most cases the tenant would have to pay 100% of the remaining rent for the period between the date of the termination and the first break option. After the first break option, the early termination fee ranges from twelve months' equivalent rent to 100% of the

remaining rent (subject to the lease agreement) till the next break option or till maturity. Therefore, the tenants are materially incentivised not to terminate. Furthermore, if the DSCR falls below 1.50x because of early terminations, the termination fee will be deposited into a reserve, thereby providing some protection for the noteholders until the capacity is relet (see section 6.3).

Furthermore, cloud operators' commitments to data centres within availability zones (AZs) are deeply entrenched in their network infrastructure. AZs ensure better availability, fault tolerance, scalability and latency compared to single data centres. Within an AZ, there is a parent site which contains all core networking and back-end intelligence of the AZ and child sites connected to the parent site, located in the same location or in close proximity of each other to enable low latency for synchronous operations. Hyperscale data centres are highly complex and risky to migrate from: i) existing locations are strategically selected; ii) the cloud customers invested in equipment and network, estimated at around 3 or 4 times the facility construction cost; and iii) most lease contracts are generally priced below current market levels. Coupled with our outlook on data centres, we expect the tenant churn to be minimal.

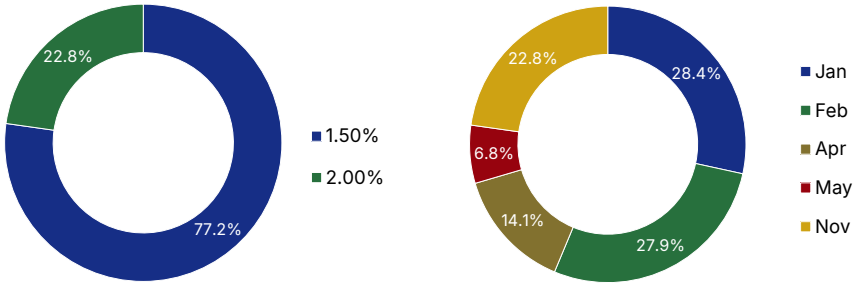
Figure 14: Rent roll to fully extended lease expiry breakdown at cut-off date



Source: Scope Ratings, transaction documents

All the leases feature fixed rent escalation. 77.2% of the contracted rent will increase by 1.5% p.a. and the remainder 22.8% by 2.0% p.a. Most of the escalation occurs at the beginning of the year with 56.3% of the rent increasing in the first two months alone.

Figure 15: Lease escalation breakdown at cut-off date



Source: Scope Ratings, transaction documents

6. Key structural features

6.1 Key financing terms

Only class A-2 and class B notes are issued at closing

The transaction features class A-1, class A-2 and class B notes. Once issued, the class A-1 notes rank pari passu to the class A-2 notes at all times. EUR 590.0m of class A-2 and EUR 50.0m of class B notes are issued at closing, sized to an average class A DSCR greater than or equal to 1.60x and a class A LTV of 70% or lower. The issuer has used the proceeds to grant intercompany loans to the propcos, fund the required reserves, finance the remaining FRA12 fit-out work and third-party transaction costs, and use the remaining proceeds for general corporate purposes.

Class A-1 notes' drawing subject to certain conditions including a rating agency confirmation

The class A-1 notes will solely be used for general corporate purposes, but issuance may only occur after the closing date and before the anticipated repayment date, up to a maximum amount of EUR 80.0m and subject to specific conditions, including amongst other: i) a rating agency confirmation; ii) no event of default, cash trap event, rapid amortisation event, manager termination event, scheduled amortisation event, or class A LTV test event will occur upon drawing; iii) fully funded reserves; iv) renewal (or extension) of the two FRA11 leases that feature a break in August 2026. Drawings on the class A-1 notes are possible on a revolving basis.

Class A-2 and B notes' ARD in five years, with a legal final maturity in 25 years

The issuer has provided intercompany loans to the propcos. The main source of the interest and principal payment on the notes will be the payments made by the propco to the issuer related to the intercompany loans. The propco funds those payments from the net operating income which the data centres generate.

The class A-2 and class B notes' ARD is five years after the closing date, on the payment date falling in June 2030. The class A-1 notes' ARD is two years after the closing date, on the payment date falling in June 2027 but can be extended twice by a year. The legal final maturity date of all the notes is June 2050, 20 years after the class A-2 and B notes' ARD.

Interest is paid monthly on the 28th of each month. Class A-2 and B notes' coupons are fixed. Class A-1 notes pay a margin of 2.25% over 1-month Euribor, increasing by 0.15% per annum after each one-year extension option exercise, while the undrawn amount will carry a commitment fee of 0.70% per annum. Interests on the class B notes can be deferred as long as they are not the most senior class of notes. An additional interest of 5.0% per annum will begin to accrue on each class of notes after their respective ARD. The additional interest is deferrable and ranks junior in the pre-enforcement priority of payments (see 6.4). Our ratings on the class A-2 and class B notes do not address the additional interest payment after the ARD.

No scheduled amortisation but efficient financial covenant coupled with a full cash sweep after the ARD

There is no scheduled principal amortisation on the notes. However, the breach of financial covenants before the ARD can trigger principal amortisation (see 6.5). After an ARD, on each payment date, all excess cash after senior costs, interest payments, budgeted operating expenses and targeted maintenance costs, and management fees will be used for sequential principal amortisation.

6.2 Accounts

Issuer and propco accounts held at Barclays Bank Ireland PLC

The issuer and the propcos' accounts are held at closing and within 3 months of closing, respectively, with Barclays Bank Ireland PLC (A+/A+ by S&P/Fitch). The issuer and cash manager have signing rights on the issuer accounts, while only the propcos have sole signing rights on their accounts except upon an event of default when the cash manager takes over signing rights.

6.3 Reserves

The transaction incorporates several reserves listed below.

Three months senior expenses and notes' interest liquidity coverage

a) **Liquidity reserve:** funded at closing, it must cover three months of senior expenses as well as interest and commitment fee related to the class A notes and until the ARD, interest of the class B notes. On each payment date, it will replenish up to the required amount.

b) **Cash trap reserve:** funded from excess cash upon the occurrence of a cash trap event. If a cash trap event ceases to exist and no event of default is continuing, trapped cash is released as available funds. However, if a cash trap event is continuing for nine consecutive months, or if a rapid amortisation event or an event of default is continuing, then amounts in the cash trap reserve become part of the available funds and are distributed according to the pre-enforcement priority of payments. Upon the occurrence of a wind-down trigger or the delivery of an enforcement notice, funds are swept to repay the notes according to the post-enforcement priority of payments.

c) **Priority expense reserve:** funded at closing to cover a month of priority expenses (headlease, property tax and insurance). The required priority expense reserve amount may change thereafter to the amount expected by the data centre managers to be due and payable on the following month, if a cash trap, scheduled amortisation, rapid amortisation events, or event of default are continuing.

One month of priority expense to be retained at the propco level

d) **Delayed penalty reserve:** funded at closing to mitigate FRA12 and BER11 potential delayed penalty, which may be claimed by the tenant. The penalty is a compensation for a delayed delivery of certain data halls. If the tenant exercises its set-off right, it will be gradually utilised as available fund as if it was a rental payment by the tenant.

e) **Early termination fee reserve:** funded from any early termination fees with respect to full or partial termination of any lease. Until the capacity is leased again, an amount equal to the previous lease monthly base rent is released as available funds. If the capacity remains void for more than six months or if the class A DSCR remains below 1.55x after the capacity has been leased again, all funds shall be applied to partially repay the notes together with any prepayment fees. Otherwise, the funds are released as available funds to the issuer.

6.4 Priority of payments

On each payment date the cash manager (post-enforcement, the trustee) will apply the available funds in accordance with the below simplified priority of payments in sequential order. Interest and principal payments on the class A-1 notes rank pari passu to the corresponding payments on the class A-2 notes, whereas class A notes rank senior to class B notes at all times.

Figure 16: Available funds (simplified)

Available funds	
a)	all amounts received by the issuer from the propco, which payments will be funded by the propco from all revenues arising from the ownership, operation or management of the data centres
b)	any liquidity reserve amount
c)	any early termination fee reserve amount
d)	any cash trap amount
e)	any interest earned on the issuer's collection and reserve accounts

Source: transaction documents, Scope Ratings

Figure 17: Simplified priority of payments

	Pre-enforcement priority of payments	Post-enforcement priority of payments
1	Pro rata and pari passu payment of the fees, costs, charges, liabilities, expenses due and payable to the trustee	Pro rata and pari passu payment of the fees, costs, charges, liabilities, expenses due and payable to the trustee
2	Pro rata and pari passu payment of all amounts due to a) the corporate services provider, b) the issuer account bank, c) the cash manager, d) the agents.	Pro rata and pari passu payment of all amounts due to a) the corporate services provider, b) the issuer account bank, c) the cash manager, d) the agents.
3	Pro rata and pari passu payment of all amounts due to a) the servicer (subject to a cap of EUR 120,000 per annum), b) the back-up manager (subject to a cap of EUR 24,000 per annum),	Pro rata and pari passu payment of all amounts due to a) the servicer, b) the back-up manager
4	Payment of any issuer related tax	Payment of interest, any fees, costs, expenses and other amounts due and payable on the class A notes
5	Pro rata and pari passu payment of interest due and payable on the class A notes and the class A-1 notes' commitment fee and any fees, costs, expenses and other amounts due on the class A notes.	Payment of principal of the class A notes
6	If no class A Notes are outstanding, payment of interest due and payable on the class B notes and any fees, costs, expenses and other amounts due on the class B Notes.	Payment of interest, any fees, costs, expenses and other amounts due and payable on the class B notes
7	To credit each propco expense account in an amount up to the budgeted operating expenses and targeted maintenance capital expenditure	Payment of principal of the class B notes
8	Pro rata and pari passu payment of all amounts due to the DC managers	Pro rata and pari passu payment of the management fees due to the DC managers
9	To fund the liquidity reserve up to the required amount	Payment of any tax
10	Pay an amount equal to the excess, if any, of a) the actual operating expenses and maintenance capital expenditure, over the amount in item 8	Surplus, if any, to the issuer general account
11	If a class A LTV test even has occurred, redemption of the class A notes in an amount equal to the applicable class A LTV test sweep amount	
12	After the occurrence and during the continuance of a scheduled amortisation event, redemption of the class A notes in an amount equal to the class A scheduled amortisation amount	
13	Redemption of the class A notes after the anticipated repayment date	
14	To credit the cash trap reserve if a cash trap event is continuing and no event of default is continuing	
15	Redemption of the class A notes following the occurrence of a rapid amortisation event	
16	If any class A notes are outstanding, payment of all interest amount due on the class B notes	
17	Redemption of the class B notes after the anticipated repayment date	
18	Redemption of the class B notes following the occurrence of a rapid amortisation event	
19	After the anticipated repayment date, payment of the accrued post-ARD additional interest on the class A Notes	
20	After the anticipated repayment date, payment of the accrued post-ARD additional interest on the class B Notes	
21	Any unpaid amount to the agents, the servicer, the back-up manager, the cash manager or the trustee	
22	Surplus, if any, to the issuer general account	

6.5 Financial covenants

Financial covenants provide efficient protection to the noteholders

The transaction includes efficient financial covenants prior to the ARD, should adverse market developments or tenants' departure result in a reduction of the properties' market value or rental income. If any is breached, it leads in most cases to a cash sweep of excess cash to repay the most senior class of notes until satisfaction of the covenant(s). Compliance is tested monthly (two business days before each payment date).

a) **Class A LTV test event:** if the class A LTV exceeds 70%, the excess cash after payment of items 1 to 10 of the above simplified pre-enforcement priority of payments will be used to repay the class A notes' principal until the test passes.

b) **Scheduled amortisation event:** if the class A DSCR falls below 1.50x, the excess cash remaining after payment of items 1 to 11 will be used to repay the class A notes' principal up to a maximum amount of EUR 17.7m p.a., at closing date.

c) **Cash trap event:** if the class A DSCR falls below 1.35x, the excess cash after payment of items 1 to 13 will be transferred to the cash trap reserve. If the event continues for more than nine consecutive months, the trapped amount will be used for amortisation of the most senior class of notes. If the cash trap event ceases to exist, the trapped amount will be made available as part of the available funds.

d) **Rapid amortisation event:** if the class A DSCR falls below 1.20x, the excess cash remaining after payment of items 1 to 14 will be used to repay the most senior class of notes until the test passes.

6.6 Interest rate risk

Moderate exposure to interest rate risk

At the closing date the transaction is not exposed to interest rate risk, as the class A-2 and B notes pay a fixed coupon and class A-1 notes' commitment fee is also fixed. However, drawings of the class A-1 notes will expose the transaction to interest rate risk as class A-1 notes' interest payments are linked to the 1-month Euribor rate.

We deem the interest rate risk as moderate despite the absence of any hedging agreement that would protect the issuer against rising rates. Not only does the maximum class A-1 notes' amount of EUR 80.0m represent a fraction (11%) of the combined notes' principal balance, but the liquidity reserve set to cover three months of interests and senior expenses, together with the strong tenant covenants, also partially mitigate the risk.

An increase in rates may lead the sponsor to strategically manage its liabilities and pay the post-ARD additional interest on all the notes rather than refinance the transaction at the ARD. The long period between the ARD and the notes' legal final maturity date, together with the excess spread in the transaction, support a strong deleveraging of the notes until at least the optional disposal period that starts three years prior to the legal final maturity date.

7. Cash flow analysis and rating stability

We analysed the transaction's cash flows as per the approach detailed in our CRE Loan and CMBS Rating Methodology. We derived the expected loss, expected weighted average life and default probability of the rated instruments by using rating-scenario dependent assumptions.

The analysis considers that the likelihood of a default is two-fold: i) term default risk, i.e., the issuer's failure to service its contractual interest and principal obligations during the term; and ii) refinancing default risk, i.e., the issuer's failure to repay the notes in full at the legal final maturity date.

Term default risk captured through Monte Carlo simulation based on tenants' individual credit quality

Our cash flow modelling considers contracted rental income until the earlier of: i) lease breaks or expiries; and ii) tenant's default. Thereafter, following a rating-conditional void period, we consider an estimated rental income, which is the then-current estimated rental value of the IT load reduced by rating-conditional rental value haircuts. Tenant solvency in each period is determined by a Monte Carlo simulation which factors in the tenants' individual credit quality. The cost assumptions take into account characteristics of the properties and, in this particular case, follow the initial figures set out in the transaction documents.

The cash flow analysis also considers the transaction's liability structure, the interest and commitment fee payable on the notes, the reserves, the costs ranking senior to debt service and accounts for rating-conditional delays in the completion of the last 8MW capacity being fitted-out in FRA12. We test the refinancing against the modelled debt yield at the ARD and repayment of the notes against the modelled debt yield and recovery proceeds from the sale of the properties at the legal final maturity date.

Discounted cash flow approach to value the properties

The calculated value of each property equals the discounted net cash flow at an appropriate discount rate using an income valuation approach. The recovery proceeds in case of a default equal to the modelled value of the property portfolio at the end of the foreclosure period net of liquidation costs.

7.1 Main assumptions

We assessed the tenants' credit quality based on their public ratings. The tenants' assumed credit quality ranges from AA- to AAA, with an AA+ weighted average by contracted on-line rental income.

Fit-out phase specific stresses

Based on our refurbishment and construction risk framework, we assumed that the forward-starting leases would commence at a later date than the expected ready-for-service date of February 2026. Furthermore, we stress FRA12's estimated data centre value by 32% and 42% at the assigned rating levels. These stresses apply while the fit-out risk remains.

We assumed the void periods, which reflect temporary vacancies following a lease discontinuation event, to last 14 and 17 months, respectively. We do not model the renewal of any leases.

We considered an estimated rental value of EUR 90.0/kW/month and EUR 85.0/kW/month for Frankfurt and Berlin, respectively, and subject to an indexation of 2.0% p.a. These levels are in line with the in-place hyperscalers' rent, while being lower than the valuer's assumptions of about EUR 94.0 and EUR 88.0/kW/month, respectively.

Cost assumptions follow the transaction documents

Our cost assumptions follow the transaction documents: budgeted operating expenditures of EUR 15.8/kW/month, budgeted maintenance capital expenditure of EUR 4.9/kW/month, and a 3% p.a. of rental income as management fee. We also considered the EUR 1.2m annual priority expenses (FRA11 and FRA12's headlease costs, insurance, and property taxes), the 7.7% revenue share of FRA12, and a 2.0% p.a. of rental income as corporate income tax and trade tax leakage. All costs are subject to an indexation of 2.0% p.a., except for the leasehold costs escalating at 3.0% p.a.

To determine the properties' value, we discounted the net cash flows generated by the properties by 8.9% and 9.6% at BBB- and A- rating stresses, respectively, on average. The discount rate is lower for FRA12, which benefits from a hybrid lease, and higher for BER11 and BER12, which are in a secondary location. Liquidation costs accounted for 1.5% of the notes' outstanding balance, capped at EUR 2.0m, plus 9% of the modelled portfolio market value.

The base case considers the class A-1 notes will be fully drawn from March 2027.

Figure 18: Assumptions under the assigned rating stresses

Parameter	BBB-	A-
Discount rate (weighted average or 'WA' by market value)	8.9%	9.6%
Rental value haircut	13.1%	18.8%
Structural vacancy	10.0%	
WA non-recoverable costs[1] by capacity (EUR/kW/month)	17.6	
Void period (months)	14	17
WA void costs by capacity (EUR/kW/year)	19.1	
Leasing commissions (months)	3	
WA maintenance capex by capacity (EUR/kW/year)	4.9	
Senior costs (% of gross rental income)	5.0%	
Forward starting lease delay (months)	10	12
Fit-out specific FRA12 collateral value decline	14%	20%
Liquidation costs	1.5% of the note balance[2] plus 9.0% of modelled market value	

[1] Include operating expenses and the FRA12 revenue share
[2] Capped at EUR 2.0m
Source: Scope Ratings

Figure 19: Scope metrics under assigned rating stresses

	BBB-			A-		
	Closing	ARD	Legal final	Closing	ARD	Legal final
Scope value[1] (EURm)	440.3	502.6	740.8	401.4	449.9	640.2
MVD[2]	-53%	-46%	-20%	-57%	-52%	-31%
Scope NTV[3]						
Class A-2 notes	134%	127%	46%	147%	142%	77%
Class B notes	145%	137%	53%	159%	153%	84%

[1] Scope value is defined as the combined stressed value of collateral properties as calculated by Scope.
[2] MVD or market value decline compares Scope value to the valuer's portfolio valuation.
[3] Scope NTV is defined as the expected notes' notional divided by Scope value at the time of calculation thus encompasses potential notes' deleveraging.
Source: Scope Ratings

7.2 Rating sensitivity

We tested the resilience of the credit ratings against deviations in certain input parameters. This analysis has the sole purpose of illustrating the sensitivity of the credit ratings to input assumptions and is not indicative of expected or likely scenarios. The following shows how the results for the class A-2 and class B notes change compared to the assigned ratings in the event of the given scenario.

Figure 20: Sensitivity scenarios

Scenario	Class A-2	Class B
20% higher rental value haircut	zero notches	zero notches
20% higher discount rates	zero notches	zero notches
100% higher structural vacancy	minus two notches	zero notches
50% longer void periods	zero notches	zero notches
Tenants downgraded by three notches	zero notches	zero notches

Source: Scope Ratings

8. Sovereign risk

Sovereign risk does not limit the notes' ratings

Sovereign risk does not limit the class A-2 and class B notes' ratings. The risks of an institutional framework meltdown or legal insecurity are immaterial for the ratings.

For more insight into our fundamental analysis of Germany's economy, see our press release dated 21 March 2025 (Scope has completed a monitoring review on the Federal Republic of Germany).

9. Counterparty risk

The transaction's counterparty risk does not limit the notes' assigned ratings. We do not consider any counterparty exposure to be excessive.

The financial counterparty roles of the issuer account bank (Barclays Bank Ireland PLC, Luxembourg Branch), the propco account bank (Barclays Bank Ireland PLC, Frankfurt Branch) and the insurers (Factory Mutual Insurance Company, Zurich American Insurance Company, Ascot Special Insurance Company and other insurance companies) are material exposures to the issuer.

Financial counterparty risk is mitigated by the counterparties' high credit quality

In relation to the issuer account bank and the propco account bank, the entity is rated A+ by S&P and Fitch. The transaction's downgrade and replacement language, which requires a suitable replacement within 60 calendar days but no sooner than 35 calendar days upon loss of a minimum BBB- rating, is only partially effective at mitigating counterparty risk. The residual exposure does not affect the ratings given the current high credit quality of the account bank.

Regarding the insurers, the lack of effective replacement mechanism is mitigated by the current high credit quality of the counterparties, which supports the class A-2 notes' and class B notes' ratings. We assessed the credit quality of these counterparties based on public ratings from S&P, Moody's and Fitch.

Operational risk related to the data managers is mitigated by their experience

Operational risk is mainly related to the data centre managers (Vantage Data Centers Europe S.à r.l., Vantage Data Centers Germany GmbH). Since the acquisition and/or development of the properties, the data centre managers have demonstrated their ability to carry out their duties. The operational risk is also mitigated by a replacement trigger, upon which the data centre managers may be replaced by the back-up manager (Jones Lang LaSalle Services Limited).

In relation to the principal paying agent (U.S. Bank Europe DAC, UK Branch), we consider the counterparty risk immaterial, as the short exposure and the counterparty's credit quality are effective mitigants. U.S. Bank Europe DAC holds A2/A+/A+ ratings from Moody's/S&P/Fitch, respectively.

10. Peer comparison

We compare below the transaction's metrics with the ones of Vantage Data Centers Jersey Borrower SPV Limited, Vantage's data centre ABS transaction issued in May 2024 ('Vantage UK').

The transaction's metrics are generally worse than the Vantage UK's, reflecting a tighter structuring: the closing expected NTV and debt yield at 69.0% and 6.9% are higher and lower than Vantage UK's closing 54.8% and 9.0%, respectively. Despite an expected lower weighted average liability cost, the transaction's excess spread is significantly lower than Vantage UK's. It is partially mitigated by the longer post-ARD amortisation phase: 20 years compared to 10 years.

Figure 21: Peer comparison

	Vantage UK	Vantage DE
Asset characteristics	May 2024	June 2025
Properties (#)	2	4
Live/built capacity (kW)	79,765 / 112,000	55,800 / 63,800
Capacity-to-market value (EUR/kW)	16,077 / 11,450[1]	17,537 / 15,338
Asset yield[2]	4.9%	4.7%
Physical occupancy (%)	99.4%	100.0%
WAULB / WAULT	7.5 / 17.0	9.8 / 21.4
Tenants (#)	62	3
Investment grade tenants (% AABR)	89.5%	100.0%
Transaction metrics		
Notes amount (EURm)	702.5[1]	640.0
Notes-to-market value (%)	54.8%	69.0%[3]
Debt yield	9.0%	6.9%
WA notes margin (inc. commitment fee)	5.4%	4.4%
Excess spread	4.6%	2.5%
Post-ARD period to notes' legal final maturity (years)	10	20

[1] EUR/GBP exchange rate of 0.8541
[2] Calculation is based on net rental income generated by on-line capacity, excluding rent free periods
[3] Class A notes-to-market value is 63.6%
Source: Scope Ratings, transaction documents

11. Legal and tax analysis

The notes and the related transaction documents are governed by English law, except for: i) the intercompany loan agreements and securities related to the issuer which are governed by Luxembourg law; ii) the security documents related to the propcos which are governed by German law; and iii) the account pledges opened at the non-German original account banks, governed by Dutch law. The legal opinions cover all Vantage entities which are obligors in the transaction. We reviewed the English, Luxembourg, German and Dutch legal opinions, and the Luxembourg and German tax opinions, produced by Clifford Chance. These provide comfort on the issuer's legal structure and support our general legal analytical assumptions.

Legal, valid, binding obligations

The issuer has been duly incorporated and is validly existing under the laws of Luxembourg. It has the capacity and power to enter into the transaction documents, to exercise its rights and perform its obligations. The transaction documentation constitutes legal, valid, binding and enforceable obligations, and creates a valid security interest in the collateral. The choice of the respective law as governing law (where applicable) specified in each transaction document signed on behalf of the obligors, will be upheld as a valid choice of law and will be applied by the relevant court. The issuer is a tax resident of Luxembourg, while the propcos are tax residents of Germany.

Issuer tax efficient but propcos subject to income tax and trade tax.

The tax opinion highlights that at the issuer level, the transaction is tax-neutral. However, there are tax implications at the propco level with regard to corporate income tax and trade tax. These have been considered in our analysis quantitatively as senior costs.

12. ESG considerations

Environmental

The transaction has a moderate exposure to physical climate related risks, partially mitigated by the insurance of the properties which covers against natural risks, such as flood, fire, and storms.

Germany's adoption of the Energy Efficiency Act ('EEA') highlights three specific requirements:

First, from 2024, data centres must cover 50% of their electricity consumption with electricity from renewable sources and 100% from 2027. We understand that Vantage has a dedicated power sourcing team in charge of negotiating and complying with regulations.

Second, the four 'existing' data centres (i.e. commissioned before July 2026 as per the EEA nomenclature) must achieve a PUE of 1.50 or less from July 2027 and of 1.30 or less from July 2030 on a permanent annual average. We have been provided with FRA11 and BER11 historical monthly actual PUEs since March 2022 and March 2024, respectively, to November 2024. The latest twelve-month-trailing average reached 1.32 for FRA11, slightly above BER11 ten-month-trailing average of 1.27. We note that, with the ramp up of the customers' utilisation rate to full capacity, the PUE scores should further decrease. More importantly, the EEA states that new data centres (commissioned after July 2026) must be built in such a way that they achieve an average PUE of 1.2 or less two years after commissioning. It will negatively affect data centre sites designed with higher PUE that have recently broken ground or are being speculatively built in addition to increase the costs of planned projects leading to a reduction in supply and more demand for compliant stock.

Third, data centres will have to re-use energy such as heat to a certain extent, unless it is supplied to a third party. It may increase the rent roll by providing incremental income.

Social

The transaction has a moderate exposure to social risks.

The social risk predominantly resides in the very large data centre need for power and water in addition to the data sovereignty, leading to regulators searching for ways to not only keep pace with the demand, but also ensure a framework to regulate the data flow. Governments actions regarding potential restrictions in data centre construction or regulations beyond GDPR and the European AI act may affect the transaction.

Data centres are less reliant on human contribution than on technology, even though they employ staff who constantly monitor the power supply and take actions when necessary. The buildings ensure proper conditions for the employees. Health and safety issues at the propco level are therefore limited.

Governance

The transaction's governance-related risk is low and typical of CMBS transactions. The notes are governed by extensive documentation, and transparency is provided through monthly reporting. The sponsor retains substantial economic interest in the transaction.

The transaction also benefits from an irrevocable and unconditional guarantee from Vantage Valkyrie BidCo S.à r.l in relation to any amounts due to be paid in connection with the shared infrastructure of the Berlin campus. VDC German BidCo GmbH (the German bidco) and the propcos are also guarantor of any and all obligations.

13. Monitoring

We will monitor this transaction based on investor reports and rent roll updates provided by the cash manager as well as other available information. The ratings will be monitored continuously and reviewed at least once a year, or earlier if warranted by events.

Scope analysts are available to discuss all the details surrounding the rating analysis

Scope analysts are available to discuss all the details surrounding the rating analysis, the risks to which this transaction is exposed and the ongoing monitoring of the transaction.

14. Applied methodology and data adequacy

We analysed this transaction using our General Structured Finance Rating Methodology dated February 2025, CRE Loan and CMBS Rating Methodology dated December 2024 and Counterparty Risk Methodology dated July 2024. All are available on our website, scoperatings.com. We also received an agreed-upon procedures report.

Figure 22: Main documents and data sources received

Main documents and data sources received
Offering circular
Rating agency presentation
Data tape (rent roll)
Lease abstracts
Valuation report
Insurance broker's letter
Legal opinions
Tax opinions
Tax structuring memorandum
Other transaction documents, including security documents, account bank agreements, intercompany loan agreement, agency agreement, servicing and back-up management agreement, incorporated terms memorandum, deed of covenant

Source: Scope Ratings

We complemented our analysis with historical performance data on comparable transactions and publicly available information. We have also participated in site visits organised on 4 and 5 February 2025, covering 100% of the portfolio by market value.

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Related research

European CRE/CMBS: bumper start to the year, April 2025

European real estate funding squeeze forgotten; refinancing challenge lies ahead, February 2025

European CRE loans and CMBS outlook, January 2025

European CRE loans and CMBS: only six of 20 loans have repaid or been refinanced, October 2024

Applied methodologies

CRE Loan and CMBS Rating Methodology, December 2024

General Structured Finance Rating Methodology, February 2025

Counterparty Risk Methodology, July 2024

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