

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 20-F

(Mark One)

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934
OR
 ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2023

OR

- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

OR

- SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Date of event requiring this shell company report
Commission File Number: 001-41687

BITDEER TECHNOLOGIES GROUP

(Exact name of Registrant as specified in its charter)

Not applicable
(Translation of Registrant's name into English)

Cayman Islands
(Jurisdiction of incorporation or organization)

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Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of exchange on which registered
Class A ordinary shares, par value US\$0.0000001	BTDR	The Nasdaq Stock Market LLC

Securities registered or to be registered pursuant to Section 12(g) of the Act:

None
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None
(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: 111,966,298 outstanding ordinary shares as of December 31, 2023 (excluding 606,756 class A ordinary shares that have been repurchased but not cancelled and 5,436,385 class A ordinary shares reserved for future issuances upon the exercise of awards granted under our share incentive plans), including 63,566,376 Class A ordinary shares and 48,399,922 Class V ordinary shares.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of “large accelerated filer,” “accelerated filer,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer
Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act.

†The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management’s assessment of the effectiveness of its internal control over financial reporting over Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes No

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant’s executive officers during the relevant recovery period pursuant to § 240.10D-1(b).

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP International Financial Reporting Standards as issued Other
by the International Accounting Standards Board

If “Other” has been checked in response to the previous question indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

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INTRODUCTION

Frequently Used Terms

In this annual report on Form 20-F (this “annual report”), unless the context otherwise requires, the “Company,” “Bitdeer” and references to “we,” “us,” or similar such references should be understood to be references to Bitdeer Technologies Group and its subsidiaries. When this annual report refers to “Bitdeer” “we,” “us,” or similar such references in the context of discussing Bitdeer’s business or other affairs prior to the consummation of the Business Combination on April 13, 2023, it refers to the business of Bitdeer Technologies Holding Company and its subsidiaries. Following the date of consummation of the Business Combination, references to “Bitdeer” “we,” “us,” or similar such references should be understood to refer to Bitdeer Technologies Group and its subsidiaries. References to “BSGA” should be understood to refer to Blue Safari Group Acquisition Corp.

Certain amounts and percentages that appear in this annual report may not sum due to rounding. Unless otherwise stated or unless the context otherwise requires, in this annual report:

“Acquisition Merger” means, following the Initial Mergers, the merger where Bitdeer Merger Sub merges with and into Bitdeer, with Bitdeer being the surviving entity and becoming a wholly-owned subsidiary of the Company

“Acquisition Merger Effective Time” means the effective time of the Acquisition Merger.

“Bitdeer Convertible Note” means the US\$30,000,000 8% coupon unsecured convertible notes due July 2023 issued pursuant to such subscription agreement dated July 23, 2021 between Bitdeer and VENTE Technology Growth Investments L.P. as the noteholder, as amended by the First Amendment to Definitive Certificate for the Convertible Notes, dated December 15, 2021, by the same parties, and further amended by the Second Amendment to Definitive Certificate for the Convertible Notes, dated July 22, 2023, by the same parties, as a result of which we have repaid US\$7 million in principal (and interest accrued thereon from July 1, 2023) of the then outstanding notes, and extended the maturity of the Bitdeer Convertible Note to July 21, 2025, by when we will pay the remainder of the notes.

“Bitdeer Merger Sub” or “Merger Sub 3” means Bitdeer Merge Limited, an exempted company with limited liability incorporated under the laws of Cayman Islands and a direct wholly-owned subsidiary of the Company.

“Bitdeer Ordinary Shares” means the ordinary shares in the share capital of Bitdeer.

“Bitdeer Plan” means the 2021 Share Incentive Plan adopted by Bitdeer on July 20, 2021, as amended from time to time.

“Bitdeer Preference Shares” means the preference shares in the share capital of Bitdeer.

“Bitdeer RSUs” means the restricted share units to acquire Bitdeer Shares issued pursuant to an award granted under the Bitdeer Plan.

“Bitdeer Shares” means the Bitdeer Ordinary Shares and the Bitdeer Preference Shares.

“Bitdeer Total Shares” means, as of immediately prior to the Acquisition Effective Time, (i) the sum of the number of issued and outstanding Bitdeer Shares (on an as-converted basis), (ii) the aggregate number of Bitdeer Shares (on an as-converted basis) issuable upon the settlement of all vested Bitdeer RSUs as of immediately prior to the Acquisition Effective Time (including after giving effect to the consummation of the Acquisition Merger or any acceleration of any unvested Bitdeer RSUs in connection with the consummation of the Acquisition Merger) and (iii) the aggregate number of Bitdeer Shares (on an as converted basis) issuable upon conversion of the Bitdeer Convertible Note.

“Business Combination” means, collectively, the Acquisition Merger, the Initial Mergers and other transactions contemplated by the Merger Agreement.

“BSGA” means Blue Safari Group Acquisition Corp., a British Virgin Islands business company.

“BSGA Merger Sub 1” means Blue Safari Merge Limited, a British Virgin Islands business company and a wholly-owned subsidiary of the Company;

“BSGA Merger Sub 2” means Blue Safari Merge II Limited, a British Virgin Islands business company and a wholly-owned subsidiary of the Company.

“Cayman Companies Act” means the Companies Act (As Revised) of the Cayman Islands.

“Class A Ordinary Shares” means the Class A ordinary shares of a par value of US\$0.0000001 each, in the authorized share capital of the Company.

“Class V Ordinary Shares” means the Class V ordinary shares of a par value of US\$0.0000001 each, in the authorized share capital of the Company.

“Closing Date” means April 13, 2023.

“COVID-19” means the novel coronavirus.

“Code” means the U.S. Internal Revenue Code of 1986, as amended.

“Exchange Act” means the U.S. Securities Exchange Act of 1934, as amended.

“Exchange Ratio” means the quotient obtained by dividing the Per Share Equity Value by US\$10.00, which is approximately 0.00858 based on the number of Bitdeer Total Shares as of immediately prior to the Acquisition Merger Effective Time (as defined in the Merger Agreement).

“First SPAC Merger” means the merger where BSGA Merger Sub 1 merges with and into BSGA, with BSGA being the surviving entity and becoming a wholly-owned subsidiary of the Company.

“IAS” means International Accounting Standard.

“IASB” means International Accounting Standards Board.

“IFRS” means International Financial Reporting Standards as issued by the International Accounting Standards Board.

“Initial Mergers” means, collectively, the First SPAC Merger and the Second SPAC Merger.

“Investment Company Act” or “1940 Act” means the Investment Company Act of 1940, as amended.

“JOBS Act” means the Jumpstart our Business Startups Act of 2012.

“Merger Agreement” means the Amended and Restated Agreement and Plan of Merger, dated December 15, 2021, by and among the Company, BSGA, Bitdeer and other parties thereto, which amended and restated the Agreement and Plan of Merger dated November 18, 2021, as amended by (i) the First Amendment to Amended and Restated Agreement and Plan of Merger, dated May 30, 2022, by and among the same parties, (ii) the Second Amendment to Amended and Restated Agreement and Plan of Merger, dated December 2, 2022, by and among the same parties, and (iii) the Third Amendment to Amended and Restated Agreement and Plan of Merger, dated March 7, 2023, by and among the same parties.

“Nasdaq” means the Nasdaq Stock Market.

“Ordinary Shares” means Class A Ordinary Shares and/or Class V Ordinary Shares (as appropriate).

“PFIC” means a passive foreign investment company.

“Per Share Equity Value” means the quotient obtained by dividing US\$1.18 billion by the Bitdeer Total Shares.

“Rule 144” means Rule 144 under the Securities Act.

“Sarbanes-Oxley Act” means the Sarbanes-Oxley Act of 2002.

“SEC” means the U.S. Securities and Exchange Commission.

“Second SPAC Merger” means, following the First SPAC Merger, the merger where BSGA merges with and into BSGA Merger Sub 2, with BSGA Merger Sub 2 being the surviving entity and continuing as a wholly-owned subsidiary of the Company.

“Securities Act” means the U.S. Securities Act of 1933, as amended.

“U.S. Dollars” and “US\$” means United States dollars, the legal currency of the United States.

“U.S. GAAP” means generally accepted accounting principles in the United States.

“VAT” means value added tax.

Frequently Used Technical Terms

Unless otherwise stated or unless the context otherwise requires, in this annual report:

“BCH” means Bitcoin Cash.

“BCHA” means Bitcoin Cash ABC.

“BSV” means Bitcoin Satoshi’s Vision.

“BTC” means Bitcoin.

“BTM” means Bytom.

“CKB” means Nervos Network.

“DASH” means Dash.

“DCR” means Decred.

“DOGE” means Dogecoin.

“DPoS” means Delegated Proof-of-Stake.

“EH/s” means exahash per second.

“ETC” means Ethereum Classic.

“ETH” means Ethereum.

“ETN” means Electroneum.

“FIL” means Filecoin.

“HNS” means Handshake coin.

“j/T” means joule/terahash.

“LTC” means Litecoin.

“PoC” means Proof-of-Capacity.

“PoS” means Proof-of-Stake.

“PoST” means Proof-of-Spacetime.

“PoW” means Proof-of-Work.

“SC” means Siacoin.

“TH/s” means terahash per second.

“USDC” means USD Coin.

“USDT” means Tether, a cryptocurrency that is hosted on the Ethereum and Bitcoin blockchains, among others.

“XCH” means Chia.

“ZEC” means Zcash.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This annual report contains or may contain forward-looking statements as defined in Section 27A of the Securities Act, and Section 21E of the Exchange Act, that involve significant risks and uncertainties. All statements other than statements of historical facts are forward-looking statements. These forward-looking statements include information about our possible or assumed future results of operations or our performance. Words such as “expects,” “intends,” “plans,” “believes,” “anticipates,” “estimates,” and variations of such words and similar expressions are intended to identify the forward-looking statements, but absence of these words does not mean that a statement is not forward-looking. The risk factors and cautionary language referred to in this annual report provide examples of risks, uncertainties and events that may cause actual results to differ materially from the expectations described in our forward-looking statements, including among other things, the matters set forth in the section entitled “Item 3. Key Information - D. Risk Factors” of this annual report.

Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this annual report. Although we believe that the expectations reflected in such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. These statements involve known and unknown risks and are based upon a number of assumptions and estimates which are inherently subject to significant uncertainties and contingencies, many of which are beyond our control. Actual results may differ materially from those expressed or implied by such forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements contained in this annual report, or the documents to which we refer readers in this annual report, to reflect any change in our expectations with respect to such statements or any change in events, conditions or circumstances upon which any statement is based.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. [Reserved]

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Our business and our industry are subject to significant risks. You should carefully consider all of the information set forth in this annual report and in our other filings with the SEC, including the following risk factors, in evaluating our business. If any of the following risks actually occur, our business, financial condition, operating results, and growth prospects would likely be materially and adversely affected. This annual report also contains forward-looking statements that involve risks and uncertainties. See the section entitled "Cautionary Note Regarding Forward-Looking Information."

Summary of Risk Factors

The following summary description sets forth an overview of the material risks we are exposed to in the normal course of our business activities. The summary does not purport to be complete and is qualified in its entirety by reference to the full risk factor discussion immediately following this summary description. We encourage you to read the full risk factor discussion carefully.

Our business, results of operations and financial condition could be materially and adversely affected by any of the following material risks:

- The cryptocurrency industry in which we operate is characterized by constant changes. If we fail to continuously innovate and to provide solutions or services that meet the expectations of our customers, we may not be able to attract new customers or retain existing customers, and hence our business and results of operations may be adversely affected.
- Our results of operations have been and are expected to continue to be significantly impacted by Bitcoin price fluctuation.
- The supply of Bitcoins available for mining is limited and we may not be able to quickly adapt to new businesses when all the Bitcoins have been mined.
- Although we have an organic way of growing our mining fleets, our business is nevertheless capital intensive. We may need additional capital but may not be able to obtain it in a timely manner and on favorable terms or at all.

- We may not be able to maintain our competitive position as cryptocurrency networks experience increases in the total network hash rate.
- We have experienced negative cash flows from operating activities and incurred net losses in the past. We can provide no assurance of our future operating results.
- Our limited operating history and rapid revenue growth may make it difficult for us to forecast our business and assess the seasonality and volatility in our business.
- We have experienced and may experience in the future hash rate loss during our operations due to factors beyond our control.
- We are subject to risks associated with our need for significant electric power and the limited availability of power resources, which could have a material adverse effect on our business, financial condition and results of operations.
- Because there has been limited precedent set for financial accounting for Bitcoin and other cryptocurrencies, the determinations that we have made for how to account for cryptocurrencies transactions may be subject to change.
- Any loss or destruction of a private key required to access our cryptocurrency is irreversible. We also may temporarily lose access to our cryptocurrencies.
- Bitcoin exchanges and wallets, and to a lesser extent, the Bitcoin network itself, may suffer from hacking and fraud risks, which may adversely erode user confidence in Bitcoin which would decrease the demand for our products and services. Further, digital asset exchanges on which crypto assets trade are relatively new and largely unregulated, and thus may be exposed to fraud and failure. Incorrect or fraudulent cryptocurrency transactions may be irreversible.
- We are subject to a highly-evolving regulatory landscape and any adverse changes to, or our failure to comply with, any laws and regulations could adversely affect our business, reputation, prospects or operations.
- The nature of our business requires the application of complex financial accounting rules, and there is limited guidance from accounting standard setting bodies. If financial accounting standards undergo significant changes, our operating results could be adversely affected.
- We are subject to tax risks related to our multinational operations.
- Our interactions with a blockchain may expose us to specially designated nationals (“SDN”) or blocked persons or cause us to violate provisions of law that did not contemplate distribute ledger technology.

Risks Related to Our Business, Operations, Industry and Financial Condition

The cryptocurrency industry in which we operate is characterized by constant changes. If we fail to continuously innovate and to provide solutions or services that meet the expectations of our customers, we may not be able to attract new customers or retain existing customers, and hence our business and results of operations may be adversely affected.

The cryptocurrency industry in which we operate is characterized by constant changes, including rapid technological evolution, continual shifts in customer demands, frequent introductions of new products and solutions and constant emergence of new industry standards and practices. Thus, our success will depend, in part, on our ability to respond to these changes in a cost-effective and timely manner. Advances in Bitcoin mining-related technology have led to increased demand for higher speed and power efficiency for solving computational problems of increasing complexity. We need to invest significant resources in research and development in order to keep our services competitive in the market. Also, if we are unable to generate enough revenue or raise sufficient capital to make adequate research and development investments going forward, our service improvement and relevant research and development initiatives may be restricted or delayed, or we may not be able to keep pace with the latest market trends and satisfy our customers’ needs, which could materially and adversely affect our results of operations.

Furthermore, research and development activities are inherently uncertain, and we might encounter practical difficulties in commercializing our research and development results, which could result in excessive research and development expenses or delays. Given the fast pace with which blockchain technologies have been and will continue to be developed, we may not be able to timely upgrade our technologies in an efficient and cost-effective manner, or at all. In addition, new developments relating to computing power (e.g., quantum computer), computing energy consumption, blockchain and cryptocurrency could render our services obsolete or unattractive. If we are unable to keep up with the technological developments and anticipate market trends, or if new technologies render our technologies or solutions obsolete, customers may no longer be attracted to our services. As a result, our business, results of operations and financial condition would be materially and adversely affected.

Our results of operations have been and are expected to continue to be significantly impacted by Bitcoin price fluctuation.

Our ability to generate economic benefits (i.e., positive cash flow or profits) from Bitcoin mining is directly affected by the market price of Bitcoin. The Bitcoin price may impact the use of our mining machines. When the market price of a Bitcoin drops below certain thresholds, the operation of existing mining machines may not be economically beneficial for us. In addition, the depreciation and impairment potential of our mining machines may be affected by the volatility of the market prices of Bitcoin and other cryptocurrencies. On the other hand, a drop in Bitcoin price may also create an opportunity for us to add cheaper mining machines to our mining fleets.

The appreciation potential of Bitcoin is high in general, which is due to several factors. Bitcoins are inherently scarce, given they are designed to have a finite supply of 21 million associated with a depreciating rewarding mechanism, termed “halving,” under which the reward for Bitcoin mining is reduced in half every four years. The growing recognition of Bitcoin also attracts large investment into the Bitcoin economy, as evidenced by an increasing installed network hash rate of Bitcoin globally, and increasing adoption of Bitcoin as an investment instrument and a payment method. Further, more countries are establishing clear and robust regulations to create a stable environment for Bitcoin mining and trading, which may facilitate the demand for Bitcoins and Bitcoin price appreciation.

Despite the general appreciation potential of Bitcoin, there are a number of other factors that contribute to changes in Bitcoin price and volatility, including, but not limited to, Bitcoin market sentiment, macroeconomic factors, utility of Bitcoin, and idiosyncratic events such as exchange outages or social media, some of which are beyond our control. For example, decentralization, or the lack of control by a central authority, is a key reason that cryptocurrencies like Bitcoin have attracted many committed users. However, the decentralized nature of Bitcoin is subject to growing discussion and suspicion. Some claim that most of the actual services and businesses built within the Bitcoin ecosystem are in fact centralized since they are run by specific people, in specific locations, with specific computer systems, and that they are susceptible to specific regulations. Individuals, companies or groups, as well as Bitcoin exchanges that own vast amounts of Bitcoins, can affect the market price of Bitcoin. For example, throughout calendar year 2022, a number of companies in the digital assets industry have declared bankruptcy, including cryptocurrency exchanges FTX Trading Ltd., et al. (“FTX”) (including its affiliated hedge fund Alameda Research LLC), crypto hedge fund Three Arrows Capital (“Three Arrows”), crypto miners Compute North LLC (“Compute North”) and Core Scientific Inc. (“Core Scientific”) and crypto lenders Celsius Network LLC, et al. (“Celsius Network”), Voyager Digital Ltd., et al. (“Voyager Digital”) and BlockFi Inc., et al. (“BlockFi”). Such bankruptcies have led, at least in part, to a drop in Bitcoin price. Furthermore, mining equipment production and mining pool locations are becoming centralized. Some argue that the decentralized nature of cryptocurrencies is a fundamental flaw rather than a strength. The suspicion about the decentralized nature of Bitcoin may cause the market to lose confidence in the prospect of the Bitcoin industry, which would adversely affect Bitcoin price. This in turn could adversely affect the market demand for our services and business.

Any future significant reductions in the price of Bitcoin will likely have a material and adverse effect on our results of operations and financial condition. There is no assurance that the Bitcoin price will remain high enough to sustain the demand for our hash rate sharing and hosting services or that the Bitcoin price will not decline significantly in the future. Furthermore, fluctuations in the Bitcoin price can have an immediate impact on the trading price of Class A Ordinary Shares. If the Bitcoin price drops, the expected economic return of Bitcoin mining activities will diminish, thereby resulting in a decrease in demand for our Bitcoin-related services, and in value appreciation from our self-mining activities. As a result, we may need to reduce the price of our *Cloud Hash Rate* and hosting services. For risks relating to the impact of Bitcoin price fluctuation on our growth trends, see the section entitled “-We may be unable to execute our growth strategies or effectively maintain our rapid growth trends” below.

The supply of Bitcoins available for mining is limited and we may not be able to quickly adapt to new businesses when all the Bitcoins have been mined.

Bitcoins are inherently scarce, given they are designed to have a finite supply of 21 million associated with “halving” mechanism. The number of blocks that can be solved in a year is designed to be fixed, and the number of Bitcoins awarded for solving a block in the blockchain halves approximately every four years until the estimated complete depletion of Bitcoin available for mining by around 2140. When the Bitcoin network was first launched, the reward for validating a new block was 50 Bitcoins. In November 2012, the reward for validating a new block was reduced to 25 Bitcoins. In July 2016, the reward for validating a new block was reduced to 12.5 Bitcoins, and in May 2020, the reward was further reduced to 6.25 Bitcoins. The next halving for Bitcoin is expected in 2024 at block 840,000, when the reward will reduce to 3.125 Bitcoins. While the remaining Bitcoins are not designed to be entirely depleted in the near future, a decrease in the reward for solving a block or an increase in the transaction fees may result in a decrease in incentives for miners to continue their mining activities and the loss of Bitcoin’s dominant position among the cryptocurrencies, thereby reducing the demand for Bitcoin mining related services of us. As of the date of this annual report, the largest portion of our revenue was generated from our self-mining business and hash rate sales through *Cloud Hash Rate*, which are associated with Bitcoin mining. We may not be able to quickly adapt to new businesses or expand to other cryptocurrencies when all the Bitcoins have been discovered or Bitcoin is replaced by other cryptocurrencies as the mainstream cryptocurrency, which will result in a significant negative impact on our business and results of operations.

Although we have an organic way of growing our mining fleets, our business is nevertheless capital intensive. We may need additional capital but may not be able to obtain it in a timely manner and on favorable terms or at all.

The costs of constructing, developing, operating and maintaining cryptocurrency mining and hosting facilities, and owning and operating a large fleet of the latest generation mining equipment are substantial. Our operations may require additional capital or financing from time to time in order to achieve further growth. We may require additional cash resources due to the future growth and development of our business. Our future capital requirements may be substantial as we seek to expand our operations, diversify our product offering, and pursue acquisitions and equity investments. If our cash resources are insufficient to satisfy our cash requirements, we may seek to issue additional equity or debt securities or obtain new or expanded credit facilities or enter into additional factoring arrangements.

Our ability to obtain external financing in the future may be subject to a variety of uncertainties, including our future financial condition, results of operations, cash flows and the liquidity of international capital and lending markets. While we face less working capital constraints as we expand our hash rate sharing business, which generates quicker cash payback, the self-mining business is nevertheless capital intensive. We may need additional capital if Bitcoin price increases as it will likely push up prices for supplies required for the self-mining business. However, in light of conditions impacting the industry, it may be more difficult for us to obtain equity or debt financing currently and/or in the future. For instance, the crypto assets industry has been negatively impacted by events such as the bankruptcies of Compute North, Core Scientific, Alameda Research LLC, BlockFi, Celsius Network, Voyager Digital, Three Arrows and FTX throughout calendar year 2022. In response to these events, the digital asset markets, including the market for Bitcoin specifically, have experienced extreme price volatility and several other entities in the digital asset industry have been, and may continue to be, negatively affected, further undermining confidence in the digital assets markets and in Bitcoin. Any indebtedness that we may incur in the future may also contain operating and financial covenants that could further restrict our operations. There can be no assurance that financing will be available in a timely manner or in amounts or on terms acceptable to us, or at all. A large amount of bank borrowings and other debt may result in a significant increase in interest expense while at the same time exposing us to increased interest rate risks. Equity financings could result in dilution to our shareholders, and the securities issued in future financings may have rights, preferences and privileges that are senior to those of our ordinary shares. Any failure to raise needed funds on terms favorable to us, or at all, could severely restrict our liquidity as well as have a material adverse effect on our business, financial condition and results of operations.

We may not be able to maintain our competitive position as cryptocurrency networks experience increases in the total network hash rate.

As the relative market price of a cryptocurrency, such as Bitcoin, increases, more companies are encouraged to mine for that cryptocurrency and as more mining machines are added to the network, its total hash rate increases. In order for us to maintain our competitive position under such circumstances, we must increase our total hash rate by acquiring and deploying more mining machines, including new mining machines with higher hash rates. There are currently only a few companies capable of producing a sufficient number of machines with adequate quality to address the increased demand. If we are not able to acquire and deploy additional mining machines on a timely basis, our proportion of the overall network hash rate will decrease and we will have a lower chance of solving new blocks which will have an adverse effect on our business and results of operations.

We have experienced negative cash flows from operating activities and incurred net losses in the past. We can provide no assurance of our future operating results.

We had negative cash flows from operating activities in the amount of US\$52.5 million, US\$268.0 million and US\$271.8 million for the years ended December 31, 2021, 2022 and 2023, respectively. We incurred a net loss of US\$60.4 million and US\$56.7 million for the years ended December 31, 2022 and 2023, respectively, and generated a net profit of US\$82.6 million for the year ended December 31, 2021. We have generated negative cash flow from operating activities and incurred loss in the past, and there is no assurance that we will be able to generate positive cash flow from operating activities or achieve or subsequently maintain profitability in the future. We will need to generate and sustain increased revenue and net income levels in future periods in order to increase profitability, and, even if we do, we may not be able to maintain or increase our level of profitability over the long term. Our ability to achieve profitability and positive cash flow from operating activities will depend on a mix of factors, some of which are beyond our control, including the price of Bitcoin, our ability to operate and expand our business and manage our services mix, and our ability to secure favorable commercial terms from suppliers.

Our limited operating history and rapid revenue growth may make it difficult for us to forecast our business and assess the seasonality and volatility in our business.

We have achieved rapid growth since our inception. For the years ended December 31, 2021, 2022 and 2023, our total revenue amounted to US\$394.7 million, US\$333.3 million and US\$368.6 million, respectively. We may experience negative growth or positive growth at a lower rate for a number of possible reasons, including decreasing market price of cryptocurrencies, increasing competition, declining growth of the cryptocurrency industry, unforeseeable technology innovation, emergence of alternative mainstream cryptocurrencies, or changes in government policies, regulations or general economic conditions. It is also difficult to forecast seasonality and volatility in our business, and as a result accurately allocating resources including hash rate, mining datacenter capacity, or human capital to different business lines to achieve the best results in the medium or long term. If our growth rates decline, investors' perceptions of our business and business prospects may be adversely affected and the market price of our ordinary shares could decline. In addition, given the volatile nature of cryptocurrencies and that our business and financial condition correlate with the market price of cryptocurrencies, it is difficult to evaluate our business and future prospects based on our limited operating history or historical performance.

We have experienced and may experience in the future hash rate loss during our operations due to factors beyond our control.

We generate hash rate through operating our mining datacenters. To efficiently increase hash rate under management (i.e., proprietary hash rate and hosting hash rate), our efforts include constructing and expanding mining datacenters in prime locations globally, purchasing the latest mining machine models and continually optimizing operational efficiency of our mining datacenters and mining machines. However, hash rate generation is affected by factors beyond our control, including temperature, humidity, mining machine quality, the depreciation and deterioration of mining machines, the location of our mining machines globally, spare parts supply quality, quantity and timeliness, sudden surge in power price or sudden power outage, maintenance team members' lack of experience, unseen computer virus attack, etc. For example, we have experienced hash rate loss during 2021, primarily due to relocation of mining machines as well as unfavorable weather condition. In the future, we expect the risks of hash rate loss will remain, which may affect our business and results of operations.

We are subject to risks associated with our need for significant electric power and the limited availability of power resources, which could have a material adverse effect on our business, financial condition and results of operations.

Our business requires a significant amount of electric power. The costs of electric power account for a significant portion of our cost of revenue. We require a significant electric power supply to conduct our mining activity, to produce cloud hash rate and to provide hosting services such as powering and cooling our and our customers' servers and network equipment and operating critical mining and hosting infrastructure.

There has been a substantial increase in the demand for electricity for cryptocurrency mining, and this has had varying impacts on local electricity supply. Additionally, we currently rely on renewable sources of power and plan to increase our reliance on renewable sources of power in the future. Renewable power is generally an intermittent and variable source of electricity, which may not always be available. Because the electrical grid has very little storage capacity, the balance between electricity supply and demand must be maintained at all times to avoid a blackout or other cascading problem. Intermittent sources of renewable power are challenging because they disrupt the conventional methods for planning the daily operation of the electrical grid. Their power fluctuates over multiple time horizons, forcing the grid operator to adjust its day-ahead, hour-ahead, and real-time operating procedures.

The amount of power required by us and our customers will increase commensurately with the demand for our services and the increase in mining machines we operate for ourself and our hosting customers. Should our operations require more electricity than can be supplied in the areas where our mining facilities are located or should the electrical transmission grid and distribution systems be unable to provide the continuous, steady supply of electricity required, we may have to limit or suspend activities or reduce the speed of our proposed expansion, either voluntarily or as a result of either quotas imposed by energy companies or governments, or increased prices for certain users (such as the Company). If we are unable to procure electricity at a suitable price, we may have to shut down our operations in that particular jurisdiction either temporarily or permanently. Therefore, increased power costs and limited availability and curtailment of power resources will reduce our revenue and have a material and adverse effect on our cost of revenue and results of operations. Although we aim to build and operate energy efficient facilities, there can be no assurance such facilities will be able to deliver sufficient power to meet the growing needs of our business. If we are unable to receive adequate power supply and is forced to reduce our operations due to the availability or cost of electrical power, our business would experience materially negative impacts.

Certain government actors have begun to intervene with the supply of electrical energy to cryptocurrency miners. For example, on March 9, 2023, the Department of the Treasury published General Explanations of the Administration's Fiscal Year 2024 Revenue Proposals, in which it proposed imposing a 30% excise tax on electricity usage by digital asset miners. Governments or government regulators may potentially restrict electricity suppliers from providing electricity to mining datacenter in times of electricity shortage increase the cost, including through taxation, of, electricity, or may otherwise potentially restrict or prohibit the provision of electricity to businesses like us. In the event government regulators issue moratoriums or impose bans or restrictions involving hosting operations or transaction processing in jurisdictions in which we operate, we will not be able to continue our operations in such jurisdictions. A moratorium ban or restriction could have a material adverse effect on our business, financial condition and results of operations.

Additionally, our cryptocurrency mining machines would be materially adversely affected by a power outage. Energy costs and availability are vulnerable to risks of outages and power grid damage as a result of inclement weather, animal incursion, sabotage and other events out of our control. Because the mining portion of our business consumes a large amount of energy, it is not practical or economical for our operations to run on back-up generators in the event of a power outage, which may be caused by weather, acts of God, wild fires, pandemics, falling trees, falling distribution poles and transmission towers, transmission and distribution cable cuts, other force majeure events in the electricity and natural gas markets and/or the negligence or malfeasance of others. Any system downtime resulting from insufficient power resources or power outages could have a material adverse effect on our business, financial condition and results of operations.

If we fail to accurately estimate the factors upon which we base our contract pricing, we may generate less profit than expected or incur losses on those contracts, which could have a material adverse effect on our business, financial condition and results of operations.

Our cloud hash rate and hosting contracts are generally priced taking into account various factors including the then Bitcoin price, network hash rate, purchase cost of mining machines, estimated power consumption by our clients, along with other costs of products or services, as adjusted for actual costs. Our ability to earn a profit on such contracts requires that we accurately estimate the costs involved and outcomes likely to be achieved and assess the probability of generating sufficient hosting and colocation capacity within the contracted time period. Our pricing of hash rates may cause significantly lower income than we could have generated through using the same hash rates for self-mining. We may also not be able to accurately forecast the outcome of selling our products and services at a particular price and the inability to accurately estimate the factors upon which we base our contract pricing could have a material adverse effect on our business, financial condition and results of operations.

We have broad discretion regarding pricing strategy and resource allocation and may exercise related business judgments in a way that you may not agree with. Such judgments may not achieve the best possible outcome for our business operations.

Our business operations involve constant and important decision-making regarding the pricing of our services and allocation of mining resources. We take into account our estimates of market trends when determining pricing strategies. To achieve profitability in the long run, we may offer lower price in order to acquire and retain new customers, even if this pricing does not allow us to maximize our short-term revenue. As we operate three business lines, we have to decide the allocation of proprietary hash rate between “self-mining” and “hash rate sharing” as well as the allocation of mining datacenter capacity among “self-mining,” “hash rate sharing” and “hosting.” While allocating more mining resources to “hash rate sharing” and “hosting” services may facilitate cash payback and mining datacenter expansion while lower risk exposure associated with Bitcoin price volatility, we have to forgo our huge appreciation potential to some extent as we could earn more Bitcoins by allocating the same mining resources to “self-mining,” and vice versa. We spend great efforts in making these business decisions in the Company’s best interest, taking into account Bitcoin price, network hash rate, the amount of cash we need and our view on the market opportunities for acquiring mining machines or expanding mining datacenters at low cost, etc. However, we cannot guarantee that our decisions could generate the most revenue or offer the strongest downside protection for the Company. If we cannot accurately estimate any of the aforementioned factors upon which we base, our contract pricing could have a material adverse effect on our business, financial condition and results of operation.

We face intense competition and our competitors may employ aggressive pricing strategies, which can lead to a price reduction of our solutions and services and material adverse effect on our results of operations.

We operate in highly competitive industries for cryptocurrency mining and related services, and we may look to enter into markets with very competitive landscapes. Our competitors include many well-known worldwide players, and we face competitors that are larger than ourselves and have advantages over ourselves in terms of economies of scale and financial and other resources. We expect that competition in our markets will continue to be intense. Some of our competitors may also have stronger brand names, greater access to capital, longer histories, longer relationships with their suppliers or customers and more resources than we do. Furthermore, these competitors may be able to adapt to changes in the industry more promptly and efficiently. Intense competition from existing and potential competitors could result in material price reductions in the products we sell or a decrease in our market share. Aggressive pricing strategies by our competitors and an abundant supply of hash rate sharing or hosting services in the market may cause us to reduce the prices of our services and also negatively affect the demand for our services or harm our profitability. If we fail to compete effectively and efficiently or fail to adapt to changes in the competitive landscape, our business, financial condition, and results of operations may be materially and adversely affected.

The average selling prices of our solutions and services may fluctuate from time to time due to technological advancement and we may not be able to pass onto our machine suppliers such decreases, which may in turn adversely affect our profitability.

The Bitcoin-related industry is characterized by rapid launches of new products, continuous technological advancements and changing market trends and customer preferences, all of which may translate to fluctuations in the average selling prices of products or services over time. Because we compete in an environment of rapidly evolving technology advancement, market trends and developments of the hash rate sharing and hosting industry, there is no assurance that we will be able to pass on any decrease in average selling prices of our services to our suppliers in a timely manner or at all. In the event that average selling prices of our services unusually or significantly decrease, and such decreases cannot be offset by a corresponding decrease in the prices of the principal components of our services, our gross profit margins may be materially and adversely affected.

There are uncertainties over the outcome of our mining operations.

Our mining operation comprises blockchain mining technologies that depend on a network of computers to run certain software programs to solve complex transactions in competition with other mining operations and to process transactions. Because of this less centralized model and the complexity of our mining operation, there are uncertainties over the likelihood of winning a block reward and hence the outcome of our mining operations. While we participate in mining pools to combine our mining operations with other mining participants to increase processing power to solve blocks, there can be no assurance that such pools will adequately address this risk.

The development of blockchain technology and cryptocurrency is in its early stage and any adverse development in the cryptocurrency or blockchain market could adversely affect our business and results of operations.

Blockchain is a voluntary open network that can be used by anyone with devices connected to the internet. It allows every node to create immutable data, transparent record of transactions and peer-to-peer transactions in an efficient, secure and trust-free manner. Because of such advantages, blockchain can be applied to various industries and activities, such as cryptocurrency, payment, financial services, Internet-of-Things (IoT), cloud computing and cybersecurity, among others. However, there can be no assurance of such acceptance in the society. There may not be strong market demand for our mining services as a key and important process during the application process of blockchain technology, and our prospects, business and results of operations can be materially and adversely affected.

Adverse developments in the blockchain industry could lead to a decrease in the demand for hash rate products and hosting resources, which could have a material adverse effect on our business, financial condition and results of operations.

We face risks including those related to:

- a decline in the adoption and use of Bitcoin and other similar cryptocurrencies within the technology industry or a decline in value of cryptocurrencies;
- increased costs of complying with existing or new government regulations applicable to cryptocurrencies and other factors;
- a downturn in the market for blockchain hosting space generally, which could be caused by an oversupply of or reduced demand for blockchain space;
- any transition by our customers of blockchain hosting from third-party providers like the Company to customer-owned and operated facilities;
- the rapid development of new technologies or the adoption of new industry standards that render us or our customers' current products and services obsolete or unmarketable and, in the case of our customers, that contribute to a downturn in their businesses, increasing the likelihood of a default under their service agreements or their becoming insolvent;
- a slowdown in the growth of the internet generally as a medium for commerce and communication;
- availability of an adequate supply of new generation cryptocurrency mining equipment to enable us to mine cryptocurrencies at scale and for customers who want to purchase hash rate from us or host with us to be able to do so; and

- the degree of difficulty in mining cryptocurrencies and the trading price of such assets.

Additionally, Bitcoin, a mainstream cryptocurrency based upon blockchain technology, was first introduced in 2008 and is generally regarded as the first application of the blockchain technology. The Bitcoin network and its surrounding ecosystem is still in a relatively early development stage. Cryptocurrencies have only recently become selectively accepted as a means of payment for goods and services by many industries, and use of cryptocurrency by consumers to pay in such industries remains limited. In addition, there may be some jurisdictions that restrict the use of Bitcoins and other cryptocurrencies as a medium of exchange and the conversion between cryptocurrencies and fiat currencies. There is no assurance that usage of cryptocurrencies, in particular Bitcoins, will continue to grow. As our business focuses on proprietary cryptocurrency mining and serving cryptocurrency miners, and relies heavily on the cryptocurrency market, any lack of usage of or fade in the public interest for cryptocurrency may adversely affect our business, future prospects, results of operations and financial condition.

We are subject to risks associated with legal, political or other conditions or developments regarding holding, using or mining of cryptocurrencies, in particular Bitcoins, which could negatively affect our business, results of operations and financial position.

Our customers are based globally. As such, changes in government policies, taxes, general economic and fiscal conditions, as well as political, diplomatic or social events, expose us to financial and business risks. In particular, changes in policies and laws regarding holding, using and/or mining of Bitcoins could result in an adverse effect on our business operations and results of operations. Moreover, if any international jurisdiction where we operate mining datacenters or sell our Bitcoin mining related services prohibits or restricts Bitcoin mining activities, we may face legal and other liabilities and will experience a material loss of revenue.

There are significant uncertainties regarding future regulations pertaining to the holding, using or mining of Bitcoins, which may adversely affect our results of operations. While Bitcoin has gradually gained more market acceptance and attention, it is anonymous and may be used for black market transactions, money laundering, illegal activities or tax evasion. As a result, governments may seek to regulate, restrict, control or ban the mining, use and holding of Bitcoins. Our existing policies and procedures for the detection and prevention of money laundering and terrorism-funding activities through our business activities have only been adopted in recent years and may not completely eliminate instances in which we or our services may be used by other parties to engage in money laundering and other illegal or improper activities. We are subject to anti-money laundering laws in many jurisdictions in which we operate. We cannot assure you that there will not be a failure in detecting money laundering or other illegal or improper activities which may adversely affect our reputation, business, financial condition and results of operations.

With advances in technology, cryptocurrencies are likely to undergo significant changes in the future. It remains uncertain whether Bitcoin will be able to cope with, or benefit from, those changes. In addition, as Bitcoin mining employs sophisticated and high computing power devices that need to consume a lot of electricity to operate, future developments in the regulation of energy consumption, including possible restrictions on energy usage in the jurisdictions where we sell our products or services, may also affect our business operations and the demand for our current and future mining related products or services, including cloud hash rate, hosting and *Minerplus*. There have been public backlashes surrounding the environmental impacts of Bitcoin mining, particularly the large consumption of electricity, and governments of various jurisdictions have responded. For example, in the United States, certain local governments of the State of Washington have discussed measures to address environmental impacts of Bitcoin-related operations, such as the high electricity consumption of Bitcoin mining activities.

Substantial increases in the supply of mining machines connected to the Bitcoin network would lead to an increase in network hash rate capacity, which in turn would increase mining difficulty. This development would negatively affect the economic returns of Bitcoin mining activities, which would decrease the demand for and/or pricing of our products and services.

The difficulty of Bitcoin mining, or the amount of computational resource required for a set amount of reward for recording a new block, directly affects the expected economic returns for Bitcoin miners, which in turn affects our self-mining business and the demand for our Bitcoin mining related products and services including hash rate sharing and hosting. Bitcoin mining difficulty is a measure of how much computing power is required to record a new block and it is affected by the total amount of computing power in the Bitcoin network. The Bitcoin algorithm is designed to the effect that one block is generated, on average, every ten minutes, no matter how much computing power is in the network. Thus, as more computing power joins the network, and assuming the rate of block creation does not change (remaining at one block generated every ten minutes), the amount of computing power required to generate each block and hence the mining difficulty increases. In other words, based on the current design of the Bitcoin network, Bitcoin mining difficulty would increase together with the total computing power available in the Bitcoin network, which is in turn affected by the number of Bitcoin mining machines in operation. As a result, a strong growth in promotion of Bitcoin computing power supply services can contribute to further growth in the total computing power in the network, thereby driving up the difficulty of Bitcoin mining and resulting in downward pressure on the expected economic return of Bitcoin mining and the demand for, and pricing of, our products and services.

While we plan to install our own mining machines as part of our plan to expand our self-mining business, our business is highly dependent on acquiring a sufficient number of cryptocurrency mining equipment from our suppliers. We may not be able to obtain new mining hardware or purchase such hardware at competitive prices during times of high demand, which could have a material adverse effect on our business, financial condition and results of operations.

While we plan to install our own mining machines as part of our plan to expand our self-mining business, our business is highly dependent upon cryptocurrency mining equipment suppliers providing an adequate supply of new generation cryptocurrency mining machines at economical prices to support our self-mining, hash rate sharing and hosting business lines and our customers' mining activities. The growth in our business is directly related to increased demand for hosting services and cryptocurrencies such as Bitcoin which is dependent in large part on the availability of new generation mining machines offered for sale at a price conducive to profitable cryptocurrency mining, as well as the trading price of cryptocurrencies such as Bitcoin. The market price and availability of new mining machines fluctuates with the price of Bitcoin and can be volatile.

Historically, an increase in interest and demand for cryptocurrencies has led to a shortage of mining hardware and increased prices. In addition, as more companies seek to enter the mining industry, the demand for machines may outpace supply and create mining machine equipment shortages. There is no assurance that cryptocurrency mining equipment suppliers will be able to keep pace with any surge in demand for mining equipment. We and our customers and the potential customers of our hosting service may in the future experience difficulty in obtaining new equipment or replacement components for our and their existing equipment, including graphics processing units and application-specific integrated circuit chipsets and computer servers, which in the future may have, a material impact on the demand for our products and services and associated revenue. Further, we may have little or no recourse in the event a mining machine manufacturer or distributor defaults on our mining machine delivery commitments. If we and our customers are not able to obtain a sufficient number of cryptocurrency mining machines at favorable prices, our growth expectations, liquidity, financial condition and results of operations will be negatively impacted.

We rely on supplies from a single or a group of third-party electricity, mining pool services and mining machines providers, and any negative incidents caused by actions taken by them that are outside of our control may adversely impact our business and results of operations.

To some extent, we currently rely on a single or a group of third-party suppliers and service providers to provide quality services to customers. Our brand and reputation may be harmed by actions taken by such third parties that are outside of our control. For example, we are currently contracting with one electricity supplier to support each of our mining datacenters in Norway, as well as Texas, Tennessee and Washington in the United States, respectively. Pursuant to our agreement with our electricity supplier for the mining datacenter in Hustadvika municipality, Norway, we agree to purchase power at the amount and price designated in the contract, during the period from January 1, 2022 to December 31, 2024, which is the term of this agreement. Pursuant to our agreement with our electricity supplier for the mining datacenter in Tydal municipality, Norway, we agree to purchase power at the amount and price designated in the contract, during the period from September 1, 2022 to December 31, 2024, which is the term of this agreement. Both agreements can be completely terminated with zero load ending at midnight of the final day in each quarter. Pursuant to our agreement with our electricity supplier for the mining datacenter in Texas, the supplier shall provide electricity to meet full electricity requirements of the two electricity service accounts identified by us. This contract is effective through December 31, 2027 and is terminable in the event of default. Pursuant to our agreement with our electricity supplier for mining datacenter in Tennessee, the supplier shall make power available to us in the amount designated in the contract. Valid through July 31, 2026, this contract is automatically renewed for additional five years upon expiration of the initial term, unless either party notifies the other in writing not less than 60 days prior to the expiration date of the initial term or any renewal term of its desire to terminate this contract on such expiration date. Pursuant to our agreement with our electricity supplier for mining datacenter in Washington, the supplier shall provide power and associated energy to meet our demand at rates that are subject to adjustment, modification, change or replacement from time to time. This contract remains effective until terminated upon six months prior written notice by us. While we believe that alternative suppliers are readily available in the market, changing to a new supplier may require additional costs and time. We also source mining machines from a wide variety of manufacturers and traders with whom we have built relationships over the years. The prices of mining machines were negotiated on an individual basis, and the agreements typically allow for termination upon either party's uncured material breach, suspension of all or a substantial part of its business, deterioration of its financial position, or upon insolvency proceedings against either party. In addition, these agreements may include indemnification provisions either for benefit of us, or for benefit of the manufacturers and traders. Each agreement requires manufacturers and traders to repair or replace the defective part/component of mining machines at no charge to us. Despite the measures we have taken to ensure the quality of products and services provided by third-party suppliers and service providers, to the extent they are unable to maintain their production facilities' efficiency, supply sufficient products in a timely manner, or provide satisfactory products and services to our customers, which may be due to events that are beyond our or their control, such as manufacturing defects, we may suffer reputational damage, and our business, financial condition and results of operations may be materially and adversely affected. While we have not experienced such incidents that had a material adverse impact on our business as of the date of this annual report, as such incidents are beyond our control, there is no assurance that such incidents will not occur in the future regardless of the measures we have taken, and will take, to maintain the quality products and services provided by third-party suppliers and service providers. If we are unable to effectively address these risks, our brand image, reputation and financial performance may be materially and adversely affected.

Additionally, we utilize third-party mining pools to receive our mining rewards from a given network. Mining pools allow mining participants to combine their processing power, which increases the chances of solving a block and getting paid by the network. The rewards are distributed by the pool operators, proportionally to our contribution to the pools' overall mining power used to solve a block. We entered into agreements with mining pool operators who deliver cryptocurrency rewards to accounts of us or our customers in exchange for hash rate provided by us and our *Cloud Hash Rate* customers. The agreements are terminable through mutual agreement between both parties or due to a breach of the contract which is not cured within two days upon receiving notice from the non-breaching party. Due to the competitiveness of the global mining pool industry, we believe that we will be able to promptly access alternative mining pools if needed. Nevertheless, we are dependent on the accuracy of a mining pool operator's record keeping to accurately record the total processing power provided to the pool for a given Bitcoin or other cryptocurrency mining application in order to assess the proportion of that total processing power we provided. While we have internal methods of tracking both our power provided and the total power used by the pool, the mining pool operator uses its own record-keeping to determine our proportion of a given reward. We have little means of recourse against the mining pool operator if we determine the proportion of the reward paid out to us by a mining pool operator is incorrect, other than leaving the pools or entering into a lengthy negotiation with the third-party mining pools to get back the fair rewards. If we are unable to consistently obtain accurate proportionate rewards from our mining pool operators, we may experience reduced reward for our efforts, which would have an adverse effect on our business and operations.

Failure to keep our solutions and services up-to-date in line with the approximate level of market demand could cause us to lose sales, which could have a material adverse effect on our business, financial condition and results of operations.

In order to operate our business successfully and meet the demands and expectations of our customers, we must maintain a certain level of equipment, including but not limited to mining machines, to sustain large scale service when required. Furthermore, we are required to maintain an appropriate level of equipment for any unexpected emergency substitute or in preparation of potential outage and sudden service loss. However, forecasts are inherently uncertain. If our forecasted demand is lower than actual demand or our risk estimate is much sufficient, we may not be able to provide our customers with sufficient hash rate sharing or hosting services in a timely manner, and we may lose sales and market share to our competitors.

We may be unable to execute our growth strategies or effectively maintain our rapid growth trends.

We have experienced growth and expanded our business in recent years. We recorded total net revenue of US\$394.7 million, US\$333.3 million and US\$368.6 million in 2021, 2022 and 2023, respectively. We incurred a net loss of US\$60.4 million and US\$56.7 million for the years ended December 31, 2022 and 2023, respectively, and generated a net profit of US\$82.6 million for the year ended December 31, 2021. We may not be able to grow our revenue and achieve profitability in the future if we are not able to successfully execute our product development and diversification, geographic expansion and other growth plans. In addition, our rapid growth has placed and will continue to place significant demands on our management and our administrative, operational, research and development and financial resources.

To accomplish our growth strategies and manage the future growth of our operations, we will be required to enhance our research and development capabilities, improve our operational and financial systems, and expand, train and manage our growing employee base. Furthermore, we need to maintain and expand our relationships with our customers, suppliers, research institutions, third-party manufacturers and other third parties. Moreover, as we introduce new products or services or enter new markets, we may face new market, technological, operational and regulatory risks and challenges with which we are unfamiliar. Our current and planned operations, personnel, systems, internal procedures and controls may not be adequate to support our future growth and expansion. In addition, the success of our growth strategies depends on a number of external factors, such as the development of the cryptocurrency market and the demand for Bitcoin, the level of competition we face and evolving customer behavior and preferences. If we are unable to execute our growth strategies or manage our growth effectively, we may not be able to capture market opportunities or respond to competitive pressures, which may materially and adversely affect our business prospects and results of operations.

Moreover, our ability to generate profits and/or positive cash flow is correlated to the current and future market prices of cryptocurrencies and a decline in the market prices for cryptocurrencies could negatively impact our future operations. However, we believe that, as compared to many other participants in the crypto assets markets, we are more resilient to cryptocurrency price volatility as our “hash rate sharing” and “hosting” businesses allow us to smooth the impact of cryptocurrency price volatility.

In addition, we also face risks associated with the expansion of our operations overseas. See the section entitled “- We face risks associated with the expansion of our scale of operations globally, and if we are unable to effectively manage these risks, they could impair our ability to expand our business abroad.” If we are not able to manage our growth or execute our strategies effectively, our expansion may not be successful and our business and prospects may be materially and adversely affected.

We face risks associated with the expansion of our scale of operations globally, and if we are unable to effectively manage these risks, they could impair our ability to expand our business abroad.

We operate our business globally, with customers and suppliers located in various countries. As we continue to grow our business and expand our operations globally, we will continue to sell our products and services into new jurisdictions in which we have limited or no experience and in which our brands may be less recognized. Our global operation exposes us to a number of risks, including:

- a limited customer base and limited sales and relationships with international customers;
- difficulty in managing multinational operations;
- competitors in overseas markets who have stronger ties with local customers and greater resources;
- fluctuations in currency exchange rates;
- challenges in providing customer products and services and support in these markets;
- challenges in managing our overseas sales force and implementing sales strategies effectively;

- unexpected transportation delays or interruptions or increases in international transportation costs;
- difficulties in and costs of exporting products overseas while complying with the different commercial, legal and regulatory requirements of the overseas markets in which we offer our products and services;
- regulations, changes to regulation, regulatory uncertainty in or inconsistent regulations across various jurisdictions that may implicate cryptocurrency mining and other cryptocurrency activities;
- difficulty in ensuring the compliance with the sanctions imposed by The Office of Financial Assets Control of the U.S. Department of Treasury (“OFAC”), the European Union or the United Nations Security Council on various foreign states, organizations and individuals;
- inability to obtain, maintain or enforce intellectual property rights in all the jurisdictions we operate in;
- inability to effectively enforce contractual or legal rights or intellectual property rights in certain jurisdictions under which we operate;
- changes in a specific country or region’s political or economic conditions or policies; and
- governmental policies favoring domestic companies in certain foreign markets or trade barriers including export requirements, tariffs, taxes and other restrictions and charges. In particular, there have been concerns over the worldwide populism trend that call for protectionism trade policy and potential international trade disputes, all of which could cause turbulence in the international markets. These government policies or trade barriers could increase the prices of our products and services and make us less competitive in such countries.

If we are unable to effectively manage these risks, our ability to operate and expand our business will be impaired, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

As we continue to expand and localize our international activities, our obligations to comply with the laws, rules, regulations and policies of a variety of jurisdictions will increase and we may be subject to investigations and enforcement actions by U.S. and non-U.S. regulators and governmental authorities.

As we expand and localize our international activities, we have become increasingly obligated to comply with the laws, rules, regulations, policies and legal interpretations not only the jurisdictions in which we operate but also those into which we offer services on a cross-border basis. Laws regulating financial services, the internet, mobile technologies, crypto, and related technologies outside the United States often impose different, more specific, or even conflicting obligations on us, as well as broader liability.

Regulators worldwide frequently study each other’s approaches to the regulation of the crypto economy. Consequently, developments in any jurisdiction may influence other jurisdictions. New developments in one jurisdiction may be extended to additional services and other jurisdictions. As a result, the risks created by any new law or regulation in one jurisdiction are magnified by the potential that they may be replicated, affecting our business in another place or involving another service. Conversely, if regulations diverge worldwide, we may face difficulty adjusting our products, services, and other aspects of our business with the same effect. These risks are heightened as we face increased competitive pressure from other similarly situated businesses that engage in regulatory arbitrage to avoid the compliance costs associated with regulatory changes.

The complexity of U.S. federal and state and international regulatory and enforcement regimes, coupled with the global scope of our operations and the evolving global regulatory environment, could result in a single event prompting a large number of overlapping investigations and legal and regulatory proceedings by multiple government authorities in different jurisdictions. Any of the foregoing could, individually or in the aggregate, harm our reputation, damage our brands and business, and adversely affect our operating results and financial condition. Due to the uncertain application of existing laws and regulations, it is possible that, despite our regulatory and legal analysis concluding that certain products and services are currently unregulated, such products or services may indeed be subject to financial regulation, licensing, or authorization obligations that we have not obtained or with which we have not complied. As a result, we are at a heightened risk of enforcement action, litigation, regulatory, and legal scrutiny which could lead to sanctions, cease, and desist orders, or other penalties and censures which could significantly and adversely affect our continued operations and financial condition.

Delays in the expansion of existing mining datacenters or the construction of new mining datacenters or significant cost overruns could present significant risks to our business and could have a material adverse effect on our business, financial condition and results of operations.

The daily operations of all our business lines require the support of our mining datacenters, with a highly specialized infrastructure and considerable, reliable power in order to compete effectively. We intend to increase our mining capacity and increase substantially the number of mining machines we operate. In order to meet our financial plan, we need to expand our existing mining datacenters or obtain suitable land to build new mining datacenters. We may face challenges in obtaining suitable land, as we need to work closely with the local power suppliers and local governments of the places where our proposed facilities are located. Delays in actions that require the assistance of such third parties, in receiving required permits and approvals or in mediations with local communities, if any, may negatively impact our construction timelines and budget or result in any new facilities not being completed at all.

We plan to expand our footprints to more mining datacenters across the globe to increase our total capacity to approximately 1,970MW, including 575MW power supply currently under construction and 500MW power supply “in the pipeline,” contracted or negotiated but not yet under active construction, as of February 29, 2024. Such expansion and construction require us to rely on the experience of one or more designers, general contractors and subcontractors, and such designers or contractors may experience financial or other problems during the design or construction process. We may also experience quality control issues as we implement any upgrades in our hosting capacity through the installation and maintenance of chipsets and servers or new cooling technologies such as immersion and water curtain cooling. Our business will be negatively impacted if we are unable to run our mining operations in a way that is technologically advanced, economically and energy- efficient and temperature controlled. If we are unsuccessful, we will damage our mining machines and the mining machines of third parties and the profitability of our mining operations.

If we experience significant delays in the supply of power required to support any mining datacenter expansion or construction, the progress of such projects could deviate from our original plans, which could cause material and negative effects on our revenue growth, profitability and results of operations. Any material delay in completing these projects, or any substantial cost increases or quality issues in connection with these projects, could materially delay our ability to supply cloud hash rate and deliver our hosting capacity, cause us to incur penalties under hosting contracts, result in reduced order volume and materially adversely affect our business, financial condition and results of operations.

Any failure of our solutions or services to meet the necessary quality standards could adversely affect our reputation, business and results of operation.

The quality of the products and services we are providing is critical to the success of our business and depends significantly on the effectiveness of our and our manufacturing service providers’ quality control systems. In our efforts to quickly meet new market trends and demand and adopt new technologies, our products and services may not have adequate time to go through our normal rigorous testing procedures and final inspection, which could result in instances where our products and services cannot reach the required performance standard, or our products and services are found to be defective or significantly unsatisfying. These instances could result in our customers suffering losses. Defects detected before products and services performance to our customers may result in additional costs for remediation and rework. Defects detected after the performance of our products and services may result in our incurring further costs relating to inspection, installation or remediation, which may result in damages to our reputation, loss of customers, government fines and disputes and litigation.

On the other hand, we may have to turn to less reputable suppliers if we cannot source adequate equipment or other supplies from our regular suppliers. Under such circumstances, the quality of the equipment may suffer and could cause performance issues in our products and services. Shortages of supplies could result in reduced production or delays in production, as well as an increase in costs, which may negatively affect our abilities to fulfill orders or provide timely services to customers, as well as our customer relationships and profitability. Supplies shortages may also increase our costs of revenue because we may be required to pay higher prices for products in short supply, without being able to pass such cost to customers. As a result, our business, results of operations and reputation could be materially and adversely affected.

Power outage or shortages, labor disputes and other factors may result in constraints on our business activities.

Historically, we have not experienced constraints on our business activities, including at our mining datacenters, due to power outage or shortages, labor disputes or other factors. However, there can be no assurance that our operations will not be affected by power outage or shortages, labor disputes or other factors in the future, thereby causing material disruptions and delays in our delivery schedule. In such an event, our business, results of operations and financial condition could be materially and adversely affected.

If we are unable to maintain or enhance our brand recognition, our business, financial condition and results of operations may be materially and adversely affected.

Maintaining and enhancing the recognition, image and acceptance of our brand are important to our ability to differentiate our products and services from and to compete effectively with our peers. As we rely heavily on word-of-mouth branding, our brand image could be jeopardized if we fail to maintain high product and service quality, pioneer and keep pace with evolving technology trends, or timely fulfil the orders for our products and services. If we fail to promote our brand or to maintain or enhance the brand recognition and awareness among our customers, or if we are subject to events or negative allegations affecting our brand image or publicly perceived position of our brand, our business, operating results and financial condition could be adversely affected.

We may be at a higher risk of litigation and other legal proceedings due to heightened regulatory scrutiny of the cryptocurrency industry, which could ultimately be resolved against us, requiring material future cash payments or charges, and accordingly impair our financial condition and results of operations.

The size, nature and complexity of our business could make us susceptible to various claims, both in litigation and binding arbitration proceedings, legal proceedings, and government investigations, due to the heightened regulatory scrutiny following the disruptions in the crypto asset markets in 2022. We believe that since cryptocurrency mining, and the digital asset industry generally, is a relatively new business sector, we are more likely subject to government investigation and regulatory determination, particularly following the cryptocurrency market participant bankruptcies throughout calendar year 2022 described elsewhere herein. Any claims, regulatory proceedings or litigation that could arise in the course of our business could have a material adverse effect on us, our business or operations, or the industry as a whole.

We may not be able to adequately protect our intellectual property rights and other proprietary rights, which could have a material adverse effect on business, financial condition and results of operations.

We may not be able to obtain broad protection in Singapore, the United States or internationally for all of our existing and future intellectual property and other proprietary rights, and we may not be able to obtain effective protection for our intellectual property and other proprietary rights in every country in which we operate. Protecting our intellectual property rights and other proprietary rights may require significant expenditure of our financial, managerial and operational resources. Moreover, the steps that we may take to protect our intellectual property and other proprietary rights may not be adequate to protect such rights or prevent third parties from infringing or misappropriating such rights. Any of our intellectual property rights and other proprietary rights, whether registered, unregistered, issued or unissued, may be challenged by others or invalidated through administrative proceedings and/or litigation.

We may be required to spend significant resources to secure, maintain, monitor and protect our intellectual property rights and other proprietary rights. Despite our efforts, we may not be able to prevent third parties from infringing upon, misappropriating or otherwise violating our intellectual property rights and other proprietary rights. We may initiate claims, administrative proceedings and/or litigation against others for infringement, misappropriation or violation of our intellectual property rights or other proprietary rights to enforce and/or maintain the validity of such rights. Any such action, if initiated, whether or not it is resolved in our favor, could result in significant expense to us, and divert the efforts of our technical and management personnel, which may have a material adverse effect on our business, financial condition and results of operations.

We may face intellectual property infringement claims or other related disputes, which could be time-consuming, costly to defend or settle and result in the loss of significant rights and lower sales.

As is typical in the cryptocurrency industry, we may be subject to infringement claims from time to time or otherwise become aware of potentially relevant patents or other intellectual property rights held by other parties that may cover some of our technology, products and services. The cryptocurrency industry is characterized by companies that hold large numbers of patents and other intellectual property rights and that vigorously pursue, protect and enforce these rights. Patent litigation has increased in recent years owing to increased assertions made by intellectual property licensing entities and increasing competition and overlap of product functionality in our markets. Additionally, we have in the past entered and may continue in the future to enter into licensing agreements with third parties for the use of their proprietary technologies, primarily software development tools, in the development of our products and services. As with any business relationship, we may face disputes and lawsuits related to those intellectual property licensing agreements. As our operations continue to grow in size and scale, the likelihood of us becoming involved in intellectual property related lawsuits and disputes to protect or defend our intellectual property rights and the use of third-party intellectual property rights will increase.

In addition, it is extremely difficult for us to monitor all of the patent applications that have been filed in the United States or in other countries or regions and whether, if such pending patents are granted, such patents would have a material and adverse effect on our business if our service offering were to infringe upon them.

Other third parties may file claims against us or our customers alleging that our products and services, processes, or technologies infringe third-party patents or IP rights. Regardless of their merits or resolutions, such claims could be costly to defend or settle and could divert the efforts and attention of our management and technical personnel. In addition, some of our customer agreements in the future may require us to indemnify and defend our customers from third-party infringement claims and to pay damages in the case of adverse rulings. As such, claims of this sort also could harm our relationships with our customers and may deter future customers from doing business with us. We do not know whether we could prevail in any such proceeding given the complex technical issues and inherent uncertainties involved in intellectual property litigation. If any pending or future proceedings result in an adverse outcome, we could be required to:

- cease the use of the infringing equipment, processes or technologies;
- stop providing products and services to certain geographic areas;
- pay substantial damages for infringement;
- expend significant resources to develop non-infringing processes, technologies or products;
- license technology from the third-party claiming infringement, which license may not be available on commercially reasonable terms, or at all;
- cross-license our technology to a competitor in order to resolve an infringement claim, which could weaken our ability to compete with that competitor; or
- pay substantial damages to our customers to disruption of products and services they subscribed or replace the type of series with non-infringing equipment involved.

Any of the foregoing results could have a material adverse effect on our business, financial condition and results of operations.

The loss of any member of our senior management team, or our failure to attract, train and retain qualified personnel, especially our design and technical personnel, could impair our ability to grow our business and effectively execute our business strategy.

Since our inception, the growth and expansion of our business operations have been dependent upon the business strategies and foresight of our senior management. Our future success depends, in a large part, on the continued contributions of our senior management team, specifically Mr. Jihan Wu. In addition, our future success depends on our ability to retain, attract and incentivize qualified personnel, including our management, sales, marketing, finance and especially research and development personnel. As the driver of our technological and product innovations, our research and development personnel represent a very significant asset of us. As the technology in the cryptocurrency industry is advancing at a quick pace, there is an increasing need for skilled engineers. Many companies across the world are struggling to find suitable candidates for their research and development positions. The process of hiring employees with the combination of skills and characteristics required to implement our strategy can be extremely competitive and time-consuming. We cannot assure you that we will be able to attract adequate personnel as we continue to pursue our business strategies.

Moreover, there is no assurance that we will be able to retain key existing employees. The loss of any of our founder, senior management or research and development team members could harm our ability to implement our business strategies and respond to the rapidly changing market conditions in which we operate, or could result in other operating risks. The loss of one or more of our key employees, especially our key design and technical personnel, or our inability to retain, attract and motivate qualified designs and technical personnel, could have a material adverse effect on our business, financial condition and results of operations.

We may be vulnerable to security breaches, which could disrupt our operations and have a material adverse effect on our business, financial condition and results of operations.

A party who is able to compromise the physical security measures protecting our facilities could cause interruptions or malfunctions in our operations and misappropriate our property or the property of our customers. Such a compromise could be particularly harmful to our brand and reputation. We may be required to expend significant capital and resources to protect against such threats or to alleviate problems caused by breaches in security. As techniques used to breach security change frequently and are often not recognized until launched against a target, we may not be able to implement new security measures in a timely manner or, if and when implemented, we may not be certain whether these measures could be circumvented. Any breaches that may occur could expose us to increased risk of lawsuits, regulatory penalties, loss of existing or potential customers, harm to our reputation and increases in our security costs, which could have a material adverse effect on our business, financial condition and results of operations.

In addition, any assertions of alleged security breaches or systems failure made against us, whether true or not, could harm our reputation, cause us to incur substantial legal fees and have a material adverse effect on our business, financial condition and results of operations. Whether or not any such assertion actually develops into litigation, our management may be required to devote significant time and attention to dispute resolution (through litigation, settlement or otherwise), which would detract from our management's ability to focus on our business. Any such resolution could involve the payment of damages or expenses by us, which may be significant. In addition, any such resolution could involve our agreement with terms that restrict the operation of our business. Any such resolution, including the resources exhausted in connection therewith, could have a material adverse effect on our business, financial condition and results of operations.

Furthermore, security breaches, computer malware and computer hacking attacks have been a prevalent concern in the Bitcoin exchange market since the launch of the Bitcoin network. Any security breach caused by hacking, which involves efforts to gain unauthorized access to information or systems, or to cause intentional malfunctions or loss or corruption of data, software, hardware or other computer equipment, and the inadvertent transmission of computer viruses, could harm our business operations or result in loss of our assets.

We may be exposed to cybersecurity threats and hacks, which could have a material adverse effect on our business, financial condition and results of operations.

The threats to network and data security are increasingly diverse and sophisticated. Despite our efforts and processes to prevent breaches, our computer servers and computer systems may be vulnerable to cybersecurity risks, including denial-of-service attacks, physical or electronic break-ins, employee theft or misuse and similar disruptions from unauthorized tampering with our computer servers and computer systems. The preventive actions we take to reduce the risk of cyber incidents and protect our information technology and networks may be insufficient to repel a major cyber-attack in the future. To the extent that any disruption or security breach results in a loss or damage to our network, in unauthorized disclosure of confidential information or in a loss of our cryptocurrencies, it could cause significant damage to our reputation, lead to claims against us and ultimately have a material adverse effect on our business, financial condition and results of operations. Additionally, we may be required to incur significant costs to protect against damage caused by these disruptions or security breaches in the future.

We may engage in acquisitions or strategic alliances in the future that could disrupt our business, result in increased expenses, reduce our financial resources and cause dilution to our shareholders. We cannot assure you that such acquisitions or strategic alliances may be successfully implemented.

We may look for potential acquisitions or strategic alliances in the future to expand our business. However, we may not be able to find suitable acquisition candidates, complete acquisitions on favorable terms, if at all, or integrate any acquired business, products or technologies into our operations. If we do complete acquisitions, they may be viewed negatively by customers or investors and they may not enable us to strengthen our competitive position or achieve our goals. In addition, any acquisitions that we make could lead to difficulties in integrating personnel, technologies and operations from the acquired businesses and in retaining and motivating key personnel from these businesses. Moreover, acquisitions may disrupt our ongoing operations, divert management from day-to-day responsibilities and increase our expenses. Future acquisitions may reduce our cash available for operations and other uses, and could result in increases in amortization expenses related to identifiable intangible assets acquired, potentially dilutive issuances of equity securities or the incurrence of debt. We cannot predict the number, timing or size of future acquisitions, or the effect that any such acquisitions might have on our operating results.

Any global systemic economic and financial crisis could negatively affect our business, results of operations, and financial condition.

Any prolonged slowdown in the global economy may have a negative impact on our business, results of operations and financial condition. The global financial markets have experienced significant disruptions since 2008 and the United States, Europe and other economies have experienced periods of recession. There is considerable uncertainty over the long-term effects of the expansionary monetary and fiscal policies adopted by the central banks and financial authorities of some of the world's leading economies, including the United States. There have also been concerns over unrest in Ukraine, the Middle East and Africa, which have resulted in volatility in financial and other markets, and concerns over the aftermath of the United Kingdom leaving the European Union as well as the significant potential changes to United States trade policies, treaties and tariffs. There were and could be in the future a number of domino effects from such turmoil on our business, including significant decreases in orders from our customers, insolvency of key suppliers resulting in product delays, inability of customers to obtain credit to finance purchases of our products and services and/or customer insolvencies, and counterparty failures negatively impacting our operations. Any systemic economic or financial crisis could cause revenue for the mining industry as a whole to decline dramatically and could materially and adversely affect our results of operations.

Changes in international trade policies and international barriers to trade may have an adverse effect on our business and expansion plans.

We have provided worldwide products and services to a number of countries outside of Singapore and derive sales from exporting to those countries, and we intend to continue to sell our current and future products to countries outside of Singapore. Revenue generated from customers located in the United States accounted for 16.6%, 5.1% and 16.0% of our total revenue for the years ended December 31, 2021, 2022 and 2023, respectively. Further, we rely on certain overseas suppliers, including suppliers in the United States, for the supply of certain equipment and tools, such as mining machines. Changes to trade policies, treaties and tariffs in or affecting the jurisdictions in which we operate and to which we sell our products and services, or the perception that these changes could occur, could adversely affect the financial and economic conditions in those jurisdictions, as well as our international sales, financial condition and results of operations.

Our business and prospect may be negatively affected by changes in governmental policies including sanctions and export controls administered by other countries' governments, including those imposed as a result of an increasing tense relationship of the political or economic relations among major economic groups and other geopolitical challenges. Although we currently only operate our business in certain countries, there is no assurance that the governmental authorities may take certain possible measures or restrictions towards the products and services we are providing or will provide, which could result in an adverse impact on our business and prospect if we were not able to find substitute customer group with the same quality demand from other countries. Further, some of our customers may experience undue hardship in purchasing or furthering the business relationship with us as a result of the abnormal international trade relations, which could materially and adversely affect our business performance.

In addition, countries, which are subject to other countries' sanctions or tariff impositions may further retaliate, in response to new trade policies implemented by such foreign governments. Such retaliation measures may further escalate the tensions between the two countries, which may have a negative impact on the economies of not merely the two countries concerned, but the global economy as a whole. As a result of any major economic downturn, our business, financial condition and results of operations could be adversely affected.

Our prepayments to suppliers may subject us to counterparty risk associated with such suppliers and negatively affect our liquidity and cash position.

We are required to prepay some of our suppliers before the service is provided to secure the supplier's production capacity. As of December 31, 2022 and 2023, the balance of prepayments we made to our suppliers amounted to US\$9.7 million and US\$35.2 million, respectively. The amount of our prepayment can significantly increase as we continue to pursue technological advancement. We are subject to counterparty risk exposure to our suppliers. Any failure by our suppliers to perform their contractual obligation in a timely manner and/or with our requested quality may result in us not being able to fulfill customers' orders accordingly. In such an event, we may not be able to regain the prepayment in a timely manner or in full, even though our suppliers are obligated to return such prepayments under specified circumstances as previously agreed upon. Furthermore, if the cash outflows for the prepayments significantly exceed the cash inflows during any period, our future liquidity position will be adversely affected.

Concerns about greenhouse gas emissions and global climate change may result in environmental taxes, charges, assessments or penalties and could have a material adverse effect on our business, financial condition and results of operations.

The effects of human activity on global climate change have attracted considerable public and scientific attention, as well as the attention of the United States and other foreign governments. Efforts are being made to reduce greenhouse gas emissions, particularly those from coal combustion power plants, some of which plants we may rely upon for power. The added cost of any environmental taxes, charges, assessments or penalties levied on such power plants could be passed on to us, increasing the cost to run our hosting facilities.

On November 23, 2022, the governor of New York signed into law a two year moratorium on new or renewed permits for certain electricity-generating facilities that use fossil fuel and provide energy for proof-of-work digital asset mining operations. While this action does not directly impact our current operations, it may be the beginning of a new wave of climate change regulations aimed at preventing or reducing the growth of Bitcoin mining in jurisdictions in the United States, including potentially jurisdictions in which we now operate or may in the future operate. Such action could also demonstrate the beginning of a regional or global regulatory trend in response to environmental and energy preservation or other concerns surrounding crypto assets, and similar action in a jurisdiction in which we operate or in general could have a devastating effect on our operations. Any further enactment of laws or promulgations of regulations regarding greenhouse gas emissions by the United States, Norway, or any other domestic or foreign jurisdiction in which we conduct business could have a material adverse effect on our business, financial condition or results of operations.

If we experience difficulty in collecting our trade receivables, our liquidity, financial condition and results of operations would be negatively impacted.

We derive our revenue from the sale of products and services and are subject to counterparty risks such as our customer's inability to pay. As of December 31, 2022 and 2023, our trade receivables amounted to US\$18.3 million and US\$17.3 million, respectively. There can be no assurance that we will be able to collect our trade receivables on a timely basis, and our trade receivable turnover days may increase, which in turn could materially and adversely affect our liquidity, financial condition and results of operations.

Our operations and those of our production partners and customers are vulnerable to natural disasters and other events beyond our control, the occurrence of which may have an adverse effect on the supply chain of our suppliers and on our facilities, personnel and results of operations.

Our business could be adversely affected by natural disasters or outbreaks of epidemics. We have not adopted any written contingency plans to combat any future natural disasters, such as floods and mudslides, or outbreaks of avian flu, H1N1 flu, SARS or any other epidemic. These natural disasters, outbreaks of contagious diseases, and other adverse public health developments in countries where our computing power facilities are located or any other countries or regions in which we conduct business could severely disrupt our business operations by damaging our network infrastructure or information technology system or impacting the productivity of our workforce, which may adversely affect our financial condition and results of operations.

The COVID-19 pandemic has brought a significantly negative impact on the global economy, industry and market conditions. The ongoing development and the global control on the pandemic are unclear, which may increase the instability of our development, materially and adversely affecting our results of operations.

Since December 2019, the outbreak of a novel strain of coronavirus disease known as COVID-19 has materially and adversely affected the global economy. The COVID-19 pandemic has caused series of consequences from many perspectives and may continue to have a prolonged impact by:

- impairing our ability to renew and maintain our relationships with existing customers;
- causing our existing customers to substantially reduce the quantity of products and services to which they subscribe, seek price concessions, or go out of business, any of which would harm our revenue;
- resulting in some of our customers failing to comply with the terms of their agreements, including payment terms, due to economic uncertainty, financial hardship, and even failure of their businesses, which could result in us being required to take action to collect payments, terminate their subscriptions for our services, and increase accounts receivable and bad debt, any of which would increase our expenses and harm our revenue and results of operations;
- making it more difficult for us to sell increased services or functionality to our existing customers;
- delaying prospective customers' decisions to subscribe to our solutions, increase the length of sales cycles, or slow the typical growth in the use of our solutions once customers have initially deployed our solutions;
- harming our ability to effectively market and sell our solutions as a result of travel restrictions and social distancing orders;
- delaying the introduction of enhancements to our solutions and market acceptance of any new features and products;
- harming our ability to grow our worldwide sales and operations;
- harming our ability to recruit, onboard and successfully integrate new employees, including members of our direct sales force;
- impacting the health and safety of our employees, including our senior management team, and their ability to perform services;
- causing our management team to continue to commit significant time, attention and resources to monitoring the COVID-19 pandemic and seeking to mitigate its effect on our business and workforce.

It is uncertain how long and how severely the COVID-19 pandemic may continue to impact us. Significant uncertainties associated with the coronavirus remain, including with respect to the availability and efficacy of vaccines, the duration of the pandemic, the emergence of variant strains of COVID-19, and actions that may be taken by governmental authorities to contain the coronavirus or to treat its impact. The full impact of the coronavirus is unknown at this time. If the pandemic continues and lasts for a prolonged period in the regions where we operate, such as cases resurgence in certain areas, the economy could suffer substantially from the measures and restrictions taken to combat the virus, which would, in turn, have an adverse impact on our business prospects. Any significant disruption resulting from this or similar epidemics on a large scale or over a prolonged period of time could significantly interrupt our business until we would be able to resume normal business operations, which will negatively affect our financial condition. To the extent COVID-19 adversely affects our business, financial condition and results of operations, it may also heighten some of the other risks described in this “Risk Factors” section.

Risks Related to Cryptocurrencies

Because there has been limited precedent set for financial accounting for Bitcoin and other cryptocurrencies, the determinations that we have made for how to account for cryptocurrencies transactions may be subject to change.

The accounting rules and regulations that we must comply with are complex and subject to interpretation by the IASB, the SEC, and various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results, and may even affect the reporting of transactions completed before the announcement or effectiveness of a change. Further, there has been limited precedents for the financial accounting of cryptocurrencies and related valuation and revenue recognition, and no official guidance has been provided by the IASB or the SEC. As such, there remains significant uncertainty on how companies can account for cryptocurrency transactions, cryptocurrencies, and related revenue. Uncertainties in or changes to in regulatory or financial accounting standards could result in the need to changing our accounting methods and restate our financial statements and impair our ability to provide timely and accurate financial information, which could adversely affect our financial statements, result in a loss of investor confidence, and more generally impact our business, operating results, and financial condition.

Any loss or destruction of a private key required to access our cryptocurrency is irreversible. We also may temporarily lose access to our cryptocurrencies.

Cryptocurrencies are each accessible and controllable only by the possessor of both the unique public key and private key associated with the cryptocurrency, wherein the public and private keys are held in an offline or online digital wallet. To the extent a private key is lost, destroyed or otherwise compromised and no backup of the private key is available, we will be unable to access the applicable cryptocurrency associated with that private key and the private key cannot be restored. As a result, any cryptocurrencies associated with such key could be irretrievably lost. Any loss of private keys relating to digital wallets used to store the applicable cryptocurrencies could have a material adverse effect on our business, financial condition and results of operations.

In addition, we may temporarily lose access to our cryptocurrencies as a result of software or systems upgrades or maintenance. In this case, we would likely rely on third parties to assist in restoring our access, and there is no assurance such third parties will be able to restore access on a timely basis, or at all. Any temporary loss, if it occurs, could have a material adverse effect on our business, financial condition and results of operations.

Bitcoin exchanges and wallets, and to a lesser extent, the Bitcoin network itself, may suffer from hacking and fraud risks, which may adversely erode user confidence in Bitcoin which would decrease the demand for our products and services. Further, digital asset exchanges on which crypto assets trade are relatively new and largely unregulated, and thus may be exposed to fraud and failure. Incorrect or fraudulent cryptocurrency transactions may be irreversible.

Bitcoin transactions are entirely digital and, as with any virtual system, are at risk from hackers, malware and operational glitches. Hackers can target Bitcoin exchanges and Bitcoin transactions, to gain access to thousands of accounts and digital wallets where Bitcoins are stored. Bitcoin transactions and accounts are not insured by any type of government program and all Bitcoin transactions are permanent because there is no third party or payment processor. Bitcoin has suffered from hacking and cyber-theft as such incidents have been reported by several cryptocurrency exchanges and miners, highlighting concerns about the security of Bitcoin and therefore affecting its demand and price.

To the extent that cryptocurrency exchanges or other trading venues are involved in fraud or experience security failures or other operational issues, a reduction in cryptocurrency prices could occur. Cryptocurrency market prices depend, directly or indirectly, on the prices set on exchanges and other trading venues, which are new and, in most cases, largely unregulated as compared to established, regulated exchanges for securities, derivatives and other currencies.

For example, during the past three years, a number of Bitcoin exchanges have been closed due to fraud, business failure or security breaches. In many of these instances, the customers of the closed Bitcoin exchanges were not compensated or made whole for the partial or complete losses of their account balances in such Bitcoin exchanges. While smaller exchanges are less likely to have the infrastructure and capitalization that provide larger exchanges with additional stability, larger exchanges may be more likely to be appealing targets for hackers and “malware” (i.e., software used or programmed by attackers to disrupt computer operation, gather sensitive information, or gain access to private computer systems) and may be more likely to be targets of regulatory enforcement action.

Further, digital asset exchanges on which cryptocurrencies trade are relatively new and, in most cases, largely unregulated. Many digital exchanges do not provide the public with significant information regarding their ownership structure, management teams, corporate practices or regulatory compliance. As a result, the marketplace may lose confidence in, or may experience problems relating to, cryptocurrency exchanges, including prominent exchanges handling a significant portion of the volume of digital asset trading. During 2022, a number of companies in the crypto industry have declared bankruptcy, including Compute North, Core Scientific, Alameda Research LLC, Celsius Network, Voyager Digital, Three Arrows, BlockFi, and FTX. In June 2022, Celsius began pausing all withdrawals and transfers between accounts on its platform, and in July 2022, it filed for Chapter 11 bankruptcy protection. Further, in November 2022, FTX, one of the major cryptocurrency exchanges, also filed for Chapter 11 bankruptcy. Such bankruptcies have contributed, at least in part, to further price decreases in Bitcoin, a loss of confidence in the participants of the digital asset ecosystem and negative publicity surrounding digital assets more broadly, and other participants and entities in the digital asset industry have been, and may continue to be, negatively affected. These events have also negatively impacted the liquidity of the digital assets markets as certain entities affiliated with FTX engaged in significant trading activity.

We have not been directly impacted by any of the bankruptcies in the crypto asset space throughout calendar year 2022, as we have no contractual privity or relationship to the relevant parties. However, we are dependent on the overall crypto assets industry, and such events have contributed, at least in part, to our peers' stock price as well as the price of Bitcoin. If the liquidity of the digital assets markets continues to be negatively impacted, digital asset prices (including the price of Bitcoin) may continue to experience significant volatility and confidence in the digital asset markets may be further undermined. A perceived lack of stability in the digital asset exchange market and the closure or temporary shutdown of digital asset exchanges due to business failure, hackers or malware, government-mandated regulation, or fraud, may reduce confidence in digital asset networks and result in greater volatility in cryptocurrency values. These potential consequences of a digital asset exchange's failure could adversely affect an investment in us, discourage overall participation in the cryptocurrency industry, and result in loss of customer demand for our products and services. Cryptocurrency investments may be subject to losses or impairments if cryptocurrency values decrease as a result of failure of any digital asset exchange, however, we do not anticipate to actively participate in such activities in the foreseeable future.

We may not have adequate sources of recovery if the cryptocurrencies held by us are lost, stolen or destroyed due to third-party cryptocurrencies custodial services or if we cannot redeem or withdraw our cryptocurrencies invested in crypto lending or investing activities. Such incidents could have a material adverse effect on our business, financial condition and results of operations.

Substantially all of our cryptocurrencies were held in custody by Matrix Finance and Technologies Holding Group and its subsidiaries ("Matrixport Group"), a related party, and our disposal of cryptocurrencies, at spot price on the date of disposal, was primarily to Matrixport Group. We believe that the security procedures that Matrixport Group utilizes, such as issuing username, password and hardware tokens, are reasonably designed to safeguard our Bitcoin and other cryptocurrencies from theft, loss, destruction or other issues relating to hackers and technological attack. Nevertheless, the security procedures cannot guarantee the prevention of any loss due to a security breach, software defect or act of God that may be borne by us. If such cryptocurrencies are lost, stolen or destroyed under circumstances rendering a third party liable to us, it is possible that Matrixport Group may not have the financial resources or insurance sufficient to satisfy any or all of our claims against the third party, or have the ability to retrieve, restore or replace the lost, stolen or destroyed cryptocurrencies due to governing network protocols and the strength of the cryptographic systems associated with such cryptocurrencies. To the extent that we are unable to recover on any of our claims against any such third party, such loss could have a material adverse effect on our business, financial condition and results of operations.

If such services are commercially available, we will consider adding regulated banks, rather than solely relying on crypto custodian, as the custodian for a material amount of our cryptocurrencies. Obtaining cryptocurrency custody services from a regulated bank may confer benefits such as improved security and reduced fraud. Nevertheless, until now, banks have generally declined to provide custody services for cryptocurrencies and other virtual assets, due to the absence of clarity on permissibility and on regulators' views of these activities generally. On July 22, 2020, the U.S. Office of the Comptroller of the Currency released publicly an interpretive letter confirming the authority of a national bank to provide cryptocurrency custody services for customers, providing that a national bank engaging in such activities should develop and implement those activities consistent with sound risk management practices and align them with the bank's overall business plans and strategies as set forth in the guidance. On January 27, 2023, the Board of Governors of the Federal Reserve System released publicly a policy statement to interpret section 9(13) of the Federal Reserve Act, clarifying that the state member banks are not prohibited under the policy from providing safekeeping services for crypto-assets in a custodial capacity, if such activities are conducted in a safe and sound manner and in compliance with consumer, anti-money-laundering, and anti-terrorist-financing laws. However, it will take time for banks to start offering cryptocurrencies custodian services, and before then, we may have to continue to rely on crypto custodians, such as Matrixport Group, for our crypto custodian needs.

Historically, we have also lent cryptocurrency loans to Matrixport Group and purchased cryptocurrency wealth management products from Matrixport Group. Historically, we have not incurred or been exposed to any losses as a result of our relationship and transactions with Matrixport Group, and have never experienced any excessive redemptions, withdrawals, or a suspension of redemptions or withdrawals, of crypto assets from Matrixport Group or other exchanges or platforms. Participation in cryptocurrency lending and/or investment may subject us to counterparty risk, which may result in us losing part or all of our cryptocurrencies lent or invested. However, to further limit our counterparty risk, we currently are not engaged in, and do not anticipate to engage in crypto lending or investing activities in the foreseeable future.

Any material transaction between us and Matrixport Group or its subsidiaries is subject to our related person transaction policy. To the extent we fail to appropriately deal with any such conflicts of interests, it could negatively impact our reputation, the ability to raise additional funds and the willingness of counterparties to do business with us, all of which could have adverse effect on our business, financial condition, results of operations and cash flows.

The “halving” of rewards available on the Bitcoin network, or the reduction of rewards on other networks, has had and in the future could have a negative impact on our ability to generate revenue as our customers may not have an adequate incentive to continue transaction processing and customers may cease transaction processing operations altogether, which could have a material adverse effect on our business, financial condition and results of operations.

Under the current protocols governing the Bitcoin network, the reward for validating a new block on that network is cut in half from time to time, which has been referred to in our industry as the “halving.” When the Bitcoin network was first launched, the reward for validating a new block was 50 Bitcoin. In November 2012, the reward for validating a new block was reduced to 25 Bitcoin. In July 2016, the reward for validating a new block was reduced to 12.5 Bitcoin, and in May 2020, the reward was further reduced to 6.25 Bitcoin. The next halving for Bitcoin is expected in 2024 at block 840,000, when the reward will reduce to 3.125. In addition, other networks may operate under rules that, or may alter their rules to, limit the distribution of new cryptocurrencies. We, and to our knowledge, our potential hosting customers, currently rely on these rewards to generate a significant portion of our total revenue. If the award of cryptocurrencies for solving blocks and transaction fees are not sufficiently high, neither we nor our customers may have an adequate incentive to continue transaction processing and may cease transaction processing operations altogether, which as a result may significantly reduce demand for our hosting services. As a result, the halving of available rewards on the Bitcoin network, or any reduction of rewards on other networks, would have a negative impact on our revenue and may have a material adverse effect on our business, financial condition and results of operations.

In addition, the reduction of rewards may reduce our profit margins, which could result in us selling a substantial portion of our cryptocurrencies, which are subject to high volatility. If we are forced to sell cryptocurrencies at low prices, it could have a material adverse effect on our business, financial condition and results of operations.

Malicious actors or botnet may obtain control of more than 50% of the processing power on the Bitcoin or other cryptocurrency network.

If a malicious actor or botnet (a volunteer or hacked collection of computers controlled by networked software coordinating the actions of the computers) obtains a majority of the processing power dedicated to mining on the Bitcoin or other cryptocurrency network, it may be able to alter the blockchain on which the Bitcoin or other cryptocurrency network and most Bitcoin or other cryptocurrency transactions rely by constructing fraudulent blocks or preventing certain transactions from completing in a timely manner, or at all. The malicious actor or botnet could control, exclude, or modify the ordering of transactions, though it could not generate new cryptocurrencies or transactions using such control. The malicious actor could “double-spend” its own cryptocurrencies (i.e., spend the same cryptocurrencies in more than one transaction) and prevent the confirmation of other users’ transactions for so long as it maintained control. To the extent that such malicious actor or botnet did not yield its control of the processing power on the cryptocurrency network, or the cryptocurrency community did not reject the fraudulent blocks as malicious, reversing any changes made to the blockchain may not be possible.

Although there are no known reports of malicious activity or control of the Bitcoin blockchain achieved through controlling over 50% of the processing power on the network, it is believed that certain mining pools may have exceeded the 50% threshold. The possible crossing of the 50% threshold indicates a greater risk in that a single mining pool could exert authority over the validation of Bitcoin transactions. To the extent that the cryptocurrency ecosystems, including developers and administrators of mining pools, do not act to ensure greater decentralization of Bitcoin or other cryptocurrency mining processing power, the feasibility of a malicious actor obtaining control of the processing power on the cryptocurrency network will increase, which may adversely affect an investment in us.

If there are significant changes to the method of validating blockchain transactions, such changes could harm our self-mining business and reduce demand for our products and services.

New cryptocurrency transaction protocols are continuously being deployed, and existing and new protocols are in a state of constant change and development. While certain validation protocols currently employ a PoW consensus algorithm, whereby miners are required to expend significant amounts of electrical and computing power to solve complex mathematical problems in order to validate transactions and create new blocks in a blockchain, there may be a shift towards adopting alternative validating protocols. These protocols may include a PoS algorithm, PoC algorithm or any other algorithm based on a protocol other than PoW, which may decrease the reliance on computing power as an advantage to validating blocks. Our self-mining operations, and, to our knowledge, the operations of our potential hash rate sharing and hosting customers, are currently designed to primarily support a PoW consensus algorithm. Should the algorithm shift from a PoW validation method to others, mining would require less energy and may render any company that maintains advantages in the current climate (for example, from lower priced electricity, processing, real estate or hosting) less competitive. As a result of our efforts to optimize and improve the efficiency of our cryptocurrency mining operations, we may be exposed to the risk in the future of losing the benefit of our capital investments and the competitive advantage we hope to gain from this as a result, and may be negatively impacted if a switch to protocols other than PoW were to occur. If we cannot adapt to the new mining protocols quickly enough to keep pace with the market change, any such change to transaction validating protocols could have a material adverse effect on our business, financial condition and results of operations.

Growth in the popularity and use of other blockchain networks other than PoW cryptocurrency networks, may adversely affect our business.

A consensus algorithm is the mechanism through which a blockchain network reach consensus. There are several types of consensus algorithms, the most common among which are Proof-of-Work (“PoW”), Proof- of-Stake (“PoS”), Delegated-Proof-of-Stake (“DPoS”), Proof-of-Space-Time (“PoST”), and Proof-of- Capacity (“PoC”). PoW is employed by Bitcoin and many other cryptocurrencies, according to which miners with higher computing power have better chances to find a valid solution for the next block. On the contrary, according to PoS, the creator of a new block is chosen in a deterministic way based on his or her stake, which is the number of coins he or she owns. As validation under PoS does not depend on computing power, PoS reduces the need for electricity and mining hardware. DPoS works similarly to PoS except it involves a voting and delegation mechanism to incentivize users to secure the network with their staked collateral. PoST and PoC are consensus mechanism algorithm used in blockchains that allows for mining devices in the network to use their available storage space and time to decide mining rights and validate transactions. PoST and PoC emerged as some of the many alternative solutions to the problem of high energy consumption in PoW systems and cryptocurrency hoarding in PoS systems.

Currently, the original PoW cryptocurrency network, Bitcoin, enjoys a first-to-market advantage over other networks such as PoS networks and dominates the cryptocurrency markets as it was introduced by Satoshi Nakamoto back in 2009, way earlier than other cryptocurrencies, and since then grew into the most populator cryptocurrency. Bitcoin’s market capitalization and its share of the market capitalization of all cryptocurrencies fluctuate as other cryptocurrencies were introduced to the digital assets industry at a later time and became more mainstream for various reasons, and there is no guarantee that Bitcoin or other PoW cryptocurrency networks, will continue to enjoy such market leading position and could be is overtaken by another virtual asset. For example, as the cryptocurrency community continues to develop and advance PoS technologies, PoS networks may offer actual or perceived advantages over PoW networks. While we intend to enrich our product and service portfolio by providing mining services covering new crypto protocols, including PoS, DPoS, PoST and PoC, and steadily increase the weight of new business to diversify revenue streams and attract new customers who are users of these new crypto protocols, our services primarily support PoW protocol currently. Specifically, prior to the second half of 2021, our business was limited to PoW protocol only; commencing from the second half of 2021, we started to mine Filecoin, which adopted PoST protocol, on a proprietary basis, and to offer computing power sharing solutions regarding Filecoin mining under our *Cloud Hash Rate* business. If preferences in the cryptocurrency markets shift away from PoW networks and PoS networks achieve widespread adoption, it could attract users away from Bitcoin and the other PoW cryptocurrencies we mine and the PoW related products mining services we offer, which could have a material adverse effect on our business and our prospects or operations as there is no guarantee that we will be able to adapt to new businesses swiftly enough, if at all.

The acceptance of Bitcoin network software patches or upgrades by a significant, but not overwhelming, percentage of the users and miners in the Bitcoin network could result in a “fork” in the blockchain, resulting in the operation of two separate networks that cannot be merged. The existence of forked blockchains could erode user confidence in Bitcoin and could adversely impact our business, results of operations and financial condition.

Bitcoin is based on open-source software and has no official developer or group of developers that formally controls the Bitcoin network. Any individual can download the Bitcoin network software and make any desired modifications, which are proposed to users and miners on the Bitcoin network through software downloads and upgrades. However, miners and users must consent to those software modifications by downloading the altered software or upgrading and implementing the changes; otherwise, the changes do not become part of the Bitcoin network. Since the Bitcoin network's inception, changes to the Bitcoin network have been accepted by the vast majority of users and miners, ensuring that the Bitcoin network remains a coherent economic system. However, a developer or group of developers could potentially propose a modification to the Bitcoin network that is not accepted by a vast majority of miners and users, but that is nonetheless accepted by a substantial population of participants in the Bitcoin network. In such a case, a fork in the blockchain could develop and two separate Bitcoin networks could result, one running the pre-modification software program and the other running the modified version. An example is the introduction of a cryptocurrency known as "Bitcoin cash" in mid-2017. This kind of split in the Bitcoin network could erode user confidence in the stability of the Bitcoin network, which could negatively affect the demand for our services.

Cryptocurrency transactions are irrevocable and, if stolen or incorrectly transferred, cryptocurrencies may be irretrievable. As a result, any incorrectly executed cryptocurrency transactions could have a material adverse effect on our business, financial condition and results of operations.

Typically, cryptocurrency transactions are not, from an administrative perspective, reversible without the consent and active participation of the recipient of the transaction or, in theory, control or consent of a majority of the processing power on the applicable network. Once a transaction has been confirmed and verified in a block that is added to the network blockchain, an incorrect transfer of a cryptocurrency or a theft of a cryptocurrency generally will not be reversible and we may not be capable of seeking compensation for any such transfer or theft. Although transfers of any cryptocurrencies we hold will regularly be made to or from vendors, consultants, services providers, etc., it is possible that, through computer or human error, or through theft or criminal action, our cryptocurrencies could be transferred from ourself in incorrect amounts or to unauthorized third parties. To the extent that we are unable to seek a corrective transaction with such third party or are incapable of identifying the third party that has received our cryptocurrencies through error or theft, we will be unable to revert or otherwise recover our incorrectly transferred cryptocurrencies. To the extent that we are unable to seek redress for such error or theft, such loss could have a material adverse effect on our business, financial condition and results of operations.

The cryptocurrencies held by us may be subject to loss, damage, theft or restriction on access, which could have a material adverse effect on our business, financial condition or results of operations.

There is a risk that some or all of the cryptocurrencies held or hosted by us could be lost, stolen or destroyed. We believe that the cryptocurrencies held or hosted by ourself and our mining operation will be an appealing target to hackers or malware distributors seeking to destroy, damage or steal our cryptocurrencies. Our security procedures and operational infrastructure may be breached due to the actions of outside parties, error or malfeasance of one of our employees, or otherwise, and, as a result, an unauthorized party may obtain access to our cryptocurrency accounts, private keys, data or cryptocurrencies. Although we implement a number of security procedures with various elements such as two-factor verification, segregated accounts and secured facilities and plan to implement the maintenance of data on computers and/or storage media that is not directly connected to, or accessible from, the internet and/or networked with other computers, or "cold storage," to minimize the risk of loss, damage and theft, and we update such security procedures whenever reasonably practicable, there is no guarantee that the prevention of such loss, damage or theft, whether caused intentionally, accidentally or by an act of God.

Additionally, outside parties may attempt to fraudulently induce our employees to disclose sensitive information in order to gain access to our infrastructure. As the techniques used to obtain unauthorized access, disable or degrade service, or sabotage systems change frequently, or may be designed to remain dormant until a predetermined event, and often are not recognized until launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. As technological change occurs, the security threats to our Bitcoin will likely adapt and previously unknown threats may emerge. Our ability to adopt technology in response to changing security needs or trends may pose a challenge to the safekeeping of our cryptocurrencies. To the extent we are unable to identify and mitigate or stop new security threats, our cryptocurrencies may be subject to theft, loss, destruction or other attacks.

Any of these events could expose us to liability, damage our reputation, reduce customer confidence in our products and services and otherwise have a material adverse effect on our business, financial condition and results of operations. Furthermore, we believe that as our assets grow, we may become a more appealing target for security threats, such as hackers and malware. If an actual or perceived breach of our cryptocurrency accounts occurs, the market perception of our effectiveness could be harmed.

The impact of geopolitical, economic or other events on the supply of and demand for cryptocurrencies is uncertain, but could motivate large-scale sales of cryptocurrencies, which could result in a reduction in the price of such cryptocurrencies and could have a material adverse effect on our business, financial condition and results of operations.

As an alternative to fiat currencies that are backed by central governments, cryptocurrencies, which are relatively new, are subject to supply and demand forces based upon the desirability of an alternative, decentralized means of buying and selling goods and services. It is unclear how this supply and demand will be impacted by geopolitical events. Nevertheless, political or economic crises may motivate large-scale acquisitions or sales of cryptocurrencies either globally or locally. Large-scale sales of cryptocurrencies likely would result in a reduction in the price of the subject cryptocurrency and could have a material adverse effect on our business, financial condition and results of operations.

In addition, the price of cryptocurrencies may be affected by the buying and selling of a significant amount of cryptocurrencies by a holder, or a group of holders. Any unforeseen actions by holders of a significant amount of cryptocurrencies, could have a material adverse effect on our business, financial condition and results of operations. For instance, the recent introduction of a spot bitcoin exchange traded fund (“ETF”) and the pending approval of an ETH ETF may attract speculative traders who seek short-term gains based on price movements. This increased speculative activity could lead to short-term price volatility.

Cryptocurrencies, including Bitcoin, face significant scaling obstacles that can lead to high fees or slow transaction settlement times and any mechanisms of increasing the scale of cryptocurrency settlement may significantly alter the competitive dynamics in the market.

Many cryptocurrencies face significant scaling obstacles that can lead to high fees or slow transaction settlement times, and attempts to increase the volume of transactions may not be effective. Scaling cryptocurrencies, and particularly Bitcoin, is essential to the widespread acceptance of cryptocurrencies as a means of payment, which is necessary to the growth and development of our business.

Many cryptocurrency networks face significant scaling challenges. For example, cryptocurrencies are limited with respect to how many transactions can occur per second. In this respect, Bitcoin may be particularly affected as it relies on the PoW validation, which due to its inherent characteristics may be particularly hard to scale to allow simultaneous processing of multiple daily transactions by users. Participants in the cryptocurrency ecosystem debate potential approaches to increasing the average number of transactions per second that the network can handle and have implemented mechanisms or are researching ways to increase scale, such as “sharding,” which is a term for a horizontal partition of data in a database or search engine, which would not require every single transaction to be included in every single miner’s or validator’s block.

There is no guarantee that any of the mechanisms in place or being explored for increasing the scale of settlement of cryptocurrency transactions will be effective, how long they will take to become effective or whether such mechanisms will be effective for all cryptocurrencies. There is also a risk that any mechanisms of increasing the scale of cryptocurrency settlements may significantly alter the competitive dynamics in the cryptocurrency market, and may adversely affect the value of Bitcoin and the price of our Ordinary Shares, any of which could have a material adverse effect on our business, prospects, financial condition, and operating results.

To the extent that any miners cease to record transactions in solved blocks, transactions that do not include the payment of a transaction fee will not be recorded on the blockchain until a block is solved by a miner who does not require the payment of transaction fees. Any widespread delays in the recording of transactions could result in a loss of confidence in that cryptocurrency network, which could adversely impact an investment in us.

To the extent that any miners cease to record transactions in solved blocks, such transactions will not be recorded on the blockchain. Currently, there are no known incentives for miners to elect to exclude the recording of transactions in solved blocks; however, to the extent that any such incentives arise (e.g., a collective movement among miners or one or more mining pools forcing Bitcoin users to pay transaction fees as a substitute for or in addition to the award of new Bitcoins upon the solving of a block), actions of miners solving a significant number of blocks could delay the recording and confirmation of transactions on the blockchain.

Any systemic delays in the recording and confirmation of transactions on the blockchain could result in greater exposure to double-spending transactions and a loss of confidence in certain or all cryptocurrency networks, which could have a material adverse effect on our business, prospects, financial condition, and operating results.

Network congestion could result in high fees, delayed transactions, and a loss of confidence in that cryptocurrency network, which could adversely impact an investment in us.

Rising adoption of blockchain networks leads to network congestion, as space on decentralized ledgers is inherently scarce. From a design standpoint, striking a balance between security, decentralization, and scalability (or transactional throughput) is the subject of great debate among innovators and has led to the creation of a variety of networks that make different trade-offs to achieve different outcomes. If network congestion rises to the point where transaction fees make it prohibitively expensive for average users to operate on the network, those users may stop using the network, and application developers may seek to build on other networks where users can afford to transact.

Increasing growth and popularity of cryptocurrencies, initial coin offerings (“ICOs”) and security token offerings, as well as non-digital asset-related applications that utilize blockchain technology on certain networks, can cause congestion and backlog, and as result, increase latency on such networks. An increase in congestion and backlogs could result in longer transaction confirmation times, an increase in unconfirmed transactions (that is, transactions that have yet to be included in a block on a network and therefore are not yet completed transactions), higher transaction fees and an overall decrease in confidence in a particular network, which could ultimately affect our ability to transact on that particular network and, in turn, could have a material adverse effect on our business, financial condition and results of operations.

We may diversify our business by mining or investing in additional cryptocurrencies which could require significant investment or expose us to trading risks.

The field of cryptocurrencies is constantly expanding with around 10,000 types of cryptocurrencies in existence as of December 2023. We intend to evaluate the potential for mining or investing in existing, new and alternative cryptocurrencies. To the extent we elect to commence activities to generate cryptocurrencies, we would be required to invest our assets either to obtain mining equipment configured to generate cryptocurrencies based on a PoW protocol or to post “stakes” to generate cryptocurrencies based on a PoS protocol. In addition, or in the alternative, we may trade our cryptocurrencies for other cryptocurrencies on centralized or decentralized exchanges. Optimization of such trades may vary depending on the exchange on which the trade is conducted because we may not have access to all exchanges on which such trades are available. Further, trading on centralized and decentralized exchanges may expose us to additional risks if such exchanges experience breaches of security measures, system errors or vulnerabilities, software corruption, hacking or other irregularities. Any new cryptocurrency obtained through generation or trading may be more volatile or fail to increase in value compared to cryptocurrencies we currently hold. As a result, any investment in different cryptocurrencies may not achieve our goals, may be viewed negatively by analysts or investors and may negatively affect our revenue and results of operations.

If the transaction fees for recording cryptocurrencies in a blockchain increase, demand for cryptocurrencies may be reduced and prevent the expansion of the networks to retail merchants and commercial businesses, resulting in a reduction in the acceptance or price of cryptocurrencies.

As the number of cryptocurrencies awarded for solving a block in a blockchain decreases, the incentive for mining participants to contribute processing power to networks will transition from a set reward to transaction fees. In order to incentivize mining participants to continue to contribute processing power to the networks, the network may transition from a set reward to transaction fees earned upon solving for a block.

If mining participants demand higher transaction fees to record transactions in a blockchain or a software upgrade automatically charges fees for all transactions, the cost of using cryptocurrencies may increase and the marketplace may be reluctant to accept cryptocurrencies as a means of payment. Existing users may be motivated to switch from one cryptocurrency to another or back to fiat currency. Decreased use and demand for cryptocurrencies may adversely affect their value and result in a reduction in the value of our common stock.

If the award of new cryptocurrencies and/or transaction fees for solving blocks is not sufficiently high to incentivize miners, such processors may reduce or cease expending processing power on a particular network, which could negatively impact the utility of the network, reduce the value of our cryptocurrencies and have a material adverse effect on our business, financial condition and results of operations.

As the number of cryptocurrencies rewarded to miners for validating blocks in a network decreases, the incentive for miners to continue contributing processing power to the network may shift toward transaction fees. Such a shift may increase the transaction fees on a network. Higher transaction fees may reduce the utility of a network for an end user, which may cause end users to reduce or stop their use of that network. In such case, the price of the relevant cryptocurrency may decline substantially and could go to zero. Such reduced price and demand for, and use of, the relevant cryptocurrency and network, either as it applies to our transaction processing services or to those of our potential hosting customers, may have a material adverse effect on our business, financial condition and results of operations.

Miners may sell a substantial number of cryptocurrencies into the market, which may exert downward pressure on the price of the applicable cryptocurrency and, in turn, could have a material adverse effect on our business, financial condition and results of operations.

Transaction processing requires the investment of significant capital for the acquisition of hardware, leasing or purchasing space, involves substantial electricity costs and requires the employment of personnel to operate the data facilities, which may lead transaction processing operators to liquidate their positions in cryptocurrencies to fund these capital requirements. In addition, if the reward of new cryptocurrencies for transaction processing declines, and/or if transaction fees are not sufficiently high, profit margins for transaction processing operators may be reduced, and such operators may be more likely to sell a higher percentage of their cryptocurrencies. Whereas it is believed that individual operators in past years were more likely to hold cryptocurrencies for more extended periods, the immediate selling of newly transacted cryptocurrencies by operators may increase the supply of such cryptocurrencies on the applicable exchange market, which could create downward pressure on the price of the cryptocurrencies and, in turn, could have a material adverse effect on our business, financial condition and results of operations.

To the extent that the profit margins of cryptocurrency mining operations are not high, mining participants are more likely to sell their earned Bitcoin, which could constrain Bitcoin prices.

Over the past few years, cryptocurrency mining operations have evolved from individual users mining with computer processors, graphics processing units and first-generation application-specific integrated circuit (“ASIC”) servers. Currently, new processing power is predominantly added by incorporated and unincorporated “professionalized” mining operations. Professionalized mining operations may use proprietary hardware or sophisticated ASIC machines acquired from ASIC manufacturers. They require the investment of significant capital to acquire this hardware, to lease operating space (often in datacenters or warehousing facilities), and to pay the costs of electricity and labor to operate the mining datacenters. As a result, professionalized mining operations are of a greater scale than prior mining operations and have more defined and regular expenses and liabilities. These regular expenses and liabilities require professionalized mining operations to maintain profit margins on the sale of cryptocurrencies. To the extent the price of cryptocurrencies declines and such profit margin is constrained, professionalized mining participants are incentivized to more immediately sell cryptocurrencies earned from mining operations, whereas it is believed that individual mining participants in past years were more likely to hold newly mined cryptocurrencies for more extended periods. The immediate selling of newly mined cryptocurrencies greatly increases the trading volume of the cryptocurrencies, creating downward pressure on the market price of cryptocurrency rewards. The extent to which the value of cryptocurrencies mined by a professionalized mining operation exceeds the allocable capital and operating costs determines the profit margin of such operation. A professionalized mining operation may be more likely to sell a higher percentage of its newly mined cryptocurrencies rapidly if it is operating at a low profit margin and it may partially or completely cease operations if its profit margin is negative. In a low profit margin environment, a higher percentage could be sold more rapidly, thereby potentially depressing cryptocurrency prices. Lower cryptocurrency prices could result in further tightening of profit margins for professionalized mining operations creating a network effect that may further reduce the price of cryptocurrencies until mining operations with higher operating costs become unprofitable forcing them to reduce mining power or cease mining operations temporarily. Such circumstances could have a material adverse effect on our business, prospects or operations and potentially the value of Bitcoin and any other cryptocurrencies we mine or otherwise acquire or hold for our own account.

Risks Related to Regulatory Compliance and Other Legal Matters

We are subject to a highly-evolving regulatory landscape and any adverse changes to, or our failure to comply with, any laws and regulations could adversely affect our business, reputation, prospects or operations.

As crypto assets have grown in popularity and in market size, the U.S. regulatory regime - namely the Federal Reserve Board, U.S. Congress and certain U.S. agencies (e.g., the SEC, the U.S. Commodity Futures Trading Commission (the “CFTC”), the Financial Crimes Enforcement Network (the “FinCEN”) and the Federal Bureau of Investigation), and local and foreign governmental organizations, consumer agencies and public advocacy groups have been examining the operations of crypto networks, users and platforms, with a focus on how crypto assets can be used to launder the proceeds of illegal activities, fund criminal or terrorist enterprises, and the safety and soundness of platforms and other service providers that hold crypto assets for users. Many of these entities have called for heightened regulatory oversight, and have issued consumer advisories describing the risks posed by crypto assets to users and investors. For instance, in March 2022, Federal Reserve Chair Jerome Powell expressed the need for regulation to prevent “cryptocurrencies from serving as a vehicle for terrorist finance and just general criminal behavior”. On March 8, 2022, President Biden announced an executive order on cryptocurrencies which seeks to establish a unified federal regulatory regime for cryptocurrencies. The complexity and evolving nature of our business and the significant uncertainty surrounding the regulation of the crypto assets industry requires us to exercise our judgment as to whether certain laws, rules, and regulations apply to us, and it is possible that governmental bodies and regulators may disagree with our conclusions. To the extent we have not complied with such laws, rules and regulations, we could be subject to significant fines, revocation of licenses, limitations on our products and services, reputational harm, and other regulatory consequences, each of which may be significant and could adversely affect our business, operating results, and financial condition.

Additionally, the bankruptcy filings of FTX, the third largest digital asset exchange by volume at the time of its filing, and its affiliated hedge fund Alameda Research LLC, in addition to other bankruptcy filings of crypto companies throughout calendar year 2022, contributed, at least in part, to heightened regulatory scrutiny from U.S. regulatory agencies such as the SEC and CFTC. Increasing regulation and regulatory scrutiny may result in additional costs for us and our management having to devote increased time and attention to regulatory matters, change aspects of our business or result in limits on the utility of Bitcoin. In addition, regulatory developments and/or our business activities may require us to comply with certain regulatory regimes. Increasingly strict legal and regulatory requirements and any regulatory investigations and enforcement may result in changes to our business, as well as increased costs, supervision and examination. Moreover, new laws, regulations, or interpretations may result in additional litigation, regulatory investigations, and enforcement or other actions. Adverse changes to, or our failure to comply with, any laws and regulations may have, an adverse effect on our reputation and brand and our business, operating results, and financial condition.

Although we are not directly connected to the cryptocurrency market events in 2022, we may still suffer reputational harm due to our association with the cryptocurrency industry in light of the disruption in the crypto asset markets. Ongoing and future regulation and regulatory actions could significantly restrict or eliminate the market for or uses of Bitcoin and/or may adversely affect our business, reputation, financial condition and results of operations.

The nature of our business requires the application of complex financial accounting rules, and there is limited guidance from accounting standard setting bodies. If financial accounting standards undergo significant changes, our operating results could be adversely affected.

The accounting rules and regulations that we must comply with are complex and subject to interpretation by the IASB, the SEC, and various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results, and may even affect the reporting of transactions completed before the announcement or effectiveness of a change. Recent actions and public comments from the SEC have focused on the integrity of financial reporting and internal controls. In addition, many companies' accounting policies are being subject to heightened scrutiny by regulators and the public. Further, there has been limited precedents for the financial accounting of cryptocurrency-related transactions. As such, there remains significant uncertainty on how companies can account for crypto assets transactions, crypto assets, and related revenue. Uncertainties in or changes to regulatory or financial accounting standards could result in the need to change our accounting methods and restate our financial statements and impair our ability to provide timely and accurate financial information, which could adversely affect the accuracy of our financial statements, result in a loss of investor confidence, and more generally impact our business, operating result, and financial condition.

Our interactions with a blockchain may expose us to specially designated nationals (“SDN”) or blocked persons or cause us to violate provisions of law that did not contemplate distribute ledger technology.

The OFAC requires us to comply with its sanction program and not conduct business with persons named on its SDN list. However, because of the pseudonymous nature of blockchain transactions, we may, inadvertently and without our knowledge, engage in transactions with persons named on OFAC's SDN list. Our internal policies prohibit any transactions with such SDN individuals, but we may not be adequately capable of determining the ultimate identity of the individual with whom we transact with respect to our cryptocurrency mining-related products and services. In addition, in the future, OFAC or another regulator, may require us to screen transactions for OFAC addresses or other bad actors before including such transactions in a block, which may increase our compliance costs, decrease our anticipated transaction fees and lead to decreased traffic on our network. Any of these factors, consequently, could have a material adverse effect on our business, prospects, financial condition, and operating results.

Moreover, federal law prohibits any U.S. person from knowingly or unknowingly possessing any visual depiction commonly known as child pornography. Media reports have suggested that persons have embedded such depictions on one or more blockchains. Because our business requires us to download and retain one or more blockchains to effectuate our ongoing business, it is possible that such digital ledgers contain prohibited depictions without our knowledge or consent. To the extent government enforcement authorities literally enforce these and other laws and regulations that are impacted by decentralized distributed ledger technology, we may be subject to investigation, administrative or court proceedings, and civil or criminal monetary fines and penalties, all of which could harm our reputation and could have a material adverse effect on our business, prospects, financial condition, and operating results.

Our mining datacenters may be located on property whose owner has not obtained the approval of relevant authorities, and we may be ordered to relocate from that property.

Our mining datacenters where mining machines operate are located in different places around the world. Due to the unexpected regulations that the governments may impose on the development of cryptocurrencies or cryptocurrency mining, the properties we are renting currently may not be in accordance with local zoning ordinance. Such mining datacenters may be considered to be in violation of relevant zoning laws and the government may order the demolition or relocation of such datacenters. If we are evicted from such property, we may need to find alternative properties and relocate our mining datacenters. Unless we are able to make timely alternative arrangements for relocating, we may not be able to fulfill purchase orders received, which may have a material and adverse effect on our business, results of operations and financial condition.

Issues in the development and use of AI may result in reputational or competitive harm or liability.

With the completion of the deployment and successful testing of our NVIDIA DGX SuperPOD H100 system, we are beginning to build AI into our infrastructure services. We expect this integration of AI into our offerings and our business in general to grow. AI presents risks and challenges that could affect its adoption, and therefore our business. AI algorithms or training methodologies may be flawed. Datasets may be overbroad, insufficient, or contain biased information. Content generated by AI systems may be offensive, illegal, or otherwise harmful. Ineffective or inadequate AI development or deployment practices by our Company or others could result in incidents that impair the acceptance of AI solutions or cause harm to individuals, customers, or society, or result in our products and services not working as intended. Human review of certain outputs may be required. As a result of these and other challenges associated with innovative technologies, our implementation of AI systems could subject us to competitive harm, regulatory action, legal liability, including under new proposed legislation regulating AI in jurisdictions, new applications of existing data protection, privacy, intellectual property, and other laws, and brand or reputational harm. Some AI scenarios present ethical issues or may have broad impacts on society. If we provide supporting/computing AI services that have unintended consequences, unintended usage or customization by our customers and partners, or are controversial because of their impact on human rights, privacy, employment, or other social, economic, or political issues, we may experience brand or reputational harm, adversely affecting our business and consolidated financial statements.

We may be involved in legal and other disputes from time to time arising out of our operations, including disputes with our suppliers, business partners, customers or employees.

We may from time to time be involved in disputes with various parties arising out of our operations, including mining machines or electricity suppliers, business partners, customers or employees. These disputes may lead to protests or legal or other proceedings and may result in damage to our reputation, substantial costs and diversion of resources and management's attention from our core business activities. In addition, we may encounter compliance issues with regulatory bodies in the course of our operations, in respect of which we may face administrative proceedings or unfavorable rulings that may result in liabilities and cause delays or disruptions to our services. We may be involved in other proceedings or disputes in the future that may have a material adverse effect on our business, financial condition, results of operations or cash flows.

We may increasingly become a target for public scrutiny, including complaints to regulatory agencies, negative media coverage, and malicious allegations, all of which could severely damage our reputation and materially and adversely affect our business and prospects.

Certain features of cryptocurrency networks, such as decentralization, independence from sovereignty and anonymity of transactions, create the possibility of heightened attention from the public, regulators and the media. Heightened regulatory and public concerns over cryptocurrency-related issues may subject us to additional legal and social responsibilities and increased scrutiny and negative publicity over these issues and even boycott by the rest of the mining community, due to our leading position in the cryptocurrency mining industry. From time to time, these allegations, regardless of their veracity, may result in consumer dissatisfaction, public protests or negative publicity, which could result in government inquiry or substantial harm to our brand, reputation and operations. Moreover, as our business expands and grows, we may be exposed to heightened public scrutiny in jurisdictions where we already operate as well as in new jurisdictions where we may operate. There is no assurance that we would not become a target for regulatory or public scrutiny in the future or that scrutiny and public exposure would not severely damage our reputation as well as our business and prospects.

Our insurance coverage is limited and may not be adequate to cover potential losses and liabilities. A significant uninsured loss or a loss in excess of our insurance coverage could have a material adverse effect on our results of operations and financial condition.

Risks associated with our business and operations include, but are not limited to, business interruption due to regulatory changes, power shortages or network failure, product liability claims and losses of key personnel, any of which may result in significant costs or business disruption. In line with general market practice, we do not have any business liability or disruption insurance to cover our operations. However, our current insurance policies may be insufficient in the event of a prolonged or catastrophic event. The occurrence of any such event that is not entirely covered by our insurance policies may result in interruption of our operations, subject us to significant losses or liabilities and damage our reputation as a provider of business continuity services. In addition, the property, transit and director and officer insurance policies we have obtained may not cover all risks associated with our business. It may not be possible, either because of a lack of available policies, limits on coverage or prohibitive cost, for us to obtain insurance of any type that would cover losses associated with our cryptocurrency portfolio. The occurrence of certain incidents including severe weather, earthquake, fire, war, power outages, flooding and the consequences resulting from them may not be covered by our insurance policies adequately, or at all. If we were subject to substantial liabilities that were not covered by our insurance, we could incur costs and losses that could materially and adversely affect our results of operations and financial condition.

The cryptocurrencies held by us are not insured. Therefore, a loss may be suffered with respect to our cryptocurrencies which is not covered by insurance and for which no person is liable in damages which could adversely affect our operations and, consequently, an investment in us.

Bitcoin mining activities are energy-intensive, which may restrict the geographic locations of mining machines and have a negative environmental impact.

Bitcoin mining activities are inherently energy-intensive and electricity costs account for a significant portion of the overall mining costs. The availability and cost of electricity will restrict the geographic locations of mining activities. Any shortage of electricity supply or increase in electricity cost in a jurisdiction may negatively impact the viability and the expected economic return for Bitcoin mining activities in that jurisdiction, which may in turn decrease the sales of our Bitcoin mining machines in that jurisdiction.

In addition, the significant consumption of electricity may have a negative environmental impact, including contribution to climate change, which may give rise to public opinion against allowing the use of electricity for Bitcoin mining activities or government measures restricting or prohibiting the use of electricity for Bitcoin mining activities. Any such development in the jurisdictions where we sell our cryptocurrency mining-related products and services could have a material and adverse effect on our business, financial condition and results of operations.

Our business operation and international expansion are subject to geopolitical risks.

Our business operation and international expansion are subject to geopolitical risks. Any significant deterioration in our business collaboration with our partners may have a negative impact on the ability of our business partners to produce or deliver the equipment or components we need, which could have a material and adverse effect on our business, financial condition and results of operations.

In addition, there might be significant changes to United States trade policies, treaties and tariffs, including trade policies and tariffs regarding the Europe Union or other major economy entities. Countries may respond by imposing retaliatory trade measures against the United States. For details about international trade relations, see the section entitled “ - Changes in international trade policies and international barriers to trade may have an adverse effect on our business and expansion plans.” Variations in the trade policies among different countries will significantly influence our worldwide business and regional business relationship, which will materially and adversely affect our business, financial condition and results of operations.

Our business operation and international expansion may have an intrinsic need for governmental interactions, and are therefore subject to higher corruption risks.

We require significant power resources and related infrastructures to support cryptocurrency mining, and that our business operates under a fast-changing regulatory landscape, both in terms of cryptocurrency and environmental regulations. Such business nature may pose an intrinsic need for us to frequently interact with government authorities by, for example, accessing natural resources and engaging in lobbying activities with respect to any relevant regulatory changes. Frequent governmental interactions may pose higher corruption and bribery risks to us. In addition, our plan to expand internationally, including into jurisdictions which are considered high-risk from an anti-bribery and anti-corruption perspective, also heightens the corruption risks for us.

We require certain approvals, licenses, permits and certifications to operate. Any failure to obtain or renew any of these approvals, licenses, permits or certifications could materially and adversely affect our business and results of operations.

In accordance with the laws and regulations in the jurisdictions in which we operate, we are required to maintain certain approvals, licenses, permits and certifications, such as obtaining certificates of occupancy and passing electrical inspection for our mining datacenters. Complying with such laws and regulations may require substantial expense, and any non-compliance may expose us to liability. In the event of non-compliance, we may have to incur significant expenses and divert substantial management time to rectify the incidents. In the future, if we fail to obtain all the necessary approvals, licenses, permits and certifications, we may be subject to fines or the suspension of operations of the production facilities and research and development facilities that do not have all the requisite approvals, licenses, permits and certifications, which could materially and adversely affect our business and results of operations. We may also experience adverse publicity arising from non-compliance with government regulations, which would negatively impact our reputation.

There is no assurance that we will be able to fulfill all the conditions necessary to obtain the required government approvals, or that relevant government officials will always, if ever, exercise their discretion in our favor, or that we will be able to adapt to any new laws, regulations and policies. There may also be delays on the part of government authorities in reviewing our applications and granting approvals, whether due to the lack of human resources or the imposition of new rules, regulations, government policies or their implementation, interpretation and enforcement. If we are unable to obtain, or experiences material delays in obtaining, necessary government approvals, our operations may be substantially disrupted, which could materially and adversely affect our business, financial condition and results of operations. We are not aware of any governmental licenses or authorizations required to offer our products and services to customers in the jurisdictions we offer such products and services. However, our hash rate sharing business may be subject to U.S. jurisdictions under certain circumstances. See the section entitled “- Our hash rate sharing business may be subject to U.S. jurisdiction if we are not able to avoid offering or selling our hash rate products to U.S. customers. Additionally, our hash rate sharing business may be deemed as securities offerings in other jurisdictions where it is offered.”

We may be subject to fines and other administrative penalties resulting from the operation of our business, which could materially and adversely affect our business, financial condition and results of operation.

We are a leading cryptocurrency mining service provider with a strong global presence. As of February 29, 2024, we operate six prime mining datacenters in the United States, Norway and Bhutan and served users across around 100 countries and regions around the globe, and may continue to expand our operations to more countries and regions. We are subject to regulation by the multiple government authorities in countries or regions where we have presence, and various jurisdictions may from time to time adopt laws, regulations or directives that affect our businesses. Moreover, the relevant regulatory authorities possess significant powers to enforce applicable regulatory requirements in the event of our non-compliance, including the imposition of fines, sanctions or the revocation of licenses or permits to operate our business. We are subject to regulatory risks with regards to mining, holding, using, or transferring cryptocurrencies, etc., and the uncertainty of the regulatory environment and our ability to anticipate and respond to potential changes in government policies and regulations will have a significant impact on our business operations in countries we operate in and our overall results of operations. Regulations have impacted or could impact, among others, the nature of and scope of offerings we are able to make available, the pricing of offerings on our platform, our relationship with, and incentives, fees and commissions provided to or charged from our business partners, our ability to operate in certain segments of our business. We expect that our ability to manage our relationships with regulators in each of our markets, as well as existing and evolving regulations will continue to impact our results in the future. Any misunderstanding or misinterpretation of the law and regulation could subject us to, among others, the non-compliance investigation by the government authorities. There is no guarantee that we will not face administrative fines or penalties concerning our operations or our subsidiaries, which could have a material adverse impact on our results of operation.

If counterfeit products and services are provided under our brand names and trademarks, our reputation and financial results could be materially and adversely affected.

Third-party service providers and dealers are separately responsible for sourcing counterfeit services that are performed under our brand names and trademarks. Counterfeit services may be dissatisfying or inferior in quality as compared to authentic services. If our customers are not satisfied by counterfeit services provided under our brand names and trademarks, we may be subject to reputational damage. We believe our brand and reputation are important to our success and competitive position. The discovery of counterfeit services provided under our brand names and trademarks may severally damage our reputation and cause customers to refrain from making future purchases from us, which would materially and adversely affect our business operations and financial results.

Our hash rate sharing business may be subject to U.S. jurisdiction if we are not able to avoid offering or selling our hash rate products to U.S. customers. Additionally, our hash rate sharing business may be deemed as securities offerings in other jurisdictions where it is offered.

To the extent that we are appropriately restricting U.S. persons from obtaining our hash rate products, such business should not be subject to U.S. securities laws. However, whether we are effective in avoiding U.S. jurisdiction by actually not offering or selling our hash rate products to U.S. customers would depend on, among others, the existence and effectiveness of measures adopted in practice against U.S. persons obtaining our services, such as screening mechanisms and/or contractual restrictions over transfers of the contracts to

U.S. persons in the secondary market. If certain U.S. customers, or customers from other jurisdictions where our hash rate sharing may be deemed as securities offerings, end up obtaining access to our hash rate products, and we have not registered the offering of such products, we may be deemed in breach of applicable securities laws. Such breach may result in sizable fines, reputational harms, restrictions of certain businesses, and materially adversely affect our business operation and financial conditions.

If we were deemed an “investment company” under the Investment Company Act of 1940, as amended, applicable restrictions could make it impractical for us to continue our business as contemplated and could have a material adverse effect on our business.

An issuer will generally be deemed to be an “investment company” for purposes of the 1940 Act if:

- it is an “orthodox” investment company because it is or holds itself out as being engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting or trading in securities; or
- it is an inadvertent investment company because, absent an applicable exemption, it owns or proposes to acquire “investment securities” having a value exceeding 40% of the value of its total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis.

We believe we are not and will not be primarily engaged in the business of investing, reinvesting or trading in securities, and we do not hold ourselves out as being engaged in those activities. We intend to hold ourselves out as a cryptocurrency mining business. Accordingly, we do not believe that we are an “orthodox” investment company as described in the first bullet point above.

While certain cryptocurrencies may be deemed to be securities, we do not believe that certain other cryptocurrencies, in particular Bitcoin, are securities; therefore, we believe that less than 40% of our total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis will comprise cryptocurrencies that could be considered investment securities. Accordingly, we do not believe that we are an inadvertent investment company by virtue of the 40% inadvertent investment company test as described in the second bullet point above. Although we do not believe any of the cryptocurrencies we may own, acquire or mine are securities, there is still some regulatory uncertainty on the subject, see the section entitled “- There is no unifying principle governing the regulatory status of cryptocurrencies nor whether cryptocurrencies are securities in any particular context. Regulatory changes or actions in one or more countries may alter the nature of an investment in us or restrict the use of cryptocurrencies, such as Bitcoins, in a manner that adversely affects our business, prospects or operations.” If certain cryptocurrencies, including Bitcoin, were to be deemed securities, and consequently, investment securities by the SEC, we could be deemed an inadvertent investment company. Investment company registration is time consuming and would require a restructuring of our business. Moreover, the operation of an investment company is very costly and restrictive, as investment companies are subject to substantial regulation concerning management, operations, transactions with affiliated persons and portfolio composition, and the Investment Company Act filing requirements. The cost of such compliance would result in us incurring substantial additional expenses, and the failure to register if required would have a materially adverse impact on our operations.

We intend to conduct our operations so that we are not required to register as an investment company under the 1940 Act. Specifically, we do not believe that cryptocurrencies, in particular Bitcoin, are securities. The SEC Staff has not provided guidance with respect to the treatment of these assets under the 1940 Act. To the extent the SEC Staff publishes new guidance with respect to these matters, we may be required to adjust our strategy or assets accordingly. There can be no assurance that we will be able to maintain our exclusion from registration as an investment company under the 1940 Act. In addition, as a consequence of our seeking to avoid the need to register under the 1940 Act on an ongoing basis, we may be limited in our ability to engage in cryptocurrency mining operations or otherwise make certain investments, and these limitations could result in us holding assets we may wish to sell or selling assets we may wish to hold, which could materially and adversely affect our business, financial condition and results of operations.

If we were to be deemed an inadvertent investment company, we may seek to rely on Rule 3a-2 under the 1940 Act, which allows an inadvertent investment company a grace period of one year from the earlier of (a) the date on which the issuer owns securities and/or cash having a value exceeding 50% of the issuer's total assets on either a consolidated or unconsolidated basis or (b) the date on which the issuer owns or proposes to acquire investment securities having a value exceeding 40% of the value of such issuer's total assets (exclusive of U.S. government securities and cash items) on an unconsolidated basis. We are putting in place policies that we expect will work to keep the investment securities held by us at less than 40% of our total assets, which may include acquiring assets with our cash, liquidating our investment securities or seeking no-action relief or exemptive relief from the SEC if we are unable to acquire sufficient assets or liquidate sufficient investment securities in a timely manner. As Rule 3a-2 is available to an issuer no more than once every three years, and assuming no other exclusion were available to us, we would have to keep within the 40% limit for at least three years after we cease being an inadvertent investment company. This may limit our ability to make certain investments or enter into joint ventures that could otherwise have a positive impact on our earnings. If we failed to take adequate steps within the one-year grace period for inadvertent investment companies, we would need to register with the SEC as an investment company under the Investment Company Act or cease almost all business, and our contracts would become voidable. In any event, we do not intend to become an investment company engaged in the business of investing and trading securities.

Finally, we believe we are not an investment company under Section 3(b)(1) of the 1940 Act because we are primarily engaged in a non-investment company business.

The 1940 Act and the rules thereunder contain detailed parameters for the organization and operations of investment companies. Among other things, the 1940 Act and the rules thereunder limit or prohibit transactions with affiliates, impose limitations on the issuance of debt and equity securities, prohibit the issuance of stock options, and impose certain governance requirements. We intend to continue to conduct our operations so that we will not be deemed to be an investment company under the 1940 Act. However, if anything were to happen that would cause us to be deemed to be an investment company under the 1940 Act, requirements imposed by the 1940 Act, including limitations on our capital structure, ability to transact business with affiliates and ability to compensate key employees, could make it impractical for us to continue our business as currently conducted, impair the agreements and arrangements between and among us and our senior management team and materially and adversely affect our business, financial condition and results of operations.

There is no one unifying principle governing the regulatory status of cryptocurrencies nor whether cryptocurrencies are securities in any particular context. Regulatory changes or actions in one or more countries may alter the nature of an investment in us or restrict the use of cryptocurrencies, such as Bitcoins, in a manner that adversely affects our business, prospects or operations.

As cryptocurrencies have grown in both popularity and market size, governments around the world have reacted differently, with certain governments deeming cryptocurrencies illegal, and others allowing their use and trade without restriction. In some jurisdictions, such as in the U.S., cryptocurrencies, such as Bitcoins, are subject to extensive, and in some cases overlapping, unclear and evolving regulatory requirements.

Bitcoin is the oldest and most well-known form of cryptocurrency. Bitcoin and other forms of cryptocurrencies have been the source of much regulatory consternation, resulting in differing definitional outcomes without a single unifying statement. Bitcoin and other cryptocurrencies are viewed differently by different regulatory and standards setting organizations globally as well as in the United States on the federal and state levels. For example, the Financial Action Task Force considers a cryptocurrency as currency or an asset, and the Internal Revenue Service ("IRS") considers a cryptocurrency as property and not currency. Further, the IRS applies general tax principles that apply to property transactions to transactions involving virtual currency.

Furthermore, while the SEC approved 11 spot Bitcoin ETF applications in January 2024, no clear principles have emerged from the regulators as to how they view these issues and how to regulate cryptocurrency under the applicable securities acts. On April 20, 2021, the U.S. House of Representatives passed a bipartisan bill titled “Eliminate Barriers to Innovation Act of 2021” (H.R. 1602). If passed by the Senate and enacted into law, the bipartisan bill would create a cryptocurrency working group to evaluate the current legal and regulatory framework around cryptocurrencies in the United States and define when the SEC may have jurisdiction over a particular token or cryptocurrency (i.e., when it is a security) and when the CFTC may have jurisdiction (i.e., on derivatives of a cryptocurrency when it is a commodity).

If regulatory changes or interpretations require the regulation of Bitcoin or other cryptocurrencies under the securities laws of the United States or elsewhere, including the Securities Act, the Exchange Act, the 1940 Act, and the Bank Secrecy Act or similar laws of other jurisdictions and interpretations by the SEC, the CFTC, the IRS, Department of Treasury or other agencies or authorities, we may be required to register and comply with such regulations, including at a state or local level. To the extent that we decide to continue operations, the required registrations and regulatory compliance steps may result in extraordinary expense or burdens to us. We may also decide to cease certain operations and change our business model. Any disruption of our operations in response to the changed regulatory circumstances may be at a time that is disadvantageous to us.

A determination that any cryptocurrency is a “security” may adversely affect the value of such cryptocurrency and could therefore adversely affect our business, prospects or operations.

Depending on its characteristics, a cryptocurrency may be considered a “security” under the federal securities laws. The test for determining whether a particular cryptocurrency is a “security” is complex and difficult to apply, and the outcome is difficult to predict. Whether a cryptocurrency is a security under the federal securities laws depends on whether it is included in the lists of instruments making up the definition of “security” in the Securities Act, the Exchange Act and the Investment Company Act. Cryptocurrencies as such do not appear in any of these lists, although each list includes the terms “investment contract” and “note,” and the SEC has typically analyzed whether a particular cryptocurrency is a security by reference to whether it meets the tests developed by the federal courts interpreting these terms, known as the “Howey” and “Reves” tests, respectively. For many cryptocurrencies, whether or not the “Howey” or “Reves” tests are met is difficult to resolve definitively, and substantial legal arguments can often be made both in favor of and against a particular digital asset qualifying as a security under one or both of the “Howey” and “Reves” tests. Adding to the complexity, the SEC staff has indicated that the security status of a particular digital asset can change over time as the relevant facts evolve.

Current and future legislation and SEC-rulemaking and other regulatory developments, including interpretations released by a regulatory authority, may impact the manner in which Bitcoin or other cryptocurrencies are viewed or treated for classification and clearing purposes. In particular, Bitcoin and other cryptocurrencies may not be excluded from the definition of “security” by SEC rulemaking or interpretation requiring registration of all transactions unless another exemption is available, including transacting in Bitcoin or other cryptocurrencies among owners and requiring registration of trading platforms as “exchanges.” Accordingly, cryptocurrencies such as Zcash may currently be a security, based on the facts as they exist today, or may in the future be found by the SEC or a federal court to be a security under the federal securities laws. Historically, we have generated minimum amount of mining yields from Zcash and held minimum amount of Zcash. We do not intend to hold or generate mining yield from cryptocurrencies in violation of the federal securities laws. Accordingly, if Zcash or other cryptocurrencies involved in our business is determined by us, the SEC or other regulatory authorities to be a security under the federal securities laws, it could result in interruption of our business operations.

Furthermore, the SEC may determine that certain cryptocurrencies or interests, for example tokens offered and sold in ICOs, may constitute securities under the Howey test as stated by the United States Supreme Court. As such, ICO offerings would require registration under the Securities Act or an available exemption therefrom for offers or sales in the United States to be lawful. Section 5(a) of the Securities Act provides that, unless a registration statement is in effect as to a security, it is unlawful for any person, directly or indirectly, to engage in the offer or sale of securities in interstate commerce. Section 5(c) of the Securities Act provides a similar prohibition against offers to sell, or offers to buy, unless a registration statement has been filed.

Although we do not intend to be engaged in the offer or sale of securities in the form of ICO offerings, and we do not believe our planned mining activities would require registration for us to conduct such activities and accumulate cryptocurrencies, the SEC, CFTC, Nasdaq, IRS or other governmental or quasi-governmental agency or organization may conclude that our activities involve the offer or sale of “securities,” or ownership of “investment securities,” and we may be subject to regulation or registration requirements under various federal laws and related rules. Such regulation or the inability to meet the requirements to continue operations, would have a material adverse effect on our business and operations. We may also face similar issues with various state securities regulators who may interpret our actions as subjecting us to regulation, or requiring registration, under state securities laws, banking laws, or money transmitter and similar laws, which are also an unsettled area or regulation that exposes us to risks.

Regulatory changes or actions may restrict the use of cryptocurrencies or the operation of cryptocurrency networks in a manner that may require us to cease certain or all operations, which could have a material adverse effect on our business, financial condition and results of operations.

There has been a significant amount of regulatory attention directed toward cryptocurrencies, cryptocurrency networks and other industry participants by United States federal and state governments, foreign governments and self-regulatory agencies. For example, as cryptocurrencies such as Bitcoin have grown in popularity and in market size, the Federal Reserve Board, U.S. Congress and certain U.S. agencies (e.g., FinCEN, the SEC, the CFTC and the Federal Bureau of Investigation) have begun to examine the operations of the Bitcoin network, Bitcoin users and Bitcoin exchange markets.

In addition, local state regulators such as the Texas State Securities Board, the Massachusetts Securities Division of the Office of the Secretary of the Commonwealth, the New Jersey Bureau of Securities, the North Carolina Secretary of State’s Securities Division and the Vermont Department of Financial Regulation have initiated actions against, and investigations of, individuals and companies involved in cryptocurrencies.

Also, in March 2018, the South Carolina Attorney General Office’s Security Division issued a cease-and-desist order against Genesis Mining and Swiss Gold Global, Inc., stating that both companies were to stop doing business in South Carolina and are permanently barred from offering securities in the state in the future since they offered unregistered securities via cloud mining contracts under the South Carolina Uniformed Securities Act of 2005, S.C. Code Ann. § 35-1-101, et seq. (the order against Genesis Mining was subsequently withdrawn). Neither the Company nor, to our knowledge, Matrixport Group, has any direct or indirect relationship with these two companies.

Further, the North Carolina Secretary of State’s Securities Division issued in March 2018 a Temporary Cease and Desist Order against Power Mining Pool (made permanent pursuant to a Final Order on April 19, 2018), ordering it to cease and desist, among other things, offering “mining pool shares,” which were deemed “securities” under N.C. Gen. Stat. 78A-2(11), in North Carolina until they are registered with the North Carolina Secretary of State or are offered for sale pursuant to an exemption from registration under the North Carolina Securities Act, N.C. Gen. Stat. Chapter 78A.

Additionally, we rely on third-party mining pool service providers for mining revenue payouts from our mining operation, and certain of our potential hosting customers could be involved in, or could issue, cloud mining contracts or mining pool shares, and any regulatory restrictions on their practices could significantly reduce demand for our hosting services. Furthermore, it is possible that laws, regulations or directives that affect cryptocurrencies, cryptocurrency transaction processing or blockchain server hosting may change in a manner that may adversely affect our ability to conduct our business and operations in the relevant jurisdiction.

In addition, various foreign jurisdictions either have adopted or may adopt laws, regulations or directives that affect cryptocurrencies, cryptocurrency networks and their users and hosting service providers that fall within such jurisdictions’ regulatory scope. Such laws, regulations or directives may conflict with those of the United States, may negatively impact the acceptance of cryptocurrencies by users, merchants and service providers outside of the United States and may therefore impede the growth of cryptocurrency use. A number of countries, including India, South Korea and Russia, among others, currently have a more restrictive stance toward cryptocurrencies and, thereby, have reduced the rate of expansion of cryptocurrency use, as well as cryptocurrency transaction processing, in each of those countries.

Governments may in the future take regulatory actions that prohibit or severely restrict the right to acquire, own, hold, sell, use or trade cryptocurrencies or to exchange cryptocurrencies for fiat currency. Ownership of, holding or trading in cryptocurrencies may then be considered illegal and subject to sanction. Governments may also take regulatory action that may increase the cost and/or subject cryptocurrency mining companies to additional regulation.

By extension, similar actions by governments may result in the restriction of the acquisition, ownership, holding, selling, use or trading in the capital stock of cryptocurrency mining companies, including our common stock. Such a restriction could result in us liquidating our cryptocurrency inventory at unfavorable prices and may adversely affect our shareholders. The effect of any regulatory change, either by federal, state, local or foreign governments or any self-regulatory agencies, on us or our potential hosting customers is impossible to predict, but such change could be substantial and may require us or our potential hosting customers to cease certain or all operations and could have a material adverse effect on our business, financial condition and results of operations.

Current and future legislation and rulemaking regarding cryptocurrencies may result in extraordinary, non-recurring expenses and could have a material adverse effect on our business, financial condition and results of operations.

Current and future legislation and rulemaking by the CFTC and SEC or other regulators, including interpretations released by a regulatory authority, may impact the manner in which cryptocurrencies are treated. For example, cryptocurrencies derivatives are not excluded from the definition of “commodity future” by the CFTC. Furthermore, according to the CFTC, cryptocurrencies fall within the definition of a commodity under the Commodities Exchange Act (the “CEA”) and as a result, we may be required to register and comply with additional regulations under the CEA, including additional periodic reporting and disclosure standards and requirements. We may also be required to register as a commodity pool operator and to register as a commodity pool with the CFTC through the National Futures Association. If we are required to register with the CFTC or another governmental or self-regulatory authority, the scope of our business and operations may be constrained by the rules of such authority and we may be forced to incur additional expenses in the form of licensing fees, professional fees and other costs of compliance.

The SEC has issued guidance and made numerous statements regarding the application of securities laws to cryptocurrencies. For example, on July 25, 2017, the SEC issued a Report of Investigation (the “Report”) which concluded that tokens offered and sold by the Decentralized Autonomous Organization (“DAO”), a digital decentralized autonomous organization and investor-directed venture capital fund for cryptocurrencies, were issued for the purpose of raising funds. The Report concluded that these tokens were “investment contracts” within the meaning of Section 2(a)(1) of the Securities Act and Section 3(a)(10) of the Exchange Act, and therefore securities subject to the federal securities laws. In December 2017, the SEC issued a cease- and-desist letter to Munchee Inc., ordering that the company stop its initial coin offering of MUN Tokens on the grounds that it failed to file a registration statement or qualify for an exemption from registration. Similar to the tokens issued by the DAO, the SEC found that the MUN Tokens satisfied the definition of an “investment contract,” and were therefore subject to the federal securities laws. In February 2018, both the SEC and CFTC further reiterated their concerns regarding cryptocurrencies in written testimony to the Senate Banking, Housing and Urban Affairs Committee. On March 7, 2018, the SEC released a “Statement on Potentially Unlawful Online Platforms for Trading Digital Assets,” and reiterated that, if a platform “offers trading of cryptocurrencies that are securities” and “operates as ‘exchange,’ as defined by the federal securities laws,” the platform must register with the SEC as a national securities exchange or be exempt from registration. The SEC’s statement serves as a notice to operators of any platforms, including secondary market trading platforms, which the SEC is actively monitoring for potentially fraudulent or manipulative behavior in the market for security tokens, as the SEC has cautioned recently in the context of ICOs. On November 16, 2018, the SEC released a “Statement on Digital Asset Securities Issuance and Trading,” and emphasized that market participants must adhere to the SEC’s well-established and well-functioning federal securities law framework when dealing with technological innovations, regardless of whether the securities are issued in certificated form or using new technologies, such as blockchain. This has all been followed by additional statements and guidance from the SEC including no-action letters relating to specific blockchain-based projects, and a Framework for “Investment Contract” Analysis of Digital Assets published by the Division of Corporation Finance on April 3, 2019. In an August 2021 interview, SEC Chairman Gensler signaled the SEC is contemplating a robust regulatory regime for cryptocurrencies and reiterated the SEC’s position that many cryptocurrencies are unregulated securities.

The SEC has been active in asserting its jurisdiction over ICOs and cryptocurrencies and in bringing enforcement cases. The SEC has directed enforcement activity toward cryptocurrencies, and more specifically, ICOs. In September 2017, the SEC created a new division known as the “Cyber Unit” to address, among other things, violations involving distributed ledger technology and ICOs, and filed a civil complaint in the Eastern District of New York charging a businessman and two companies with defrauding investors in a pair of so-called ICOs purportedly backed by investments in real estate and diamonds (see *Securities and Exchange Commission v. REcoin Group Foundation, LLC, et al.*, Civil Action NO. 17-cv- 05725 (E.D.N.Y, filed Sept. 29, 2017)). Subsequently, the SEC has filed several orders instituting cease-and-desist proceedings against (i) Carrier EQ, Inc., d/b/a AirFox and Paragon Coin, Inc. in connection with their unregistered offerings of tokens (see CarrierEQ, Inc., Rel. No. 33-10575 (Nov. 16, 2018) and Paragon Coin, Inc., Rel. No. 33-10574 (Nov. 16, 2018), respectively), (ii) Crypto Asset Management, LP for failing to register a hedge fund formed for the purpose of investing in cryptocurrencies as an investment company (see *Crypto Asset Management, LP and Timothy Enneking*, Rel. No. 33-10544 (Sept. 11, 2018)), (iii) TokenLot LLC for failing to register as a broker-dealer, even though it did not meet the definition of an exchange (see *Tokenlot LLC, Lenny Kugel, and EliL. Lewitt*, Rel. No. 33-10543 (Sept. 11, 2018)) and (iv) EtherDelta’s founder for failing either to register as a national securities exchange or to operate pursuant to an exemption from registration as an exchange after creating a platform that clearly fell within the definition of an exchange (see *Zachary Coburn*, Rel. No. 34-84553 (Nov. 8, 2018)).

On June 4, 2019, the SEC filed a complaint in the U.S. District Court for the Southern District of New York against Kik Interactive, Inc. with respect to its September 2017 offering of Kin. According to articles published by various news outlets, the SEC has allegedly issued numerous subpoenas and information requests to technology companies, advisers and individuals involved in the cryptocurrency space and ICOs, as part of a broad inquiry into the cryptocurrency market.

A number of proposed ICOs have sought to rely on Regulation A and have filed with the SEC a Form 1-A covering a distribution of a digital token. Two such offerings were qualified in July 2019. In addition, some token offerings have been commenced as private securities offerings intended to be exempt from SEC registration. Further, the SEC has yet to approve listing and trading any exchange-traded products (such as ETFs) holding cryptocurrencies. The SEC has taken various actions against persons or entities that have allegedly misused cryptocurrencies, engaged in fraudulent schemes (i.e., Ponzi scheme) and/or engaged in the sale of tokens that were deemed securities by the SEC.

Although our activities are not focused on raising capital or assisting others that do so, the federal securities laws are very broad. We cannot provide assurance as to whether the SEC will continue or increase its enforcement with respect to cryptocurrencies or ICOs, including taking enforcement action against any person engaged in the sale of unregistered securities in violation of the Securities Act or any person acting as an unregistered investment company in violation of the Investment Company Act. Because the SEC has held that certain cryptocurrencies are securities based on the current rules and law, we may be required to register and comply with the rules and regulations under federal securities laws.

We cannot be certain as to how future regulatory developments will impact the treatment of cryptocurrencies under the law, including, but not limited to, whether cryptocurrencies will be classified as a security, commodity, currency and/or new or other existing classification. Such additional regulations may result in extraordinary, non-recurring expenses, thereby materially and adversely affecting investment in us. If we determine not to comply with such additional regulatory and registration requirements, we may seek to cease certain or all of our operations. Any such action could have a material adverse effect on our business, financial condition and results of operations.

Federal or state agencies may impose additional regulatory burdens on our business. Changing laws and regulations and changing enforcement policies and priorities have the potential to cause additional expenditures, restrictions, and delays in connection with our business operations.

Federal and state laws and regulations may be subject to change or changes in enforcement policies or priorities, including changes that may result from changes in the political landscape and changing technologies. Future legislation and regulations, changes to existing laws and regulations, or interpretations thereof, or changes in enforcement policies or priorities, could require significant management attention and cause additional expenditures, restrictions, and delays in connection with our business operations.

Increasing scrutiny and changing expectations from investors, lenders, customers, government regulators and other market participants with respect to our Environmental, Social and Governance (“ESG”) policies may impose additional costs on us or expose us to additional risks.

Companies across all industries and around the globe are facing increasing scrutiny relating to their ESG policies. Investors, lenders and other market participants are increasingly focused on ESG practices and in recent years have placed increasing importance on the implications and social cost of their investments. In February 2021, the Acting Chair of the SEC issued a statement directing the Division of Corporation Finance to enhance its focus on climate-related disclosure in public company filings and in March 2021 the SEC announced the creation of a Climate and ESG Task Force in the Division of Enforcement. The increased focus and activism related to ESG may hinder our access to capital, as investors and lenders may reconsider their capital investment allocation as a result of their assessment of our ESG practices. If we do not adapt to or comply with investor, lender or other industry shareholder expectations and standards and potential government regulations, which are evolving but may relate to the suitable deployment of electric power, or which are perceived to have not responded appropriately to the growing concern for ESG issues, our reputation may suffer which would have a material adverse effect on our business, financial condition and results of operations.

We may be subject to risks associated with misleading and/or fraudulent disclosure or use by the creators of cryptocurrencies.

Generally, we rely primarily on a combination of white papers and other disclosure documents prepared by the creators of applicable cryptocurrencies, as well as on our management’s ability to obtain adequate information to evaluate the potential implications of transacting in these cryptocurrencies. However, such white papers and other disclosure documents and information may contain misleading and/or fraudulent statements (which may include statements concerning the creators’ ability to deliver in a timely fashion the product and/or service disclosed in their white papers and other disclosure documents) and/or may not reveal any unlawful activities by the creators. Recently, there has been an increasing number of investigations and lawsuits by the SEC and the CFTC involving cryptocurrency creators for fraud and misappropriation, among other charges. Additionally, FinCEN has increased its enforcement efforts involving cryptocurrency creators regarding compliance with anti-money laundering and Know-Your-Customer laws.

To the extent that any of these creators make misleading and/or fraudulent disclosures or do not comply with federal, state or foreign laws, or if we are unable to uncover all material information about these cryptocurrencies and/or their creators, we may not be able to make a fully informed business decision relating to our transacting in or otherwise involving such cryptocurrencies, which could have a material adverse effect on our business, financial condition and results of operations.

Our management and compliance personnel have limited experience handling a listed cryptocurrency mining- related services company, and our compliance program has a recent history only.

Our management and compliance personnel have limited experience in handling regulatory and compliance matters relating to a listed cryptocurrency mining-related services company. Our key compliance documents and compliance programs, such as AML and KYC procedures, also have a recent history only. We believe that we have measures designed to limit our counterparty risks. For example, we have been monitoring our investments closely and limiting our exposure to the investment risk by including in our operation strategy the requirements to invest only in robust wealth management products and that the investments need to be redeemed within the same fiscal quarter. In order to further limit our exposure to counterparty risk, we adopted an operation strategy in December 2022, pursuant to which we shall not enter into any digital asset based lending or wealth management products in the foreseeable future. While we have been devoting a substantial amount of time and resources to various compliance initiatives and risk management measures, including but not limited to, recruiting a dedicated team of compliance expertise, we cannot assure you the practical application and effectiveness of our compliance program and risk management measures, nor that there will not be a failure in detecting regulatory compliance issues or managing risk exposure, which may adversely affect our reputation, business, financial condition and results of operations.

Risks Related to Our Securities

A market for Class A Ordinary Shares may not develop, which would adversely affect the liquidity and price of Class A Ordinary Shares.

An active trading market for Class A Ordinary Shares may never develop or, if developed, it may not be sustained. You may be unable to sell your Class A Ordinary Shares unless a market can be established and sustained.

The market price of Class A Ordinary Shares may be volatile, and you may lose some or all of your investment.

The price of Class A Ordinary Shares may fluctuate due to a variety of factors, including:

- changes in the industries in which we operate;
- developments involving our competitors;
- changes in laws and regulations affecting our business;
- variations in our operating performance and the performance of our competitors in general;
- actual or anticipated fluctuations in our quarterly or annual operating results;
- publication of research reports by securities analysts about us or our competitors or our industry;
- the public's reaction to our press releases, our other public announcements and our filings with the SEC;
- actions by holders in respect of any of their Class A Ordinary Shares;
- additions and departures of key personnel;
- commencement of, or involvement in, litigation involving us;
- changes in our capital structure, such as future issuances of securities or the incurrence of debt;
- the volume of Class A Ordinary Shares available for public sale; and
- general economic and political conditions, such as the effects of the COVID-19 outbreak, recessions, volatility in the markets, interest rates, local and national elections, fuel prices, international currency fluctuations, corruption, political instability, and acts of war or terrorism.

In particular, the market price of Class A Ordinary Shares could be subject to extreme volatility and fluctuations in response to industry-wide developments beyond our control, such as continued industry-wide fallout from the Chapter 11 bankruptcy filings of cryptocurrency exchanges FTX (including its affiliated hedge fund Alameda Research LLC), crypto hedge fund Three Arrows, crypto miners Compute North and Core Scientific and crypto lenders Celsius Network, Voyager Digital and BlockFi throughout calendar year 2022. Although, as mentioned elsewhere in this annual report, we have no exposure to any of the cryptocurrency market participants that filed for Chapter 11 bankruptcy in 2022, or who are known to have experienced excessive redemptions, suspended redemptions or have crypto assets of their customers unaccounted for; and we do not have any assets, material or otherwise, that may not be recovered due to these bankruptcies or excessive or suspended redemptions; the price of Class A Ordinary Shares may still not be immune to unfavorable investor sentiment resulting from these developments in the broader cryptocurrency industry and you may experience depreciation of price of Class A Ordinary Shares.

We are a “controlled company” within the meaning of the applicable Nasdaq listing rules and, as a result, will qualify for exemptions from certain corporate governance requirements. If we rely on these exemptions, you will not have the same protections afforded to shareholders of companies that are subject to such requirements.

We are a “controlled company” within the meaning of applicable Nasdaq listing rules as a result of Mr. Jihan Wu’s controlling a majority of the voting power of our outstanding ordinary shares. Under these rules, a company of which more than 50% of the voting power for the election of directors is held by an individual, group or another company is a “controlled company.” For so long as we remain a “controlled company,” we may elect not to comply with certain corporate governance requirements, including the requirements:

- that a majority of the board of directors consists of independent directors;
- for an annual performance evaluation of the nominating, corporate governance and compensation committees;
- that we have a nominating and corporate governance committee that is composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibilities; and
- that we have a compensation committee that is composed entirely of independent directors with a written charter addressing the committee’s purpose and responsibility.

We currently intend to use these exemptions as appropriate, and we may continue to use all or some of these exemptions in the future. As a result, you may not have the same protections afforded to shareholders of companies that are subject to all of the Nasdaq corporate governance requirements.

We may issue additional Class A Ordinary Shares or other equity or convertible debt securities without approval of the holders of Class A Ordinary Shares, which would dilute existing ownership interests and may depress the market price of Class A Ordinary Shares.

We will continue to require significant capital investment to support our business, and we may issue additional Class A Ordinary Shares or other equity or convertible debt securities of equal or senior rank in the future without approval of the holders of the Class A Ordinary Shares in certain circumstances.

Our issuance of additional Class A Ordinary Shares or convertible debt securities of equal or senior rank would have the following effects: (i) our existing holders’ of ordinary shares proportionate ownership interest in the Company may decrease, (ii) the amount of cash available per Ordinary Share, including for payment of dividends in the future, may decrease, (iii) the relative voting power of each previously outstanding Class A Ordinary Shares may be diminished and (iv) the market price of Class A Ordinary Shares may decline. Under certain circumstances, each Class V Ordinary Share will automatically convert into one Class A Ordinary Share (as adjusted for share splits, share combination and similar transactions occurring), but as the conversion ratio is one-to-one, such mandatory conversion would not have a dilutive effect.

Furthermore, employees, directors and consultants of the Company and our subsidiaries and affiliates hold, and are expected to be granted equity awards under the Company’s incentive plan. You will experience additional dilution when those equity awards become vested and exercised, for the Company’s Ordinary Shares.

The dual-class structure of our ordinary shares may adversely affect price and liquidity of Class A Ordinary Shares.

S&P Dow Jones and FTSE Russell have recently announced changes to their eligibility criteria for inclusion of shares of public companies in certain indices, including the S&P 500, to exclude companies with multiple classes of shares and companies whose public shareholders hold no more than 5% of total voting power from being added to such indices. In addition, several shareholder advisory firms have announced their opposition to the use of multiple class capital structures. As a result, the dual-class structure of our ordinary shares may prevent the inclusion of the Class A Ordinary Shares in such indices and may cause shareholder advisory firms to publish negative commentary about our corporate governance practices or otherwise seek to cause us to change our capital structure. Any such exclusion from indices could result in a less active trading market for the Class A Ordinary Shares. Any actions or publications by shareholder advisory firms critical of our corporate governance practices or capital structure could also adversely affect the value of the Class A Ordinary Shares.

Volatility in the price of Class A Ordinary Shares could subject us to securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Future sales, or the possibility of future sales of, a substantial number of our Ordinary Shares may depress the price of such securities.

Future sales of a substantial number of our Ordinary Shares in the public market, or the perception that these sales might occur, could depress the market price of the Company's Ordinary Shares and could impair our ability to raise capital through the sale of additional equity securities.

On August 8, 2023, we entered into an ordinary shares purchase agreement (the "Equity Financing Purchase Agreement") and a registration rights agreement (the "Equity Financing Registration Rights Agreement") with B. Riley Principal Capital II, LLC ("B. Riley Principal Capital II"). Pursuant to the Equity Financing Purchase Agreement, subject to the satisfaction of the conditions set forth in the Equity Financing Purchase Agreement, we have the right to sell to B. Riley Principal Capital II up to US\$150,000,000 of our Class A Ordinary Shares, subject to certain limitations and conditions set forth in the Equity Financing Purchase Agreement, from time to time during the term of the Equity Financing Purchase Agreement. We filed a registration statement, which was declared effective on September 20, 2023, to register the resale of up to 150,000,000 Class A Ordinary Shares. Given this substantial number of shares available for resale, the sale of shares by such holders, or the perception in the market that holders of a large number of shares intend to sell shares, could increase the volatility of the market price of our Class A Ordinary Shares or result in a significant decline in the public trading price of our Class A Ordinary Shares. Further, the purchase price for the shares that we may sell to B. Riley Principal Capital II under our committed equity financing will fluctuate based on the price of our Class A Ordinary Shares. Depending on market liquidity at the time, sales of such shares may cause the trading price of our Class A Ordinary Shares to fall. If and when we do sell Class A Ordinary Shares to B. Riley Principal Capital II, after B. Riley Principal Capital II has acquired the Class A Ordinary Shares, B. Riley Principal Capital II may resell all, some, or none of those shares at any time or from time to time in its discretion. Therefore, sales to B. Riley Principal Capital II by us could result in substantial dilution to the interests of other holders of our Class A Ordinary Shares. Additionally, the sale of a substantial number of shares of our Class A Ordinary Shares to B. Riley Principal Capital II, or the anticipation of such sales, could make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect sales. The decision to sell any shares of our Class A Ordinary Shares to sell to B. Riley Principal Capital II under the committed equity financing will depend on market conditions, the trading prices of our Class A Ordinary Shares and other considerations, and we cannot guarantee the extent to which we may utilize the committed equity financing.

On March 18, 2024, we entered into an At Market Issuance Sales Agreement with B. Riley Securities, Inc., Cantor Fitzgerald & Co., Needham & Company, LLC, Roth Capital Partners, LLC, StockBlock Securities LLC and Rosenblatt Securities Inc. (collectively, the "sales agents"), pursuant to which we may offer and sell our Class A Ordinary Shares having an aggregate offering price of up to \$250,000,000 from time to time through or to the sales agents, as agent or principal. It is not possible to predict the actual number of Class A Ordinary Shares, if any, we will sell under such agreement, or the actual gross proceeds resulting from those sales.

The requirements of being a public company may strain our resources, divert our management's attention and affect our ability to attract and retain qualified board members.

We are subject to the reporting requirements of the Securities Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Act, Nasdaq listing requirements and other applicable securities rules and regulations. As such, we will incur additional legal, accounting and other expenses. These expenses may increase even more if we no longer qualify as an "emerging growth company," as defined in Section 2(a) of the Securities Act. The Exchange Act requires, among other things, that we file annual and current reports with respect to our business and operating results. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We may need to hire more employees or engage outside consultants to comply with these requirements, which will increase our costs and expenses.

Changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time-consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We expect these laws and regulations to increase our legal and financial compliance costs and to render some activities more time-consuming and costly, although we are currently unable to estimate these costs with any degree of certainty.

Many members of our management team will have limited experience managing a publicly traded company, interacting with public company investors and complying with the increasingly complex laws pertaining to public companies. Our management team may not successfully or efficiently manage the transition to being a public company subject to significant regulatory oversight and reporting obligations under the federal securities laws and regulations and the continuous scrutiny of securities analysts and investors. The need to establish the corporate infrastructure demanded of a public company may divert the management's attention from implementing its growth strategy, which could prevent us from improving our business, financial condition and results of operations. Furthermore, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance, and consequently we may be required to incur substantial costs to maintain the same or similar coverage. These additional obligations could have a material adverse effect on our business, financial condition, results of operations and prospects. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our finance and audit committee and nomination and compensation committee, and to attract and retain qualified executive officers.

As a result of disclosure of information in this annual report and in filings required of a public company, our business and financial condition will become more visible, which we believe may result in threatened or actual litigation, including by competitors and other third parties. If such claims are successful, our business and operating results could be adversely affected, and, even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could cause an adverse effect on our business, financial condition, results of operations, prospects and reputation.

We previously identified a material weakness in our internal control over financial reporting. In the event of any failure to maintain an effective system of disclosure controls and internal control over financial reporting, we may not be able to accurately report its financial results or prevent fraud. As a result, holders of the Class A Ordinary Shares could lose confidence in our financial and other public reporting, which is likely to negatively affect our business and the market price of the Class A Ordinary Shares.

Prior to the closing of the Business Combination, Bitdeer has been a private company with limited accounting personnel and other resources with which to address Bitdeer's internal controls and procedures. Bitdeer's management has not completed an assessment of the effectiveness of Bitdeer's internal control over financial reporting and Bitdeer's independent registered public accounting firm has not conducted an audit of Bitdeer's internal control over financial reporting.

During the audit of its financial statements for the year ended December 31, 2022, Bitdeer identified a material weakness in the design and operating effectiveness of its internal control over financial reporting with respect to the Internal Control — Integrated Framework (2013 Framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), concerning in particular the control environment due to lack of sufficient financial reporting and accounting personnel with appropriate knowledge to design, implement and operate key controls over financial reporting process to address complex and emerging technical accounting issues and related disclosures in accordance with IFRS. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of Bitdeer's annual or interim financial statements will not be prevented or detected on a timely basis. As a consequence of this material weakness, accounting errors were identified in Bitdeer's combined and consolidated statements of operations and comprehensive loss and cash flows for the year ended December 31, 2021 primarily related to revenue presentation in relation to the sales of mining machine business and the cash flow presentation related to the disposal of cryptocurrencies earned from revenue arrangements. The revenue and cost of revenue on the combined statements of operations and comprehensive loss and the operating and investing cash flows on the combined statements of cash flows have been previously restated. The material weakness could also result in other misstatements of Bitdeer's accounts or disclosures, which may result in additional material misstatements in Bitdeer's annual or interim financial statements that would not be prevented or detected.

Bitdeer has instituted plans to remediate the material weakness, including implementation of appropriate processes with the objective of improving the effectiveness of controls over financial reporting. Following the closing of the Business Combination, we have invested significant resources in our design and execution of our Sarbanes-Oxley Act compliance program, such as recruitment of qualified accounting personnel with sufficient knowledge and experience to address complex accounting issues, establishment of an internal audit team to monitor the internal control compliance over the financial reporting process, reassessing existing entity-level controls and, as necessary, implementing enhancements to such controls. Based on assessment performed by our management on the performance of certain remediation measures, we determined that as of December 31, 2023, the material weakness in our internal control over financial reporting previously identified had been remediated. However, if we identify additional material weaknesses in the future or otherwise fail to develop and maintain an effective system of internal controls, we may not be able to produce timely and accurate financial statements. The failure to implement and maintain effective internal control over financial reporting could result in errors in our financial statements that could result in a restatement of our financial statements, which in turn could have a material adverse effect on our financial condition and results of operations.

Any failure to implement and maintain effective internal control over financial reporting also could adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we will eventually be required to include in our periodic reports that will be filed with the SEC. Ineffective internal control over financial reporting could expose us to increased risk of fraud or misuse of corporate assets and subject us to potential delisting from the stock exchange on which we are listed, regulatory investigations and civil or criminal sanctions. We may also be required to restate our financial statements from prior periods. If we fail to achieve and maintain an effective internal control environment, we could suffer material misstatements in our financial statements and fail to meet our reporting obligations, which would likely cause investors to lose confidence in our reported financial information. This could in turn limit our access to capital markets, harm our financial condition and results of operations, and lead to a decline in the market price of the Class A Ordinary Shares.

Recent market volatility could impact the stock price and trading volume of the Class A Ordinary Shares.

The trading market for the Class A Ordinary Shares could be impacted by recent market volatility. While we do not believe that we are more likely to be affected by market volatility than other public companies, recent stock run-ups, divergences in valuation ratios relative to those seen during traditional markets, high short interest or short squeezes, and strong and atypical retail investor interest in the markets may impact the demand for the Class A Ordinary Shares.

A possible “short squeeze” due to a sudden increase in demand of Class A Ordinary Shares that largely exceeds supply may lead to price volatility in the Class A Ordinary Shares. Investors may purchase Class A Ordinary Shares to hedge existing exposure or to speculate on the price of the Class A Ordinary Shares. Speculation on the price of Class A Ordinary Shares may involve both long and short exposures. To the extent aggregate short exposure exceeds the number of Class A Ordinary Shares available for purchase (for example, in the event that large redemption requests dramatically affect liquidity), investors with short exposure may have to pay a premium to repurchase Class A Ordinary Shares for delivery to lenders. Those repurchases may in turn, dramatically increase the price of the Class A Ordinary Shares. This is often referred to as a “short squeeze.” A short squeeze could lead to volatile price movements in the Class A Ordinary Shares that are not directly correlated to the operating performance of us.

We have not paid any dividend in the past, and investors may be dependent entirely on price appreciation of Class A Ordinary Shares for return on their investment subject to our future dividend policy.

We have not paid any dividend in the past. It is expected that we will retain most, if not all, of our available funds and any future earnings to fund the development and growth of our business. Therefore, investors should not rely on an investment in Class A Ordinary Shares as a source for any future dividend income.

Our board of directors will have complete discretion as to whether to distribute dividends. Even if the board of directors decides to declare and pay dividends, the timing, amount and form of future dividends, if any, will depend on the future results of operations and cash flow, capital requirements and surplus, the amount of distributions, if any, received by us from subsidiaries, our financial condition, contractual restrictions and other factors deemed relevant by the board of directors. There is no guarantee that the Class A Ordinary Shares will appreciate in value or that the trading price of the Class A Ordinary Shares will not decline.

If securities and industry analysts do not publish research or publish inaccurate or unfavorable research or cease publishing research about us, the price and trading volume of Class A Ordinary Shares could decline significantly.

The trading market for Class A Ordinary Shares will depend, in part, on the research and reports that securities or industry analysts publish about us or our business. We may be unable to sustain coverage by well-regarded securities and industry analysts. If either none or only a limited number of securities or industry analysts maintain coverage of us, or if these securities or industry analysts are not widely respected within the general investment community, the demand for Class A Ordinary Shares could decrease, which might cause our price and trading volume to decline significantly. In the event that we obtain securities or industry analyst coverage, if one or more of the analysts who cover us downgrade their assessment of us or publish inaccurate or unfavorable research about our business, the market price and liquidity for Class A Ordinary Shares could be negatively impacted.

We are a foreign private issuer within the meaning of the rules under the Exchange Act, and as such we are exempt from certain provisions applicable to domestic public companies in the United States.

Because we are a foreign private issuer under the Exchange Act, we are exempt from certain provisions of the securities rules and regulations in the United States that are applicable to U.S. domestic issuers, including: (i) the rules under the Exchange Act requiring the filing of quarterly reports on Form 10-Q or current reports on Form 8-K with the SEC; (ii) the sections of the Exchange Act regulating the solicitation of proxies, consents, or authorizations in respect of a security registered under the Exchange Act; (iii) the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and (iv) the selective disclosure rules by issuers of material nonpublic information under Regulation FD.

We will be required to file an annual report on Form 20-F within four months of the end of each fiscal year. In addition, we intend to publish our results on a quarterly basis through press releases, distributed pursuant to the rules and regulations of Nasdaq. Press releases relating to financial results and material events will also be furnished to the SEC on Form 6-K. However, the information we are required to file with or furnish to the SEC will be less extensive and less timely compared to that required to be filed with the SEC by U.S. domestic issuers. As a result, you may not be afforded the same protections or information, which would be made available to you, were you investing in a U.S. domestic issuer.

As an exempted company incorporated in the Cayman Islands, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from Nasdaq corporate governance listing standards; these practices may afford less protection to holders of Class A Ordinary Shares than they would enjoy if we complied fully with Nasdaq corporate governance listing standards.

We are an exempted company incorporated in the Cayman Islands listed on Nasdaq. Nasdaq market rules permit a foreign private issuer like us to follow the corporate governance practices of our home country. Certain corporate governance practices in the Cayman Islands, which is our home country, may differ significantly from Nasdaq corporate governance listing standards applicable to domestic U.S. companies.

Among other things, we are not required to have: (i) a majority of the board of directors consist of independent directors; (ii) a compensation committee consisting of independent directors; (iii) a nominating committee consisting of independent directors; or (iv) regularly scheduled executive sessions with only independent directors each year.

Although not required and as may be changed from time to time, we intend to have a majority-independent board of directors, a majority-independent compensation committee and a nominating committee. Subject to the foregoing, we intend to rely on the exemptions listed above. As a result, you may not be provided with the benefits of certain corporate governance requirements of Nasdaq applicable to U.S. domestic public companies.

You may face difficulties in protecting your interests, and your ability to protect your rights through U.S. courts may be limited, because we are incorporated under the law of the Cayman Islands, we conduct a substantial portion of our operations and a majority of our directors and executive officers reside outside of the United States.

We are an exempted company limited by shares incorporated under the laws of the Cayman Islands, and will conduct a substantial portion of our operations through our subsidiary, Bitdeer, outside the United States. A substantial portion of our assets are located outside of the United States. A majority of our officers and directors reside outside the United States and a substantial portion of the assets of those persons are located outside of the United States. As a result, it could be difficult or impossible for you to bring an action against us or against these individuals outside of the United States in the event that you believe that your rights have been infringed upon under the applicable securities laws or otherwise. Even if you are successful in bringing an action of this kind, the laws of the Cayman Islands and of the jurisdictions that comprise the Southeast Asian region could render you unable to enforce a judgment against our assets or the assets of our directors and officers.

In addition, our corporate affairs will be governed by the amended and restated memorandum and articles of association of the Company, the Cayman Companies Act and the common law of the Cayman Islands. The common law of the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands as well as from the common law of England, the decisions of whose courts are of persuasive authority, but are not binding, on a court in the Cayman Islands. The rights of our ordinary shareholders and the fiduciary duties of our directors under Cayman Islands law may not be as clearly established as they would be under statutes or judicial precedent in some jurisdictions in the United States. In particular, the Cayman Islands has a different body of securities laws than the United States. Some U.S. states, such as Delaware, may have more fully developed and judicially interpreted bodies of corporate law than the Cayman Islands.

Shareholders of Cayman Islands exempted companies like us have no general rights under Cayman Islands law to inspect corporate records (other than our memorandum and articles of association, special resolutions, and our register of mortgages and charges) or to obtain copies of lists of shareholders of these companies. Our directors will have discretion under the amended and restated memorandum and articles of association of the Company to determine whether or not, and under what conditions, our corporate records may be inspected by our ordinary shareholders, but we are not obliged to make them available to the ordinary shareholders. This may make it more difficult for you to obtain the information needed to establish any facts necessary for a shareholder to motion or to solicit proxies from other shareholders in connection with a proxy contest.

Certain corporate governance practices in the Cayman Islands, which is our home country, differ significantly from requirements for companies incorporated in other jurisdictions such as the United States. To the extent we choose to follow home country practice with respect to corporate governance matters, our shareholders may be afforded less protection than they otherwise would under rules and regulations applicable to U.S. domestic issuers.

As a result of all of the above, our shareholders may have more difficulty in protecting their interests in the face of actions taken by management, members of the board of directors or controlling shareholders than they would as public shareholders of a company incorporated in the United States.

We are an “emerging growth company,” as defined under the federal securities laws, and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make the Class A Ordinary Shares less attractive to investors.

We are an “emerging growth company,” as defined in the Securities Act, and we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including, among other things, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act, and reduced disclosure obligations regarding executive compensation and exemptions from the requirements of holding a nonbinding shareholder advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. As a result, holders of Ordinary Shares may not have access to certain information that they may deem important.

We will remain an emerging growth company until the earlier of (i) the last day of the fiscal year (a) following the fifth anniversary of the closing of the Business Combination, (b) in which we have total annual gross revenues of at least US\$1.235 billion, (c) or in which we are deemed to be a large accelerated filer, which means the market value of our shares that is held by non-affiliates exceeds US\$700 million as of the last business day of our prior second fiscal quarter, and (ii) the date on which we issued more than US\$1.0 billion in non-convertible debt during the prior three-year period. If some investors find the Class A Ordinary Shares less attractive as a result, there may be a less active trading market for the Class A Ordinary Shares, the price of Class A Ordinary Shares may be more volatile and the price of the Class A Ordinary Shares may decline. After we are no longer an “emerging growth company,” we may incur significant expenses and devote substantial management effort toward ensuring compliance with the requirements of Section 404 and the other rules and regulations of the SEC.

Risks Related to Taxation

We are subject to tax risks related to our multinational operations.

We are subject to taxes in various overseas jurisdictions where we operate. Tax laws and practices applicable in the various jurisdictions we operate in are complex and sophisticated, and we face risks of tax non-compliance caused by misunderstanding of regional tax policies or different tax administration enforcement. Due to economic and political conditions, tax rates in various jurisdictions may be subject to significant changes. Our effective tax rates could be affected by changes in the mix of earnings in countries with different statutory tax rates, changes in the valuation of deferred tax assets and liabilities, or changes in tax laws or their interpretation.

We are also subject to the examination of tax returns and other tax matters by domestic and international tax authorities and governmental bodies. There can be no assurance as to the outcome of these examinations. If our effective tax rates were to increase or if the ultimate determination of our taxes owed is for an amount in excess of amounts previously accrued, our financial condition, operating results and cash flows could be adversely affected.

We may be or become a PFIC, which could result in adverse U.S. federal income tax consequences to U.S. Holders of Class A Ordinary Shares.

In general, a non-U.S. corporation is a PFIC for U.S. federal income tax purposes for any taxable year in which (i) 50% or more of the average value of its assets (generally determined on the basis of a weighted quarterly average) consists of assets that produce, or are held for the production of, passive income, or (ii) 75% or more of its gross income consists of passive income. Passive income generally includes dividends, interest, royalties, rents, investment gains, net gains from the sales of property that does not give rise to any income and net gains from the sale of commodities (subject to certain exceptions, such as an exception for certain income derived in the active conduct of a trade or business). Cash and cash equivalents are, and cryptocurrency balances are likely, passive assets. The value of goodwill will generally be treated as an active or passive asset based on the nature of the income produced in the activity to which the goodwill is attributable. For purposes of the PFIC rules, a non-U.S. corporation that owns, directly or indirectly, at least 25% by value of the stock of another corporation is treated as if it held its proportionate share of the assets of the other corporation, and received directly its proportionate share of the income of the other corporation.

Based on the Company’s analysis of its income, assets, activities, and market capitalization, the Company believes that it was not a PFIC for its taxable year ended December 31, 2023. However, the Company’s PFIC status for any taxable year is a factual annual determination that can be made only after the end of that year and will depend on the composition of the Company’s income and assets and the value of its assets from time to time (including the value of its goodwill, which may be determined in large part by reference to the market price of the Class A Ordinary Shares from time to time, which could be volatile). In addition, the risk of the Company being a PFIC for any taxable year will increase if its market capitalization declines substantially during that year. Furthermore, whether and to which extent the Company’s income and assets, including goodwill, will be characterized as active or passive will depend on various factors that are subject to uncertainty, including the Company’s future business plan and the application of laws that are subject to varying interpretation. For example, there is no authority that directly addresses the proper treatment of certain items of the Company’s income, such as income from cryptocurrency self-mining, hash rate sharing, or hosting for purposes of the PFIC rules and, although the Company currently treats these items of income as active, such treatment is uncertain. Moreover, certain of the Company’s business activities generate passive income and, although the amount of such income is currently small, the Company’s risk of being a PFIC will increase if the proportion of the Company’s revenue earned from such business activities increases in future taxable years. Accordingly, there can be no assurances that the Company will not be a PFIC for its current or any future taxable year, and the Company’s U.S. counsel expresses no opinion with respect to the Company’s PFIC status for any taxable year.

If the Company is (or is treated with respect to a U.S. Holder as) a PFIC for any taxable year during which a U.S. Holder owns Class A Ordinary Shares, the U.S. Holder generally will be subject to adverse U.S. federal income tax consequences, including increased tax liability on disposition gains and certain “excess distributions” and additional reporting requirements. Prospective U.S. Holders of Class A Ordinary Shares should consult their tax advisers regarding the application of the PFIC rules in their particular circumstances.

Because under certain attribution rules the Company’s non-U.S. subsidiaries may be treated as controlled foreign corporations for U.S. federal income tax purposes, there could be adverse U.S. federal income tax consequences to certain U.S. Holders of Class A Ordinary Shares who own, directly or indirectly, ten percent or more of Class A Ordinary Shares.

For U.S. federal income tax purposes, each “Ten Percent Shareholder” (as defined below) in a non-U.S. corporation that is classified as a “controlled foreign corporation” (a “CFC”) generally is required to include in income such Ten Percent Shareholder’s pro rata share of the CFC’s “Subpart F income,” investment of earnings in U.S. property, and “global intangible low-taxed income,” even if the CFC has made no distributions to its shareholders. Subpart F income generally includes dividends, interest, rents, royalties, gains from the sale of securities and income from certain transactions with related parties, and “global intangible low-taxed income” generally consists of net income of the CFC, other than Subpart F income and certain other types of income, in excess of certain thresholds. A non-U.S. corporation generally will be classified as a CFC if Ten Percent Shareholders own, directly, indirectly or constructively (through attribution), more than 50% of either the total combined voting power of all classes of stock entitled to vote of such corporation or of the total value of the stock of such corporation. A “Ten Percent Shareholder” is a United States person (as defined by the Code) who owns or is considered to own, directly, indirectly or constructively, 10% or more of either the total combined voting power of all classes of stock entitled to vote of such corporation or the total value of the stock of such corporation. The determination of CFC status is complex and includes certain “downward attribution” rules pursuant to which the Company’s non-U.S. subsidiaries may be treated as constructively owned by the Company’s U.S. subsidiaries and, therefore, the Company’s non-U.S. subsidiaries may be treated as CFCs. Prospective holders of Class A Ordinary Shares that may be or become Ten Percent Shareholders should consult their tax advisors with respect to the application of the CFC rules in their particular circumstances.

Future changes to tax laws could materially and adversely affect the Company and reduce net returns to the Company’s shareholders.

The Company’s tax treatment is subject to changes in tax laws, regulations, and treaties, or the interpretation thereof, tax policy initiatives and reforms under consideration, and the practices of tax authorities in jurisdictions in which the Company operates. For instance, the Inflation Reduction Act of 2022 imposes, among other rules, a 15% minimum tax on the book income of certain large corporations and a 1% excise tax on certain corporate stock repurchases. The income and other tax rules in the jurisdictions in which the Company operates are constantly under review by taxing authorities and other governmental bodies. Changes to tax laws (which changes may have retroactive application) could adversely affect the Company or its shareholders. The Company is unable to predict what tax proposals may be proposed or enacted in the future or what effect such changes would have on the Company’s business, but such changes, to the extent they are brought into tax legislation, regulations, policies or practices, could affect the Company’s financial position and overall or effective tax rates in the future in countries where the Company has operations and where the Company is organized or resident for tax purposes, and increase the complexity, burden and cost of tax compliance. The Company urges investors to consult with their legal and tax advisers regarding the implication of potential changes in tax laws on an investment in Class A Ordinary Shares.

Cryptocurrencies and transactions may be subject to further taxation in the future.

In recent years, the rise of cryptocurrency prices and transaction volume has attracted the attention of tax authorities. As the laws governing cryptocurrencies are still evolving, the tax treatment of cryptocurrencies in various jurisdictions is subject to change. New laws or legislations, such as the ones introduced in the United States under the “Infrastructure Investment and Jobs Act,” commonly referred to as the “infrastructure bill,” which was signed into law on November 15, 2021, will include tax reporting provisions that apply to cryptocurrencies. This reporting requirement took effect on January 1, 2023, and the implementation of these requirements is ongoing. We are closely monitoring the situation and waiting for more issuance of updated guidance from government agencies. Introductions of more stringent provisions on reporting or surveillance of cryptocurrencies and cryptocurrencies will likely be an ongoing trend from authorities worldwide. We caution that these new provisions may direct or indirectly impact scrutiny and assessments in relation to taxation. While some countries have expressed an intention to or have imposed taxation on cryptocurrencies and transactions, other tax authorities have been silent. As there is considerable uncertainty over the taxation of cryptocurrencies, there is no guarantee that the cryptocurrencies and transactions denominated in cryptocurrencies will not be subject to further taxation in the future, including but not limited to additional taxes and increased tax rate. These events could reduce the economic return of cryptocurrency and increase the holding costs of cryptocurrencies, rendering the cryptocurrency mining solutions we provide less attractive to customers, which could materially and adversely affect our business, results of operations and financial condition.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

We were created as Bitdeer Technologies Holding Company in January 2021 to separate the *Cloud Hash Rate* business, the self-mining business and the business of providing dynamic hosting solutions (collectively, the “Bitdeer Business”) and the mining pool business, including the ownership of and registration right to the domain name btc.com (the “BTC.com Pool Business” or “BTC”), following a corporate reorganization of BitMain Technologies Holding Company (collectively with its subsidiaries, “Bitmain”). The separation from Bitmain resulted in the transfer of certain assets, liabilities and contracts related to the Bitdeer Business and the BTC.com Pool Business at their historical book values from Bitmain to us on January 26, 2021, when Bitmain distributed by way of dividend in kind the shares of us to the then existing Bitmain shareholders and we and our subsidiaries began to operate on a stand-alone basis.

In February 2021, we established Blockchain Alliance Technologies Holding Company (“Blockchain Alliance”) to separate the BTC.com Pool Business following a corporate reorganization of our group. The separation was consummated on April 15, 2021, when we distributed by way of dividend in kind the shares of Blockchain Alliance to the then existing shareholders of our group.

In April 2023, the Business Combination was completed, upon which Bitdeer Technologies Group became the ultimate corporate parent of our group, and the Class A Ordinary Shares were listed on the Nasdaq under the symbol “BTDR.” Certain additional information about us is set forth in “Item 4.B - Business Overview” and is incorporated herein by reference.

Our registered office is Ogier Global (Cayman) Limited, 89 Nexus Way, Camana Bay, Grand Cayman, KY1-9009, Cayman Islands, and our principal executive office is 08 Kallang Avenue, Aperia tower 1, #09-03/04, Singapore 339509. Our principal website address is <https://www.bitdeer.com>. We do not incorporate the information contained on, or accessible through, our websites into this annual report, and you should not consider it a part of this annual report. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The SEC’s website is www.sec.gov.

B. Business Overview

The following discussion reflects the business of Bitdeer. Unless the context otherwise requires, all references in this section to the “Company,” “we,” “us,” “our” or “Bitdeer” refer collectively to Bitdeer Technologies Holding Company and its subsidiaries.

Overview

We are a world-leading technology company for blockchain and high-performance computing. We are committed to providing comprehensive computing solutions for our customers. We handle complex processes involved in computing such as equipment procurement, transport logistics, datacenter design and construction, equipment management, and daily operations. We also offer advanced cloud capabilities to customers with high demand for artificial intelligence. Headquartered in Singapore, we currently operate six mining datacenters in the United States, Norway, and Bhutan with an aggregate electricity capacity of 895MW as of February 29, 2024. From these mining datacenters, we generate hash rate under management which is categorized into proprietary and hosting hash rate. As of February 29, 2024, our proprietary hash rate reached 8.4 EH/s. Together with the 13.6 EH/s hosting hash rate generated from mining machines hosted in our mining datacenters, we possessed a total of 22.0 EH/s of hash rate under management as of February 29, 2024.

To date, we primarily operate three business lines - “self-mining,” “hash rate sharing” and “hosting.” Self-mining refers to cryptocurrency mining for our own account, which allows us to directly capture the high appreciation potential of cryptocurrency. We offer two types of hash rate sharing solutions, Cloud Hash Rate and Hash Rate Marketplace. Through Cloud Hash Rate, we sell our proprietary hash rate to customers. We offer hash rate subscription plans at fixed price and share mining income with them under certain arrangements. Through Hash Rate Marketplace, we connect reliable third-party hash rate suppliers with hash rate users to facilitate hash rate sales and generate revenue from charging service fees. Our hosting services offer customers one-stop mining machine hosting solutions encompassing deployment, maintenance and management services for efficient cryptocurrency mining. Among a wide selection of hosting services, customers can either subscribe to our Cloud Hosting service for the specified mining machines from which they derive computing power under a “group-buying” model, or send their mining machines to our mining datacenters for hosting under the General Hosting option or the Membership Hosting option. All of our three business lines are supported by *Minerplus*, our self-developed integrated intelligent software platform, which offers software support to significantly reduce time needed for daily maintenance and mining machine upgrade and substantially decrease operation and maintenance headcount.

We source mining machines from a wide variety of manufacturers and traders with whom we have built robust relationships over the years. As a result, the majority of our mining machines are spot machines for the most recent and most commonly used models procured at a favorable price, which ensures high energy efficiency and stable hash rate supply both in quality and in quantum. We also engage in the sales of mining machines from time to time. We stay at the forefront of technology development. As a market player who is able to obtain a hash rate unit of 1TH/s through our hash rate slicing technology, we have been successfully maintaining a less than 1% fluctuation for 99% of our hash rate sales contracts as of December 31, 2023.

In October 2023, we entered into a NVIDIA Partner Network Master Agreement with NVIDIA Corporation (“NVIDIA”) to participate in NVIDIA’s Cloud Service Provider (CSP) Program. We completed the deployment and successful testing of our NVIDIA DGX SuperPOD H100 system in March 2024, becoming the first cloud service platform in the Asian region to offer NVIDIA DGX SuperPOD H100 service. The service provides our customers with access to NVIDIA AI supercomputing to help them accelerate their development of generative AI, large language models (LLMs), and other AI workloads.

As of February 29, 2024, we generated 8.4 EH/s proprietary hash rate from our self-owned mining machines and operated mining datacenters with an aggregate electricity capacity of 895MW. For the years ended December 31, 2021, 2022 and 2023, our total net revenue was US\$394.7 million, US\$333.3 million and US\$368.6 million, respectively. We generated net profit of US\$82.6 million for the year ended December 31, 2021, and incurred net loss of US\$60.4 million and US\$56.7 million for the years ended December 31, 2022 and 2023. For the years ended December 31, 2021, 2022 and 2023, our adjusted EBITDA was US\$281.8 million, US\$93.2 million and US\$100.3 million, respectively. We incurred adjusted profits of US\$171.0 million, US\$30.3 million and US\$22.0 million for the years ended December 31, 2021, 2022 and 2023, respectively, where adjusted profit/(loss) is defined as profit/(loss) adjusted to exclude the listing fee and share-based payment expenses under IFRS 2.

The crypto asset market, especially the price of Bitcoin, has been highly volatile. Industry-wide developments such as the industry-wide fallout from the Chapter 11 bankruptcy filings of cryptocurrency exchange FTX (including its affiliated hedge fund Alameda Research LLC), crypto hedge fund Three Arrows, crypto miners Compute North and Core Scientific and crypto lenders Celsius Network, Voyager Digital and BlockFi throughout calendar year 2022 are beyond our control. We are not directly affected by these incidents, as we do not have any counterparty credit exposure to the above-mentioned firms nor expect their potential bankruptcy to have any direct impact on our business or operations.

We believe that, as compared to many other participants in the crypto assets markets, we are more resilient to cryptocurrency price volatility as our “hash rate sharing” and “hosting” businesses allow us to smooth the impact of cryptocurrency price volatility, as compared to “self-mining.”

Our Strengths

We believe that the following strengths contribute to our success and differentiate us from our competitors.

World’s leading scale of proprietary hash rate

As of February 29, 2024, our proprietary hash rate operated in our global mining datacenters reached 8.4 EH/s. Our proprietary hash rate provides us with a clear edge across our business lines and anchors our unique business model. High proprietary hash rate increases our chance of success in obtaining cryptocurrency rewards. It also allows a stable supply of hash rate products to our customers through Cloud Hash Rate. Leveraging our track record of operating the Cloud Hash Rate business, we boosted user confidence in our brand and were able to launch Hash Rate Marketplace as our hash rate retail platform in 2021. In addition to proprietary hash rate, we also generate hosting hash rate, the other category of our total hash rate under management, from mining machines that are hosted in our mining datacenters. Together with the 13.6 EH/s hosting hash rate, we managed a total of 22.0 EH/s hash rate as of February 29, 2024. As of February 29, 2024, we operated six mining datacenters in the United States, Norway and Bhutan to support our proprietary and hosting hash rate.

Unique business model powers organic hash rate expansion by generating instant and continuous cash

We have established a business model that allows us to constantly reinforce our market-leading position and outpace our competitors in terms of scaling up our proprietary hash rate. A prevailing strategy to profit from proprietary hash rate is mining. The cryptocurrencies mined can be sold at a profit when their market value is high enough to cover the cost of mining machines, electricity fees and other mining-related expenses. While we remain engaged in self-mining business to capture the high appreciation potential of cryptocurrency, we strategically allocate a significant amount of proprietary hash rate to hash rate sales through Cloud Hash Rate, to enable instant cash payback upon customers’ subscription to our hash rate plans. We have successfully boosted sales for hash rate, in particular, for long-term hash rate subscription plans (i.e., plans with a term longer than 720 days) by providing an increasing amount of reliable and transparent hash rate supply. We generally generate proceeds from hash rate sales under long-term hash rate subscription plans that approximate the purchase cost of mining machines. Therefore, we are able to continuously grow our proprietary hash rate by funding the purchase of additional mining fleets with the instant cash collected from hash rate sales using our existing mining fleets, significantly reducing our payback period to one month, compared to the long payback period associated with cryptocurrency mining activities, which is typically from 6 to 18 months. This unique model also allows us to smooth the impact of cryptocurrency price volatility as our proceeds from hash rate sales are less directly related to cryptocurrency price compared to self-mining.

Ample power supply and low electricity cost secured by global mining datacenters

We strategically opened six mining datacenters in the United States, Norway and Bhutan. As of February 29, 2024, our mining datacenters had a power supply of 895MW. We plan to expand our footprints across the globe to increase our total electricity capacity to approximately 1,970MW, including 575MW power supply under construction and 500MW power supply “in the pipeline,” contracted or negotiated but not yet under active construction, as of February 29, 2024. We commenced land preparation for the construction of a 221MW datacenter in Ohio, United States, with ground leveling expected to commence in April 2024, where the construction of mining datacenter is expected to be completed in 2025. Our premier mining datacenters allowed us to reach an average electricity cost of our mining datacenters to US\$38/MWh for the year ended December 31, 2023. Our ability to secure ample power supply with low electricity cost is underpinned by our top-notch experience and capabilities in global mining datacenters deployment and operation. We pioneer in deploying and operating mining datacenters globally. With experience in site selection, facility design, construction and maintenance in over 30 locations around the globe, our dedicated global team for mining datacenter construction understands the critical needs of Bitcoin mining as well as the complex and constantly evolving global landscape of electricity supply. They also have extensive connections with local electricity experts and power enterprises around the world. We are the first in the industry to develop the “PERT” approach to secure prime locations for our mining datacenters, which stands for a comprehensive site selection approach encompassing local electricity and cryptocurrency mining Policy, Electricity cost, Resources and connections, and Technical feasibility. We believe we can continue to apply this systematic approach, our insights and rich execution experience to global mining datacenter construction in the future, and hence achieve advantages in electricity capacity and electricity costs among our competitors.

Visionary management team with a proven track record of innovation and execution

Our success is driven by a passionate, visionary, tech-savvy and entrepreneurial management team with a proven execution track record. This management team is led by our founder, Mr. Jihan Wu, a pioneer and leading figure in the cryptocurrency industry. Mr. Wu is viewed as an early advocate of cryptocurrency who introduced the Bitcoin Whitepaper into the Sinophone world. Our management team has extensive experience in the cryptocurrency industry, encompassing research and development, mining and sales of mining machines, and many of them are pioneers in mining datacenters construction and operation.

Our Business Lines and Software Infrastructure

To date, we primarily operate three business lines - “self-mining,” “hash rate sharing” and “hosting,” all of which are supported by *Minerplus*, our self-developed integrated intelligent software platform, to enhance operational efficiency.

Self-mining

We mine cryptocurrencies, primarily Bitcoins, for our own account. Self-mining allows us to capture the high appreciation potential of cryptocurrency to support our future expansion and operation. For the years ended December 31, 2021, 2022 and 2023, respectively, we generated US\$191.7 million, US\$62.4 million and US\$111.7 million in revenue from self-mining. Historically, around 50% to 80% of our proprietary hash rate was utilized to support our self-mining, with the rest available for sale to customers through Cloud Hash Rate. However, we retain the flexibility to allocate our proprietary hash rate to either self-mining or Cloud Hash Rate, primarily based on our view of the Bitcoin market trends.

In March 2024, we successfully tested our first Bitcoin mining chip, the SEAL01, which is designed for integration into our new SEALMINER A1 mining machines. We plan to install our own SEALMINER A1 mining machines at our mining datacenters in North America and Norway as part of our plan to expand the self-mining business.

Hash rate sharing

We offer two types of hash rate sharing solutions, Cloud Hash Rate and Hash Rate Marketplace, to support cryptocurrency mining activities globally with convenient, transparent and reliable hash rate.

- ***Cloud Hash Rate.*** Through Cloud Hash Rate, customers enter into hash rate contracts with us to subscribe to the hash rate derived from our self-owned mining machines, saving themselves from purchasing, installing or hosting mining machines. Cloud Hash Rate features authentic and transparent hash rate products as users can track the hash rate output on their chosen third-party mining pool, easily ascertain that they receive the right value and receive payments directly from mining pools. With our hash rate slicing and hash rate scheduling technologies, we are able to maintain a less than 1% fluctuation for 99% of our hash rate contracts as of December 31, 2023, and provide our customers 100% continuous online computing power for series of cryptocurrencies, including Bitcoin, Filecoin, Litecoin, Nervos CKB, Zcash, etc., subject to stable electricity supply. We offer our customers various hash rate subscription plans, primarily under (i) “classic mode” and (ii) “accelerator mode”, which enables customers to shorten investment costs recovery cycle. After a user subscribes to a cloud hash rate plan, mining pool operators connect the cloud hash rate generated from our mining machines to blockchain network for a period specified in the cloud hash rate plan subscribed to and cryptocurrency rewards are delivered directly to the crypto wallet of the Cloud Hash Rate customer. For plans under “classic mode”, we generate revenue from fees paid to subscribe the hash rate as well as electricity, which maintains the mining machines that produce the subscribed hash rate. For hash rate subscription plans under “accelerator mode”, while customers enjoy lower hash rate subscription fees compared to “classic mode”, on top of the aforementioned hash rate and electricity subscription fees, we are also entitled to sharing part of the mining rewards net of the electricity cost the customer paid for once that customer’s investment cost is recovered, which is defined as the cumulative mining reward received from the mining pool equals the amount of hash rate subscription fees paid upfront and the electricity fee paid and used to date. This unique model of selling cloud hash rate allows us to smooth the impact of Bitcoin price volatility as our income from hash rate sales are less directly related to cryptocurrency price compared to self-mining. When Bitcoin price appreciates, we can capture part of the benefits as the demand of hash rate will be driven up; when Bitcoin price depreciates, we are still able to recover costs or generate revenue from hash rate sales. We use standard agreement with our customer for Cloud Hash Rate. We generated revenue of US\$124.2 million, US\$121.3 million and US\$67.9 million for the years ended December 31, 2021, 2022 and 2023, respectively, from Cloud Hash Rate.

- **Hash Rate Marketplace.** We connect supply of hash rate from mining machines owned by third parties, such as miners or mining datacenter owners, with our user base with hash rate demands, allowing such hash rate suppliers to access our large base of high-quality customers. With Hash Rate Marketplace, we offer a marketplace that is able to utilize excessive hash rate in the network and expand ways of monetization for third-party hash rate suppliers, accelerating their cash payback to support future expansion. For transactions completed on Hash Rate Marketplace, the third-party hash rate suppliers will be responsible for providing hash rate and post-sale services, pursuant to the negotiated terms between these third-party hash rate suppliers and customers, with which we have no involvement and we generate revenue by charging service fees. Revenue generated from Hash Rate Marketplace was immaterial prior to December 31, 2023.

Hosting

We offer three types of hosting services, Cloud Hosting, General Hosting and Membership Hosting, to meet customers' diverse demands for professional hosting solutions and lower the prohibitive upfront investment costs associated with mining datacenter construction, deployment and operation.

- **Cloud Hosting.** We provide retail miner customers with one-stop mining machine hosting solutions, enabling them to gain access to stable supply of computing power from specified mining machines in a capital-light manner. Through Cloud Hosting, users participate in a customer group, pay an upfront fee for the computing power produced by the specified mining machines, and subscribe to the hosting service for the same mining machines. As such, customers may enjoy the computing power derived from specified mining machines over the life of such mining machines to generate cryptocurrency rewards. Traditionally, a miner has to purchase and physically possess a mining machine, deploy and operate it in a mining datacenter in order to gain access to all the computing power generated from that specified mining machine. Cloud Hosting provides an innovative alternative by providing hosting service for the specified mining machines that produce computing power for the Cloud Hosting customers, saving the customers the need to pick up the mining machine, construct one's own mining datacenter, and operate and deploy the mining machine. Specifically, we are responsible for the operation and maintenance of mining datacenter that hosts the mining machines, as well as mining machine operation, maintenance and repair. As such, we significantly lower the upfront investment and expertise threshold for retail miners, providing them with the same opportunity of cryptocurrency returns as major and sophisticated miners. We also provide complete set of cloud hosting technical solutions and resources to ensure operational efficiency. Our first-of-its-kind "group-buying" model allows retail miners to purchase the computing service from and maintenance service for as little as one mining machine, further lessening the upfront investment burden. Similar to the Cloud Hash Rate "accelerator mode" subscription plans, in 2021, we launched the "accelerated payback mode" for Cloud Hosting, where customers can enjoy a favorable rate for the upfront fee compared to "classic mode" (i.e., the traditional arrangement). Under the standard agreements with our customers for Cloud Hosting, we charge customers an upfront fee so they can secure the procurement of computing power from the specified mining machines. We also charge a maintenance fee for our electricity supply, daily maintenance and repair care. We are entitled to a portion of the mining profit of an "accelerated payback mode" customer after the customer recovers the investment cost, which is defined as the mining reward earned from the mining pool equals the upfront fee paid and the maintenance fee and other fees incurred to date. We generated revenue of US\$7.6 million, US\$12.7 million and US\$3.2 million for the years ended December 31, 2021, 2022 and 2023, respectively, from Cloud Hosting. We did not generate any revenue from mining profit sharing from plans under Cloud Hosting's "accelerated payback mode" for the years ended December 31, 2021, 2022 and 2023.

- **General Hosting.** We offer hosting solutions to professional miner customers who send their mining machines to our mining datacenters for hosting. Specifically, we provide server room, professional support from technical and managerial personnel, supporting power, network and security monitoring facilities, among others, and carry out routine maintenance, system configurations, troubleshooting and daily reporting to ensure a smooth operation of the hosted mining machines. At the customers' option, we also provide assistance for deployment, installation and removal of hosted mining machines and repairment of mining machines. Under the standard agreements with General Hosting customers, we charge monthly service fees, which include costs of operating and maintaining the mining machines, costs of electricity and other costs mainly related to mining machine deployment and repair. In the arrangement with certain customers, we are also entitled to additional variable consideration based on the customers' mining yield during a period. We generated revenue of US\$18.3 million, US\$99.3 million and US\$97.3 million for the years ended December 31, 2021, 2022 and 2023, respectively, from General Hosting.
- **Membership Hosting.** We offer a membership program for large-scale miner customers who seek stable, long-term supply of hosting capacity and send their mining machines to our mining datacenters for hosting purpose. Unlike General Hosting where the customer's access to mining datacenter capacity is subject to the availability of such capacity at the time the request was raised, a customer under Membership Hosting will be designated of certain capacity (i.e., designated capacity) exclusive for use by such customer, by signing a standard membership program agreement. We also provide other program benefits, if available, to customers under Membership Hosting, including, among other things, (i) early, priority and exclusive access to the newly available mining datacenter capacity that is sufficient for large-scale miners, upon a new mining datacenter becomes available and (ii) more favorable pricing terms for our services, such as mining machine management services, than the prevailing price in the local market. We charge an upfront fee for such program benefits. We also provide management services, such as infrastructure, custody, and utility, for the mining machines of a Membership Hosting customer up to designated capacity, pursuant to a separate management services agreement, and charge management services fee. We also charge additional fee, at our stand-alone selling price, for the subscription of our mining machine operation service. The management services fee and the mining machine operation fee, as applicable, are charged to the customer monthly based on the customer's consumption of resources, such as the amount of electricity used in a period. For our Membership Hosting contracts, payment terms are individually negotiated and may differ among customers. Through this membership program, we seek to facilitate risk control and stable hosting income from large-scale miner customers by providing them reliable and long-term hosting capacity. We generated no revenue prior to December 31, 2021 and revenue of US\$26.1 million and US\$79.9 million for the years ended December 31, 2022 and 2023, from Membership Hosting.

The major differences among Cloud Hosting, General Hosting and Membership Hosting are the sources of mining machines, the target customers and the customers' payment of hosting fees, as summarized below.

Hosting service	Sources of mining machines	Target customers	Fees
<i>Cloud Hosting</i>	Mining machines from our existing mining fleets	Retail miners	- Upfront payment for subscription of computing power from our mining machines - Maintenance fees throughout the service process
<i>General Hosting</i>	Mining machines from target customers	Professional miners	- Monthly payment for hosting service based on actual consumption of our mining datacenter resources, such as electricity - Additional variable consideration based on the customers' mining yield
<i>Membership Hosting</i>	Mining machines from target customers	Large-scale miners	- Upfront payment to secure our capacity - Monthly payment for management service based on the actual consumption of our mining datacenter resources, such as electricity, after the delivery of capacity.

We believe that hosting services will enable us to maximize assets utilization with minimal capital expenditure for our growing mining datacenter capacity, maximize overall scale of hash rate supported by our software platform *Minerplus* which may lead to future business opportunities, and improve the operational efficiency by serving professional customers.

Minerplus is our self-developed integrated intelligent software platform that offers software support to significantly reduce time needed for daily maintenance and mining machine upgrade and substantially decrease operation and maintenance headcount. The functions of *Minerplus* mainly encompasses real-time mining datacenter and hash rate monitoring as well as virus detection and removal. *Minerplus* enables intelligent management of our self-mining business and enhances product and service quality of Cloud Hash Rate and our hosting services. We also provide standalone *Minerplus* service to third-party mining datacenters.

Measures to prevent unauthorized or impermissible customer access

We have established anti-money laundering (“AML”) processes, know your customer (“KYC”) procedures and IP address geo-blocking measures, to prevent unauthorized and impermissible access to our hash rate products by U.S. customers and customers from other jurisdictions where we have identified laws or regulations that restrict the offering of our hash rate products. These measures generally encompass the following key steps: 1) following IP address and customer identification, IP addresses located in regions such as Cuba, Iran, North Korea, Syria, and Crimea Area, will be blocked, and IP addresses in most other areas, including the United States, will be asked to complete AML and KYC procedures prior to purchasing our products and services; 2) following and based on the results of customer due diligence process, customers from the United States or other applicable jurisdictions will be denied purchase of our hash rate products; 3) transactions and the KYC status of the customers will be subject to our monitoring and periodic review.

For a discussion of the risks relating to offering our hash rate products to U.S. customers and/or customers from other jurisdictions where such offering may be restricted, see the section entitled “Item 3.D - Key Information - Risk Factors - Risks Related to Regulatory Compliance and Other Legal Matters - Our hash rate sharing business may be subject to U.S. jurisdiction if we are not able to avoid offering or selling our hash rate products to U.S. customers. Additionally, our hash rate sharing business may be deemed as securities offerings in other jurisdictions where it is offered.”

AI Cloud Service

We completed the deployment and successful testing of our NVIDIA DGX SuperPOD H100 system in March 2024, becoming the first cloud service platform in the Asian region to offer NVIDIA DGX SuperPOD H100 service. The service provides our customers with access to NVIDIA AI supercomputing to help them accelerate their development of generative AI, large language models (LLMs), and other AI workloads.

Our Cryptocurrencies

Cryptocurrencies and Protocols Involved in Our Business

96.9%, 96.1% and 98.8% of our self-mining revenue for the years ended December 31, 2021, 2022 and 2023 respectively were generated from Bitcoin mining. The remaining mining yield were generated from Zcash, Ethereum, Dogecoin, Litecoin and other cryptocurrencies that are less mainstream, as illustrated below:

	For the Year Ended December 31,					
	2023		2022		2021	
	US\$	%	US\$	%	US\$	%
	(in thousands, except for percentages)					
BTC	110,386	98.8	59,845	96.1	185,656	96.9
ZEC	454	0.4	902	1.4	3,220	1.7
DOGE	371	0.4	590	0.9	1,239	0.6
LTC	194	0.2	248	0.4	597	0.3
FIL	183	0.2	458	0.7	129	0.1
XCH	37	0.0	73	0.1	165	0.1
DCR	13	0.0	106	0.2	54	0.0
ETC	9	0.0	4	0.0	-	-
BCH	9	0.0	22	0.0	180	0.1
CKB	9	0.0	41	0.1	272	0.1
QUBIC	6	0.0	-	-	-	-
HNS	5	0.0	47	0.1	137	0.1
ELA	4	0.0	4	0.0	-	-
NMC	2	0.0	11	0.0	-	-
SC	1	0.0	-	-	30	0.0
ETH	-	-	8	0.0	14	0.0
Total	111,683	100.0	62,359	100.0	191,693	100.0

93.4%, 95.7% and 99.1% of our *Cloud Hash Rate* revenue for the years ended December 31, 2021, 2022 and 2023 respectively were generated from hash rate plans subscribed for Bitcoin mining. We have commenced mining operation on a proprietary basis for Filecoin, which adopted PoST protocol, and also offered computing power sharing solutions regarding Filecoin mining under our *Cloud Hash Rate* business. While we intend to enrich our product and service portfolio by providing mining services covering new crypto protocols, including PoS, DPoS, PoST and PoC, we have not determined the type of cryptocurrency to expand our operations.

Policies and Procedures Related to Our Cryptocurrencies

We obtain cryptocurrencies from self-mining and cryptocurrency receivables and also generally accept cryptocurrencies as payments for services available to customers, such as *Cloud Hash Rate*, *Cloud Hosting*, *General Hosting* and *Membership Hosting*. We generally do not hold cryptocurrencies obtained through business operation, including mining and otherwise, and promptly convert them into fiat currency prior to December 31, 2023. The cryptocurrencies held by us as of December 31, 2021, 2022 and 2023 were US\$6.2 million, US\$2.2 million and US\$ 15.4 million, respectively. The table below shows the type and amount of digital assets held as of the end of each year:

	As of December 31,					
	2023		2022		2021	
	US\$	%	US\$	%	US\$	%
	(in thousands, except for percentages)					
BTC	6,729	43.8	208	9.6	692	11.2
ETH	3,992	26.0	5	0.2	13	0.2
USDT	3,733	24.3	162	7.4	3,904	63.1
FIL	844	5.5	1,692	77.8	1,257	20.3
USDC	34	0.2	89	4.1	99	1.6
LMR	13	0.1	-	-	-	-
LTC	8	0.1	8	0.4	5	0.1
BCH	7	0.0	2	0.1	4	0.1
DOGE	5	0.0	6	0.4	1	0.0
ZEC	3	0.0	1	0.0	11	0.2
ELA	3	0.0	1	0.0	-	-
DASH	0*	0.0	0*	0.0	0*	0.0
DCR	0*	0.0	0*	0.0	2	0.0
ETC	0*	0.0	0*	0.0	0*	0.0
ETN	-	-	-	-	0*	0.0
BCHA	0*	0.0	-	-	25	0.4
CKB	0*	0.0	0*	0.0	0*	0.0
XCH	0*	0.0	1	0.0	37	0.6
NMC	0*	0.0	0*	0.0	-	-
BSV	-	-	-	-	137	2.2
SC	-	-	0*	0.0	-	-
Total	15,371	100.0	2,175	100.0	6,187	100.0

* Less than US\$500 but not nil

We generally use service provided by Matrix Finance and Technologies Holding Group and its subsidiaries (“Matrixport Group”) for cryptocurrencies custody purpose. Please see the section entitled “- Our Cryptocurrencies Storage and Custodial Practices” below for more details on the related procedures in this regard.

Prior to June 30, 2021, we did not leverage cryptocurrencies that we held, including Bitcoin, to generate additional income, through lending, hedging or otherwise, nor did we convert our fiat currencies into cryptocurrencies for the same purposes. In the second half of 2021, we explored new options, such as short-term cryptocurrency lending and purchase of short-term wealth management products using cryptocurrencies converted from our fiat currencies, in addition to direct deposits of fiat currencies at fixed rates, in order to optimize our cash management cycle and generate a higher return on cash not otherwise used in our operating activities. Specifically, during the second half of 2021, we lent 30 million USDC, which we converted from our fiat currencies, to Matrixport Group at a fixed annual interest rate of 8.25% and received approximately US\$0.7 million interest income; we also converted our fiat currencies into 30 million USDT and purchased a short-term wealth management product in the same amount from Matrixport Group. The wealth management product was an unsecured USDT fund offered by Matrixport Group at variable rates of return, and we received approximately US\$0.7 million investment income from such product in the second half of 2021. Both the loan and the wealth management product were fully redeemed and collected by the end of 2021. In addition, because we generally do not hold cryptocurrencies, while the incomes we received were initially in cryptocurrencies, they were promptly converted into fiat currencies following receipt.

During the year ended December 31, 2022, we lent loans in a total amount of approximately US\$150 million to Matrixport Group and received approximately US\$1.5 million interest income. We also purchased wealth management products in a total amount of approximately US\$150.0 million from Matrixport Group and received approximately US\$0.3 million in return. Both the loans and the wealth management products were fully collected and redeemed as of December 31, 2022. To date, we have not experienced, either directly or indirectly, prohibitions from redeeming or withdrawing crypto assets. All of our cryptocurrency loans and cryptocurrency wealth management products had been fully redeemed by December 31, 2022, and we do not anticipate to actively participate in such activities in the foreseeable future.

As of the date of this annual report, we do not have any outstanding cryptocurrency lending to Matrixport Group or any outstanding wealth management product purchased from Matrixport Group or otherwise. All lending or wealth management products previously purchased from Matrixport Group had been fully collected or redeemed by December 31, 2022. We did not make any lending to or purchase any wealth management products from Matrixport Group thereafter. In light of recent concerns over the lack of regulations with regards to digital asset based products in general, we do not anticipate entering into any digital asset based lending or wealth management products with Matrixport Group or otherwise in the foreseeable future.

We are open to more options to generate additional income by leveraging our cryptocurrencies and fiat currencies in the future; however, we prioritize our operating activities in terms of cash usage and will ensure that our cash, short-term investment and anticipated proceeds from disposal of cryptocurrencies in connection with our principal business will be sufficient to meet our current and anticipated working capital requirements and capital expenditures for at least the next 18 months from the date of this annual report. We do not anticipate to engage in crypto lending or investing activities in the foreseeable future. We monitor our investments closely and limit our exposure to the investment risk by including in our operation strategy the requirements to invest only in robust wealth management products.

We will evaluate each digital asset in our portfolio, or that we propose to hold or acquire in the future, to determine whether it would likely be considered a security as defined in Section 2(a)(1) of the Securities Act and consequences thereof, in consultation with outside counsel, as applicable at the time. We will base our analysis on relevant case law, applying the frameworks established by the U.S. Supreme Court and taking into consideration relevant guidance by the SEC and its staff, including the SEC's "Framework for 'Investment Contract' Analysis of Digital Assets" issued by the Strategic Hub for Innovation and Financial Technology. Prior to holding or acquiring any digital assets, we would undertake customary due diligence regarding the digital asset in order to gather facts necessary to make such a determination.

However, such framework adopted by us to determine whether certain digital assets are "securities" involves risk-based judgements by us, is not based on a legal standard or determination binding on any regulatory body, and therefore is inherently associated with a number of risks. As of the date of this annual report, with the exception of certain centrally issued digital assets that have received "no-action" letters from the SEC staff, Bitcoin and Ethereum are the only digital assets which senior officials at the SEC have publicly stated are unlikely to be considered securities. However, such statements are not official policy statements by the SEC and reflect only the speakers' views, which are not binding on the SEC or any other agency or court and cannot be generalized to any other digital asset. It is possible that a change in the governing administration or the appointment of new SEC commissioners could substantially impact the views of the SEC and its staff.

Thus, a particular digital asset's status as a "security" in any relevant jurisdiction is subject to a high degree of uncertainty and if a regulator disagrees with our characterization of a digital asset, we may be subject to regulatory scrutiny, investigations, fines, and other penalties, which may adversely affect our business, operating results and financial condition. Current and future legislation and SEC-rulemaking and other regulatory developments, including interpretations released by a regulatory authority, may impact the manner in which Bitcoin or other cryptocurrencies are viewed or treated for classification and clearing purposes. In particular, Bitcoin and other cryptocurrencies may not be excluded from the definition of "security" by SEC rulemaking or interpretation requiring registration of all transactions unless another exemption is available, including transacting in Bitcoin or other cryptocurrencies among owners and requiring registration of trading platforms as "exchanges." It will then likely become difficult or impossible for the digital asset to be traded, cleared or custodied in the United States through the same channels used by non-security digital assets, which in addition to materially and adversely affecting the trading value of the digital asset is likely to cause substantial volatility and significantly impact its liquidity and market participants' ability to convert the digital asset into U.S. dollars.

For a more comprehensive discussion of the relevant risks, please see the sections entitled "Item 3. Key Information - D. Risk Factors - Risks Related to Cryptocurrencies - There is no one unifying principle governing the regulatory status of cryptocurrencies nor whether cryptocurrencies are securities in any particular context. Regulatory changes or actions in one or more countries may alter the nature of an investment in us or restrict the use of cryptocurrencies, such as Bitcoins, in a manner that adversely affects our business, prospects or operations" and "Item 3. Key Information - D. Risk Factors - Risks Related to Cryptocurrencies - If we were deemed an 'investment company' under the Investment Company Act of 1940, as amended, applicable restrictions could make it impractical for us to continue our business as contemplated and could have a material adverse effect on our business."

Our Cryptocurrencies Storage and Custodial Practices

During the years ended December 31, 2021, 2022 and 2023, substantially all of our cryptocurrencies were held in custody by Matrixport Group and our disposal of cryptocurrencies, at spot price on the date of disposal, was primarily to Matrixport Group, a related party. Following our separation from BitMain Technologies Holding Company (collectively with its subsidiaries, “Bitmain”), we entered into two custody agreements with Matrixport Group on February 10, 2021 through our subsidiaries, pursuant to which we appointed Matrixport Group to (i) establish a custody account for the deposit of cryptocurrencies to be held by Matrixport Group on our behalf, and (ii) act as the custodian of the cryptocurrencies that are delivered to the designated blockchain address under our custody accounts. For more information, please see the section entitled “Item 3. Key Information - D. Risk Factors - We may not have adequate sources of recovery if the cryptocurrencies held it us are lost, stolen or destroyed due to third-party cryptocurrencies custodial services or if we cannot redeem or withdraw its cryptocurrencies invested in crypto lending or investing activities. Such incidents could have a material adverse effect on our business, financial condition and results of operations.”

Our custody accounts in Matrixport Group are protected by username, password, and hardware tokens. We are able to view the assets in the custody account and relevant transfers via Matrixport Group’s custody system. We are able to receive, withdraw and dispose of cryptocurrencies with the custody account. Each withdrawal request is subject to verification by a person designated by us, and if withdrawal is up to certain limit, to additional verification procedure applied by Matrixport Group, including calling a separately designated person or requesting additional written confirmation. We note that Matrixport Group offers a robust security infrastructure designed to safeguard its custody clients from crypto fraud. The generation and storage of, and the transaction signing by, the private keys are all under encryption in hardware security modules (HSMs) that provide tamper evidence, tamper resistance and tamper responsiveness features to safeguard the private keys and make sure no staff of Matrixport Group or anyone can have access to plain text of private keys. In extreme cases, private keys can be recovered by Matrixport Group’s disaster recovery measure. Private keys have been sharding into eight pieces that will be stored in an encrypted hard disk which will then be kept in physical safe deposit boxes in different banks. These sharding pieces are accessible only to certain qualified employees of Matrixport Group, who must obtain prior permission and must follow “Segregation of Duty and Least Knowledge Principle” under which such employees have right to recover the private keys but no right to trigger the withdrawal function from customers’ designated accounts. All crypto transactions will be monitored by Matrixport Group’s central security system. If an unusual transaction is identified, an alert will be issued to the relevant customer in real time for transaction verification purposes.

All withdrawal and transfer of assets shall be permitted by applicable laws and regulations and Matrixport Group’s internal policies and procedures. Matrixport Group is obligated to keep and maintain, or cause to be kept, accurate books and records with respect to any custody account and assets in accordance with applicable law. Statements of assets, along with a ledger of receipts and disbursements of assets is available to us via Matrixport Group’s custody system. Under the custody agreements, we are obligated to pay to Matrixport custody fees as a percentage of the value of the cryptocurrencies in U.S. Dollars under custody, monthly management fees as negotiated, and withdrawal fees if applicable. We incurred approximately US\$0.3 million, US\$0.4 million and US\$0.2 million service fees, respectively, including primarily custody fees, to Matrixport Group for the years ended December 31, 2021, 2022 and 2023.

Our Mining Datacenters

We have built and currently operate three mining datacenters in the United States, two in Norway and one in Bhutan with an aggregate electricity capacity of 895MW in use as of February 29, 2024. We have initiated the expansion of our existing mining datacenters and expect to achieve access to a total electricity capacity of 1,970MW thereafter. The locations of our mining datacenters in use, under construction and “in the pipeline,” as of February 29, 2024, are illustrated in the diagram below.



(1) “In the pipeline” includes 500MW power supply contracted or negotiated but not yet under active construction

- **Texas Mining Datacenter.** Our mining datacenter in Rockdale, Texas became operational in February 2019 and had 563MW electricity capacity in use and 179MW electricity capacity under construction as of February 29, 2024.
- **Norway Mining Datacenters.** Our mining datacenters in Fræna municipality (Molde mining datacenter) and Tydal municipality (Tydal mining datacenter), Norway became operational in December 2019 and had 134MW electricity capacity in use as of February 29, 2024.
- **Tennessee Mining Datacenter.** Our mining datacenter in Knoxville, Tennessee became operational in May 2020 and had 86MW electricity capacity in use as of February 29, 2024.
- **Washington Mining Datacenter.** Our mining datacenter in Pangborn, Washington became operational in May 2018 and had 13MW electricity capacity in use as of February 29, 2024.
- **Bhutan Mining Datacenter.** Our mining datacenter in Gedu, Bhutan became operational in the third quarter of 2023 and had 100MW electricity capacity in use as of February 29, 2024.

We have accumulated knowledge and expertise in the global landscape of electric power supply, which enables us to select prime locations to construct mining datacenters. As of February 29, 2024, the 175MW immersion cooling datacenter at our mining facility in Tydal, Norway is under construction, the expansion of which is expected to be completed in mid-2025. We also commenced land preparation for the construction of a 221MW datacenter in Ohio, United States, the construction of which is expected to be completed in 2025. We expect to generate 500MW power supply “in the pipeline” from Bhutan. We are also exploring other sites for constructions of our mining datacenters with an initial focus on North America, Northern Europe, Central Asia and Southeast Asia.

Agreements Related to Our Mining Datacenters

Lease Agreement for the Mining Datacenter in Rockdale, Texas

In June 2018, Dory Creek, LLC, our subsidiary (formerly as Bitmain Inc.'s subsidiary), entered into the Lease Agreement with Alcoa USA Corp. ("Alcoa"), as amended by the First Amendment to Lease dated October 18, 2018, the Second Amendment to Lease dated May 1, 2019, the Third Amendment to Lease dated May 11, 2021, the Fourth Amendment to the Lease dated May 11, 2021, the Fifth Amendment to Lease dated September 15, 2021 and the Sixth Amendment to Lease dated October 25, 2021 (the "Texas Lease Agreement"), pursuant to which we lease land, certain buildings and improvements on the land, a certain portion of Alcoa's power delivery network ("PUN") and the non-exclusive right to use certain common areas in Rockdale, Texas, for the operation of a blockchain data processing software and hardware center ("Data Center") as well as the office use and a technology repair facility related to the Data Center. Alcoa sells and conveys to us a 100% ownership interest in a certain PUN power circuit and the associated downstream components, subject to certain power delivery restrictions. Upon termination of the Texas Lease Agreement, our interest and ownership in the PUN will revert to Alcoa. We have an option to extend the term of this lease for two successive periods of five years (each such period an "Extension Term"). If applicable, on each January 1 during the Extension Term, the annual fixed rent shall increase by the greater of 2.5% or the percentage of the change in the CPI, not to exceed 5% in any single year between the first month and the eleventh month during the previous year.

The Texas Lease Agreement was subsequently assigned by Alcoa to SLR Property I, LP ("SLR"), with whom Dory Creek, LLC entered into the Seventh Amendment to Lease, pursuant to which we lease certain buildings and access areas for storage/warehouse use (the "Storage Premises", the premises under the Texas Lease Agreement except the Storage Premises, the "Remainder Premises"). Our lease with the Storage Premises (the "Storage Premises Lease") automatically expires on the earlier of December 31, 2025 or the date that the Remainder Premises Lease expires or terminates (the "Storage Premises Initial Term"). To the extent the Remainder Premises Lease remains in effect beyond the expiration of the Storage Premises Initial Term, we have the option to extend the Storage Premises Lease for one successive renewal period (the "First Storage Premises Renewal Term") till the earlier of December 31, 2030 or the date that the Remainder Premises Lease expires or terminates. To the extent the Remainder Premises Lease remains in effect beyond the expiration of the First Storage Premises Renewal Term, we have the option to extend the Storage Premises Lease for another successive renewal period till the earlier of December 31, 2035 or the date that the Remainder Premises Lease expires or terminates.

Land Lease Agreement for the Molde Mining Datacenter in Fræna Municipality, Norway

In November 2019, we entered into the Land Lease Agreement with Troll Housing AS through Norway Hash Technologies AS, our subsidiary, as amended by Addendum No. 1 to the Land Lease Agreement, dated December 6, 2020 (the "Molde Lease Addendum No. 1"), Addendum No. 2 to the Land Lease Agreement, dated March 22, 2021 (the "Molde Lease Addendum No. 2"), and Addendum No. 3 to the Land Lease Agreement, dated March 22, 2021 (the "Molde Lease Addendum No. 1") (collectively, the "Molde Lease Agreement"), pursuant to which we lease land located at Klempertåsvegen 1, 6440 Elnesvågen, Norway to support our Molde mining datacenter with 67MW capacity. For the existing 30MW specified in Addendum 1, land rent is calculated based on the installed capacity of datacenter, with a unit price of NOK0.01 per kW prior to January 1, 2021 and NOK0.02 per kW starting from January 1, 2021. For the subsequent expansion of 37MW specified in Molde Lease Addendum No. 2 and the future potential expansions referred to in Molde Lease Addendum No. 3, the land rent is invoiced monthly and comprises two components, Monthly Rent 1 and Monthly Rent 2. Monthly Rent 1 is calculated based on datacenter capacity, with a fixed unit price of NOK0.0060 per kWh. Monthly Rent 2 is calculated using floating unit price, being adjusted downwards as total energy use, from the total capacity of Molde and Tydal mining datacenters excluding the existing 30MW specified in Molde Lease Addendum No. 1, goes up. The floating unit price for Monthly Rent 2 is NOK0.014 per kWh, NOK0.012 per kWh, NOK0.008 per kWh and NOK0.004 per kWh when energy used from datacenter capacity is high than 30MW and lower than 107MW, higher than or equal to 107MW and lower than 247MW, higher than or equal to 247MW and lower than 427MW, and higher than and equal to 427MW, respectively. The land lease for the corresponding expansion will be invoiced upon the relevant mining datacenter expansions are finished and delivered to us, the expansion passes the inspection before power-on and the power grid company completes the corresponding 132-22kV transformer upgrade. The term of the Molde Lease Agreement is from December 1, 2019 to December 31, 2029, renewable within the term.

Land Lease Agreement for the Tydal Mining Datacenter in Tydal Municipality, Norway

In April 2021, we entered into the Land Lease Agreement with Tydal Datacenter AS through Norway Hash Technologies AS, our subsidiary (the “Tydal Lease Agreement”), pursuant to which we lease land located at Kirkvollen Industriområde, 7590 Tydal, Norway to support our Tydal mining datacenter. The land lease will be invoiced upon the relevant mining datacenter expansions are finished and delivered to us, the expansion passes the inspection before power-on and the power grid company completes the corresponding 132-22kV transformer upgrade. The land rent comprises two components, Monthly Rent 1 and Monthly Rent 2. Monthly Rent 1 is calculated based on datacenter capacity, with a fixed unit price of NOK0.0060 per kWh. Monthly Rent 2 is calculated according to Molde Lease Addendum No. 3. See the section entitled “- Land Lease Agreement for the Molde Mining Datacenter in Fræna Municipality, Norway” above. The term of the Tydal Lease Agreement is from April 1, 2021 to March 31, 2031, renewable within the term.

Commercial Purchase and Sale Agreement for the Mining Datacenter in Knoxville, Tennessee

In February 2018, Bitmain Inc. entered into the Commercial Purchase and Sale Agreement with Kemet Foil Manufacturing LLC, FKA Cornell Dubilier pursuant to which it purchased from Kemet Foil Manufacturing LLC, FKA Cornell Dubilier a tract of land of approximately 9.88 acres improved with a 77,678 square foot industrial building together with all fixtures, landscaping, improvements, and appurtenances, located at 5101 S. National Drive, Knoxville, Tennessee, 37914, for a consideration of US\$3.6 million. On March 20, 2018, Bitmain Inc. transferred a quitclaim deed of the afore-mentioned track of land to Carpenter Creek LLC, our subsidiary, in consideration of the sum of one dollar and other good and valuable considerations.

Vacant Land Purchase and Sale Agreement for the Mining Datacenter in Pangborn, Washington

In August 2017, we entered into the Vacant Land Purchase and Sale Agreement with Blackhawk Development Inc through Ant Creek, LLC, our subsidiary, pursuant to which we purchased from Blackhawk Development Inc a tract of land of 3 acres located at BLA of Parent Parcel 9370000002, East Wenatchee, WA 98802 for a consideration of US\$0.4 million. We use the land to support the operation of our mining datacenter in Pangborn, Washington.

Lease Agreement for the Mining Datacenter in Bhutan

In August 2023, we entered into a land lease agreement with Druk Holding and Investments Limited (“DHI”) through Bitdeer Gedu Private Limited, our subsidiary, pursuant to which DHI demises and leases unto us the exclusive right to use the sites located at Gedu, Bhutan for purposes of constructing, developing, operating and maintaining our cryptocurrency mining farm in Bhutan.

Property Purchase Agreement for the Mining Datacenter in Ohio

In August 2023, we entered into a contract of sale (“Contract of Sale”) with B&D Power Solutions, LLC through White Tail Creek, LLC (“White Tail Creek”), our subsidiary, pursuant to which B&D agrees to sell and convey to us certain property set forth in the Contract of Sale, including but not limited to the land situated in Stark County, Ohio, together with all improvements and related rights and interests, as well as certain personal property, for a total purchase price of US\$1.6 million to be paid at closing.

Energy

We have built, and will continue to make significant investment in building strong partnerships with local electricity experts and power enterprises. Through these partnerships, we reached an average electricity cost of our mining datacenters to US\$38/MWh for the year ended December 31, 2023. We entered into electric power supply agreements with electricity suppliers to secure low electricity costs for our mining datacenters in Rockdale, Texas and in Norway.

We consider environmental protection vitally important and have implemented measures in the operation of our business, in particular mining datacenters, to ensure our compliance with all applicable laws and regulations in the United States, Norway and other applicable jurisdictions. Our hash rate expansion strategy is energy conscious. We constantly monitor the operation of our mining machines and replace old mining machines models with new ones periodically to optimize energy efficiency. As a result, we successfully lowered our average energy consumption from 39.2j/T as of December 31, 2021 to 36.5j/T as of December 31, 2022 and further to 31.7j/T as of December 31, 2023. Through years of experience in and deep insight into the global power supply market, we are able to discover outstanding mining construction resources that are both cost-efficient and environmentally friendly.

We stick with high environmental, social and governance (ESG) standards and strive to constantly increase the ratio of power supply generated from carbon-free energy. The ratio of our carbon-free power supply reached approximately 62% as of December 31, 2023, and is expected to be remain at around 69% upon completing the construction of all mining datacenters “in the pipeline”. The ratio of our carbon-free power supply, as used herein, represents the weighted average ratio of carbon-free power supply at our datacenters, weighting in the respective electricity capacity at each datacenter. To be more specific, it is calculated by dividing (x) the sum of ratio of carbon-free power supply multiple by electricity capacity at each of our datacenters, by (y) the total electricity capacity contributed by all our datacenters.

According to the latest available statistics regarding energy structure of power supply from respective local authorities or suppliers as of December 31, 2023, (i) the power supply in our mining datacenter in Pangborn, Washington was 100% carbon-free, almost entirely supported by hydroelectric resources, (ii) the power supply in our mining datacenters in Molde and Tydal, Norway was 100% carbon-free, primarily supported by wind and hydroelectric resources, (iii) the power supply in our mining datacenter in Rockdale, Texas was approximately 46% carbon-free, supported by clean energy resources such as wind, nuclear, solar and hydroelectric, as well as traditional energy resources such as gas and coal, (iv) the power supply in our mining datacenter in Knoxville, Tennessee was approximately 60% carbon-free, supported by clean energy resources, such as unclear, hydroelectric and solar, as well as traditional energy resources such as clean- burning natural gas units, and (v) the power supply in our mining datacenter in Gedu, Bhutan was 100% carbon-free, almost entirely supported by hydroelectric resources. To further improve the ratio of our carbon-free power supply, we intend to engage a carbon offset strategy consultant to formulate a carbon emissions offsetting plan for our mining datacenters in Texas.

Sales and Marketing

Historically, we attracted and retained our customers by offering high-quality products and services, without heavily relying on online or offline advertising campaigns to promote the sales of our products and services. The quality of our products and services is demonstrated by the 100% continuous hash rate online rate and minimum customer complaints.

Technologies

We stay at the forefront of technology development and have built prominent research and development capabilities. We benefit from our continuous investment in research and development as well as our strong and expanding research and development talent pool. Our core technical team has an average of over eight years of experience in major market players in the cryptocurrency industry. We have obtained patents to support key technologies underpinning our operations.

Our technology capabilities drive the differentiation of our business. In particular, the following technologies enable us to constantly improve our self-mining efficiency, offer differentiated and quality products and services, and minimize impacts to the environment.

- **Hash rate slicing.** We supply our customers the subscribed amount of hash rate by first dividing hash rate into “time slices,” each encompasses a certain number of calculations over a period of time. Through hash rate slicing, hash rate is divided into “time slices” by algorithm instead of by manual intervention and then submitted to multiple mining pool accounts to support multiple users. Our ability to generate a minimum hash rate unit of 1TH/s enables us to adjust hash rate allocation accurately and dynamically, and optimize operating metrics automatically in order to minimize fluctuations in terms of quantum in hash rate supply under Cloud Hash Rate.

- **Hash rate scheduling.** We are able to achieve redeployment of hash rate across different mining machines through hash rate scheduling. When a single machine fails, hash rate from other mining machines can be instantly dispatched to ensure timing stability of hash rate supply. As a result, we are able to maintain a hash rate online rate of 100% under Cloud Hash Rate.
- **Real-time monitoring.** *Minerplus* supports efficient and constant monitoring, automated operation and maintenance as well as data analysis for mining machines of different models under different brands, located in mining datacenters of different sizes in different locations. We have developed a highly efficient monitoring model adopting a procedure of *prediction - feature analysis - data processing - reverse operation*, which is able to accurately identify and quickly scan the monitored objects, and return operating data of the mining machine in real-time.
- **Clean energy.** We have taken various measures to increase the ratio of clean energy in support of the operations of our mining datacenters. As of December 31, 2023, our non-carbon energy supply ratio was approximately 62%. Our research and development team has started the feasibility assessment of the use of solar power to support our mining datacenters. We have also spent considerable efforts in minimizing the impact on the local environment. For example, instead of building new plants from the ground, we renovated abandoned or deserted plants on sites when constructing our mining datacenters in Tennessee and Texas. See the section entitled “- Energy” above for more details.

Competition

For our self-mining business, we compete with mining operations throughout the world. We compete to solve new blocks on the basis of our total number of mining machines, the degree of mining difficulty and the efficiency of our mining. We also compete to acquire new mining machines, to obtain access to facilities and prime location of mining operations, to electricity, to develop or acquire new technologies and to raise capital.

For our hash rate sharing business line, we compete on both the quantity and the quality of our hash rate supply, which depends on our mining datacenter resources, the total number of our mining machines, our ability to involve third-party hash rate suppliers and our access to technologies to maintain hash rate supply stability. While we face competition from hash rate suppliers like FROGBT, we also seek cooperation with these third-party hash rate suppliers and build synergy-generating relationships by introducing them to our Hash Rate Marketplace and connecting them to our hash rate users. Together with other market players, we make available diverse and quality hash rate products on our Hash Rate Marketplace, facilitate the growth of our user base, and both third-party hash rate suppliers and ourselves can enjoy the faster cash payback enabled by a thriving Hash Rate Marketplace.

For our hosting service, we compete with other hosting operations globally. Our competitiveness depends on our ability to supply hosting space and power, our deployment, management and operation capabilities, the value of our service offering to customers, the availability of mining equipment and technologies, etc. Our innovative computing and hosting service “group-buying” model under Cloud Hosting gives us a clear advantage. We also enjoy the first-mover advantage in mining datacenter deployment and operation as well as mining machine management.

We operate in highly competitive industries for cryptocurrency mining and related services. Our competitors include Argo Blockchain PLC, Bit Digital, Inc., Bitcoin Investment Trust, Bitfarms Technologies Ltd., Blockchain Industries, Inc, Cipher Mining Inc., Coinbase, Inc., Digihost International, Inc., DMG Blockchain Solutions Inc., DPW Holdings, Inc., HashChain Technology, Inc., Hive Blockchain Technologies Inc., Greenidge Generation Holdings Inc., Hut 8 Mining Corp., Layer1 Technologies, Inc., Marathon Digital Holdings, Inc., MGT Capital Investments, Inc., Northern Data AG, Overstock.com Inc., Riot Blockchain, Inc. and TeraWulf Inc. Many of our competitors are well-known worldwide players and we face competitors that are larger than us and have advantages over us in terms of economies of scale and financial and other resources. Some of our competitors may also have stronger brand names, greater access to capital, longer histories, longer relationships with their suppliers or customers and more resources than we do. Furthermore, these competitors may be able to adapt to changes in the industry more promptly and efficiently. As such, we expect that competition in our markets will continue to be intense.

Intellectual Property

As of December 31, 2023, we owned 13 registered patents, 11 registered copyrights, 252 registered trademarks and 233 registered domain names. We are also in the process of applying for nine registered patents. The protection of our intellectual property and all corresponding rights throughout the world, including our trademarks, service marks, trade dress, logos, trade names, domain names, goodwill, patents, copyrights, works of authorship (whether or not copyrightable), software and trade secrets, know-how, and proprietary and other confidential information, together with all applications, registrations, renewals, extensions, improvements and counterparts in connection with any of the foregoing, is important to the success of our business. We seek to protect our intellectual property rights by filing applications in various patent, trademark and other government offices, and relying on applicable laws and regulations in the U.S. and internationally, as well as a variety of administrative procedures. We have routinely entered into confidentiality and invention disclosure and assignment agreements with our employees and contractors, and non-disclosure agreements with external parties with whom we conduct business to control access to, and use and disclosure of, our proprietary information.

Seasonality

Our hash rate level is typically slightly lower in summer as temperature affects mining machine performance regarding hash rate generation.

Government Regulation

Due to the relatively short history of cryptocurrencies, and their emergence as a new asset class, government regulation of blockchain and cryptocurrencies is constantly evolving, with increased interest expressed by U.S. and internal regulators. For example, the Cyber-Digital Task Force of the U.S. Department of Justice published a report entitled “Cryptocurrency: An Enforcement Framework” in October 2020 that detailed the Department’s view with respect to cryptocurrencies and the tools at the Department’s disposal to deal with threats posed by cryptocurrencies. In March 2021, the nominee for Chair of the SEC expressed the need for investor protection along with promotion of innovation in the cryptocurrency space.

Government regulation of blockchain and cryptocurrencies is under active consideration by the United States federal government via its agencies and regulatory bodies, as well as by similar entities in other countries and transnational organizations, such as the European Union. State and local regulations also may apply to our activities and other activities in which we may participate in the future. Other governmental or semi- governmental regulatory bodies have shown an interest in regulating or investigating companies engaged in blockchain or cryptocurrency businesses. For instance, the SEC has taken an active role in regulating the use of public offerings of proprietary coins (so-called “initial coin offerings”) and has made statements and official promulgations as to the status of certain cryptocurrencies as “securities” subject to regulation by the SEC.

The effect of any regulatory change, either by the Federal, state, local or foreign governments or any self-regulatory agencies on us is impossible to predict, but such change could be substantial and may have a material adverse effect on our business, financial condition and results of operations. While we are unaware of significant adverse governmental or regulatory action adverse to Bitcoin or Ethereum mining in the United States, there is no guarantee that future regulation or adverse action will not take place and interpretation of existing regulations in a manner adverse to our business is possible.

In addition, various foreign jurisdictions either have adopted, or may adopt, laws, regulations or directives that affect cryptocurrencies, cryptocurrency networks, and their users and participants. Such laws, regulations or directives may conflict with those of the United States, may negatively impact the acceptance of cryptocurrencies by users, merchants and service providers outside of the United States, and may therefore impede the growth of cryptocurrencies. A number of Eastern European and Asian countries currently have a more restrictive stance toward cryptocurrencies and, thereby, have reduced the rate of expansion of cryptocurrency use, as well as cryptocurrency transaction processing, in each of those countries. Presently, we do not believe any U.S. or State regulatory body has taken any action or position adverse to our main cryptocurrency, Bitcoin, with respect to its production, sale, and use as a medium of exchange; however, future changes to existing regulations or entirely new regulations may affect our business in ways it is not presently possible for us to predict with any reasonable degree of reliability.

As the regulatory and legal environment evolves, we may become subject to new laws, such as further regulation by the SEC and other agencies, which may affect our mining and other activities.

C. Organizational Structure

Upon consummation of the Business Combination, Bitdeer and BSGA became wholly-owned subsidiaries of the Company. The following diagram depicts a simplified organizational structure of the Company as of the date hereof. These subsidiaries are also set forth in Exhibit 8.1 to this annual report.

Name*	Jurisdiction	% of Ownership Interest Held by Bitdeer Technologies Group
Bitdeer Technologies Holding Company	Cayman Islands	100%
STRAITDEER PTE. LTD.	Singapore	100%
Sharpening Technology Limited	British Virgin Islands	100%
Bitdeer Technologies Limited	Hong Kong	100%
Bitdeer Netherlands B.V.	Netherlands	100%
Bitdeer Norway AS	Norway	100%
Norway Hash Technologies AS	Norway	100%
Bitdeer Inc.	United States of America	100%
Bitdeer Equipment (Canada) Inc.	Canada	100%
Carpenter Creek. LLC	United States of America	100%
Ant Creek, LLC	United States of America	100%
Dory Creek, LLC	United States of America	100%
Z Engineers, LLC	United States of America	100%
Bitdeer Sales (USA) Inc.	United States of America	100%
Asia Freeport Holdings Pte. Ltd.	Singapore	100%
Le Freeport Real Estate Pte. Ltd.	Singapore	100%
Le Freeport Management Pte. Ltd.	Singapore	100%
Singapura Technologies Limited	British Virgin Islands	100%
Tosummer Technologies HK Limited	Hong Kong	100%
Bitdeer Bhutan Equipment Limited	British Virgin Islands	100%
Bitdeer Gedu Private Limited	Bhutan	100%
Bitdeer Semiconductor Technology Pte. Ltd.	Singapore	100%

* Other subsidiaries of the Company, including BSGA, have been omitted because, in the aggregate, they would not be a “significant subsidiary” as defined in rule 1-02(w) of Regulation S-X as of the date of this annual report.

D. Property, Plants and Equipment

Our principal executive offices are located at #09-03/04, Aperia Tower 1, 8 Kallang Avenue, Singapore 339509, where we lease an approximately 440 square meters facility. This facility houses our administrative headquarters and research and development center. We believe that our existing facilities are suitable and adequate to meet our current needs. If we need to add new facilities or expand existing facilities as we add employees, we believe that suitable additional space will be available to accommodate any such expansion of our operations. For our mining datacenters, see the section entitled “Item 4. Information on the Company -- B. Business Overview--Our Mining Datacenters.”

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

A. Operating Results

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our consolidated financial statements and the related notes included elsewhere in this annual report. This discussion contains forward-looking statements that involve risks and uncertainties about our business and operations. Our actual results and the timing of selected events may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those we describe under “Item 3. Key Information - D. Risk Factors” and elsewhere in this annual report.

Recent Developments

Recent events impacting our business are as follows:

Business Combination

We consummated the Business Combination on April 13, 2023. Our Class A Ordinary Shares commenced trading on the Nasdaq on April 14, 2023, under the symbol “BTDR.”

Committed Equity Financing

On August 8, 2023, we entered into the Equity Financing Purchase Agreement and the Equity Financing Registration Rights Agreement with B. Riley Principal Capital II. Pursuant to the Equity Financing Purchase Agreement, we have the right to sell to B. Riley Principal Capital II, up to US\$150,000,000 of our Class A Ordinary Shares, subject to certain limitations and conditions set forth in the Equity Financing Purchase Agreement, from time to time during the term of the Equity Financing Purchase Agreement. Sales of our Class A Ordinary Shares pursuant to the Equity Financing Purchase Agreement, and the timing of any sales, are solely at our option, and we are under no obligation to sell any securities to B. Riley Principal Capital II under the Equity Financing Purchase Agreement.

The per share purchase price for the Class A Ordinary Shares that we elect to sell to B. Riley Principal Capital II pursuant to the Equity Financing Purchase Agreement, if any, will be determined by reference to the volume weighted average price of our Class A Ordinary Shares (the “VWAP”) as defined in the Equity Financing Purchase Agreement, less a fixed 3% discount to the VWAP for such Purchase Valuation Period (as defined in the Equity Financing Purchase Agreement).

The net proceeds under the Equity Financing Purchase Agreement to the Company will depend on the frequency and prices at which we sell shares of our stock to B. Riley Principal Capital II. See “Item 3.D.—Risk Factors— Future sales, or the possibility of future sales of, a substantial number of our Ordinary Shares may depress the price of such securities.”

As of the date of this annual report, we have sold 6,738,555 Class A Ordinary Shares to B. Riley Principal Capital II under the Equity Financing Purchase Agreement.

The Equity Financing Purchase Agreement and the Equity Financing Registration Rights Agreement contain customary representations, warranties, conditions and indemnification obligations of the parties. The foregoing descriptions of the Equity Financing Purchase Agreement and the Equity Financing Registration Rights Agreement do not purport to be complete and are qualified in their entirety by the full text of such agreements, which are incorporated herein by reference to Exhibits 4.28 and 4.29, respectively, to this annual report.

At Market Issuance

On March 18, 2024, we entered into an At Market Issuance Sales Agreement with B. Riley Securities, Inc., Cantor Fitzgerald & Co., Needham & Company, LLC, Roth Capital Partners, LLC, StockBlock Securities LLC and Rosenblatt Securities Inc. (collectively, the “sales agents”), pursuant to which we may offer and sell our Class A Ordinary Shares having an aggregate offering price of up to \$250,000,000 from time to time through or to the sales agents, as agent or principal. It is not possible to predict the actual number of Class A Ordinary Shares, if any, we will sell under such agreement, or the actual gross proceeds resulting from those sales.

As of the date of this annual report, we have not offered or sold any Class A Ordinary Shares to the sales agents.

Key Performance Metrics

We regularly review a number of metrics, including the key metrics presented below, to evaluate our business and performance.

Hash Rate

We believe hash rate is an important metric for assessing the strength of our business. “Hash rate” is a measure of computational power that is being used to mine and process transactions on a PoW blockchain, such as Bitcoin, representing the number of calculations per second that can be performed. Cryptocurrency mining is a competitive process in that only the first miner who solves a particular mining puzzle through numerous calculations can get the mining reward. Accordingly, the more hash rate we possess, as a percentage of the entire network hash rate for a particular cryptocurrency, the higher possibility we have in resolving a block on the network blockchain, and hence a greater chance of success in obtaining cryptocurrency rewards. We calculate and report our hash rate in EH/s. One exahash equals one quintillion hashes per second. As of February 29, 2024, we possessed proprietary hash rate of 8.4 EH/s.

Electricity Capacity

Electricity capacity is another key metric to evaluate our business and operation given the energy intensive nature of cryptocurrency mining. Cryptocurrency mining is conducted through intensive computations, and the generation of the hash rate used in such computations requires large amounts of electricity. As a result, the growth of our business, such as self-mining and hash rate sales through Cloud Hash Rate, relies on a sustainable and increasing supply of a significant amount of electricity, which is currently supported by our mining datacenters. As of February 29, 2024, our electricity capacity was 895MW.

Electricity Cost

As our business operations consume a large amount of electricity and electricity cost in operating mining machines accounts for a significant portion of our overall cost of revenue, we strive to maintain our leadership position in the global electricity cost curve by building mining datacenters worldwide, where low electricity cost supports stable operations. As such, we see electricity cost a key indicator of our business performance. Our premier mining datacenters allowed us to reach an average electricity cost of our mining datacenters to US\$38/MWh for the year ended December 31, 2023.

Non-IFRS Financial Measures

In evaluating our business, we consider and use non-IFRS measures, adjusted EBITDA and adjusted profit/(loss), as supplemental measures to review and assess our operating performance. We define adjusted EBITDA as earnings before interest, taxes, depreciation and amortization, further adjusted to exclude the listing fee and share-based payment expenses under IFRS 2, and define adjusted profit/(loss) as profit/(loss) adjusted to exclude the listing fee and share-based payment expenses under IFRS 2. We present these non-IFRS financial measures because they are used by our management to evaluate our operating performance and formulate business plans. We also believe that the use of these non-IFRS measures facilitate investors’ assessment of our operating performance. These measures are not necessarily comparable to similarly titled measures used by other companies. As a result, you should not consider these measures in isolation from, or as a substitute analysis for, our profit/(loss) for the periods, as determined in accordance with IFRS.

We compensate for these limitations by reconciling these non-IFRS financial measures to the nearest IFRS performance measure, all of which should be considered when evaluating our performance. We encourage you to review our financial information in its entirety and not rely on a single financial measure.

The following table presents a reconciliation of profit/(loss) for the relevant period to adjusted EBITDA and adjusted profit, for the years ended December 31, 2023, 2022 and 2021.

	For the Year Ended December 31		
	2023	2022	2021
	US\$	US\$	US\$
	(in thousands)		
Adjusted EBITDA			
Profit/(loss) for the year	(56,656)	(60,366)	82,643
Add:			
Depreciation and amortization	75,541	66,424	63,055
Income tax (benefit)/expenses	5,685	(4,400)	48,246
Interest (income)/expenses, net	(2,872)	912	(504)
Listing fee	33,151	-	-
Share-based payment expenses	45,488	90,648	88,355
Adjusted EBITDA	<u>100,337</u>	<u>93,218</u>	<u>281,795</u>
Adjusted Profit			
Profit/(loss) for the year	(56,656)	(60,366)	82,643
Add:			
Listing fee	33,151	-	-
Share-based payment expenses	45,488	90,648	88,355
Adjusted profit	<u>21,983</u>	<u>30,282</u>	<u>170,998</u>

Key Factors Affecting Our Results of Operations

The following factors are the principal factors that have affected and will continue to affect our business, financial condition, results of operations and prospects.

Price and volatility of Bitcoin

We derive, and expect to continue to derive, a significant portion of revenue from self-mining of cryptocurrency, primarily Bitcoin. Hence, our ability to generate revenue from this business line is directly affected by the market price of Bitcoin. The Bitcoin price may also impact the use of our mining machines. Our self-mining business breaks even so long as it is economically beneficial for us to continue to operate our mining machines, and that is essentially when the mining machines contribute positive cash flow (i.e., when the variable cost to mine one Bitcoin, namely the electricity cost, equals the market price of a Bitcoin, which we refer to as “shutdown Bitcoin price” for our self-mining business). So long as the Bitcoin price is higher than the “shutdown Bitcoin price,” we would continue to operate our mining machines and such operation would be economically beneficial to us. See the section entitled “Item 3. Key Information - D. Risk Factors - Risks Related to Our Business, Operations, Industry and Financial Condition - Our results of operations have been and are expected to continue to be significantly impacted by Bitcoin price fluctuation.” In addition, the depreciation and impairment potential of our mining machines may be affected by the volatility of the market prices of Bitcoin and other cryptocurrencies. See the section entitled “- Our ability to procure mining machines at a lower cost” below. On the other hand, a drop in Bitcoin price may also create an opportunity for us to add cheaper mining machines to our mining fleets. We also generate a large percentage of revenue from Cloud Hash Rate, which offers hash rate to be utilized by third-party miners. As a result, revenue from this business line is also correlated with Bitcoin price and volatility.

The prices of Bitcoin have experienced substantial volatility. There are a number of other factors that contribute to changes in Bitcoin price and volatility, including, but not limited to, Bitcoin market sentiment, macroeconomic factors, utility of Bitcoin, and idiosyncratic events such as exchange outages or social media. These factors have contributed to the depreciation of Bitcoin. For example, throughout calendar year 2022, a number of companies in the digital assets industry have declared bankruptcy, including cryptocurrency exchanges FTX (including its affiliated hedge fund Alameda Research LLC), crypto hedge fund Three Arrows, crypto miners Compute North and Core Scientific and crypto lenders Celsius Network, Voyager Digital and BlockFi. Such bankruptcies have led, at least in part, to a drop in Bitcoin price.

Despite the market volatility, the appreciation potential of Bitcoin remains high due to several factors. Bitcoins are inherently scarce, given they are designed to have a finite supply of 21 million associated with a depreciating rewarding mechanism, termed “halving,” under which the reward for mining Bitcoin transactions is reduced in half every four years. The growing recognition of Bitcoins also attracts large investment into the Bitcoin economy, as evidenced by an increasing installed network hash rate of Bitcoin globally, and increasing adoption of Bitcoin as an investment instrument and a payment method. Further, more countries are establishing clear and robust regulations to create a more stable environment for Bitcoin mining and trading, which may facilitate the demand for Bitcoins and Bitcoin price appreciation.

While we have seen clear growth in both of our self-mining and Cloud Hash Rate business historically, we have limited ability to predict Bitcoin price and its volatility, which we expect to continue to affect our future earnings and cash flows.

Our ability to maintain our leadership position in proprietary hash rate

A prevailing strategy to profit from proprietary hash rate is mining. The cryptocurrencies mined can be sold at a profit when their market value is high enough to cover the cost of mining machines, electricity fees and other mining-related expenses. Bitcoins are intentionally designed to be resource-intensive and difficult to mine, rendering hash rate critical in the mining industry. Possessing a higher share of network hash rate translates to a higher likelihood of generating mining awards.

We strive to maintain our leadership position in proprietary hash rate. In particular, we have established a business model that allows us to constantly reinforce our market-leading position and outpace our competitors in terms of scaling up our proprietary hash rate. We strategically allocate proprietary hash rate to hash rate sales through our Cloud Hash Rate business, to enable instant cash payback upon customers’ subscription to our hash rate plans. We generally generate proceeds from hash rate sales under long- term hash rate subscription plans that approximate the purchase cost of mining machines. We are able to achieve such a premium against mining machine purchase cost as our hash rate subscription plans save hash rate buyers the efforts from complex mining operation and maintenance and have built brand recognition among customers. Therefore, we are able to continuously grow our proprietary hash rate by funding the purchase of additional mining fleets with the instant cash collected from hash rate sales using our existing mining fleets, significantly reducing our payback period to one month, compared to the long payback period associated with cryptocurrency mining activities, which is typically from 6 to 18 months. We intend to continuously scale up our infrastructure and proprietary hash rate in this efficient manner in order to maintain and reinforce our leading position in proprietary hash rate. However, whether we can achieve a premium through this model depends on various factors, such as the supply and demand in both mining machines and global mining datacenters, whether miners prefer conducting mining operations on their own and technology advancements. Short-term Bitcoin price fluctuations is another contributing factor as quickly adjusting the pricing of our hash rate subscriptions plans to reflect such price change is difficult, if not impossible. Whether this approach will remain effective will affect our ability to add more mining fleets to support the scale-up of our infrastructure and hash rate.

Our ability to procure mining machines at a lower cost

Depreciation of mining machines remained one of the few largest costs we incurred in our business operations for the years ended December 31, 2021, 2022 and 2023. Depreciation of mining machines is directly affected by the purchase price of these machines. While we have successfully tested the Bitcoin mining chip designed for integration into our own mining machines and plan to install our own mining machines at mining datacenters in North America and Norway, we still source a substantial number of mining machines from our suppliers.

If the market value of cryptocurrencies increases, the demand for the most recent and efficient mining machines has also increased, leading to scarcity in the supply of and thereby an increase in the price of mining machines. As a result, the cost of new machines can be unpredictable, and could also be significantly higher than our historical cost for new mining machines. Based on our well-established network with upstream mining machine suppliers and traders, we believe that we are able to secure spot machines for the most recent and most commonly used models at a relatively low price for a majority of our mining machines and thereby lowering depreciation of mining machines. On the other hand, a decrease in market value of cryptocurrencies may present opportunities for us to procure cheaper mining machines.

However, whether we are able to successfully procure mining machines at a low price is subject to a number of factors, including our brand strength, our mining machine purchase channels, and supply and demand of mining machines, some of which may not be entirely within our control. Even if we are able to procure mining machines at a lower cost, the depreciation and impairment potential of our mining machines may nevertheless be affected by the volatility of the market prices of Bitcoin and other cryptocurrencies. We may need to reconsider the appropriateness of the current useful life, the residual value and the depreciation method of our mining machines based on the change in cryptocurrency prices on a yearly or more frequently basis. In addition to the reassessment of depreciation, we may also need to assess whether any indications are present which will result in impairments of our mining machines. For example, impairments may be necessary if the expected operating profits from the mining machines show a significant decline from previous forecasts, which may be caused if the market price of Bitcoin drops below the mining machine shut-down price.

Our ability to effectively maintain our leadership position in the global electricity cost curve

Electricity cost was the other largest cost, besides depreciation of mining machines, that we incurred in our business operations for the years ended December 31, 2021, 2022 and 2023.

Our ability to secure ample power supply with low electricity cost is underpinned by our top-notch global mining datacenters deployment and operation experience and capabilities. We pioneer in deploying and operating mining datacenters globally. Our dedicated global team for mining datacenter construction understands the critical needs of mining as well as the complex and continuously evolving global landscape of electricity supply. They also have extensive connections with local electricity experts and power enterprises around the world, giving us a clear advantage in mining datacenter construction, and hence in electricity capacity and electricity costs among our competitors. We were able to optimize our electricity cost structure and reach an average electricity cost of our mining datacenters to US\$38/MWh for the year ended December 31, 2023. Whether our current cost-saving efforts or our forward strategy in this regard is effective for maintaining our leadership position in the global electricity cost curve will affect our ability to control our costs.

Our business judgments regarding pricing strategy and resource allocation

Our business operations involve constant and important decision-making regarding the pricing of our products and services as well as allocation of mining resources. Our pricing strategy is based on our estimates of market trends. As we operate three business lines, we have to decide the allocation of proprietary hash rate between “self-mining” and “hash rate sharing” as well as the allocation of mining datacenter capacity among “self-mining”, “hash rate sharing” and “hosting”. While allocating more mining resources to “hash rate sharing” and “hosting” services may facilitate cash payback and mining datacenter expansion, we have to forgo Bitcoin’s huge appreciation potential to some extent as we could earn more Bitcoins by allocating the same mining resources to “self-mining”, and vice versa. We spend great efforts in making decisions in our company’s best interest, taking into account Bitcoin price, network hash rate, the amount of cash we need and our view on the market opportunities for acquiring mining machines or expanding mining datacenters at low cost, etc. However, we cannot guarantee that our decisions could bring the Company the best results every time, and we anticipate our business judgments will continue to affect the results of our operations.

Our ability to upgrade and expand our offerings

Crypto-economy is characterized by continuous fluctuations and frequent innovations. Therefore, our future success is dependent on our ability to diversify our income structure to reduce exposure to fluctuations of the price of Bitcoin, the most significant type of cryptocurrency involved in our business operation, and maintain our market-leading position by upgrading and expanding our offerings. We launched *Minerplus* in January 2021 to improve operational efficiency for our self-mining business and miner customers. We successfully tested our first Bitcoin mining chip in March 2024 which is designed for integration into our new SEALMINER A1 mining machines. We plan to install our own SEALMINER A1 mining machines at our mining datacenters in North America and Norway as part of our plan to expand our hash rate.

Although we have accumulated extensive expertise and know-how in the cryptocurrency industry, we are only at an earlier stage of executing our offering expansion plan. Upgrading existing offerings and commencing new businesses may incur significant costs and experience a prolonged ramp-up period. Although we expect these investments to benefit our business over the long term, we also expect our total operating expenses will increase for the foreseeable future. If any adverse development in such new businesses arises, we may not be able to develop those new businesses as successfully as contemplated, or at all, and our results of operations and prospects may be significantly and negatively affected as a result.

Regulatory environment

We are a leading cryptocurrency mining service provider with a strong global presence. As of February 29, 2024, we operated six prime mining datacenters in the United States, Norway and Bhutan and had served users across around 100 countries and regions around the globe, and may continue to expand our operations to more countries and regions. Each of our business lines is subject to government regulation in each jurisdiction in which we operate and various jurisdictions may from time to time adopt laws, regulations or directives that affect our businesses. We are subject to regulatory risks with regards to mining, holding, using, or transferring cryptocurrencies, etc., and the uncertainty of the regulatory environment and our ability to anticipate and respond to potential changes in government policies and regulations will have a significant impact on our business operations in countries we operate in and our overall results of operations. Regulations have impacted or could impact, among others, the nature of and scope of offerings we are able to make available, the pricing of offerings on our platform, our relationship with, and incentives, fees and commissions provided to or charged from our business partners, our ability to operate in certain segments of our business. We expect that our ability to manage our relationships with regulators in each of our markets, as well as existing and evolving regulations will continue to impact our results in the future.

Impact of COVID-19

The COVID-19 pandemic has caused general business disruption worldwide beginning in January 2020, and the subsequent restrictive measures imposed by the governments around the world have caused disruption to businesses and resulted in significant global economic impacts. COVID-19 has also historically impacted the payment efficiency of certain of our customers. The effects the pandemic are subsiding and we, at present, are conducting business and operations as usual. As of the date of this annual report, these impacts have not had a significant effect on our financial results or operations and liquidity. See the section entitled “Item 3. Key Information - D. Risk Factors - The COVID-19 pandemic has brought a significantly negative impact on the global economy, industry and market conditions. The ongoing development and the global control on the pandemic are unclear, which may increase the instability of Bitdeer’s development, materially and adversely affecting Bitdeer’s results of operations” for further details regarding risks related to the COVID-19 pandemic.

Key Components of Our Results of Operations

Revenue

We generate revenue from (i) self-mining, (ii) hash rate sales through Cloud Hash Rate, (iii) Cloud Hosting, (iv) General Hosting, (v) Membership Hosting, (vi) sales of mining machines and (vii) others, which mainly consist of the provision of technical and human resources service, repairment services of hosted mining machines, lease of investment properties, the sale of mining machine peripherals and the sale of containerized solution products. Historically, we only accepted cryptocurrency for Cloud Hosting. For lease of investment properties, we only accept fiat currency. For our other products and services available to customers, we accept both fiat currency and cryptocurrencies as payments.

Self-Mining

We enter into contracts with mining pool operators to provide computing power generated from our own mining machines to the mining pools. The contracts with mining pool operators are terminable at any time by either party. In exchange for providing computing power to the mining pool, we are entitled to cryptocurrency rewards from the mining pool operators, which is a variable consideration calculated based on a predetermined formula agreed by us and the mining pool operator as a part of the arrangement. We can reasonably estimate the amount of mining rewards by the end of a given day based on the actual amount of computing power provided to the mining pool operators. By then, we consider it is highly probable that a significant reversal in the amount of revenues will not occur and includes such variable consideration in the transaction price. Providing computing power is an output of our ordinary activities and the only performance obligation in our contracts with mining pool operators. We recognize the revenue when the variable consideration is reasonably estimable and the performance obligation of providing computing power has been satisfied. As a result, we do not present disaggregated revenue information on block rewards and transaction verification fees.

Cloud Hash Rate

Through *Cloud Hash Rate*, customers can subscribe to a specified amount of computing power derived from the mining machines held by us for a period of time through a wide selection of hash rate subscription plans offered by us, differentiated by plan duration and the type of cryptocurrency to be mined. By subscribing to the hash rate subscription plan, the customers are able to direct the computing power provided by us to be connected to a customer-designated mining pool for a period of time. As a result of directing the connection of such computing power to the mining pools, the customers are entitled to the mining rewards, which are directly transferred from mining pools to the customer-designated cryptocurrency wallets. Customers pay a fixed amount for the subscribed hash rate at the commencement of the plans. The revenue related to hash rate subscriptions is amortized ratably throughout the duration of the plan. The customer also needs to separately pay for electricity subscriptions to maintain the mining machines that produce the subscribed hash rate. The revenue related to electricity subscriptions is recognized ratably throughout the duration of each respective electricity subscription. The price of electricity subscription is fixed at the commencement of each electricity subscription. The hash rate subscription plans are offered under two modes. Under the classic mode, the customer receives all of the mining rewards from the mining pool. Under the accelerator mode, the customer pays a relatively lower computing power subscription fee. In exchange, we are entitled to additional consideration once the customer's cost is recovered. The additional consideration is determined as a percentage of a customer's mining profit derived from the subscribed computing power. We accept both cryptocurrency and fiat currency as payments under the Cloud Hash Rate arrangements.

Cloud Hosting

Through Cloud Hosting, we provide our customers one-stop mining machines hosting solution that integrates the provision of computing power generated from the specified second-hand mining machines and the provision of maintenance service, which primarily includes electricity supply and daily maintenance and repair care. We charge our customers an upfront amount at the commencement of the Cloud Hosting arrangements so the customers can secure the procurement of the computing power from the specified mining machines and the corresponding revenue is recognized ratably over the term of the service, which approximates to the life of the specified mining machines and is estimated to be two years, and maintenance service fee, based on the consumption of resources, such as electricity, and the corresponding revenue is recognized across each service cycle. The estimated life of these mining machines is reviewed at least at each financial year-end and adjusted if the expectation of the realization of economic benefits from the specified mining machines is different from the previous estimate. The Cloud Hosting arrangements are offered under two modes. Under the classic mode, the customer receives all of the mining rewards from the mining pool. Under the accelerator mode, the customer is charged with a lower upfront amount and enjoys a quicker recovery of the costs. In exchange, we are entitled to additional consideration once a customer's cost is recovered. The additional consideration, which is variable, is determined as a percentage of a customer's mining profit derived from the computing power of the specified mining machines and constrained until the mining pool operator finishes the calculation of the mining reward related to the mining activity in a given day. We include such additional consideration in the transaction price and recognizes revenues when we can reasonably calculate the amount and determine it is probable a significant reversal will not occur. We did not generate any revenue from the additional consideration from Cloud Hosting arrangements offered under the "accelerated payback mode" for the years ended December 31, 2021, 2022 and 2023. We historically only accept cryptocurrency as payments for services under the Cloud Hosting arrangements. Under the Cloud Hosting arrangements, our customers' ability to direct the use of, and to obtain substantially all of the remaining benefits from, the mining machines is limited while the mining machines are in our possession. We have determined that we still retain control over the mining machines and consequently, the mining machines under the Cloud Hosting arrangements were not derecognized from our book.

General Hosting

We provide General Hosting services that enable our customers to run blockchain computing operations. The service fee is charged to our customers monthly on a consumption basis, such as the amount of electricity used in a period, based on the customer's use of such resources. In the arrangement with certain customers, we are also entitled to additional variable consideration based on the customers' mining yield during a period. Revenue from the General Hosting service is recognized across each service cycle. We accept both cryptocurrency and fiat currency as payments for the provision of custody and hosting service.

Membership Hosting

We offer Membership Hosting services to our large-scale miner customers by entering into a series of contracts, which includes a membership program agreement and a management services agreement. These contracts are signed with the same customer at or near the same time, and they are combined and accounted for as a single contract.

Unlike General Hosting where the customer's access to mining datacenter capacity is subject to the availability of such capacity at the time the request was raised, a customer under Membership Hosting will be designated of certain capacity (i.e., designated capacity) exclusive for use by such customer, by signing a standard membership program agreement. We also provide other program benefits, if available, to customers under Membership Hosting, including, among other things, (i) early, priority and exclusive access to the newly available mining datacenter capacity that is sufficient for large-scale miners, upon a new mining datacenter becomes available and (ii) more favorable pricing terms for our services, such as mining machine management services, than the prevailing price in the local market. We charge an upfront fee for such program benefits.

We also provide management services, such as infrastructure, custody, and utility, for the mining machines of a Membership Hosting customer up to designated capacity, pursuant to a separate management services agreement, and charge management services fee. We also charge additional fee, at our stand-alone selling price, for the subscription of our mining machine operation service. The management services fee and the mining machine operation fee, as applicable, are charged to the customer monthly based on the customer's consumption of resources, such as the amount of electricity used in a period.

Our promises offered in the membership program agreement and management services agreement are not separately identifiable and treated as a single performance obligation recognized over a period of time. Revenue associated with the upfront fee for the program benefits is recognized over the program subscription period and revenue associated with the management service is recognized over each distinct service period. The promise to provide the mining machine operation service, if subscribed to by a customer, is accounted for as a separate performance obligation and the associated revenue is recognized over each distinct service period at their respective stand-alone selling price. We accept both cryptocurrency and fiat currency as payments for the membership hosting arrangements.

Sales of Mining Machines

We may engage in the sales of mining machines on hand from time to time, depending on market conditions, capacity availability in our mining datacenters and the availability of new-generation mining machines that are more efficient. While not part of our three primary business lines, we sell mining machines on hand when, based on our judgement, selling machines of older models can (i) facilitate cash payback while maintaining a reasonable profit range compared to utilizing them for our own operations and (ii) optimize the efficiency of our mining fleets. Factors we considered include market conditions, capacity availability in our mining datacenters and the availability of new-generation mining machines that are more efficient. We recognize revenue from sales of mining machines to customers at the point in time when control of the mining machines is transferred to our customers, which generally occurs upon shipment of the mining machines as defined in the contract. We accept both cryptocurrency and fiat currency as payments for mining machine purchase.

Others

We also generate from other operations, mainly including the provision of technical and human resources service, repairment services of hosted mining machines, lease of investment properties, the sale of mining machine peripherals and the sale of containerized solution products. The revenue generated from these operations was individually immaterial for all periods under discussion.

Cost of Revenue

Our cost of revenue consists primarily of (i) electricity expenses incurred for operating our mining machines in its revenue-generating activities, (ii) depreciation expense from the mining machines and datacenters hosting those mining machines, (iii) compensation expenses incurred by mining datacenter personnel, (iv) share-based payment expenses related to mining datacenter personnel, and (v) costs of mining machines sold to customers.

Electricity Cost in Operating Mining Machines

We incur electricity costs when (i) operating mining machines for cryptocurrency mining, (ii) generating hash rate for sales under Cloud Hash Rate, (iii) operating specified mining machines for customers under Cloud Hosting and (iv) operating customer-owned mining machines during the provision of General Hosting and Membership Hosting services.

Depreciation of Mining Machines and Mining Datacenters

Depreciation on our mining machines is calculated using the straight-line method to allocate costs up to residual values over the estimated useful lives of the assets. We review the useful lives and residual values at least at each financial year-end and adjusted, if appropriate, to ensure that the method and rates of depreciation are consistent with the expected pattern of realization of economic benefits from mining machines. We estimate the useful lives of mining machines based on historical experience, taking into account anticipated technological changes. If there are significant changes from previously estimated useful lives, the amount of depreciation expenses may change. We estimated the useful lives of our mining machines to be one to five years.

Depreciation of mining datacenters is calculated using the straight-line method based on the estimated useful lives of the assets comprised thereof, such as buildings, machinery, electronic equipment, leasehold improvements and property improvements, and is recorded under depreciation of property, plant, and equipment. The depreciation method, useful life and residual value of these assets are reviewed at least at each financial year-end and adjusted if appropriate.

Compensation Expenses Incurred by Mining Datacenter Personnel

The compensation expenses incurred by mining datacenter personnel consists primarily of (i) share-based payment expenses related to mining datacenter personnel as a result of the grant of options under the 2023 Share Incentive Plan and (ii) staff costs, including salaries, wages and other benefits in relation to mining datacenter personnel.

Cost of Mining Machines Sold

The cost of mining machines sold is incurred when we sell our mining machines that have been used for our business operations. It is recognized at the net book value of the associated mining machines.

Gross Profit/(Loss)

Our gross profit or loss is primarily affected by (i) Bitcoin prices, which have a significant and direct effect on the amount of revenue we recognized from our operations, (ii) depreciation of mining machines, which is directly related to the mining machine purchases we made, (iii) electricity costs, (iv) staff cost, including salaries, wages and other benefits and (v) share-based payment expenses.

Operating Expenses/(Income)

Selling Expenses

Our selling expenses primarily consist of (i) staff costs, including wages, bonuses and benefits to sales personnel, (ii) promotional expenses, which primarily represent expenses incurred for online and offline marketing activities and other promotional activities to reach more customers, and (iii) share-based payment expenses related to marketing personnel.

General and Administrative Expenses

Our general and administrative expenses primarily consist of (i) staff costs, including wages, bonuses and benefits to general and administrative personnel, (ii) consulting service expenses, (iii) share-based payment expenses related to administrative personnel, (iv) insurance expenditure, and (v) travel expenses and office expenses incurred during our daily operation.

Research and Development Expenses

Our research and development expenses primarily consist of (i) staff costs, including wages, bonuses and benefits to research and development personnel, (ii) share-based payment expenses related to research and development personnel, and (iii) technical service fee. We invest significant research and development resources in improving technology related to our Cloud Hash Rate business including hash rate slicing, developing and testing our Bitcoin mining chip and improving our Minerplus features like virus detection and hash rate monitoring. We also spent R&D efforts on utilizing renewable energy and increasing energy efficiency.

Other Operating Income/(Expenses)

Our other operating income/expenses primarily consist of (i) net gain/losses on disposal of cryptocurrencies, (ii) net loss on disposal of mining machine, and (iii) change in fair value of cryptocurrency-settled receivables and payables.

Other Net Gain

Other net gain primarily consist of (i) changes in fair value of financial assets at fair value through profit or loss, (ii) net gain on disposal of property, plant and equipment and intangible assets, (iii) impairment loss of a pre-matured investment, and (iv) net gain on settlement of balances between Bitmain.

Results of Operations

The following tables summarizes our results of operations, revenue breakdown, and expenses by nature for the years ended December 31, 2023, 2022, and 2021. This information should be read together with our consolidated financial statements and related notes included elsewhere in this annual report. The results of operations in any particular period are not necessarily indicative of our future trends.

The following table summarizes our results of operations for the years indicated:

	For the Year Ended December 31		
	2023	2022	2021
	US\$	US\$	US\$
	(in thousands)		
Revenue	368,554	333,342	394,661
Cost of revenue	(290,745)	(250,090)	(153,255)
Gross profit	77,809	83,252	241,406
Selling expenses	(8,246)	(11,683)	(8,448)
General and administrative expenses	(66,454)	(93,453)	(89,735)
Research and development expenses	(29,534)	(35,430)	(29,501)
Listing fee	(33,151)	-	-
Other operating incomes / (expenses)	3,791	(3,628)	14,625
Other net gain	3,538	357	2,483
Profit / (loss) from operations	(52,247)	(60,585)	130,830
Finance income / (expenses)	1,276	(4,181)	59
Profit / (loss) before taxation	(50,971)	(64,766)	130,889
Income tax benefit / (expenses)	(5,685)	4,400	(48,246)
Profit / (loss) for the year	(56,656)	(60,366)	82,643

The following table sets forth a breakdown of our revenue, for the years indicated.

	For the Year Ended December 31,					
	2023		2022		2021	
	US\$	%	US\$	%	US\$	%
	(in thousands, except for percentages)					
Revenue						
Self-mining	111,683	30.3	62,359	18.7	191,693	48.6
Cloud hash rate	67,881	18.4	121,341	36.4	124,205	31.5
Hash rate subscription	40,290	11.0	77,862	23.3	53,952	13.7
Electricity subscription	27,419	7.4	39,525	11.9	35,113	8.9
Additional consideration from Cloud Hash Rate arrangements offered under accelerator mode	172	0.0	3,954	1.2	35,140	8.9
Sales of mining machines	2	0.0	705	0.2	45,693	11.6
Cloud Hosting arrangements(1)	3,248	0.9	12,723	3.8	7,568	1.9
General Hosting	97,321	26.4	99,251	29.8	18,312	4.6
Membership hosting	79,906	21.7	26,056	7.8	-	-
Others(2)	8,513	2.3	10,907	3.3	7,190	1.8
Total revenue	368,554	100.0	333,342	100.0	394,661	100.0

- (1) We did not generate any revenue from the additional consideration from Cloud Hosting arrangements offered under “accelerated payback mode” for the years ended December 31, 2021, 2022 and 2023.
- (2) Others include revenue generated primarily from providing technical and human resources service, repairment services of hosted mining machines, lease of investment properties, the sale of containerized solution products.

The following table sets forth a breakdown by nature of our cost of revenue, selling, general and administrative, and research and development expenses for the years indicated.

	For the Year Ended December 31,					
	2023		2022		2021	
	US\$	%	US\$	%	US\$	%
	(in thousands, except for percentages)					
Staff costs: salaries, wages and other benefits	52,873	13.4	50,132	12.8	37,730	13.4
Share-based payments	45,488	11.5	90,648	23.2	88,355	31.4
Amortization of intangible assets	754	0.2	97	0.0	146	0.1
Depreciation:						
Mining machines	25,663	6.5	29,281	7.5	43,857	15.6
Property, plant and equipment	39,899	10.1	30,438	7.8	14,416	5.1
Investment properties	2,601	0.7	1,237	0.3	-	-
Right-of-use assets	6,624	1.7	5,371	1.4	4,636	1.7
Electricity cost in operating mining machines	180,565	45.7	139,469	35.7	58,447	20.8
Cost of mining machines sold	4	0.0	1,002	0.3	5,978	2.1
Consulting service fee	9,757	2.5	6,797	1.7	8,787	3.1
Tax and surcharge	5,442	1.4	3,355	0.9	2,202	0.8
Advertising expenses	1,383	0.4	737	0.2	880	0.3
Office expenses	3,987	1.0	3,124	0.8	2,219	0.8
Research and development technical service fees	2,854	0.7	1,313	0.3	1,964	0.7
Expenses of low-value consumables	2,557	0.6	4,025	1.0	1,662	0.6
Expenses of variable payment lease	224	0.1	639	0.2	610	0.2
Expenses of short-term leases	286	0.1	527	0.1	351	0.1
Impairment loss of mining machines	-	-	-	-	106	0.0
Logistic expenses	557	0.1	3,060	0.8	1,391	0.5
Travel expenses	2,843	0.7	3,202	0.8	1,393	0.5
Insurance fee	2,427	0.6	3,446	0.9	983	0.3
Others	8,191	2.0	12,756	3.3	4,826	1.9
Total cost of revenue, selling, general and administrative and research and development expenses	394,979	100.0	390,656	100.0	280,939	100.0

Comparison of Years Ended December 31, 2022 and 2023

Revenue

Our revenue increased by 10.6% from US\$333.3 million for the year ended December 31, 2022 to US\$368.6 million for the year ended December 31, 2023, primarily driven by the increase of revenue generated from our self-mining and Membership Hosting, which began to generate revenue in the second half of 2022.

- Revenue generated from our self-mining business increased by 79.1% from US\$62.4 million for the year ended December 31, 2022 to US\$111.7 million for the year ended December 31, 2023. The change was mainly driven by (i) the increased self-mining hash rate from the operation of Gedu mining datacenter which started in the second half of 2023 and resulted in more Bitcoin production, and (ii) the appreciation of Bitcoin price in the last quarter of 2023. The hash rate used for self-mining, calculated on a twelve-month monthly average basis, was approximately 5.1EH/s for the year ended December 31, 2023, which increased compared to 2.4EH/s for the year ended December 31, 2022. We expect to remain flexible in allocating hash rate between self-mining and hash rate sales through *Cloud Hash Rate*, depending on the market condition.
- Revenue generated from Cloud Hash Rate decreased by 44.1% from US\$121.3 million for the year ended December 31, 2022 to US\$67.9 million for the year ended December 31, 2023, which was mainly attributable to a decrease in revenue from (i) hash rate subscription, (ii) electricity subscription, and (iii) additional consideration from acceleration plan arrangements. Sales price of hash rate subscription is primarily priced with reference to Bitcoin price and overall network hash rate at the time of sales and revenue generated from the subscription is recognized evenly over the duration of the subscription. As a result, revenue from hash rate subscription for the year ended December 31, 2023 did not only consist of new sales during the year ended December 31, 2023 but also the amortized revenue from sales before 2023. With the gradual expiration of the hash rate subscription, we have also slightly decreased hash rate allocated to Cloud Hash Rate, calculated on a twelve-month monthly average basis, from 1.8EH/s for the year ended December 31, 2022 to 1.6EH/s for the year ended December 31, 2023. The decrease in revenue from electricity subscription was attributable to the decrease of active hash rate subscription orders. The decrease in revenue from additional consideration from Cloud Hash Rate arrangements offered under accelerator mode was due to the expiration of our existing revenue sharing arrangements subscribed in the prior year and a delay in reaching the condition for revenue sharing due to generally longer subscription periods and lower-than-expected mining rewards.
- Revenue generated from Cloud Hosting decreased by 74.5% from US\$12.7 million for the year ended December 31, 2022 to US\$3.2 million for the year ended December 31, 2023, which was primarily attributable to the decrease in capacity allocated for Cloud Hosting and completion of most orders of Cloud Hosting by the end of 2022.
- Revenue generated from General Hosting decreased by 1.9% from US\$99.3 million for the year ended December 31, 2022 to US\$97.3 million for the year ended December 31, 2023, primarily because of a slight decrease in the capacity of General Hosting.
- Revenue generated from Membership Hosting increased significantly by 206.7% from US\$26.1 million for the year ended December 31, 2022 to US\$79.9 million for the year ended December 31, 2023, which was because our mining datacenter in North America began to deliver capacity in the second half of 2022.

Cost of Revenue

Our cost of revenue increased by 16.3% from US\$250.1 million for the year ended December 31, 2022 to US\$290.7 million for the year ended December 31, 2023, primarily driven by an increase in electricity expenses incurred for operating our mining machines, compensation expenses incurred by mining datacenter personnel and depreciation of property, plant and equipment, partially offset by a decrease in (i) depreciation of mining machines, and (ii) share-based payments incurred by mining datacenter personnel.

- Electricity cost in operating mining machines increased by 29.5% from US\$139.5 million for the year ended December 31, 2022 to US\$180.6 million for the year ended December 31, 2023, which was attributed to the increased overall energy consumption related to the expansion of our mining datacenter operations in North America, Norway and Bhutan since second half of 2022, partially offset by the average lower electricity price in 2023.
- Depreciation of mining machines decreased by 12.4% from US\$29.3 million for the year ended December 31, 2022 to US\$25.7 million for the year ended December 31, 2023, primarily due to mining machines procured prior to 2022 being fully depreciated gradually and our procurement of mining machines of newer models in 2023 being depreciated over a longer useful life.
- Depreciation of property, plant and equipment attributed to cost of revenue increased by 29.7% from US\$30.0 million for the year ended December 31, 2022 to US\$39.0 million for the year ended December 31, 2023, primarily as a result of the expansion of our mining datacenters and mining facilities in North America, Norway and Bhutan.
- Salaries, wages and other benefits attributed to cost of revenue increased by 10.6% from US\$17.8 million for the year ended December 31, 2022 to US\$19.7 million for the year ended December 31, 2023, which was due to the increase in employees and in salaries, wages and other benefits to attract and retain quality employees as a result of the expansion of our mining datacenter operations in North America, Norway and Bhutan.
- Share-based payment expenses attributed to cost of revenue decreased by 53.0% from US\$10.1 million for the year ended December 31, 2022 to US\$4.7 million for the year ended December 31, 2023, as a result of the decrease in the new grant of share awards to mining datacenter personnel in the year ended December 31, 2023 and the decrease in expense recognized according to graded vesting schedules for outstanding share awards for the year ended December 31, 2023.

Selling Expenses

Our selling expenses decreased by 29.4% from US\$11.7 million for the year ended December 31, 2022 to US\$8.2 million for the year ended December 31, 2023, primarily due to the decrease in share-based payment expenses, as a result of (i) a decrease in the new grant of share awards to sales personnel in the year ended December 31, 2023 and (ii) the decrease in expense recognized according to graded vesting schedules for outstanding share awards for the year ended December 31, 2023, partially offset by the increase in marketing and advertising expenses.

General and Administrative Expenses

Our general and administrative expenses decreased by 28.9% from US\$93.5 million for the year ended December 31, 2022 to US\$66.5 million for the year ended December 31, 2023, primarily due to (i) the decrease in share-based payment expenses, as a result of the decrease in the new grant of share awards to general and administrative personnel in the year ended December 31, 2023 and the decrease in expense recognized according to graded vesting schedules for outstanding share awards for the year ended December 31, 2023 and (ii) the decrease in staff costs, including wages, bonuses and other benefits to general and administrative personnel, partially offset by the increase in consulting service fee.

Research and Development Expenses

Our research and development expenses decreased by 16.6% from US\$35.4 million for the year ended December 31, 2022 to US\$29.5 million for the year ended December 31, 2023, primarily attributable to the decrease in share-based payment expenses as a result of the decrease in the new grant of share awards to research and development personnel in the year ended December 31, 2023 and the decrease in expense recognized according to graded vesting schedules for outstanding share awards for the year ended December 31, 2023 partially offset by (i) the increase in staff costs, including wages, bonuses and other benefits to research and development personnel, and (ii) the increase in research and development technical service fees.

Listing Fee

We recorded listing fee of US\$33.2 million for the year ended December 31, 2023 in relation to the Business Combination, compared to nil for the year ended December 31, 2022.

Other Operating Income/(Expenses)

We incurred other operating expenses of US\$3.6 million and generated other operating income of US\$3.8 million for the years ended December 31, 2022 and 2023, respectively. This change was primarily driven by the net gain on disposal of cryptocurrencies and the change in fair value of cryptocurrency-settled receivables and payables, partially offset by the loss on disposal of mining machines.

Other Net Gain

We recorded other net gain of US\$0.36 million for the year ended December 31, 2022, which primarily included (i) net gains on disposal of property, plant and equipment and intangible assets of US\$0.66 million and (ii) other gains of US\$0.5 million, which mainly included return of wealth management product and other minor gains from disposal of investments in unlisted debt instruments, partially offset by the loss of US\$0.8 million which mainly included the fair value change of investments in unlisted equity and debt instruments. We recorded other net gain of US\$3.5 million for the year ended December 31, 2023, which primarily included (i) net gains on the changes in fair value of financial asset at fair value through profit or loss of US\$3.5 million and (ii) gain on convertible debt modification of US\$0.5 million.

Profit/(Loss) from Operations

As a result of the foregoing, we recorded a loss from operations of US\$60.6 million for the year ended December 31, 2022 and US\$52.2 million for the year ended December 31, 2023.

Income Tax Benefit/(Expenses)

We recorded income tax benefit of US\$4.4 million and income tax expenses of US\$5.7 million for the years ended December 31, 2022 and 2023.

Net Profit/(Loss)

As a result of the foregoing, we incurred a net loss of US\$60.4 million for the year ended December 31, 2022 and a net loss of US\$56.7 million for the year ended December 31, 2023.

Comparison of Years Ended December 31, 2021 and 2022

Revenue

Our revenue decreased by 15.6% from US\$394.7 million for the year ended December 31, 2021 to US\$333.3 million for the year ended December 31, 2022, primarily driven by (i) a decrease in revenue generated from self-mining, (ii) a decrease in revenue generated from sales of mining machines and (iii) a decrease in revenue generated from Cloud Hash Rate, partially offset by (i) an increase in revenue generated from Cloud Hosting, (ii) an increase in revenue generated from General Hosting, and (iii) Membership Hosting which began to generate revenue in the second half of 2022.

- Revenue generated from our self-mining business decreased by 67.4% from US\$191.7 million for the year ended December 31, 2021 to US\$62.4 million for the year ended December 31, 2022. The change was mainly driven by (i) the price drop of Bitcoin, the most significant type of cryptocurrency involved in our business operation and (ii) a decrease in the comparative number of Bitcoin mined from self-mining, resulting from a decrease in the amount of hash rate allocated to our self-mining business as a percentage of the total network hash rate. The hash rate used for self-mining, calculated on a twelve-month monthly average basis, was approximately 2.4EH/s for the year ended December 31, 2022, which slightly increased compared to 2.2EH/s for the year ended December 31, 2021. We expect to remain flexible in allocating hash rate between self-mining and hash rate sales through Cloud Hash Rate, depending on the market condition.
- Revenue generated from sales of mining machines decreased by 98.5% from US\$45.7 million for the year ended December 31, 2021 to US\$0.7 million for the year ended December 31, 2022, which was mainly attributable to a decrease in the number of mining machines we sold for the year ended December 31, 2022 as we had sold most of our mining machines of older models for the year ended December 31, 2021. We currently do not expect to sell mining machines in the near-future.

- Revenue generated from Cloud Hash Rate decreased by 2.3% from US\$124.2 million for the year ended December 31, 2021 to US\$121.3 million for the year ended December 31, 2022, which was mainly attributable to an increase in (i) revenue from hash rate subscription and (ii) revenue from electricity subscription, offset by a decrease in revenue from additional consideration from acceleration plan arrangements. Sales price of hash rate subscription is primarily priced with reference to Bitcoin price and overall network hash rate at the time of sales and revenue generated from the subscription is recognized evenly over the duration of the subscription. As a result, revenue from hash rate subscription for the year ended December 31, 2022 did not only consist of new sales during the year ended December 31, 2022 but also the amortized revenue from sales before 2022 and that captured the Bitcoin price appreciation during 2021. With the gradual expiration of the hash rate subscription, we have also slightly decreased hash rate allocated to Cloud Hash Rate, calculated on a twelve-month monthly average basis, from 2.0EH/s for the year ended December 31, 2021 to 1.8EH/s for the year ended December 31, 2022. The increase in electricity subscription was as a result of increase in electricity price in 2022 for existing customers of Cloud Hash Rate. The decrease in revenue from additional consideration from Cloud Hash Rate arrangements offered under accelerator mode was due to the expiration of our existing revenue sharing arrangements subscribed in the prior year and a delay in reaching the condition for revenue sharing due to generally longer subscription periods and lower-than-expected mining rewards.
- Revenue generated from Cloud Hosting increased by 67.1% from US\$7.6 million for the year ended December 31, 2021 to US\$12.7 million for the year ended December 31, 2022, which was primarily because nearly half of orders of Cloud Hosting in 2021 were subscribed in the second half of 2021, which contributed to the revenue in 2022, while nearly all orders of Cloud Hosting in 2022 contributed to the revenue in 2022.
- Revenue generated from General Hosting increased significantly from US\$18.3 million for the year ended December 31, 2021 to US\$99.3 million for the year ended December 31, 2022, primarily driven by an increase in the mining site capacity as a result of the expansion of our mining datacenter operations.
- We began to generate revenue from Membership Hosting in the second half of 2022 when our mining datacenter in North America began to deliver capacity, and recorded revenue in the amount of US\$26.1 million for the year ended December 31, 2022.

Cost of Revenue

Our cost of revenue increased by 63.1% from US\$153.3 million for the year ended December 31, 2021 to US\$250.1 million for the year ended December 31, 2022, primarily driven by an increase in (i) electricity cost in operating mining machines, (ii) salaries, wages and other benefits and (iii) depreciation of property, plant and equipment, partially offset by a decrease in (i) depreciation of mining machines and (ii) cost of mining machines sold and accessories sold.

- Electricity cost in operating mining machines increased by 138.9% from US\$58.4 million for the year ended December 31, 2021 to US\$139.5 million for the year ended December 31, 2022, which was attributed to the increased overall energy consumption related to the expansion of our mining datacenter operations in North America and Norway.
- Depreciation of mining machines decreased by 33.3% from US\$43.9 million for the year ended December 31, 2021 to US\$29.3 million for the year ended December 31, 2022, primarily because (i) a significant number of the mining machines procured prior to 2021 as a result of our expanded hash rate capacity are fully depreciated by 2021, and (ii) we changed the useful life for mining machines from one year to two years for the mining machines of newer models that were purchased starting from July 2021, which leads to lower depreciation afterwards.
- Depreciation of property, plant and equipment attributed to cost of revenue increased by 114.3% from US\$14.0 million for the year ended December 31, 2021 to US\$30.0 million for the year ended December 31, 2022, primarily as a result of the expansion of our mining datacenters and mining facilities in North America and Norway.
- Salaries, wages and other benefits attributed to cost of revenue increased by 89.4% from US\$9.4 million for the year ended December 31, 2021 to US\$17.8 million for the year ended December 31, 2022, which was due to the increase in employees and in salaries, wages and other benefits to attract and retain quality employees as a result of the expansion of our mining datacenter operations in North America.
- Cost of mining machines sold and accessories sold decreased by 83.3% from US\$6.0 million for the year ended December 31, 2021 to US\$1.0 million for the year ended December 31, 2022, primarily driven by the decrease in the number of mining machines we sold for the year ended December 31, 2022 as we had sold most of our mining machines of older models for the year ended December 31, 2021. We currently do not expect to sell mining machines in the near-future.

Selling Expenses

Our selling expenses increased from US\$8.4 million for the year ended December 31, 2021 to US\$11.7 million for the year ended December 31, 2022, primarily due to (i) the US\$2.3 million increase in share-based payment expenses as a result of the new grant of options to sales personnel in 2022 under the 2021 Share Incentive Plan approved in July 2021, and (ii) the US\$0.4 million increase in staff costs, including salaries, wages and benefits to sales personnel.

General and Administrative Expenses

Our general and administrative expenses increased by 4.2% from US\$89.7 million for the year ended December 31, 2021 to US\$93.5 million for the year ended December 31, 2022, primarily due to (i) the US\$6.4 million increase in travel, insurance, utilities and other expenses related to our daily operation and (ii) the US\$3.2 million increase in staff costs, including salaries, wages and benefits to general and administrative personnel, partially offset by the US\$5.6 million decrease in share-based payment expenses as a result of the grant of option to administrative personnel under the 2021 Share Incentive Plan approved in July 2021 because most of the options were granted in 2021.

Research and Development Expenses

Our research and development expenses increased by 20.0% from US\$29.5 million for the year ended December 31, 2021 to US\$35.4 million for the year ended December 31, 2022, primarily attributable to the US\$6.0 million increase in share-based payment expenses as a result of the new grant of option in 2022 to research and development personnel under the 2021 Share Incentive Plan approved in July 2021.

Other Operating Income/(Expenses)

We generated other operating income of US\$14.6 million and incurred other operating expenses of US\$3.6 million for the year ended December 31, 2021 and 2022, respectively. This change was primarily because we recorded US\$18.7 million gain on disposal of cryptocurrencies for the year ended December 31, 2021, compared to US\$3.1 million loss on disposal of cryptocurrencies for the year ended December 31, 2022, which is associated with Bitcoin price drop prior to such disposal given we typically sell Bitcoins earned from our principal business lines within the next few days.

Other Net Gain

We recorded other net gain of US\$2.5 million for the year ended December 31, 2021, which primarily included a net gain of approximately US\$4.5 million on settlement of balances with Bitmain, partially offset by a one-off impairment loss of approximately US\$2.0 million resulting from a pre-mature investment. We recorded other net gain of US\$0.36 million for the year ended December 31, 2022, which primarily included (i) net gains on disposal of property, plant and equipment and intangible assets of US\$0.66 million and (ii) other gains of US\$0.5 million, which mainly included return of wealth management product and other minor gains from disposal of investments in unlisted debt instruments, partially offset by the loss of US\$0.8 million which mainly included the fair value change of investments in unlisted equity and debt instruments.

Profit/(Loss) from Operations

As a result of the foregoing, we recorded a profit from operations of US\$130.8 million for the year ended December 31, 2021 and a loss from operations of US\$60.6 million for the year ended December 31, 2022.

Income Tax Benefit/(Expenses)

We recorded income tax expenses of US\$48.2 million and income tax benefit of US\$4.4 million for the year ended December 31, 2021 and 2022.

Net Profit/(Loss)

As a result of the foregoing, we incurred a net profit of US\$82.6 million for the year ended December 31, 2021 and a net loss of US\$60.4 million for the year ended December 31, 2022.

Liquidity and Capital Resources

As of December 31, 2023, we had cash and cash equivalents of US\$144.7 million and fiat currency investment of US\$1.0 million in unlisted debt instruments, redeemable on demand. Since our separation from Bitmain, we have financed our operations primarily with cash flow from disposal of cryptocurrencies earned from principal business operations. We believe that our cash, short-term investment and anticipated proceeds from disposal of cryptocurrencies in connection with our principal business will be sufficient to meet our current and anticipated working capital requirements and capital expenditures for at least the next 18 months from the date of this annual report. Our cash and cash equivalents decreased to US\$144.7 million as of December 31, 2023 from US\$231.4 million as of December 31, 2022, primarily attributable to the construction and purchase of mining fleets for our mining datacenter in Gedu, Bhutan and deposit paid to electricity suppliers. Our cash and cash equivalents decreased to US\$231.4 million as of December 31, 2022 from US\$372.1 million as of December 31, 2021, primarily attributable to our active construction of mining datacenters in North America and Norway, purchase of investment property assets through the acquisition of Asia Freeport Holdings Pte. Ltd. and investment in unlisted equity and debt instruments.

To date, we have not seen a material impact on our liquidity from events related to the COVID-19 pandemic.

Our material cash requirements as of December 31, 2023 and any subsequent interim period primarily include our purchase of plant, property and equipment, lease obligations, and borrowings. Other than those as discussed below, we did not have any significant capital and other commitments, long-term obligations or guarantees as of December 31, 2023.

Purchase of property, plant and equipment, investment properties and intangible assets. Purchase of property, plant and equipment, investment properties and intangible assets primarily consist of the purchase of machinery, equipment and other expenditure associated with mining datacenter construction and operations. The total cash outflow for the purchase of property, plant and equipment, investment properties and intangible assets were US\$62.9 million, US\$63.2 million and US\$63.3 million for the years ended 2021, 2022 and 2023. As of December 31, 2023, we had commitments that are scheduled to be paid within 12 months for the construction of mining datacenters of approximately US\$10.3 million, of which approximately US\$2.8 million was recognized in payables as of December 31, 2023.

Lease obligations. We occupy most of our office premises and certain mining datacenter under lease arrangements, which generally have an initial lease term between one and a half to 30 years. Lease contracts are typically made for fixed periods but may have extension options. Any extension options in these leases have not been included in the lease liabilities unless we are reasonably certain to exercise the extension option. Periods after termination options are only included in the lease term if the lease is reasonably certain not to be terminated. The total cash outflow for leases, including the capital element of lease rentals paid and interests paid on leases for the years ended December 31, 2021, 2022 and 2023 was approximately US\$5.4 million, US\$6.3 million and US\$7.8 million, respectively. As of December 31, 2023, lease liabilities mature based on contractual undiscounted payments within 12 months and over 12 months were US\$7.8 million and US\$78.9 million, respectively.

Borrowings. Our borrowings as of December 31, 2023 represented a commitment of US\$22.6 million relating to the principal amount, net of unamortized discount and interests in connection with the issuance of the Bitdeer Convertible Note, a US\$30 million convertible note, on July 23, 2021, bearing an annual interest rate of 8%, which will mature on July 23, 2023. On July 22, 2023, we amended the Bitdeer Convertible Note, pursuant to which we have repaid US\$7 million in principal (and interest accrued thereon from July 1, 2023) of the then outstanding notes, and extended the maturity of the Bitdeer Convertible Note to July 21, 2025, by when we will pay the remainder of the notes.

The Committed Equity Financing. On August 8, 2023, we entered into the Equity Financing Purchase Agreement and the Equity Financing Registration Rights Agreement with B. Riley Principal Capital II. Pursuant to the Equity Financing Purchase Agreement, we have the right to sell to B. Riley Principal Capital II, up to US\$150,000,000 of our Class A Ordinary Shares, subject to certain limitations and conditions set forth in the Equity Financing Purchase Agreement, from time to time during the term of the Equity Financing Purchase Agreement. Sales of our Class A Ordinary Shares pursuant to the Equity Financing Purchase Agreement, and the timing of any sales, are solely at our option, and we are under no obligation to sell any securities to B. Riley Principal Capital II under the Equity Financing Purchase Agreement.

The per share purchase price for the Class A Ordinary Shares that we elect to sell to B. Riley Principal Capital II pursuant to the Equity Financing Purchase Agreement, if any, will be determined by reference to the VWAP as defined within the Equity Financing Purchase Agreement, less a fixed 3% discount to the VWAP for such Purchase Valuation Period (as defined in the Equity Financing Purchase Agreement).

The net proceeds under the Equity Financing Purchase Agreement to the Company will depend on the frequency and prices at which we sell shares of our stock to B. Riley Principal Capital II. See “Item 3.D.—Risk Factors— Future sales, or the possibility of future sales of, a substantial number of our Ordinary Shares may depress the price of such securities.”

As of the date of this annual report, the Company has sold 6,738,555 Class A Ordinary Shares to B. Riley Principal Capital II under the Equity Financing Purchase Agreement.

The Equity Financing Purchase Agreement and the Equity Financing Registration Rights Agreement contain customary representations, warranties, conditions and indemnification obligations of the parties. The foregoing descriptions of the Equity Financing Purchase Agreement and the Equity Financing Registration Rights Agreement do not purport to be complete and are qualified in their entirety by the full text of such agreements, which are incorporated herein by reference to Exhibits 4.28 and 4.29, respectively, to this annual report.

We intend to fund our existing and future material cash requirements primarily with our cash, short-term investment and anticipated proceeds from disposal of cryptocurrencies in connection with our principal business, which is classified as an investing activity. However, our future capital requirements will depend on many factors, including market acceptance of cryptocurrency, our growth, our ability to scale up our infrastructure and hash rate, our ability to effectively control costs, our ability to attract and retain customers, the continuing market acceptance of our offerings, expansion of sales and marketing activities and overall economic conditions. To the extent that current and anticipated future sources of liquidity are insufficient to fund our future business activities and requirements, we may be required to seek additional equity or debt financing. The sale of additional equity would result in additional dilution to our shareholders. The incurrence of debt financing would result in debt service obligations and the instruments governing such debt could provide for operating and financing covenants that would restrict our operations. In the event that additional financing is required from outside sources, there is a possibility we may not be able to raise it on terms acceptable to us or at all. If we are unable to raise additional capital when desired, our business, operations and financial condition could be adversely affected.

We have not entered into any financial guarantees or other commitments to guarantee the payment obligations of any third parties. We have not entered into any derivative contracts that are indexed to our shares and classified as shareholder’s equity or that are not reflected in our financial statements. Furthermore, we do not have any retained or contingent interest in assets transferred to an unconsolidated entity that serves as credit, liquidity or market risk support to such entity. We do not have any variable interest in any unconsolidated entity that provides financing, liquidity, market risk or credit support to us or engages in leasing, hedging or product development services with us.

Cash Flows

The following table presents our consolidated statements of cash flows for the years ended December 31, 2021, 2022 and 2023:

	For the Year Ended December 31,		
	2023	2022	2021
	US\$	US\$	US\$
	(in thousands)		
Net cash used in operating activities	(271,787)	(268,037)	(52,466)
Net cash generated from investing activities	199,854	133,793	394,569
Net cash used in financing activities	(13,493)	(3,884)	(14,426)
Net increase / (decrease) in cash and cash equivalents	(85,426)	(138,128)	327,677
Cash and cash equivalents at the beginning of the year	231,362	372,088	44,753
Effect of movements in exchange rates on cash and cash equivalents held	(1,207)	(2,598)	(342)
Cash and cash equivalents at the end of the year	144,729	231,362	372,088

Operating Activities

Net cash used in operating activities was US\$271.8 million for the year ended December 31, 2023. The difference between our net loss of US\$56.7 million and the net cash used in operating activities was primarily attributable to (i) adjustments for revenue recognized on acceptance of cryptocurrencies of US\$342.3 million, (ii) changes in prepayments and other assets of US\$49.2 million primarily associated with deposits and prepayments made to suppliers following the expansion of our business during this period, and (iii) changes in other payables and accruals of US\$5.1 million, partially offset by (i) an adjustment for depreciation and amortization of US\$75.5 million primarily relating to the depreciation of mining machines used in our principal business operations and property, plant and equipment used in connection with the expansion of our mining datacenters during this period, (ii) an adjustment for share-based payment expenses of US\$45.5 million for the issuance of options pursuant to our share incentive plans and (iii) an adjustment for listing fee of US\$33.2 million.

Net cash used in operating activities was US\$268.0 million for the year ended December 31, 2022. The difference between our net loss of US\$60.4 million and the net cash used in operating activities was primarily attributable to (i) adjustments for revenues recognized on acceptance of cryptocurrencies of US\$305.0 million, (ii) changes in prepayments and other assets of US\$21.9 million primarily associated with deposits and prepayments made to suppliers following the expansion of our business during this period, (iii) changes in deferred revenue of US\$9.2 million primarily associated with the recognition of revenue, (iv) income tax prepaid of US\$20.0 million, and (v) an adjustment for income tax benefit of US\$4.4 million, partially offset by (i) an adjustment for share-based payment expenses of US\$90.6 million for the issuance of options following the adoption of Bitdeer's 2021 Share Incentive Plan in July 2021, and (ii) an adjustment for depreciation and amortization of US\$66.4 million primarily relating to the depreciation of mining machines used in our principal business operations and property, plant and equipment used in connection with the expansion of our mining datacenters during this period.

Net cash used in operating activities was US\$52.5 million for the year ended December 31, 2021. The difference between our net profit of US\$82.6 million and the net cash used in operating activities was primarily attributable to (i) adjustments for the revenue recognized on acceptance of cryptocurrencies of US\$333.7 million and (ii) gain on disposal of cryptocurrencies of US\$18.7 million, partially offset by (i) an adjustment for share-based payment expenses of US\$88.4 million, (ii) an adjustment for depreciation and amortization of US\$63.1 million primarily relating to the depreciation of mining machines used in our principal business operations and property, plant and equipment used in connection with the expansion of our mining datacenters during this period and (iii) an adjustment for income tax expenses of US\$48.2 million.

Investing Activities

Net cash generated from investing activities was US\$199.9 million for the year ended December 31, 2023, primarily attributable to proceeds from disposal of cryptocurrencies of US\$299.1 million and proceeds from disposal of financial assets at fair value through profit or loss US\$31.1 million, partially offset by (i) purchase of property, plant and equipment, investment properties and intangible assets of US\$63.3 million, (ii) purchase of mining machines of US\$63.0 million and (iii) purchase of financial assets at fair value through profit or loss of US\$4.4 million.

Net cash generated from investing activities was US\$133.8 million for the year ended December 31, 2022, primarily attributable to proceeds from disposal of cryptocurrencies of US\$561.0 million, partially offset by (i) purchase of cryptocurrencies of US\$286.0 million for investment (lending and purchase of wealth management product) purposes, (ii) purchase of property, plant and equipment and intangible assets of US\$63.2 million, (iii) net fiat currency investment cash outflow of US\$30.8 million in unlisted debt instruments, redeemable on demand, (iv) investment in unlisted equity instruments of US\$29.5 million and (v) cash paid for asset acquisition, net of cash acquired of US\$26.7 million.

Net cash generated from investing activities was US\$394.6 million for the year ended December 31, 2021, primarily attributable to (i) proceeds from disposal of cryptocurrencies of US\$568.6 million and (ii) repayments from related parties of US\$21.7 million, partially offset by (i) purchase of property, plant and equipment and intangible assets of US\$62.9 million, (ii) purchase of cryptocurrencies for loan and investment of US\$60.0 million, (iii) loans to related parties of US\$32.2 million and (iv) purchase of mining machines of US\$26.6 million.

Financing Activities

Net cash used in financing activities was US\$13.5 million for the year ended December 31, 2023, which was primarily attributable to (i) net payment related to the Business Combination of US\$7.7 million, (ii) payments of convertible debt redemption of US\$7.0 million and (iii) capital element of lease rentals paid of US\$5.2 million, offset by proceeds from issuance of ordinary shares, net of transaction costs, of approximately US\$9.5 million.

Net cash used in financing activities was US\$3.9 million for the year ended December 31, 2022, which was entirely attributable to capital element of lease rentals paid.

Net cash used in financing activities was US\$14.4 million for the year ended December 31, 2021, which was attributable to (i) repayments of borrowing from related parties of US\$29.3 million, (ii) deemed distribution to related parties of US\$10.9 million and (iii) capital element of lease rentals paid of US\$4.2 million, offset by proceeds from convertible debt of US\$30.0 million.

Recent Accounting Pronouncements

As from January 1, 2023, we adopted the following recently issued or amended standards. These new standards are not expected to have any significant impact on our financial statements:

Standard/Interpretation	Application Date of Standard	Application Date for our group
IFRS 17, Insurance Contracts and Amendments to Address Concerns and Implementation Challenges	January 1, 2023	January 1, 2023
Amendments to IFRS 4, Expiry Date of the Deferral Approach	January 1, 2023	January 1, 2023
Amendments to IAS 1, Making Materiality Judgement	January 1, 2023	January 1, 2023
Amendments to IAS 1 and IFRS Practice Statement 2, Disclosure of Accounting Policies	January 1, 2023	January 1, 2023
Amendments to IAS 8, Definition of Accounting Estimates	January 1, 2023	January 1, 2023
Amendments to IAS 12, Deferred Tax related to Assets and Liabilities arising from a Single Transaction	January 1, 2023	January 1, 2023
Initial Application of IFRS 17 and IFRS 9—Comparative Information	January 1, 2023	January 1, 2023

Up to the date of issue of these financial statements, the IASB has issued a number of amendments, which are not yet effective for the year ended December 31, 2023 and which have not been adopted in these financial statements. We are in the process of making an assessment of what the impact of these new and amended standards and interpretations would be in the period of initial application. So far, we have concluded that the adoption of them is unlikely to have a significant impact on our financial position.

Standard/Interpretation	Application Date for our group
Amendments to IAS 1, Classification of Liabilities as Current or Non-current and Disclosure of Accounting Policies	January 1, 2024
Amendments to IAS 1, Classification of Debt with Covenants	January 1, 2024
Amendments to IFRS 16, Subsequent Measurement of Sale and Leaseback Transactions by a Seller-lessee	January 1, 2024
Amendments to IAS 7 and IFRS 7, Supplier Finance Arrangements	January 1, 2024
IFRS S2, Climate-related Disclosures	January 1, 2024
IFRS S1, General Requirements for Disclosure of Sustainability-related Financial Information	January 1, 2024
Amendments to IAS 21, Lack of Exchangeability	January 1, 2025

Critical Accounting Policies and Significant Judgments and Estimates

We prepare our consolidated financial statements for the years ended December 31, 2021, 2022 and 2023 in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”).

In preparing the financial statements, our management has made judgments and estimates that affect the application of accounting policies and the reported amounts of assets and liabilities, profit and loss. Estimates and judgments are continuously evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. We make estimates and assumptions concerning the future. The resulting accounting estimates may not be equal to the related actual results.

We believe the accounting policies related to revenue from the self-mining business, income taxes, share-based payments, fair value of financial assets at fair value through profit or loss, and assessment of the asset acquisition involve significant judgments and estimates used in the preparation of our financial statements. Our use of judgements and estimates is disclosed in the Note 3 and the related accounting policies are disclosed in Note 2 to the consolidated financial statements included elsewhere in this annual report. When reviewing our financial statements, you should consider our selection of critical accounting policies, our significant judgments and other uncertainties affecting our applications of those policies and the sensitivity of reported results to changes of such policies, judgments and uncertainties. You should read the descriptions of these significant judgments and estimates in conjunction with other disclosures included in this annual report.

We believe that the following are the most significant critical accounting policies.

Cryptocurrencies

Cryptocurrencies includes USD Coin (“USDC”) and cryptocurrencies other than USDC held in our cryptocurrency wallets.

USDC

USDC is accounted for as a financial instrument as one USDC can be redeemed for one U.S. dollar on demand from the issuer. USDC, classified as a debt investment, is measured at fair value through profit or loss.

Cryptocurrencies other than USDC

Cryptocurrencies other than USDC are, by their nature, identifiable non-monetary assets that lack physical substance. Future economic benefits attributable to these cryptocurrencies are expected to flow to us because these cryptocurrencies can be exchanged for fiat currencies. Furthermore, the cost of our cryptocurrencies other than USDC can be measured using the quoted price of such cryptocurrencies at the time the fair value is being measured, which we consider to be predominantly a Level 1 fair value input under IFRS 13 Fair Value Measurement fair value hierarchy.

We account for the cryptocurrencies other than USDC as intangible assets with indefinite useful lives in our consolidated statements of financial position because, at the time of assessment, there is no foreseeable limit to the period over which such assets are expected to generate cash flows.

We further adopt the cost model to account for cryptocurrencies other than USDC and review their useful life and impairment at each reporting date in accordance with IAS 38 Intangible Assets. We account for cryptocurrencies other than USDC at cost. If circumstances indicate that the carrying amount of cryptocurrencies other than USDC may not be recoverable, the assets may be considered impaired, and an impairment loss may be recognized in accordance with the accounting policy for impairment of cryptocurrencies other than USDC as described in Note 2(u) to the consolidated financial statements included elsewhere in this annual report.

Gains or losses arising from the disposal of cryptocurrencies other than USDC are determined as the difference between the net disposal proceeds and the carrying amount of the assets. We recognize realized gains or losses on the date of the disposal using the first-in-first-out method of accounting.

Receivables and payables settled in cryptocurrencies

Receivables and payables settled in cryptocurrencies are measured at the fair value of the underlying cryptocurrencies based on their respective quoted prices initially and subsequently on the measurement date. The change in fair value of the underlying cryptocurrencies, are recognized in other operating income / (expenses) on the consolidated statements of operations and comprehensive income / (loss). Receivable settled in cryptocurrencies is further adjusted for expected credit losses. See further discussion regarding expected credit loss from receivables settled in cryptocurrencies in Note 2(u) to the consolidated financial statements included elsewhere in this annual report.

Cryptocurrency lending arrangements

We enter into arrangements with counterparties to lend cryptocurrencies on an unsecured basis. No collateral is held for the cryptocurrencies lent. Upon lending, we derecognize the cryptocurrencies lent and concurrently recognize receivables settled in cryptocurrencies which are measured at the fair value of the cryptocurrencies lent based on their respective quoted prices initially and subsequently on the measurement date and adjusted for expected credit losses. Any differences between the carrying amount of the derecognized cryptocurrencies and the initial measurement of the receivables settled in cryptocurrencies, if applicable, and the change in fair value of the cryptocurrencies lent, are recognized in other operating income / (expenses) on the consolidated statements of operations and comprehensive income / (loss). See further discussion regarding credit losses from receivables settled in cryptocurrencies in Note 2(u) to the consolidated financial statements included elsewhere in this annual report. Also refer to Note 20 to the consolidated financial statements included elsewhere in this annual report for more information.

Cryptocurrency-denoted wealth management products

We historically purchased two types of wealth management products:

Wealth management product type A

We enter into arrangements with the Matrixport Group, a related party, to purchase cryptocurrency-denoted wealth management products which represent units of interest in the underlying cryptocurrency trading account and the value of the units is based on the performance of the trading account managed by the Matrixport Group. We derecognize the cryptocurrencies paid and concurrently recognize a cryptocurrency receivable which gives rise to a variable return linked to the performance of the underlying trading account. The receivable contains an embedded derivative which is accounted for separately as an asset or liability based on the change in the fair value of the trading account. The cryptocurrency receivable is measured at the fair value of the cryptocurrencies invested based on their respective quoted prices on the measurement date and adjusted for expected credit losses. Any differences between the carrying amount of the derecognized cryptocurrencies and the initial measurement of the receivables settled in cryptocurrencies, if applicable, and the change in fair value of the cryptocurrencies invested, are recognized in other operating income / (expenses) on the consolidated statements of operations and comprehensive income / (loss).

Wealth management product type B

We enter into arrangements with the Matrixport Group, a related party, to purchase cryptocurrency-denoted wealth management products which represent variable-interest cryptocurrency deposit at Matrixport Group. The deposit is not protected by any deposit insurance scheme and non-secured, and we may lose some or all of the amount deposited in extreme market conditions. Upon withdrawal, we receive the same type of cryptocurrency in the same quantity in principle plus additional interest returns. The deposit can be withdrawn on demand and is generally delivered to us within 72 hours. The nature of the wealth management product type B is, in essence, a cryptocurrency lending arrangement. Refer to the discussion on the accounting of cryptocurrency lending arrangements above.

See further discussion regarding credit losses from receivables settled in cryptocurrencies in Note 2(u) to the consolidated financial statements included elsewhere in this annual report. Also refer to Note 20 for more information.

We present the revenue recognized on the acceptance of cryptocurrencies, which is a non-cash item, as an adjustment to remove the non-cash item for the cash flows from operating activities and the disposals of cryptocurrencies received in revenue arrangements are presented as cash flows from investing activities in the consolidated statements of cash flows. The purchases and disposals of cryptocurrencies associated with investment or lending transactions are presented as investing activities in the consolidated statements of cash flows.

Revenue recognition

Our revenues are derived principally from the cloud hash rate arrangements, the self-mining arrangements, the cloud hosting arrangements, the sales of mining machines, the general hosting arrangements and the membership hosting arrangements.

Revenue is recognized when control over goods or services is transferred to the customer, at the amount of promised consideration to which we are expected to be entitled. Revenue excludes value-added tax ("VAT") or other sales taxes and is after deduction of trade discount, if any.

Revenue is recognized applying the following five steps:

- i) Identify the contract with a customer;
- ii) Identify the performance obligations in the contract;
- iii) Determine the transaction price;
- iv) Allocate the transaction price to the performance obligations in the contract; and
- v) Recognize revenue when (or as) we satisfy a performance obligation.

For arrangements priced at fiat currency, we recognize revenue based on the contract price. For arrangement priced at cryptocurrency, we recognize revenue based on the spot price of the cryptocurrency to fiat currency on the date when it is earned.

When another party is involved in providing services to a customer, we are the principal if we control the specified services before those services are transferred to the customer.

The primary sources of our revenues are recognized as follows:

Cloud Hash Rate

We enter into Cloud Hash Rate arrangements with our customers by offering hash rate subscription plans to provide computing power in a specified quantity, measured by computing power per second, or hash rate, derived from the mining machines held by us, for a specified period of time. The customer also needs to pay for electricity subscriptions, which are billed separately, to maintain the mining machines that produce the subscribed hash rate over the contract period. We connect such computing power to a customer-designated mining pool under the instructions of the customer to simplify the customer's mining experiences. As a result of directing the connection of such computing power to the mining pools, the customers are entitled to the mining rewards, which are directly transferred from mining pools to the customer-designated cryptocurrency wallets.

We offer a number of different hash rate subscription plans by plan duration and type of cryptocurrency to be mined. We offer electricity subscriptions in short durations and a customer needs to purchase electricity subscriptions multiple times to cover the duration of the hash rate subscription plan. The price of the electricity subscription is fixed at the commencement of each electricity subscription period but subject to adjustment from period to period. Both cryptocurrency and fiat currency are accepted as payments under the Cloud Hash Rate arrangements. Furthermore, the hash rate subscription plans are offered under two modes. Under the classic mode, the customer receives all of the mining rewards from the mining pool. Under the accelerator mode, the customer pays a relatively lower computing power subscription fee. In exchange, we are entitled to additional consideration once the customer's cost is recovered.

We offer two promises under the Cloud Hash Rate arrangement. One is to provide a specified quantity of computing power during a period of time and the other is to provide maintenance services for computing power generation for a period of time. The two promises are highly interrelated and are not separately identifiable because the customers expect to receive the computing power as a combined output from the hash rate subscription plan and the electricity subscription plan. The two promises provide a series of distinct services, which are substantially the same and have the same pattern of transfer to the customer, over a period of time. As a result, the promises are treated as a single performance obligation satisfied over time.

The transaction price of the performance obligation includes the subscription prices for the hash rate subscription plans and the electricity subscription plans. As the price for the electricity subscription plans may change each electricity subscription period, we allocate the variable consideration to each electricity subscription period.

The control of the computing power has been transferred to the customers simultaneously as the customers consume the benefits from the computing power. The revenue is recognized over time where the consideration related to the hash rate subscription is recognized evenly over the contract term and the electricity subscription is allocated to and recognized evenly over each electricity subscription period.

For plans under the accelerator mode, besides the aforementioned subscription prices, the transaction price also includes the additional consideration once the customer's cost is recovered. The additional consideration, which is variable, is determined as a percentage of a customer's mining profit derived from the subscribed computing power and constrained until the mining pool operator finishes the calculation of the mining reward related to the mining activity in a given day. We include such additional consideration in the transaction price and recognizes the revenue when we can reasonably calculate the amount and determine it is probable a significant reversal will not occur.

Self-mining

We enter into contracts with mining pool operators to provide computing power generated from our own mining machines to the mining pools. The contracts with mining pool operators are terminable at any time by either party. In exchange for providing computing power to the mining pool, we are entitled to cryptocurrency rewards from the mining pool operators, which is a variable consideration calculated based on a predetermined formula agreed by us and the mining pool operator as a part of the arrangement. We can reasonably estimate the amount of mining rewards by the end of a given day based on the actual amount of computing power provided to the mining pool operators. By then, we consider it is highly probable that a significant reversal in the amount of revenues will not occur and includes such variable consideration in the transaction price. Providing computing power is an output of our ordinary activities and the only performance obligation in our contracts with mining pool operators. We recognize the revenue when the variable consideration is reasonably estimable and the performance obligation of providing computing power has been satisfied. Although the cryptocurrency rewards the mining pool operators receive from the blockchain networks include both the block rewards and the transaction verification fees, the transaction price we receive is an aggregate amount and primarily includes the block rewards. As a result, we do not present disaggregated revenue information on block rewards and transaction verification fees.

Cloud Hosting

We provide our customers, through subscription of Cloud Hosting orders, one-stop mining machines hosting solution which integrates the provision of computing power generated from specified second-hand mining machines and the provision of maintenance service, primarily including electricity supply and daily maintenance and repair care. We charge the customer an upfront fixed amount at the commencement of the Cloud Hosting arrangement for the customer to secure the procurement of the computing power from the specified mining machines, as well as the variable fees for the provision of maintenance service based on the consumption of resources such as electricity throughout the duration of the service. We historically only accept cryptocurrency as payments for services under the Cloud Hosting arrangement.

The Cloud Hosting arrangements are offered under two modes. Under the classic mode, the customer receives all of the mining rewards from the mining pool. Under the accelerator mode, the customer is charged with a lower upfront amount and enjoys a quicker recovery of the costs. In exchange, we are entitled to additional consideration once a customer's cost is recovered.

Two promises are offered under the Cloud Hosting arrangements. One is to provide the computing power generated from the specified mining machines and the other is to perform maintenance services over the life of the mining machines. The two promises are not separately identifiable because the customer expects to receive a steady operation of the mining machines specified in the Cloud Hosting order, which is a combined output of the provision of computing power from the specified mining machines and the provision of maintenance service of the specified mining machines. The two promises provide a series of distinct services, which are substantially the same and have the same pattern of transfer to the customer, over a period of time. As a result, the promises are treated as a single performance obligation satisfied over time.

The transaction price of the performance obligation includes an upfront fee paid upon placement of the Cloud Hosting order and periodical maintenance fees. The periodical maintenance fee is variable in each maintenance period based on the electricity consumption. We allocate the variable consideration to each distinct maintenance service period.

The revenue is recognized over time where the fixed upfront fee is recognized evenly over the contract term and the periodical maintenance fee is recognized over each respective service period. The contract term approximates to the life of the specified mining machines and is estimated to be two years. The estimated life of these mining machines is reviewed at least at each financial year-end and adjusted if the expectation of the realization of economic benefits from the specified mining machines is different from the previous estimate.

For plans under the accelerator mode, besides the aforementioned fees, the transaction price also includes the additional consideration once the customer's cost is recovered. The additional consideration, which is variable, is determined as a percentage of a customer's mining profit derived from the computing power of the specified mining machines and constrained until the mining pool operator finishes the calculation of the mining reward related to the mining activity in a given day. We include such additional consideration in the transaction price and recognizes revenues when we can reasonably calculate the amount and determine it is probable a significant reversal will not occur. For all the periods presented, no revenue was generated from the additional consideration from Cloud Hosting arrangements offered under the accelerator mode.

Sale of Mining Machines

We recognize revenue from sales of mining machines to customers at the point in time when control of the mining machines is transferred to the customer, which generally occurs upon shipment of the mining machines as defined in the revenue contract. Sale of mining machine is the sole performance obligation in this type of arrangement. We accept both cryptocurrency and fiat currency as payments for sales of mining machines.

General Hosting

We provide general hosting services, which is a combined service package including custody of the customers' mining machines, electricity and network maintenance and other services, that enable customers to run blockchain computing operations. The customer is only able to benefit from the hosting service as a package and we have a single performance obligation. The hosting service fee is charged to the customer based on the customer's consumption of resources, such as the amount of electricity used in a period. In the arrangement with certain customers, we are also entitled to additional variable consideration based on the customer's mining yield during a period. Revenue from the general hosting service is recognized across each service cycle. We accept both cryptocurrency and fiat currency as payments for the hosting services.

Membership Hosting

We offer our large-scale miner customers membership hosting services by entering into a series of contracts, which includes a membership program agreement and a management services agreement. These contracts are signed with the same customer at or near the same time, and they are combined and accounted for as a single contract.

Pursuant to the membership program agreement, a customer subscribing the program is entitled to the program benefit of receiving maintenance services within a predetermined capacity measured by energy consumption (i.e., Kilowatts, or KW) (the "hosting capacity"). We provide such designated capacity in a leased mining farm and the program subscription period ends when we no longer operate the mining farm. In addition, we also agree to provide other program benefits to the customer when such benefits are readily available to the customer during the program term, including, among other things, (i) early, priority and exclusive access to the newly available hosting capacity that is sufficient for large-scale miners, upon a new mining datacenter becomes available and (ii) more favorable pricing terms for our services, such as mining machine management services, than the prevailing price in the local market. We charge an upfront fee for the program benefits subscribed.

Pursuant to the management services agreement, we provide management services for the customer's mining machines up to the capacity subscribed in the membership program agreement. In exchange for the management services fee, we promise to deliver a package of services to provide an infrastructure for the mining machines, such as a premise for the custody of mining machines, and network and utility to support the operation of the mining machines. Unlike the general hosting service where we include in our service package to host or operate the customer's mining machines under the customer's instructions so that the mining machines keep running and remain connected to the customer designated mining pools (the "mining machine operation service"), under the management services agreement, a customer has the discretion to subscribe to the mining machine operation service or choose to operate the mining machines using the customer's own personnel. We charge additional fee, at its stand-alone selling price, for the subscription of our mining machine operation service. The management services fee and the mining machine operation fee, as applicable, are charged to the customer monthly based on the customer's consumption of resources, such as the amount of electricity used in a period.

Our promise associated with the membership program agreement is to stand ready to provide services, and our promise associated with the management services agreement is to provide an infrastructure for the mining machines through the set of services provided under the management services agreement. The two promises are not separately identifiable because the customer expects to receive mining machines management services for the mining machines up to the designated capacity, which is a combined output of the program benefit and management services provided by us as a package. The two promises provide a series of distinct services that have the same pattern of transfer to the customer over a period of time. As a result, the promises are treated as a single performance obligation satisfied over time. Revenue associated with the upfront fee for the program benefits is recognized over the program subscription period and revenue associated with the management services is recognized over each distinct service period. The promise to provide the mining machine operation service, if subscribed to by a customer, is accounted for as a separate performance obligation and the associated revenue is recognized over each distinct service period at their respective stand-alone selling price. We accept both cryptocurrency and fiat currency as payments for the membership hosting arrangements. The contract term approximates the lease term of the mining datacenter and is estimated to be 13 years. The estimated lease term is adjusted when there is an indication that we are reasonably certain to renew or terminate the lease.

Emerging Growth Company Status

We are an “emerging growth company,” as defined in the JOBS Act, and we may take advantage of reduced reporting requirements that are otherwise applicable to public companies. Section 107 of the JOBS Act exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies are required to comply with those standards. The JOBS Act also exempts us from having to provide an auditor attestation of internal control over financial reporting under Sarbanes-Oxley Act Section 404(b).

Holding Company Structure

Bitdeer Technologies Group is an exempted company with limited liability incorporated in the Cayman Islands on December 8, 2021 with no material operations of its own. We currently conduct our operations primarily through our subsidiaries. As a result, our ability to pay dividends primarily depends upon dividends paid by our subsidiaries. If our existing subsidiaries or any newly formed ones incur debt on their own behalf in the future, the instruments governing their debt may restrict their ability to pay dividends to us.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

Our board of directors and executive officers as of the date of this annual report are as follows.

Name	Age	Position
Jihan Wu	38	Chairman of the Board and Chief Executive Officer
Linghui Kong	42	Director and Chief Business Officer
Chao Suo	39	Director
Jianchun Liu	46	Director and Chief Financial Officer, Business Operations
Naphat Sirimongkolkasem	34	Director
Sheldon Trainor-Degirolamo	60	Director
Guang Yang	41	Director
Haris Basit	62	Chief Strategy Officer

Jihan Wu has served as the sole director of Bitdeer and then Chairman of our board of directors since January 2021. He has served as our Chief Executive Officer since March 2024. He co-founded BitMain Technologies Holding Company (“BitMain”) in 2013, and served as the Chairman and Chief Executive Officer of BitMain from September 2018 to January 2021. Mr. Wu has been a director of Matrixport Group since 2019. Mr. Wu obtained dual bachelor’s degrees in both Economics and Psychology from Peking University in 2009.

Linghui Kong has served as the Chief Executive Officer of Bitdeer and then our Chief Executive Officer since January 2021. He transitioned from our Chief Executive Officer to the role of Chief Business Officer since March 2024. Mr. Kong also served on our board of directors since March 2023. He served as the head of Application Software Department of BitMain from April 2018 to December 2020. Prior to that, Mr. Kong served as a senior software architect of Tencent Technology Beijing Co., Ltd. from April 2011 to March 2018. Mr. Kong obtained a master’s degree in Telecommunication and Information System from Beijing University of Posts and Telecommunications in 2008 and a bachelor’s degree in Telecommunication Engineering from Beijing University of Posts and Telecommunications in 2005.

Jianchun Liu has served as the Chief Financial Officer of Bitdeer and then our Chief Financial Officer since January 2021, responsible for business operations. Mr. Liu also served on our board of directors since March 2023. He has been a director of BitMain since January 2021. Prior to that, Mr. Liu served as the financial director of BitMain from 2016 to 2021. Mr. Liu obtained an MBA from University of Chinese Academy of Sciences in 2017 and a bachelor's degree in Economics from Renmin University of China in 2000.

Chao Suo has served as on our board of directors since October 2023. She has over ten years of experience in human resources, including HR strategy framework, recruitment, performance management, competency development, compensation & benefit, and labor compliance. Ms. Suo has served as the HR Director of Bitdeer since March 2021. Prior to that, she served as the HR Director of BitMain from 2015 to 2021. Ms. Suo obtained a master's degree in Corporate Management from Communication University of China in 2010 and a bachelor's degree in Business Administration from Beijing Forestry University in 2008.

Naphat Sirimongkolkasem has served on our board of directors since April 2023. He served as the Chief Financial Officer and as a member of the board of directors of BSGA from April 2021 to April 2023. Mr. Sirimongkolkasem is experienced in management, business development and capital market transactions, including M&A, fundraising, initial public offering, and restructuring in Asia. Since 2021, Mr. Sirimongkolkasem has been the co-Founder of Collis Capital. Mr. Sirimongkolkasem is responsible for the operation activities of Collis Capital, overseeing the analysis and evaluation of opportunities. From 2017 to 2021, Mr. Sirimongkolkasem was investment director of Sapiientia Capital Limited. From 2014 to 2017, Mr. Sirimongkolkasem was a consultant at Vision Skill Consulting limited, which specializes in strategy, management and engineering advisory in areas that cover infrastructure, transportation and hospitality. Mr. Sirimongkolkasem obtained his Bachelor's Degree of Arts in Economics from Durham University (United Kingdom) in 2012.

Sheldon Trainor-DeGirolamo has served on our board of directors since April 2023. He served as the Non-Executive Director of Foxconn Interconnect Technology Ltd (6088.HK), a publicly traded company on the Hong Kong Stock Exchange, since May 2019. He has also served as the Director of Experiential Media Group and Linksys Holdings, Inc. since May 2021 and June 2021, respectively. From May 2012 to November 2020, he served as the Executive Director of Macau Legend Development Company Ltd., a publicly traded company on the Hong Kong Stock Exchange. He also served as the Director of Athenex (NASDAQ: ATNX), a biopharmaceutical company publicly traded on Nasdaq, from June 2017 to May 2019. He is the Founder and Managing Director of PacBridge Capital Partners (HK) Limited, a principal investment firm based in Hong Kong, which he founded in 2009. Prior to establishing PacBridge, Mr. Trainor-DeGirolamo spent more than 20 years in the financial services industry, including with Credit Suisse Australia, Morgan Stanley Asia and as the Head of Investment Banking for Asia and as Vice Chairman of Merrill Lynch Asia. Mr. Trainor-DeGirolamo received a Bachelor of Commerce from the University of British Columbia.

Guang Yang has served on our board of directors since April 2023. He has 16 years of experiences in global wealth management, private equity, venture capital and investment banking. He is a co-founder of PSZC Asset Management, a leading multi-family office established 2015. During 2011-2015, Mr. Yang served as a partner for CGP Investment, one of the leading Asia based fund of funds. Prior to that, he served various financial advisory and investment roles at Macquarie Capital Group, China Renaissance, and CVC Capital from 2006 to 2010. Mr. Yang obtained his bachelor's degree of Commerce and bachelor's degree of Law from Melbourne University in 2006.

Haris Basit has served as our Chief Strategy Officer since June 2023. Mr. Basit previously worked as the Chief Executive Officer of Averatek Corporation from August 2017 to May 2023. Prior to that, he was the Chief Executive Officer and Director of VIASPACE Inc. from July 2016 to July 2017. He co-founded Almaden Energy Group (AEG), LLC which partners with VIASPACE to grow Giant King Grass in the United States for animal feed. Since 2012, Mr. Basit has been providing Corporate Strategy Consulting to senior executives of publicly traded companies to help identify new growth opportunities and partnerships. He was a consultant to Liebman and Associates, the premier clean energy lobbying firm in Washington, DC. He has provided entrepreneurship mentoring for University of California Berkeley MBA students. He started his career as a Staff Engineer at IBM moving on to become a Manager at Rockwell International, a Manager at Bell Labs, Vice President of Business Development for OEA International and then Founder/CEO of both Multigig, Inc. and Mobius Power, LLC. He received his MSEE from the University of Illinois, Urbana-Champaign in 1986. He also earned a BSEE from University of Illinois, Urbana-Champaign in 1984.

B. Compensation

Historical Compensation of Bitdeer’s Directors and Executive Officers

For the year ended December 31, 2023, an aggregate of approximately US\$9.0 million in cash and benefits was provided to Bitdeer’s executive officers and director. For awards granted to Bitdeer’s executive officers and directors, see the section entitled “-2023 Share Incentive Plan.” Bitdeer has not set aside or accrued any amount to provide pension, retirement or other similar benefits to its executive officers and director.

Employment Agreements and Indemnification Agreement

We have entered into employment agreements with each of our executive officers. Under these agreements, each of our executive officers is employed for a specified time period. We may terminate employment for cause, at any time, for certain acts of the executive officer, such as continued failure by the executive officer to satisfactorily perform his/her duties, or the executive officer’s conviction or entry of a guilty or nolo contendere plea of any felony or any misdemeanor involving moral turpitude. We may also terminate an executive officer’s employment without cause upon 60-day advance written notice. In such case of termination by our company, we will (i) continue to provide to the executive officer all compensation, base salary and previously earned but unpaid incentive compensation, if any, and to allow the executive officer to participate in any benefit plans in accordance with the terms of such plans during the notice period, and (ii) pay to the executive officer, in lieu of benefits under any severance plan or policy of our company, any such amount as may be agreed between our company and the executive officer.

Each executive officer has agreed to hold, both during and after the termination or expiry of his or her employment agreement, in strict confidence and not to use, except as required in the performance of his or her duties in connection with the employment or pursuant to applicable law, any of our confidential information or trade secrets, any confidential information or trade secrets of our clients or prospective clients, or the confidential or proprietary information of any third party received by our company and for which we have confidential obligations. The executive officers have also agreed to disclose in confidence to our company all inventions, designs and trade secrets which they conceive, develop or reduce to practice during the executive officer’s employment with us and to assign all rights, title and interest in them to us, and assist us in obtaining and enforcing patents, copyrights and other legal rights for these inventions, designs and trade secrets.

In addition, each executive officer has agreed to be bound by non-competition and non-solicitation restrictions during the term of his or her employment and typically for one year following the last date of employment. Specifically, each executive officer has agreed not to (i) engage in, or otherwise directly or indirectly being employed by or acting as a consultant or lender to, or being a director, officer, employee, principal, agent, stockholder, member, owner or partner of, or permitting the executive officer’s name to be used in connection with the activities of, any other business or organization which competes, directly or indirectly, with us; (ii) solicit from any customer doing business with us during the term; or (iii) otherwise interfere with the business or accounts of us.

We have also entered into indemnification agreements with each of our directors and executive officers. Under these agreements, we agree to indemnify our directors and executive officers against certain liabilities and expenses incurred by such persons in connection with claims made by reason of their being a director or officer of our company.

2023 Share Incentive Plan

A share incentive plan was adopted in connection with the Business Combination, approved by both shareholders of Bitdeer and shareholders of BSGA prior to the consummation of the Business Combination, effective in April 2023 (the “2023 Plan”). As of the date of this annual report, the maximum aggregate number of Class A Ordinary Shares that may be granted under the 2023 Plan is 21,877,912. As of the date of this annual report, 2024, awards to purchase a total of 12,543,503 Class A Ordinary Shares have been granted and outstanding, excluding awards that were forfeited or cancelled after the relevant grant dates. The following paragraphs summarize the principal terms of our 2023 Plan.

Shares Available for Awards

Subject to adjustment for specified changes in our capitalization as set forth in the 2023 Plan, the maximum aggregate number of shares of common share that may be issued under the 2023 Plan will be equal to 21,877,912.

The following shares of common shares will become available again for the grant of a share award under the 2023 Plan: (i) any share issued pursuant to a share award that terminates, expires, or lapses for any reason; (ii) any share delivered by the participant or withheld by us upon the exercise of any award under the 2023 Plan, in payment of the exercise price thereof or tax withholding thereon; and (iii) any share issued pursuant to a share award that is forfeited by the participant or repurchased by us.

Administration

The 2023 Plan will be administered by a committee (the “Committee”) of one or more members of our board of directors to whom our board of directors shall delegate the authority to grant or amend awards to participants other than any of the Committee members. Subject to the terms of the 2023 Plan, the Committee has full and final power and authority to make all decisions and determinations that may be required pursuant to the 2023 Plan or as the Committee deems necessary or advisable to administer the 2023 Plan, including: determine participants to receive awards; the type and number of awards to be granted; the terms and conditions of any award granted pursuant to the 2023 Plan, including, but not limited to, the exercise price, grant price, or purchase price, any restrictions or limitations on the award, any schedule for lapse of forfeiture restrictions or restrictions on the exercisability of an award, and accelerations or waivers thereof, any provisions related to non-competition and recapture of gain on an award; prescribe the form of each notice of grant; and correct any defect, supply any omission and reconcile any inconsistency in the 2023 Plan. The Committee also has the authority to reduce the exercise price per share underlying an option, and establish, adopt, waive, or revise any rules and regulations as it may deem necessary or advisable to administer the 2023 Plan.

Types of Awards

The terms of the 2023 Plan provide for the grant of share options, restricted share units, and restricted shares.

Options. The Committee will be authorized to grant options to purchase shares of common share that are either “qualified,” meaning they are intended to satisfy the requirements of Section 422 of the Code for incentive share options (“ISOs”), or “nonqualified,” meaning they are not intended to satisfy the requirements of Section 422 of the Code. Options granted under the 2023 Plan will be subject to terms, including the exercise price and the conditions and timing of exercise, determined by the Committee and specified in the applicable award agreement. In general, the exercise price per share of common share for each non-qualified share option (“NSO”) granted under the 2023 Plan will be a fixed or variable price related to the fair market value. The exercise price per share of common share for each ISO granted under the 2023 Plan will be equal to the fair market value (or 110% of the fair market value, in the case of ISOs granted to a more than 10% shareholder) of the share at the time of grant. The maximum term of an option granted under the Incentive Plan will be ten years from the date of grant. Payment in respect of the exercise of an option may be made in cash or by check, or the Committee may, in its discretion and to the extent permitted by law, allow the payment to be made through a broker-assisted cashless exercise mechanism, a share tender exercise, or by any other method that the Committee determines to be appropriate.

Restricted Share Awards. The Committee will be authorized to award restricted shares under the 2023 Plan. Each award of restricted share will be subject to the terms and conditions established by the Committee, including any dividend or voting rights. Restricted share awards are shares of common share that generally are non-transferable and subject to other restrictions determined by the Committee for a specified period. Unless the Committee determines otherwise or specifies otherwise in an award agreement, if the participant terminates employment or services during the restricted period, then any unvested restricted share is forfeited.

Restricted Share Units. The Committee will be authorized to award restricted share unit awards under the 2023 Plan. The Committee will determine the terms of the restricted share units, including any dividend rights (and any performance goals and/or criteria upon whose attainment the restricted period shall lapse in part or full). Unless the Committee determines otherwise or specifies otherwise in an award agreement, if the participant terminates employment or services during the period of time over which all or a portion of the units are to be earned, then any unvested units will be forfeited.

Plan Amendment or Termination.

With the approval of our board of directors, at any time and from time to time, the Committee has the authority to terminate, amend, modify, alter, suspend, or discontinue the 2023 Plan or any portion thereof.

Eligibility

Persons eligible to participate in the 2023 Plan include persons recognized by the Committee, such as directors, employees and consultants, as determined by the Committee.

Terms and Conditions of Awards

All Awards

Generally, the Committee will determine the terms of all awards under the 2023 Plan, including the vesting and acceleration of vesting of awards, provisions for the withholding of taxes, and payment of amounts in lieu of cash dividends or other cash distributions with respect to our common share subject to awards.

Awards Requiring Exercise

Incentive share options and, except as provided in the award agreement, nonqualified share options, may not be transferred other than by will or the laws of descent and distribution, and during an employee's lifetime may be exercised only by the employee or the employee's guardian or legal representative. Upon the cessation of a participant's employment with us, an award requiring exercise will cease to be exercisable and will terminate and all other unvested awards will be forfeited, except that:

- All share options held by the participant which were exercisable immediately prior to the participant's termination of service with us other than for Cause (as defined in the 2023 Plan) will, except as otherwise set forth in the option award agreement, remain exercisable until the tenth anniversary of the grant date to the extent that such options were vested and exercisable on the date of the participant's termination of employment or service;
- All share options held by the participant which were exercisable immediately prior to the participant's termination of service with us due to death or disability will remain exercisable until the tenth anniversary of the grant date to the extent that such options were vested and exercisable on the date of the participant's termination of employment on account of death or disability.

The exercise price of each award requiring exercise will be determined by the Committee and set forth in the notice of grant which may be a fixed or variable price related to the fair market value of the shares; provided that the exercise price of incentive share options shall be equal to the fair market value on the date of grant; and incentive share options granted to participants who own share of our company possessing more than 10% of the total combined voting power of all classes of share of our company or any parent corporation, subsidiary corporation or affiliate of our company (a "Ten Percent Holder") must have an exercise price per share not less than 110% of the fair market value of a share of common share on the effective date the incentive share option is granted. Fair market value will be determined by the Committee consistent with the applicable requirements of Section 409A of the Code.

Awards requiring exercise will have a maximum term not to exceed ten years from the date of grant.

Effect of a Change in Capital Structure

In the event of a change in capital structure, the Committee may make such proportionate and equitable adjustments as it may deem appropriate to reflect such change with respect to (a) the aggregate number and type of shares that may be issued under the 2023 Plan; (b) the terms and conditions of any issued and outstanding awards (including, without limitation, any applicable performance targets or criteria with respect thereto); and (c) the grant or exercise price per share for any issued and outstanding awards under the 2023 Plan.

The following table summarizes, as of February 29, 2024, the options granted under our share incentive plans to several of our executive officers, excluding awards that were forfeited or cancelled after the relevant grant dates.

Name	Class A Ordinary Shares Underlying Awards	Exercise Price (US\$/Share)	Date of Grant	Date of Expiration
Jihan Wu	-	-	-	-
Linghui Kong	*	3.5	August 1, 2021	August 1, 2031
	*	3.5	January 1, 2022	January 1, 2032
	*	3.5	January 1, 2023	January 1, 2033
Chao Suo	*	3.5	August 1, 2021	August 1, 2031
	*	3.5	January 1, 2022	January 1, 2032
	*	3.5	January 1, 2023	January 1, 2033
	*	3.5	January 1, 2023	January 1, 2033
Jianchun Liu	*	3.5	August 1, 2021	August 1, 2031
	*	3.5	January 1, 2022	January 1, 2032
Naphat Sirimongkolkasem	*	7.03	July 1, 2023	July 1, 2033
Sheldon Trainor-Degirolamo	*	7.03	July 1, 2023	July 1, 2033
Guang Yang	*	7.03	July 1, 2023	July 1, 2033
Haris Basit	*	5.51	July 1, 2023	July 1, 2033

* Less than 1% of our total issued and outstanding ordinary shares.

2023 Performance Share Plan

In June 2023, our board of directors approved our 2023 Performance Share Plan (the “2023 Performance Plan”), which became effective on October 11, 2023.

The 2023 Performance Plan provides for the issuance of initially up to an aggregate of 1,112,886 Class A Ordinary Shares (the “Share Limit”), representing 1% of the total ordinary shares of our company outstanding as of the consummation of the Business Combination on April 13, 2023. The Share Limit will be adjusted along with the market capitalization of our Company as set forth in the 2023 Performance Share Plan and will not be more than 11,128,861, representing ten percent (10%) of the total ordinary shares of our company as of closing of the Business Combination. As of the date of this annual report, no awards have been granted under the 2023 Performance Plan.

The following paragraphs summarize the principal terms of the 2023 Performance Plan.

Types of Awards. The 2023 Performance Plan permits the awards of options, restricted shares or restricted share units or any award that may consist of one such security or benefit, or two or more than them in any combination or alternative.

Plan Administration. The 2023 Performance Plan will be administered by chairman of our company. The compensation committee of our board of directors or any member of our compensation committee as designated by our board of directors, as applicable, will determine the participants to receive awards, the type and number of awards to be granted to each participant, and the terms and conditions of each grant.

Notice of Grant. Awards granted under the 2023 Performance Plan are evidenced by a notice of grant that sets forth the terms, conditions and limitations for each award, which may include the term of the award, the provisions applicable in the event that the grantee's employment or service terminates, and our authority to unilaterally or bilaterally amend, modify, suspend, cancel or rescind the award.

Eligibility. Persons eligible to participate in the 2023 Performance Plan include persons recognized by the plan administrator, such as directors, officers and other persons as determined by the plan administrator.

Vesting Schedule. The vesting schedule of each award granted under 2023 Performance Plan will be set forth in the relevant notice of grant.

Transfer Restrictions. Awards may not be transferred in any manner by the participant other than in accordance with the exceptions provided in the 2023 Performance Plan or the relevant notice of grant or otherwise determined by the plan administrator.

Amendment, Modification and Termination of the 2023 Performance Plan. Our board of directors has the authority to terminate, amend, modify, alter, suspend or discontinue the 2023 Performance Plan or any portion thereof in accordance with our articles of association. However, no such action shall adversely affect in any material way any award previously granted pursuant to the 2023 Performance Plan without the prior written consent of the plan participants, except to the extent any such action is made to cause the 2023 Performance Plan to comply with applicable law, stock market or exchange rules and regulations or accounting or tax rules and regulations.

Change in Capital Structure. In the event of a change in capital structure, the plan administrator may make such proportionate and equitable adjustments as it may deem appropriate to reflect such change with respect to (a) the aggregate number and type of shares that may be issued under the 2023 Performance Plan; (b) the terms and conditions of any issued and outstanding awards (including, without limitation, any applicable performance targets or criteria with respect thereto); and (c) the grant or exercise price per share for any issued and outstanding awards under the 2023 Performance Plan.

C. Board Practices

Board of Directors

Our board of directors consists of seven directors as of the date of this annual report. Of these initial seven directors, three are independent. A director is not required to hold any shares in our company by way of qualification. A director may vote with respect to any contract, proposed contract or arrangement in which he or she is materially interested provided (i) such director, if his or her interest in such contract or arrangement is material, has declared the nature of his or her interest at the earliest meeting of the board at which it is practicable for him or her to do so, either specifically or by way of a general notice, (ii) such director has not been disqualified by the chairman of the relevant board meeting, and (iii) if such contract or arrangement is a transaction with a related party, such transaction has been approved by the audit committee in accordance with the Nasdaq rules. The directors may exercise all the powers of our company to borrow money, mortgage its undertaking, property and uncalled capital, and issue debentures or other securities whenever money is borrowed or as security for any obligation of our company or of any third party. None of our non-executive directors has a service contract with us that provides for benefits upon termination of service.

Committees of the Board of Directors

We have established an audit committee, a compensation committee and a nominating and corporate governance committee. We have adopted a charter for each of these committees. Each committee's members and functions are described below.

Audit Committee

Our audit committee consists of Guang Yang, Sheldon Trainor-DeGirolamo and Naphat Sirimongkolkasem. Sheldon Trainor-DeGirolamo is the chairperson of our audit committee. Each of Guang Yang, Sheldon Trainor-DeGirolamo and Naphat Sirimongkolkasem satisfies the independence requirements under Rule 5605(c)(2) of the Nasdaq Stock Market Rules and meets the criteria for independence set forth in Rule 10A-3 of the Exchange Act, as well as the criteria of an audit committee financial expert as set forth under the applicable rules of the SEC.

Our audit committee will oversee our company's accounting and financial reporting processes and the audits of our financial statements. The audit committee will be responsible for, among other things:

- selecting the independent auditor;
- pre-approving auditing and non-auditing services permitted to be performed by the independent auditor;
- annually reviewing the independent auditor's report describing the auditing firm's internal quality control procedures, any material issues raised by the most recent internal quality control review, or peer review, of the independent auditors and all relationships between the independent auditor and our company;
- reviewing responsibilities, budget, compensation and staffing of our internal audit function;
- reviewing with the independent auditor any audit problems or difficulties and management's response;
- reviewing and, if material, approving all related party transactions on an ongoing basis;
- reviewing and discussing the annual audited financial statements with management and the independent auditor;
- reviewing and discussing with management and the independent auditors major issues regarding accounting principles and financial statement presentations;
- reviewing reports prepared by management or the independent auditors relating to significant financial reporting issues and judgments;
- discussing earnings press releases with management, as well as financial information and earnings guidance provided to analysts and rating agencies;
- reviewing with management and the independent auditors the effect of regulatory and accounting initiatives, as well as off-balance sheet structures, on our financial statements;
- discussing policies with respect to risk assessment and risk management with management and internal auditors;
- timely reviewing reports from the independent auditor regarding all critical accounting policies and practices to be used by us, all alternative treatments of financial information within IFRS that have been discussed with management and all other material written communications between the independent auditor and management;
- establishing procedures for the receipt, retention and treatment of complaints received from our employees regarding accounting, internal accounting controls or auditing matters and the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters;
- such other matters that are specifically delegated to our audit committee by our board of directors from time to time; and
- meeting separately, periodically, with management, internal auditors and the independent auditor.

Compensation Committee

Our compensation committee consists of Jihan Wu, Linghui Kong and Guang Yang. Jihan Wu will be the chairperson of the compensation committee. Guang Yang satisfies the independence requirements under Rule 5605(a)(2) of the Nasdaq Stock Market Rules.

Our compensation committee will be responsible for, among other things:

- reviewing, evaluating and, if necessary, revising our overall compensation policies;
- reviewing and evaluating the performance of our directors and relevant executive officers and determining the compensation of relevant executive officers;
- reviewing and approving our executive officers' employment agreements with our company;
- setting performance targets for relevant executive officers with respect to our incentive compensation plan and equity-based compensation plans;
- administering our equity-based compensation plans in accordance with the terms thereof; and
- such other matters that are specifically delegated to the compensation committee by our board of directors from time to time.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee will initially consist of Jihan Wu, Linghui Kong and Sheldon Trainor-DeGirolamo. Jihan Wu will be the chairperson of the nominating and corporate governance committee. Sheldon Trainor-DeGirolamo satisfies the independence requirements under Rule 5605(a)(2) of the Nasdaq Stock Market Rules.

Our nominating and corporate governance committee will be responsible for, among other things:

- selecting and recommending to our board of directors nominees for election by the shareholders or appointment by the board;
- reviewing annually with our board of directors the current composition of our board of directors with regards to characteristics such as independence, knowledge, skills, experience and diversity;
- making recommendations on the frequency and structure of our board of directors meetings and monitoring the functioning of the committees of our board of directors; and
- advising our board of directors periodically with regards to significant developments in the law and practice of corporate governance as well as our compliance with applicable laws and regulations, and making recommendations to the board on all matters of corporate governance and on any remedial action to be taken.

Duties of Directors

Under the laws of the Cayman Islands, our directors have a fiduciary duty to act honestly in good faith with a view to the company's best interests. Our directors also have a duty to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. In fulfilling their duty of care to us, our directors must ensure compliance with our memorandum and articles of association, as amended and restated from time to time. A shareholder has the right to seek damages if a duty owed by the directors is breached.

Terms of Directors and Executive Officers

Our directors may be appointed by an ordinary resolution of our shareholders. In addition, our board of directors may, by the affirmative vote of a simple majority of the directors present and voting at a board meeting appoint any person as a director either to fill a casual vacancy on our board or as an addition to the existing board. Unless otherwise determined by our company in general meeting, we shall have no less than three (3) and no more than twelve (12) directors. A director will cease to be a director automatically if the director (i) becomes bankrupt or makes any arrangement or composition with his creditors; (ii) dies or is found to be or becomes of unsound mind; (iii) resigns his office by notice in writing to our company; (iv) without special leave of absence from our board, is absent from three consecutive board meetings and our directors resolve that his office be vacated; or (v) is removed from office pursuant to any other provisions of our memorandum and articles of association.

Our officers are elected by and serve at the discretion of our board of directors.

Board Diversity Matrix

The table below provides certain information regarding the diversity of our board of directors as of the date of this annual report, pursuant to Nasdaq's Board Diversity Rule.

Board Diversity Matrix

Country of Principal Executive Offices	Singapore
Foreign Private Issuer	Yes
Disclosure Prohibited under Home Country Law	No
Total Number of Directors	7

	Female	Male	Non-Binary	Did Not Disclose Gender
Part I: Gender Identity				
Directors	1	6	0	0

Part II: Demographic Background

Underrepresented Individual in Home Country Jurisdiction	0
LGBTQ+	0
Did Not Disclose Demographic Background	0

D. Employees

Following and as a result of the contemplation of the Business Combination, the business of the Company is conducted through Bitdeer Technologies Holding Company.

We had approximately 142, 183 and 211 full-time employees as of December 31, 2021, 2022 and 2023, respectively. We also hire part-time employees from time to time. Of the 211 full-time employees as of December 31, 2023, approximately 54 were engaged in research and development activities and 157 were engaged in business development, finance, information system, facilities, human resources or administrative support. Most of our employees are located in Singapore and United States. None of our employees is represented by a labor union or subject to a collective bargaining agreement. We believe that we maintain a good working relationship with our employees, and we have not experienced any material disputes with our employees in our history.

E. Share Ownership

The following table sets forth information regarding the beneficial ownership of Ordinary Shares as of February 2, 2024:

- each person known by us to be the beneficial owner of more than 5% of Ordinary Shares;
- each of our directors and executive officers; and

- all our directors and executive officers as a group.

Beneficial ownership is determined according to the rules of the SEC, which generally provide that a person has beneficial ownership of a security if that person possesses sole or shared voting or investment power over that security. A person is also deemed to be a beneficial owner of securities that person has a right to acquire within 60 days including, without limitation, through the exercise of any option, warrant or other right or the conversion of any other security. Such securities, however, are deemed to be outstanding only for the purpose of computing the percentage beneficial ownership of that person but are not deemed to be outstanding for the purpose of computing the percentage beneficial ownership of any other person. Under these rules, more than one person may be deemed to be a beneficial owner of the same securities.

As of February 29, 2024, there are 67,312,909 Class A Ordinary Shares (606,756 Class A Ordinary Shares that have been repurchased but not cancelled and 6,695,228 Class A Ordinary Shares reserved for future issuances upon the exercise of awards granted under our share incentive plans) and 48,399,922 Class V Ordinary Shares issued and outstanding.

Unless otherwise indicated, we believe that all persons named in the table below have sole voting and investment power with respect to all shares of voting shares beneficially owned by them.

	Class A Ordinary Shares	Class V Ordinary Shares	% of Total Ordinary Shares	% of Voting Power(2)
Directors and Executive Officers(1)				
Jihan Wu(3)	-	48,399,922	41.8	87.8
Linghui Kong	*	-	*	*
Jianchun Liu	*	-	*	*
Chao Suo	*	-	*	*
Naphat Sirimongkolkasem	*	-	*	*
Sheldon Trainor-Degirolo	*	-	*	*
Guang Yang	*	-	*	*
Haris Basit	*	-	*	*
All executive officers and directors as a group (eight individuals)	880,179	48,399,922	42.3	87.8
5.0% Shareholders				
Zhaofeng Zhao(4)	15,326,416	-	13.2	2.8
Yuesheng Ge(5)	9,115,319	-	7.9	1.7
Yishuo Hu(6)	10,158,844	-	8.8	1.8

- (1) The business address for our directors and executive officers of the Company will be 08 Kallang Avenue, Aperia tower 1, #09-03/04, Singapore 339509.
- (2) For each person and group included in this column, the percentage of voting power is calculated by dividing the voting power beneficially owned by such person or group by the voting power of all of Ordinary Shares as a single class. In respect of matters requiring a shareholder vote, each Class A Ordinary Shares will be entitled to one vote and each Class V Ordinary Share will be entitled to ten (10) votes. Each Class V Ordinary Share shall automatically convert into one (1) Class A Ordinary Share if transferred from a Founder Entity to a non-Founder Entity, except under certain circumstances.
- (3) Represents 48,399,922 Class V Ordinary Shares directly held by Victory Courage Limited (“Victory Courage”) as reported on Schedule 13D filed by Victory Courage on May 31, 2023. Victory Courage is a British Virgin Islands company wholly owned by Cosmic Gains Global Limited, a company incorporated in the British Virgin Islands wholly owned and managed by VISTRA Trust (Hong Kong) Limited as trustee of an irrevocable trust, with Mr. Jihan Wu as the settlor and Mr. Wu and his family members as the beneficiaries. Under the terms of such trust, Mr. Wu has the power to direct the trustee with respect to the retention or disposal of, and the exercise of any voting and other rights attached to the shares held by Victory Courage in our company.
- (4) Represents 15,326,416 Class A Ordinary Shares directly held by Shinning Stone Invest Co., Ltd (“Shinning Stone”) as reported on Schedule 13D filed by Shinning Stone on March 27, 2024. Shinning Stone is a British Virgin Islands company wholly-owned by Mr. Zhaofeng Zhao. Mr. Zhao is also the sole director of Shinning Stone.

- (5) Represents 9,115,319 Class A Ordinary Shares directly held by Mega Galaxy International Limited (“Mega Galaxy”) as reported on Schedule 13G/A filed by Mega Galaxy on February 5, 2024. Mega Galaxy is a British Virgin Islands company wholly owned by Flourishing Well Limited, a company incorporated in the British Virgin Islands, which in turn is wholly owned and managed by VISTRA Trust (Hong Kong) Limited as trustee of The Sharesun Trust, a Hong Kong reserved powers trust. Mr. Yuesheng Ge is the settlor of such trust and Mr. Ge and his family members are the beneficiaries. Under the terms of such trust, Mr. Ge has the power to direct the trustee with respect to the retention or disposal of, and the exercise of any voting and other rights attached to the shares held by Mega Galaxy in our company.
- (6) Represents 10,158,844 Class A Ordinary Shares directly held by Golden Navigate Investments Limited (“Golden Navigate”) as reported on Schedule 13G/A filed by Golden Navigate on February 5, 2024. Golden Navigate is a British Virgin Islands company wholly owned by Blessing Surplus Limited, a company incorporated in the British Virgin Islands, which is wholly owned and managed by VISTRA Trust (Hong Kong) Limited as trustee of The Zizai Trust, a Hong Kong reserved powers trust. Mr. Yishuo Hu is the settlor of such trust and Mr. Hu and his family members are the beneficiaries. Under the terms of such trust, Mr. Hu has the power to direct the trustee with respect to the retention or disposal of, and the exercise of any voting and other rights attached to the shares held by Golden Navigate in our company.

As of February 29, 2024, to our knowledge, approximately 74.8% of our total issued and outstanding Class A Ordinary Shares were held by one record shareholder in the United States, and none of our Class V Ordinary Shares were held by record shareholders in the United States.

We have experienced significant changes in the percentage ownership held by major shareholders as a result of the Business Combination. Prior to the consummation of the Business Combination, the sole shareholder of our Company was C100 Holding Company, a Cayman Islands exempted company.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders

See the section entitled “Item 6. Directors, Senior Management and Employees-E. Share Ownership.”

B. Related Party Transactions

Employment Agreements and Indemnification Agreements

See the section entitled “Item 6. Directors, Senior Management and Employees-B. Compensation.”

Share Incentive Plan

See the section entitled “Item 6. Directors, Senior Management and Employees-B. Compensation.”

Other Related Party Transactions

Revenue generated from Bitmain and BTC

Before the completion date of their respective separations with Bitdeer, Bitdeer generated revenue from Bitmain and BTC from Bitdeer’s normal course of business. Revenue generated from Bitmain and BTC was approximately US\$73.5 million, nil and nil for the years ended December 31, 2021, 2022 and 2023, respectively.

Cryptocurrency services provided by Matrixport Group

Matrix Finance and Technologies Holding Group and its subsidiaries (“Matrixport Group”) are entities over which Bitdeer’s controlling person has significant influence, as Mr. Jihan Wu, Bitdeer’s founder and sole director, is the co-founder and chairman of the board of directors of Matrixport Group. During the years ended December 31, 2021, 2022 and 2023, substantially all of Bitdeer’s cryptocurrencies were held in custody by Matrixport Group and Bitdeer’s disposal of cryptocurrencies, at spot price on the date of disposal, was primarily to Matrixport Group. The service fees charged by Matrixport Group for the years ended December 31, 2021, 2022 and 2023 were approximately US\$0.3 million, US\$0.4 million and US\$0.2 million, respectively.

Technical and human resources services provided to Matrixport Group

During the years ended December 31, 2021, 2022 and 2023, we provided technical and human resources service to Matrixport Group. The service fees charged to Matrixport Group for the years ended December 31, 2021, 2022 and 2023 were approximately US\$0.5 million, US\$3.1 million and US\$0.8 million, respectively.

Other transactions with Matrixport Group

Bitdeer provided loans to Matrixport Group which are non-interest bearing and due on demand. As of December 31, 2021, 2022 and 2023, the loans receivable from Matrixport Group was approximately US\$1.1 million, US\$0.3 million and nil, respectively.

In February 2021, Bitdeer signed a loan agreement with Matrixport Group, pursuant to which Bitdeer agreed to grant a revolving line of credit with a maximum amount of US\$20 million. Charged with an annual interest of 12.5% by Bitdeer, each tranche of credit utilized shall be repaid within 60 days. The credit line has expired, and the loan has been fully repaid in June 2021. Bitdeer received an interest of approximately US\$0.8 million associated with the loan.

In September 2021, Bitdeer signed a loan agreement with Matrixport Group, pursuant to which Bitdeer agreed to grant a loan of 30 million USDC. The loan bears an annual interest of 8.25% and was due in December 2021. The loan has been fully repaid in December 2021 and Bitdeer received an interest of approximately US\$0.7 million associated with the loan.

In October 2021, Bitdeer purchased 30 million USDT with USD and purchased from Matrixport Group a non-principal-guaranteed wealth management product in the amount of 30 million USDT. The wealth management product, representing Bitdeer's units of interest in the underlying digital assets trading account, does not have a pre-determined term and is redeemable by Bitdeer on certain days of each month. Bitdeer redeemed the product on December 28, 2021, earned an investment income of approximately US\$0.7 million, and realized an annual percentage yield of around 13%.

In July 2022, Bitdeer signed an agreement with Matrixport Group to subscribe a limited partner interest in a limited partnership set up by the Matrixport Group and the capital commitment is amounting to US\$20 million. We, as a limited partner, do not have control or significant influence over the limited partnership. As of December 31, 2023, the capital contribution made by us to the limited partnership is US\$17 million. We recorded approximately US\$3.5 million gain and US\$1.0 million loss on change in fair value of financial assets at fair value through profit or loss for the years ended December 31, 2023 and 2022, respectively.

During 2022, Bitdeer lent loans in a total amount of approximately US\$150.0 million to Matrixport Group and received approximately US\$1.5 million interest income. Bitdeer also purchased wealth management products in a total amount of approximately US\$150.0 million from Matrixport Group and received approximately US\$0.3 million in return. Both the loans and the wealth management products were fully collected and redeemed as of December 31, 2022.

As of the date of this annual report, we do not have any outstanding cryptocurrency lending to Matrixport Group or any outstanding wealth management product purchased from Matrixport Group or otherwise. All lending or wealth management products previously purchased from Matrixport Group had been fully collected or redeemed by the end of December 2022. We did not make any lending to or purchase any wealth management products from Matrixport Group thereafter.

Related Person Transaction Policy

We have adopted a related person transaction policy that sets forth the policies procedures for the identification, review, and approval or ratification of related person transactions. Related person transaction is any transaction involving any "related person", as defined in the policy, and the Company or its subsidiaries. The policy sets forth policies and procedures designed to minimize potential conflicts of interest arising from any dealings it may have with its affiliates and provides appropriate procedures for the disclosure of any real or potential conflicts of interest that may exist from time to time. Specifically, the audit committee is responsible for keeping and updating a list of related persons and the principals of different departments are responsible for identifying and monitoring related party transactions. The policy details the authority of the board of directors and shareholders to review and approve different related party transactions. For any related person transaction with a transactional value no less than US\$5 million and accounting for more than 1% of the total audited assets or market value of the most recent audited period, the same committee shall review and submit a written report to the board of directors for review and the transaction shall be approved in shareholding meetings. Directors are required to disclose interests in the related party transaction and only disinterested directors can vote for a related person transaction in a board meeting. The price terms of all related party transactions shall be fair, taking into account prices in the comparable independent third-party market, price terms of non-related party transactions, and relevant cost and revenue. In addition, no loan shall be made to the Company's directors, officers or supervisors directly or indirectly.

C. Interests of Experts and Counsel

None.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

Financial Statements

Consolidated financial statements have been filed as part of this annual report. See the section entitled “Item 18. Financial Statements.”

Legal Proceedings

We are currently not a party to any material legal or administrative proceedings. We have been, and may from time to time in the future, be subject to various legal and administrative proceedings arising in the ordinary course of our business. Such claims or legal actions, even if without merit, could result in the expenditure of significant financial and management resources and potentially result in civil liability for damages.

Dividend Policy

Our board of directors has discretion on whether to distribute dividends, subject to the amended and restated memorandum and articles of association of our company and certain requirements of Cayman Islands law. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our board of directors. In either case, all dividends are subject to certain restrictions under Cayman Islands law, namely that our company may only pay dividends out of profits or the credit standing in our company’s share premium account, and provided always that in no circumstances may a dividend be paid if this would result in our company being unable to pay its debts as they fall due in the ordinary course of business immediately following the date on which the distribution or dividend is proposed to be paid. Even if we decide to pay dividends, the form, frequency and amount will depend upon our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors that the board of directors may deem relevant.

Share Repurchase Program

On June 16, 2023, subject to a 10b5-1 Stock Repurchase Agreement dated June 16, 2023, our board of directors authorized the repurchase of up to US\$1,000,000 of the Class A Ordinary Shares (the “Repurchase Program”), effective until September 15, 2023. The Repurchase Program was subsequently extended by our board of directors to be effective until December 15, 2023. We may repurchase all or a portion of our authorized repurchase amount. The Repurchase Program does not obligate us to repurchase any specific number of the Class A Ordinary Shares and the Repurchase Program may be suspended or terminated at any time at our management’s discretion. On October 18, 2023, subject to a 10b5-1 Stock Repurchase Agreement dated October 18, 2023, our board of directors authorized the repurchase of up to US\$2,000,000 of the Class A ordinary shares of the Company, effective until April 17, 2024. Pursuant to the Repurchase Program, as of the date of this annual report, we have repurchased 606,756 Class A Ordinary Shares for approximately US\$2.6 million.

B. Significant Changes

Except as disclosed elsewhere in this annual report, we have not experienced any significant changes since the date of our audited consolidated financial statements included in this annual report.

ITEM 9. THE OFFER AND LISTING

A. Offer and Listing Details

Class A Ordinary Shares are listed on Nasdaq under the symbol “BTDR.” Holders of Class A Ordinary Shares should obtain current market quotations for their securities.

B. Plan of Distribution

Not applicable.

C. Markets

Class A Ordinary Shares are listed on Nasdaq under the symbol “BTDR.”

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

As of February 29, 2024, there were 67,312,909 Class A Ordinary Shares (excluding 606,756 Class A Ordinary Shares that have been repurchased but not cancelled and 6,695,228 Class A Ordinary Shares reserved for future issuances upon the exercise of awards granted under our share incentive plans) and 48,399,922 Class V Ordinary Shares that were outstanding and issued.

B. Memorandum and Articles of Association

The following are summaries of material provisions of our current memorandum and articles of association (“Memorandum and Articles of Association”), insofar as they relate to the material terms of our Ordinary Shares. The summary is not complete and should be read together with the Memorandum and Articles of Association, a copy of which is set forth in Exhibit 1.1 to this annual report.

Our authorized share capital is US\$50,000.00 divided into 500,000,000,000 shares of a par value of US\$0.0000001 each comprising 499,600,000,000 Class A Ordinary Shares, 200,000,000 Class V Ordinary Shares and 200,000,000 undesignated shares of a par value of US\$0.0000001 each.

General. Holders of Class A Ordinary Shares and Class V Ordinary Shares will generally have the same rights except for voting and conversion rights. We will maintain a register of its shareholders. Every shareholder whose name is entered in such register may, without payment and upon written request, request a share certificate within two calendar months after allotment or lodgement of transfer.

Mr. Jihan Wu controls the voting power of all of the outstanding Class V Ordinary Shares. Upon any transfer of Class V Ordinary Shares by a holder thereof to any person which is not a Founder Entity, those shares will automatically convert into Class A Ordinary Shares.

Dividends. The holders of Ordinary Shares are entitled to such dividends as may be declared by our board of directors. In addition, our shareholders may declare dividends by ordinary resolution, but no dividend may exceed the amount recommended by our directors. The Memorandum and Articles of Association provide that our directors may, before recommending or declaring any dividend, set aside out of the funds legally available for distribution such sums as they think proper as a reserve or reserves which shall, in the absolute discretion of the directors, be applicable for meeting contingencies or for equalizing dividends or for any other purpose to which those funds may be properly applied. Under the laws of the Cayman Islands, we may pay a dividend out of either profit or the credit standing in our share premium account, provided that in no circumstances may a dividend be paid if this would result in us being unable to pay its debts as they fall due in the ordinary course of business immediately following the date on which the distribution or dividend is proposed to be paid.

Voting Rights. Holders of Ordinary Shares have the right to receive notice of, attend and vote at our general meetings. Holders of Ordinary Shares shall, at all times, vote together as one class on all matters submitted to a vote by the members at any such general meeting, provided that Class A Ordinary Shares and Class V Ordinary Shares shall each vote as a separate class on any proposed variation of rights affecting Class A Ordinary Shares only or Class V Ordinary Shares only (as the case may be). On all matters subject to a vote at our general meetings, (1) on a show of hands and/or (2) on a poll, each of our shareholders shall be entitled to one vote for each Class A Ordinary Share and ten (10) votes for each Class V Ordinary Share of which such shareholder is the holder. Voting at any shareholders' meeting is by show of hands unless a poll is demanded (before or on the declaration of the result of the show of hands). A poll may be demanded by the chairman of such meeting or any of our shareholders holding not less than 10% of the votes attaching to the total ordinary shares which are present in person or by proxy at the meeting.

An ordinary resolution to be passed at a meeting by the shareholders requires the affirmative vote of a simple majority of the votes of the ordinary shares which are cast by those of our shareholders who are entitled to do so attend and vote at the meeting, while a special resolution requires the affirmative vote of no less than two-thirds of the votes of ordinary shares which cast by those of our shareholders who are entitled to do so attend and vote at the meeting. Under the Cayman Companies Act, a special resolution will be required in order for us to effect certain important matters as stipulated in the Companies Act, such as a change of name or making changes to the Memorandum and Articles of Association. Holders of the Ordinary Shares may, among other things, divide or combine their shares by ordinary resolution.

General Meetings of Shareholders. As a Cayman Islands exempted company, we are not obliged by the Cayman Companies Act to call shareholders' annual general meetings. The Memorandum and Articles of Association provide that we may (but are not obliged to) in each year hold a general meeting as our annual general meeting in which case we shall specify the meeting as such in the notices calling it, and the annual general meeting shall be held at such time and place as may be determined by our directors.

Shareholders' general meetings may be convened by the chairman of our board of directors or by a majority of our board of directors. Advance notice of at least ten (10) calendar days is required for the convening of our annual general shareholders' meeting (if any) and any other general meeting of our shareholders. A quorum required for any general meeting of shareholders consists of at least one shareholder present or by proxy, who alone or together hold not less than 50% of all votes attaching to all of our shares in issue and entitled to vote at such general meeting.

The Cayman Companies Act provides our shareholders with only limited rights to requisition a general meeting, and does not provide shareholders with any right to put any proposal before a general meeting. However, these rights may be provided in a company's articles of association. The Memorandum and Articles of Association provide that upon the requisition of any one or more of our shareholders who alone or together hold shares which carry in aggregate not less than one-third of the total number of votes attaching to all issued and outstanding shares of our company entitled to vote at general meetings on the date of deposit of the requisition, our board of directors will be required to convene an extraordinary general meeting. However, the Memorandum and Articles of Association do not provide our shareholders with any right to put any proposals before annual general meetings or extraordinary general meetings not called by such shareholders.

Transfer of Ordinary Shares. Subject to the restrictions set out below, any of our shareholders may transfer all or any of his or her ordinary shares by an instrument of transfer in the usual or common form or any other form approved by our board of directors.

Our board of directors may, in its absolute discretion, decline to register any transfer of any ordinary share which is not fully paid up or on which we have a lien. Our board of directors may also decline to register any transfer of any ordinary share unless:

- the instrument of transfer is lodged with us, accompanied by the certificate for the ordinary shares to which it relates and such other evidence as our board of directors may reasonably require to show the right of the transferor to make the transfer;
- the instrument of transfer is in respect of only one class of ordinary shares;
- the instrument of transfer is properly stamped, if required;
- in the case of a transfer to joint holders, the number of joint holders to whom the ordinary share is to be transferred does not exceed four; and
- a fee of such maximum sum as the Nasdaq may determine to be payable or such lesser sum as our directors may from time to time require is paid to us in respect thereof.

If our directors refuse to register a transfer they shall, within three calendar months after the date on which the instrument of transfer was lodged, send to each of the transferor and the transferee notice of such refusal.

The registration of transfers may, after compliance with any notice required of the Nasdaq, be suspended and the register closed at such times and for such periods as our board of directors may from time to time determine, provided, however, that the registration of transfers shall not be suspended nor the register closed for more than 30 days in any calendar year.

Liquidation. On the winding up of our company, if the assets available for distribution among our shareholders shall be more than sufficient to repay the whole of the share capital at the commencement of the winding up, the surplus shall be distributed among our shareholders in proportion to the par value of the shares held by them at the commencement of the winding up, subject to a deduction from those shares in respect of which there are monies due, of all monies payable to our company for unpaid calls or otherwise. If our assets available for distribution are insufficient to repay the whole of the share capital, the assets will be distributed so that the losses are borne by our shareholders in proportion to the par value of the shares held by them.

Calls on Shares and Forfeiture of Shares. Our board of directors may from time to time make calls upon shareholders for any amounts unpaid on their shares in a notice served to such shareholders at least 14 calendar days prior to the specified time and place of payment. The shares that have been called upon and remain unpaid are subject to forfeiture.

Redemption, Repurchase and Surrender of Shares. We may issue shares on terms that such shares are subject to redemption, at our option or at the option of the holders of these shares, on such terms and in such manner as may be determined, before the issue of such shares, by our board of directors or a special resolution of our shareholders, and we may also repurchase any of our shares on such terms and in such manner as have been approved by our board of directors or by an ordinary resolution of our shareholders. Under the Cayman Companies Act, the redemption or repurchase of any share may be paid out of our profits or out of the proceeds of a fresh issue of shares made for the purpose of such redemption or repurchase, or out of capital (including share premium account) if we can, immediately following on which such payment is proposed to be made, pay its debts as they fall due in the ordinary course of business. In addition, we may accept the surrender of any fully paid share for no consideration.

Variations of Rights of Shares. If at any time our share capital is divided into different classes of shares, the rights attached to any class of shares (unless otherwise provided by the terms of issue of the shares of that class), whether or not we are being wound-up, may be varied with the consent in writing of the holders of two-thirds of the issued shares of that class or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of the class. The rights conferred upon the holders of the shares of any class issued shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking *pari passu* with or subsequent to such existing class of shares, or the redemption or purchase of any shares of any class by us. The rights of the holders of shares shall not be deemed to be varied by the creation or issue of shares with preferred or other rights including, without limitation, the creation of shares with enhanced or weighted voting rights.

Issuance of Additional Shares. The Memorandum and Articles of Association authorizes our board of directors to issue additional ordinary shares from time to time as our board of directors shall determine, to the extent of available authorized but unissued shares.

The Memorandum and Articles of Association also authorizes our board of directors to establish from time to time one or more series of preferred shares and to determine, with respect to any series of preferred shares, the terms and rights of that series, including:

- the designation of the series;
- the number of shares of the series;
- the dividend rights, conversion rights, voting rights;
- the rights and terms of redemption and liquidation preferences; and
- any other powers, preferences and relative, participating, optional and other special rights.

Our board of directors may issue preferred shares without action by our shareholders to the extent authorized but unissued. Issuance of these shares may dilute the voting power of holders of ordinary shares.

Inspection of Books and Records. Holders of our Ordinary Shares will have no general right under Cayman Islands law to inspect or obtain copies of our corporate records (other than our memorandum and articles of association, special resolutions, and our register of mortgages and charges). However, we will provide our shareholders with annual audited financial statements.

Anti-Takeover Provisions. Some provisions of the Memorandum and Articles of Association s may discourage, delay or prevent a change of control of our company or management that our shareholders may consider favorable, including provisions that:

- authorize our board of directors to issue preferred shares in one or more series and to designate the price, rights, preferences, privileges and restrictions of such preferred shares without any further vote or action by our shareholders; and
- limit the ability of shareholders to requisition and convene general meetings of shareholders.

However, under Cayman Islands law, our directors may only exercise the rights and powers granted to them under the Memorandum and Articles of Association for a proper purpose and for what they believe in good faith to be in the best interests of our company.

Exempted Company. We are an exempted company with limited liability under the Cayman Companies Act. The Cayman Companies Act distinguishes between ordinary resident companies and exempted companies. Any company that is registered in the Cayman Islands but conducts business mainly outside of the Cayman Islands may apply to be registered as an exempted company. The requirements for an exempted company are essentially the same as for an ordinary company except that an exempted company:

- is not required to open its register of members for inspection;
- does not have to hold an annual general meeting;

- may issue shares with no par value;
- may obtain an undertaking against the imposition of any future taxation (such undertakings are usually given for 20 years in the first instance);
- may register by way of continuation in another jurisdiction and be deregistered in the Cayman Islands;
- may register as a limited duration company; and
- may register as a segregated portfolio company.

C. Material Contracts

Other than in the ordinary course of business and other than those described in “Item 3. Risk Factors — Risks Relating to Our Business and Industry,” “Item 4. Information on the Company,” “Item 5. Operating and Financial Review and Prospects,” “Item 7. Major Shareholders and Related Party Transactions-B. Related Party Transactions” or elsewhere in this annual report, including the below, we have not entered into any material contract during the two years immediately preceding the date of this annual report.

D. Exchange Controls

There are no governmental laws, decrees, regulations or other legislation in the Cayman Islands that may affect the import or export of capital, including the availability of cash and cash equivalents for use by the Company, or that may affect the remittance of dividends, interest, or other payments by the Company to non-resident holders of its ordinary shares, assuming the absence of applicable United Nations sanctions as implemented or otherwise adopted under the laws of the Cayman Islands. There is no limitation imposed by laws of Cayman Islands or in the Company’s articles of association on the right of non-residents to hold or vote shares.”

E. Taxation

Material U.S. Federal Income Tax Considerations for U.S. Holders

The following is a discussion of certain material U.S. federal income tax considerations generally applicable to the acquisition, ownership, and disposition of Ordinary Shares by a “U.S. Holder.” This discussion applies only to Ordinary Shares that are held by a U.S. Holder as “capital assets” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not describe all U.S. federal income tax considerations that may be relevant to a U.S. Holder in light of such U.S. Holder’s particular circumstances, nor does it address any state, local, or non-U.S. tax considerations, any non-income tax (such as gift or estate tax) considerations, the alternative minimum tax, the special tax accounting rules under Section 451(b) of the Code, the Medicare contribution tax on net investment income, or any tax consequences that may be relevant to U.S. Holders that are subject to special tax rules, including, without limitation:

- banks or other financial institutions;
- insurance companies;
- mutual funds;
- pension or retirement plans;
- S corporations;
- broker or dealers in securities or currencies;

- traders in securities that elect mark-to-market treatment;
- regulated investment companies;
- real estate investment trusts;
- trusts or estates;
- tax-exempt organizations (including private foundations);
- persons that hold Ordinary Shares as part of a “straddle,” “hedge,” “conversion,” “synthetic security,” “constructive sale,” or other integrated transaction for U.S. federal income tax purposes;
- persons that have a functional currency other than the U.S. dollar;
- certain U.S. expatriates or former long-term residents of the United States;
- persons owning (directly, indirectly, or constructively) 5% (by vote or value) or more of our shares;
- persons that acquired Ordinary Shares pursuant to an exercise of employee stock options or otherwise as compensation;
- partnerships or other entities or arrangements treated as pass-through entities for U.S. federal income tax purposes and investors in such entities;
- “controlled foreign corporations” within the meaning of Section 957(a) of the Code;
- “passive foreign investment companies” within the meaning of Section 1297(a) of the Code; and
- corporations that accumulate earnings to avoid U.S. federal income tax.

If a partnership (including an entity or arrangement treated as a partnership for U.S. federal income tax purposes) holds Ordinary Shares, the tax treatment of a partner in such partnership generally will depend on the status of the partner and the activities of the partnership and the partner. Partnerships holding Ordinary Shares should consult their tax advisors regarding the tax consequences in their particular circumstances.

This discussion is based on the Code, the U.S. Treasury regulations promulgated thereunder, administrative rulings, and judicial decisions, all as currently in effect and all of which are subject to change or differing interpretation, possibly with retroactive effect. Any such change or differing interpretation could alter the tax consequences described herein. Furthermore, there can be no assurance that the Internal Revenue Service (the “IRS”) will not challenge the tax considerations described herein and that a court will not sustain such challenge.

For purposes of this discussion, a “U.S. Holder” is a beneficial owner of Ordinary Shares, that is, for U.S. federal income tax purposes:

- an individual who is a U.S. citizen or resident of the United States;
- a corporation (including an entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust (i) if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more “United States persons” within the meaning of Section 7701(a)(30) of the Code have the authority to control all substantial decisions of the trust or (B) that has in effect a valid election under applicable U.S. Treasury regulations to be treated as a United States person.

THIS DISCUSSION IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT TAX ADVICE. U.S. HOLDERS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP, AND DISPOSITION OF ORDINARY SHARES IN THEIR PARTICULAR CIRCUMSTANCES.

Distributions on Ordinary Shares

Subject to the PFIC rules discussed below under “-Passive Foreign Investment Company Rules,” distributions on Ordinary Shares generally will be taxable as a dividend for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Such distributions in excess of our current and accumulated earnings and profits will constitute a return of capital that will be applied against and reduce (but not below zero) the applicable U.S. Holder’s adjusted tax basis in its Ordinary Shares. Any remaining excess will be treated as gain realized on the sale or other taxable disposition of the Ordinary Shares and will be treated as described below under “-Sale or Other Taxable Disposition of Ordinary Shares.” The amount of any such distributions will include any amounts required to be withheld by us (or another applicable withholding agent) in respect of any non-U.S. taxes. Any such amount treated as a dividend will be treated as foreign-source dividend income. Any such dividends received by a corporate U.S. Holder generally will not qualify for the dividends-received deduction generally allowed to U.S. corporations in respect of dividends received from other U.S. corporations. With respect to non-corporate U.S. Holders, any such dividends generally will be taxed at currently preferential long-term capital gains rates only if (i) Ordinary Shares are readily tradable on an established securities market in the United States or we are eligible for benefits under an applicable tax treaty with the United States, (ii) we are not treated as a PFIC with respect to the applicable U.S. Holder at the time the dividend was paid or in the preceding year, and (iii) certain holding period and other requirements are met. Any such dividends paid in a currency other than the U.S. dollar generally will be the U.S. dollar amount calculated by reference to the exchange rate in effect on the date of actual or constructive receipt, regardless of whether the payment is in fact converted into U.S. dollars at that time. A U.S. Holder may have foreign currency gain or loss if the dividend is converted into U.S. dollars after the date of actual or constructive receipt.

As noted above and subject to applicable limitations, taxing jurisdictions other than the United States may withhold taxes from distributions on Ordinary Shares, and a U.S. Holder may be eligible for a reduced rate of withholding to the extent there is an applicable tax treaty between the applicable taxing jurisdiction and the United States and/or may be eligible for a foreign tax credit against the U.S. Holder’s U.S. federal income tax liability. Recently issued U.S. Treasury regulations, which apply to foreign taxes paid or accrued in taxable years beginning on or after December 28, 2021, may in some circumstances prohibit a U.S. Holder from claiming a foreign tax credit with respect to certain foreign taxes that are not creditable under applicable tax treaties. In lieu of claiming a foreign tax credit, a U.S. Holder may, at such U.S. Holder’s election, deduct foreign taxes in computing such U.S. Holder’s taxable income, subject to generally applicable limitations under U.S. tax law. An election to deduct foreign taxes in lieu of claiming a foreign tax credit applies to all foreign taxes paid or accrued in the taxable year in which such election is made. The foreign tax credit rules are complex and U.S. Holders should consult their tax advisers regarding the application of such rules, including the creditability of foreign taxes, in their particular circumstances.

Sale or Other Taxable Disposition of Ordinary Shares

Subject to the PFIC rules discussed below under “-Passive Foreign Investment Company Rules,” upon any sale or other taxable disposition of Ordinary Shares, a U.S. Holder generally will recognize gain or loss in an amount equal to the difference, if any, between (i) the sum of (A) the amount of cash and (B) the fair market value of any other property received in such sale or disposition and (ii) the U.S. Holder’s adjusted tax basis in the Ordinary Shares. Any such gain or loss generally will be capital gain or loss and will be long-term capital gain or loss if the U.S. Holder’s holding period for such Ordinary Shares exceeds one year. Long-term capital gain recognized by non-corporate U.S. Holders generally will be taxed at currently preferential long-term capital gains rates. The deductibility of capital losses is subject to limitations. For foreign tax credit purposes, any such gain or loss generally will be treated as U.S. source gain or loss.

If the consideration received by a U.S. Holder upon a sale or other taxable disposition of Ordinary Shares is not paid in U.S. dollars, the amount realized will be the U.S. dollar value of such payment calculated by reference to the exchange rate in effect on the date of such sale or disposition. A U.S. Holder may have foreign currency gain or loss to the extent of the difference, if any, between (i) the U.S. dollar value of such payment on the date of such sale or disposition and (ii) the U.S. dollar value of such payment calculated by reference to the exchange rate in effect on the date of settlement.

U.S. Holders should consult their tax advisors regarding the tax consequences of a sale or other taxable disposition of Ordinary Shares, including the creditability of foreign taxes imposed on such sale or disposition by a taxing jurisdiction other than the United States, in their particular circumstances.

Passive Foreign Investment Company Rules

The U.S. federal income tax treatment of U.S. Holders could be materially different from that described above if we are treated as a PFIC for U.S. federal income tax purposes. In general, a non-U.S. corporation is a PFIC for U.S. federal income tax purposes for any taxable year in which (i) 50% or more of the average value of its assets (generally determined on the basis of a weighted quarterly average) consists of assets that produce, or are held for the production of, passive income, or (ii) 75% or more of its gross income consists of passive income. Passive income generally includes dividends, interest, royalties, rents, investment gains, net gains from the sales of property that does not give rise to any income and net gains from the sale of commodities (subject to certain exceptions, such as an exception for certain income derived in the active conduct of a trade or business). Cash and cash equivalents are, and cryptocurrency balances are likely, passive assets. The value of goodwill will generally be treated as an active or passive asset based on the nature of the income produced in the activity to which the goodwill is attributable. For purposes of the PFIC rules, a non-U.S. corporation that owns, directly or indirectly, at least 25% by value of the stock of another corporation is treated as if it held its proportionate share of the assets of the other corporation, and received directly its proportionate share of the income of the other corporation.

Based on the Company's analysis of its income, assets, activities, and market capitalization, the Company believes that it was not a PFIC for its taxable year ended December 31, 2023. However, the Company's PFIC status for any taxable year is a factual annual determination that can be made only after the end of that year and will depend on the composition of the Company's income and assets and the value of its assets from time to time (including the value of its goodwill, which may be determined in large part by reference to the market price of the Class A Ordinary Shares from time to time, which could be volatile). In addition, the risk of the Company being a PFIC for any taxable year will increase if its market capitalization declines substantially during that year. Furthermore, whether and to which extent the Company's income and assets, including goodwill, will be characterized as active or passive will depend on various factors that are subject to uncertainty, including the Company's future business plan and the application of laws that are subject to varying interpretation. For example, there is no authority that directly addresses the proper treatment of certain items of the Company's income, such as income from cryptocurrency self-mining, hash rate sharing, or hosting for purposes of the PFIC rules and, although the Company currently treats these items of income as active, such treatment is uncertain. Moreover, certain of the Company's business activities generate passive income and, although the amount of such income is currently small, the Company's risk of being a PFIC will increase if the proportion of the Company's revenue earned from such business activities increases in future taxable years. Accordingly, there can be no assurances that the Company will not be a PFIC for its current or any future taxable year, and the Company's U.S. counsel expresses no opinion with respect to the Company's PFIC status for any taxable year.

Although PFIC status is generally determined annually, if we are determined to be a PFIC for any taxable year (or portion thereof) that is included in the holding period of a U.S. Holder in its Ordinary Shares and the U.S. Holder did not make either a mark-to-market election or a qualifying electing fund ("QEF") election or, which are referred to collectively as the "PFIC Elections" for purposes of this discussion, for the first taxable year in which we are treated as a PFIC, and in which the U.S. Holder held (or was deemed to hold) Ordinary Shares, or the U.S. Holder does not otherwise make a purging election, as described below, the U.S. Holder generally will be subject to special and adverse rules with respect to (i) any gain recognized by the U.S. Holder on the sale or other taxable disposition of its Ordinary Shares and (ii) any "excess distribution" made to the U.S. Holder (generally, any distributions to the U.S. Holder during a taxable year of the U.S. Holder that are greater than 125% of the average annual distributions received by the U.S. Holder in respect of its Ordinary Shares during the three preceding taxable years of the U.S. Holder or, if shorter, the U.S. Holder's holding period in its Ordinary Shares).

Under these rules:

- the U.S. Holder's gain or excess distribution will be allocated ratably over the U.S. Holder's holding period in its Ordinary Shares;
- the amount allocated to the U.S. Holder's taxable year in which the U.S. Holder recognized the gain or received the excess distribution, and to any period in the U.S. Holder's holding period before the first day of the first taxable year in which we are treated as a PFIC, will be taxed as ordinary income;
- the amount allocated to other taxable years (or portions thereof) of the U.S. Holder and included in the U.S. Holder's holding period will be taxed at the highest tax rate in effect for that year and applicable to the U.S. Holder; and
- an additional tax equal to the interest charge generally applicable to underpayments of tax will be imposed on the U.S. Holder with respect to the tax attributable to each such other taxable year of the U.S. Holder.

PFIC Elections

If we are treated as a PFIC and Ordinary Shares constitute "marketable stock," a U.S. Holder may avoid the adverse PFIC tax consequences discussed above if such U.S. Holder makes a mark-to-market election with respect to its Ordinary Shares for the first taxable year in which the U.S. Holder holds (or is deemed to hold) the Ordinary Shares and each subsequent taxable year. Such U.S. Holder generally will include for each of its taxable years as ordinary income the excess, if any, of the fair market value of its Ordinary Shares at the end of such year over its adjusted tax basis in its Ordinary Shares. The U.S. Holder also will recognize an ordinary loss in respect of the excess, if any, of its adjusted tax basis in its Ordinary Shares over the fair market value of its Ordinary Shares at the end of its taxable year (but only to the extent of the net amount of previously included income as a result of the mark-to-market election). The U.S. Holder's adjusted tax basis in its Ordinary Shares will be adjusted to reflect any such income or loss amounts, and any further gain recognized on a sale or other taxable disposition of its Ordinary Shares will be treated as ordinary income.

The mark-to-market election is available only for "marketable stock," generally, stock that is regularly traded on a national securities exchange that is registered with the Securities and Exchange Commission, including the Nasdaq (on which Ordinary Shares are currently listed), or on a foreign exchange or market that the IRS determines has rules sufficient to ensure that the market price represents a legitimate and sound fair market value. As such, such election generally will not apply to any of our non-U.S. subsidiaries, unless the shares in such subsidiaries are themselves "marketable stock." As such, U.S. Holders may continue to be subject to the adverse PFIC tax consequences discussed above with respect to any lower-tier PFICs, as discussed below, notwithstanding their mark-to-market election with respect to Ordinary Shares.

If made, a mark-to-market election would be effective for the taxable year for which the election was made and for all subsequent taxable years unless Ordinary Shares cease to qualify as "marketable stock" for purposes of the PFIC rules or the IRS consents to the revocation of the election. U.S. Holders should consult their tax advisors regarding the availability and tax consequences of a mark-to-market election with respect to Ordinary Shares in their particular circumstances.

The tax consequences that would apply if we were a PFIC and a U.S. Holder made a valid QEF election would also be different from the adverse PFIC tax consequences described above. In order to comply with the requirements of a QEF election, however, a U.S. Holder generally must receive a PFIC Annual Information Statement from us. If we are determined to be a PFIC for any taxable year, we do not currently intend to provide the information necessary for U.S. Holders to make or maintain a QEF election. As such, U.S. Holders should assume that a QEF election will not be available with respect to Ordinary Shares.

If we are treated as a PFIC and a U.S. Holder failed or was unable to timely make a PFIC Election for prior periods, the U.S. Holder might seek to make a purging election to rid its Ordinary Shares of the PFIC taint. Under the purging election, the U.S. Holder will be deemed to have sold its Ordinary Shares at their fair market value and any gain recognized on such deemed sale will be treated as an excess distribution, as described above. As a result of the purging election, the U.S. Holder will have a new adjusted tax basis and holding period in the Ordinary Shares solely for purposes of the PFIC rules.

Related PFIC Rules

If we are treated as a PFIC and, at any time, has a non-U.S. subsidiary that is treated as a PFIC, a U.S. Holder generally would be deemed to own a proportionate amount of the shares of such lower-tier PFIC, and generally could incur liability for the deferred tax and interest charge described above if we receive a distribution from, or sell or otherwise dispose of all or part of our interest in, such lower-tier PFIC, or the U.S. Holder otherwise was deemed to have sold or otherwise disposed of an interest in such lower-tier PFIC. U.S. Holders should consult their tax advisors regarding the application of the lower-tier PFIC rules in their particular circumstances.

A U.S. Holder that owns (or is deemed to own) shares in a PFIC during any taxable year may have to file an IRS Form 8621 (whether or not a QEF election or a mark-to-market election is made) and to provide such other information as may be required by the U.S. Treasury Department. Failure to do so, if required, will extend the statute of limitations applicable to such U.S. Holder until such required information is furnished to the IRS and could result in penalties.

THE PFIC RULES ARE VERY COMPLEX AND U.S. HOLDERS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE APPLICATION OF SUCH RULES IN THEIR PARTICULAR CIRCUMSTANCES.

Information Reporting and Backup Withholding

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries are subject to information reporting, and may be subject to backup withholding, unless (i) the U.S. Holder is a corporation or other exempt recipient or (ii) in the case of backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability and may entitle the U.S. Holder to a refund, provided that the required information is timely furnished to the IRS.

U.S. Holders should consult their tax advisors regarding the information reporting requirements and the application of the backup withholding rules in their particular circumstances.

THIS DISCUSSION IS FOR GENERAL INFORMATIONAL PURPOSES ONLY AND IS NOT TAX ADVICE. U.S. HOLDERS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE U.S. FEDERAL, STATE, AND LOCAL AND NON-U.S. INCOME AND NON-INCOME TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP, AND DISPOSITION OF ORDINARY SHARES, INCLUDING THE IMPACT OF ANY POTENTIAL CHANGE IN LAW, IN THEIR PARTICULAR CIRCUMSTANCES.

Cayman Islands Tax Considerations

The following summary contains a description of certain Cayman Islands income tax consequences of the acquisition, ownership and disposition of ordinary shares, but it does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision to purchase ordinary shares. The summary is based upon the tax laws of Cayman Islands and regulations thereunder as of the date hereof, which are subject to change.

Prospective investors should consult their professional advisers on the possible tax consequences of buying, holding or selling any shares under the laws of their country of citizenship, residence or domicile.

The following is a discussion on certain Cayman Islands income tax consequences of an investment in the Class A Ordinary Shares. The discussion is a general summary of present law, which is subject to prospective and retroactive change. It is not intended as tax advice, does not consider any investor's particular circumstances, and does not consider tax consequences other than those arising under Cayman Islands law.

Under Existing Cayman Islands Laws:

Payments of dividends and capital in respect of our securities will not be subject to taxation in the Cayman Islands and no withholding will be required on the payment of interest and principal or a dividend or capital to any holder of Class A Ordinary Shares, nor will gains derived from the disposal of the Class A Ordinary Shares be subject to Cayman Islands income or corporation tax. The Cayman Islands currently have no income, corporation or capital gains tax and no estate duty, inheritance tax or gift tax.

No stamp duty is payable in respect of the issue of our securities or on an instrument of transfer in respect of our securities, except for stamp duties which may be applicable on instruments executed in, or, after execution, brought within the jurisdiction of the Cayman Islands.

The Cayman Islands currently levy no taxes on individuals or corporations based upon profits, income, gains or appreciations and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to the Company levied by the Government of the Cayman Islands save certain stamp duties which may be applicable, from time to time, on certain instruments executed in or brought within the jurisdiction of the Cayman Islands.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We are subject to certain of the informational filing requirements of the Exchange Act. Since we are a "foreign private issuer," we are exempt from the rules and regulations under the Exchange Act prescribing the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and "short-swing" profit recovery provisions contained in Section 16 of the Exchange Act, with respect to their purchase and sale of our shares. In addition, we are not required to file reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. However, we are required to file with the SEC an annual report on Form 20-F containing financial statements audited by an independent accounting firm. We may, but are not required, to furnish to the SEC, on Form 6-K, unaudited financial information after each of our first three fiscal quarters. The SEC also maintains a website at <http://www.sec.gov> that contains reports and other information that we file with or furnish electronically with the SEC. You may read and copy any report or document we file, including the exhibits, at the SEC's public reference room located at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room.

I. Subsidiary Information

Not applicable.

J. Annual Report to Security Holders

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Cryptocurrency Risk

We are exposed to cryptocurrency risk as we yield cryptocurrencies from certain revenue arrangements. We recognize revenue based on the spot fair value of cryptocurrencies on the day they are earned, but the value of the cryptocurrencies is subject to change on the date they are disposed for fiat currency.

Cryptocurrency prices are affected by various forces including global supply and demand, interest rates, exchange rates, inflation or deflation and the global political and economic conditions. Our profitability is highly correlated to the current and future market price of cryptocurrencies and a decline in the market prices for cryptocurrencies could negatively impact our future operations. In addition, we may not be able to liquidate our holdings of cryptocurrencies at our desired price if required, or, in extreme market conditions, we may not be able to liquidate our holdings of cryptocurrencies at all.

Cryptocurrencies have a limited history, and the fair value of cryptocurrencies has been very volatile. The historical performance of cryptocurrencies is not indicative of their future price performance. The cryptocurrencies involved in our operation are currently primarily based on bitcoin and USDT. We currently do not use any derivative contracts to hedge our exposure to cryptocurrency risk, but our management closely monitors the impact of the mainstream cryptocurrency exchange market on the change of exchange rates from cryptocurrency to fiat currency. We limit our exposure to the cryptocurrency risk by including in our operation strategy to dispose of the cryptocurrencies for fiat currency shortly after they are earned.

Fluctuations in the market price of Bitcoin and/or other cryptocurrencies may have a more linear and quantifiable impact on some of our businesses than others. A 10% increase or decrease in the average market price of Bitcoin and/or other cryptocurrencies over 2021, 2022 and 2023, without considering other factors, would have had the following impact on our revenue: (i) an increase or decrease in our revenue from self-mining by 10%; (ii) an increase or decrease in our revenue from Cloud Hash Rate in general, as the price of Bitcoin is a key factor in determining the hash rate subscription fee, provided however, the precise impact is subject to other factors, such as the expected mining rewards at the time of subscription, contract terms, allocation of hash rate between classic and accelerator mode, and electricity price; (iii) an increase or decrease in our revenue from General Hosting in general, as we are entitled to additional variable consideration based on the customers' mining yield under arrangement with certain customers and we accept cryptocurrencies as payments for the hosting services; and (iv) an increase or decrease in revenue from Cloud Hosting, provided that the overall impact is less linear as compared to in the case of self-mining. The impact on the revenue from sales of mining machines depends on market sentiments towards Bitcoin at the relevant point in time, in addition to the actual price of Bitcoin. A change in the market price of Bitcoin and/or other cryptocurrencies would not have had a material effect on our revenue from other sources.

In addition, Bitcoin and other cryptocurrencies accounted for 0.3% and 2.4% of our total assets as of December 31, 2022 and 2023, respectively. Since we dispose cryptocurrencies in a relatively short period of time, a 10% increase or decrease in the market price of Bitcoin and other cryptocurrencies as of December 31, 2021, December 31, 2022 and December 31, 2023, respectively, would not have had a material effect on our total assets at these dates.

Interest Rate Risk

Our interest rate risk is primarily attributable to bank deposits, restricted cash and borrowings. Bank deposits, restricted cash and borrowings at variable rates and at fixed rates expose us to cash flow interest rate risk and fair value interest rate risk respectively. Our management closely monitors the fluctuation of such rates periodically. If the interest rates had been higher or lower by 1% with all other variables including tax rate being held constant, the profit/(loss) before tax would have been higher or lower by US\$3.5 million, US\$2.1 million and US\$1.3 million for the years ended December 31, 2021, 2022 and 2023, respectively.

Investment Risk

We are exposed to investment risk from investment transactions such as investment in financial assets at fair value through profit or loss. These investments are not principal-guaranteed, and we may suffer material loss from such investments. We monitor our investments closely and limit our exposure to the investment risk by including in its operation strategy the requirements to perform due diligence on the prospective investees to evaluate the business soundness before making an investment, and communicate regularly with the investee, review management report and the latest financial statements, if any, to evaluate the stage of investment and whether any action should be taken regarding the investment.

Foreign Currency Risk

We are exposed to foreign currency risk as we conduct transactions which give rise to payables and cash balances that are denominated in foreign currencies and the fair value or future cash flows of our financial instrument may fluctuate due to movement in foreign exchange rates of these foreign currencies. The volatility of exchange rates depends on many factors that we are not able to accurately forecast. Our management is closely monitoring our exposure to currency risk and seeks to minimize its exposure to such risk. We were not exposed to material foreign currency risk during the years ended December 31, 2021 and 2022 and 2023.

Credit Risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in a financial loss to us. Credit risk arises mainly from cash deposited in the banks and cryptocurrencies held in custody, trade receivables, and cryptocurrency lending transactions and cryptocurrency-denoted wealth management product purchases.

Cash deposited in the banks

To manage risk arising from cash, cash equivalents and restricted cash, we only transact with reputable financial institutions, which have no recent history of default. As such, we are not subject to material credit risk arising from cash, cash equivalents and restricted cash.

Cryptocurrencies held in custody

For the years ended December 31, 2021, 2022 and 2023, substantially all of our cryptocurrencies are stored in wallets held in the custody by Matrix Finance and Technologies Holding Company (“Matrixport Group”), a related party. To limit exposure to credit risk relating to cryptocurrencies under custody, we evaluate the system security design of the custody service provider and regularly reviews the exposure of cryptocurrencies held in custody. We have further implemented internal controls to ensure the appropriate access to the cryptocurrencies under custody and adopted the operating strategy of disposing of the cryptocurrency for fiat currency shortly after they are earned. We expect that there is no significant credit risk from non-performance by Matrixport Group.

However, Bitcoin and other blockchain-based cryptocurrencies have been, and may in the future be, subject to security breaches, cyberattacks, or other malicious activities. A successful security breach or cyberattack could result in a partial or total loss of our cryptocurrencies and such a loss could have a material adverse effect on our financial condition and results of operations.

Trade receivables

Our exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, we also consider the factors that may influence the credit risk of the customer base, including the customers’ financial condition.

We have a receivables management process that facilitates initial and ongoing analysis of customer creditworthiness individually. This analysis comprises payment frequency and timeliness, payment method and payment amount. For customers with relatively short history, we limit our exposure to credit risk by collecting deposits from these customers, which will be used to offset against outstanding trade receivables in case of default. We limit our credit risk from trade receivables by determining a maximum, which is the carrying amount of the trade receivables as of the date of the consolidated statement of financial position.

Cryptocurrency lending transactions and cryptocurrency-denoted wealth management product purchases

We also have credit exposure to cryptocurrency lending transactions and cryptocurrency-denoted wealth management product purchases. We assess such credit risk both at contract inception and each quarter or in shorter interval by considering the past collection experience and any indications that the corresponding amount may not be fully collected. To manage such exposure, we continuously monitor the relevant factors, such as the liquidity of the underlying cryptocurrencies, negative report related to the counterparty, and deal only with creditworthy counterparties and include in our operation strategy that the lending needs to be collected, and the wealth management products need to be redeemed within the same fiscal quarter. We historically only conduct such transactions with the Matrixport Group and we did not conduct such transaction in the year ended December 31, 2023. We had never experienced credit losses and have no existing exposures to such credit risk as of each end date of the consolidated statement of financial position. Consequently, credit exposure to these transactions is not considered material.

Liquidity Risk

Liquidity risk arises in situations where we have difficulties in fulfilling financial liabilities when they become due. Prudent liquidity risk management implies maintaining sufficient cash in order to meet our financial obligations. Our liquidity risk is minimal. We currently have sufficient reserve of cash. As of December 31, 2023, we recorded cash and cash equivalents of US\$144.7 million and fiat currency investment of US\$1.0 million in unlisted debt instruments, which is redeemable on demand. During the year ended December 31, 2023, our net cash used in operating activities was US\$271.8 million. We believe that our cash, short-term investment and anticipated proceeds from disposal of cryptocurrencies in connection with our principal business will be sufficient to meet our current and anticipated working capital requirements and capital expenditures for at least the next 18 months from the date of this annual report. We manage our liquidity risk by monitoring cash flow generated from operations, available borrowing capacity, and by managing the maturity profiles of our long-term loans.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

A. Debt Securities

Not applicable.

B. Warrants and Rights

Not applicable.

C. Other Securities

Not applicable.

D. American Depositary Shares

Not applicable.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

Not applicable.

ITEM 15. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, under the supervision and with the participation of our chief executive officer and chief financial officer, carried out an evaluation of the effectiveness of our disclosure controls and procedures, which is defined in Rules 13a-15(e) of the Exchange Act, as of December 31, 2023.

Based upon that evaluation, our management, with the participation of our chief executive officer and chief financial officer, has concluded that, as of December 31, 2023, our disclosure controls and procedures were effective in ensuring that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) under the Securities Exchange Act of 1934, as amended). Our management evaluated the effectiveness of our internal control over financial reporting based on criteria established in the framework in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2023.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. In addition, projections of any evaluation of effectiveness of our internal control over financial reporting to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

Attestation Report of Independent Registered Public Accounting Firm

This annual report does not include an attestation report of our independent registered public accounting firm because we qualified as an "emerging growth company" as defined under the JOBS Act as of December 31, 2023.

Internal Control Over Financial Reporting

During the audit of our financial statements for the year ended December 31, 2022, one material weakness was identified in the design and operating effectiveness of our internal control over financial reporting with respect to the Internal Control — Integrated Framework (2013 Framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), concerning in particular the control environment due to lack of sufficient financial reporting and accounting personnel with appropriate knowledge to design, implement and operate key controls over financial reporting process to address complex and emerging technical accounting issues and related disclosures in accordance with IFRS.

A "material weakness" is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. As a consequence of this material weakness, accounting errors were identified in our combined and consolidated statements of operations and comprehensive loss and cash flows for the year ended December 31, 2021 primarily related to revenue presentation in relation to the sales of mining machine business and the cash flow presentation related to the disposal of cryptocurrencies earned from revenue arrangements. The revenue and cost of revenue on the combined statements of operations and comprehensive loss and the operating and investing cash flows on the combined statements of cash flows have been previously restated. The material weakness could also result in other misstatements of our accounts or disclosures, which may result in additional material misstatements in our annual or interim financial statements that would not be prevented or detected.

We have instituted plans to remediate the material weakness, including implementation of appropriate processes with the objective of improving the effectiveness of controls over financial reporting. We have invested significant resources in our design and execution of our Sarbanes-Oxley Act compliance program, such as recruitment of qualified accounting personnel with sufficient knowledge and experience to address complex accounting issues, establishment of an internal audit team to monitor the internal control compliance over the financial reporting process, reassessing existing entity-level controls and, as necessary, implementing enhancements to such controls. Based on assessment performed by our management on the performance of certain remediation measures, we determined that as of December 31, 2023, the material weakness in our internal control over financial reporting previously identified had been remediated. Management has concluded that our internal control over financial reporting was effective as of December 31, 2023.

Changes in Internal Control over Financial Reporting

Other than as described above, there were no changes in our internal controls over financial reporting that occurred during the period covered by this annual report on Form 20-F that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16. [RESERVED]

Not applicable.

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our board of directors has determined that each of Guang Yang, Sheldon Trainor-DeGirolamo and Naphat Sirimongkolkasem satisfies the independence requirements under Rule 5605(c)(2) of the Nasdaq Stock Market Rules and meets the criteria for independence set forth in Rule 10A-3 of the Exchange Act, as well as the criteria of an audit committee financial expert as set forth under the applicable rules of the SEC.

ITEM 16B. CODE OF ETHICS

Our board of directors adopted a code of business conduct and ethics that applies to our directors, officers and employees in March 2023, which was effective in April 2023 and amended in October 2023. We have posted a copy of our code of business conduct and ethics on our website at <https://ir.bitdeer.com/>.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Our company has retained MaloneBailey, LLP to act as our company's independent registered accountants.

The following table sets forth the aggregate fees by categories specified below in connection with certain professional services rendered by MaloneBailey, LLP, for the periods indicated.

		For the Year Ended December 31,		
		2023		2022
Audit fees (1)	US\$	1,060,900	US\$	826,235
Audit-related fees (2)	US\$	231,750	US\$	206,000

- (1) "Audit fees" are fees billed for professional services rendered by the principal accountant for the audit of the registrant's annual financial statements or services that are normally provided by the accountant in connection with statutory and regulatory filings or engagements for those fiscal years. It includes the audits of our consolidated financial statements and other services that generally only the independent accountant reasonably can provide, such as statutory audits.
- (2) "Audit-related fees" are fees billed for assurance and related services that are reasonably related to the performance of the audits or review of our consolidated financial statements and not reported under the previous category. These services would include, among others: comfort letters, consents and assistance with and review of documents, accounting consultations and audits in connection with acquisitions, attestation of services that are not required by statute or regulation and consultation concerning financial accounting and reporting standards

The policy of our audit committee is to pre-approve all audit, audit-related and non-audit services provided by MaloneBailey, LLP, including audit services, audit-related services, tax services and other services as described above, other than those for de minimis services which are approved by the audit committee prior to the completion of the audit.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

On June 16, 2023, subject to a 10b5-1 Stock Repurchase Agreement dated June 16, 2023, our board of directors authorized the repurchase of up to US\$1,000,000 of the Class A Ordinary Shares (the “Repurchase Program”), effective until September 15, 2023. The Repurchase Program was subsequently extended by our board of directors to be effective until December 15, 2023. We may repurchase all or a portion of our authorized repurchase amount. The Repurchase Program does not obligate us to repurchase any specific number of the Class A Ordinary Shares and the Repurchase Program may be suspended or terminated at any time at our management’s discretion. On October 19, 2023, subject to a 10b5-1 Stock Repurchase Agreement dated October 18, 2023, our board of directors authorized the repurchase of up to US\$2,000,000 of the Class A ordinary shares of the Company, effective until April 17, 2024. Pursuant to the Repurchase Program, as of the date of this annual report, we have repurchased 606,756 Class A Ordinary Shares for approximately US\$2.6 million.

ITEM 16F. CHANGE IN REGISTRANT’S CERTIFYING ACCOUNTANT

Not applicable.

ITEM 16G. CORPORATE GOVERNANCE

As a Cayman Islands exempted company listed on the Nasdaq Capital Market, we are subject to the Nasdaq corporate governance listing standards. However, Nasdaq Stock Market Rules permit a foreign private issuer like us to follow the corporate governance practices of its home country. Certain corporate governance practices in the Cayman Islands, which is our home country, may differ significantly from the Nasdaq Stock Market Rules. See the section entitled “Item 3. Key Information-D. Risk Factors-You may face difficulties in protecting your interests, and your ability to protect your rights through U.S. courts may be limited, because we are incorporated under the law of the Cayman Islands, we conduct a substantial portion of our operations and a majority of our directors and executive officers reside outside of the United States.”

While we voluntarily follow most Nasdaq corporate governance rules, we may choose to take advantage exemptions afforded to us. See the section entitled “Item 3. Key Information-D. Risk Factors-As an exempted company incorporated in the Cayman Islands, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from Nasdaq corporate governance listing standards; these practices may afford less protection to holders of Class A Ordinary Shares than they would enjoy if we complied fully with Nasdaq corporate governance listing standards.”

We may elect to follow home country practice in lieu the following requirements:

- the requirement that each member of the compensation committee must be an independent director as set forth in Nasdaq Rule 5605(d)(2)(A);
- the requirement that director nomination should be made by a vote in which only independent directors participate or by a nominations committee comprised solely of independent directors as set forth in Nasdaq Rule 5605(e)(1);
- the requirement to obtain shareholder approval for certain issuances of securities, including shareholder approval of stock option plans; and

- the requirement that the board of directors shall have regularly scheduled meetings at which only independent directors are present as set forth in Nasdaq Rule 5605(b)(2).

Other than the home country practices described above, we are not aware of any significant differences between our corporate governance practices and those followed by U.S. domestic companies under Nasdaq Stock Market Rules.

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

ITEM 16I. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

ITEM 16J. INSIDER TRADING POLICIES

Not applicable.

ITEM 16K. CYBERSECURITY

Risk management and strategy

We recognize the critical importance of developing, implementing, and maintaining robust cybersecurity measures to safeguard our information systems and protect the confidentiality, integrity, and availability of our data.

Managing Material Risks & Integrated Overall Risk Management

We have strategically integrated cybersecurity incident management team (the “CSI management team”) into our broader risk management framework to promote a company-wide culture of cybersecurity risk management. This integration ensures that cybersecurity considerations are an integral part of our decision-making processes at every level. Our CSI management team works closely with our information security (“IS”) department to continuously evaluate and address cybersecurity risks in alignment with our business objectives and operational needs.

Oversee Third-party Risk

Because we are aware of the risks associated with third-party service providers, we implement stringent processes to oversee and manage these risks. We conduct thorough security assessments of all third-party providers before engagement and maintain ongoing monitoring to ensure compliance with our cybersecurity standards, including risk assessment for each service provider and strict control of privileged access granted to service providers. This approach is designed to mitigate risks related to data breaches or other security incidents originating from third-parties.

Risks from Cybersecurity Threats

We have not encountered cybersecurity challenges that have materially impaired our operations or financial standing.

Governance

The Board of Directors is acutely aware of the critical nature of managing risks associated with cybersecurity threats. The Board has established robust oversight mechanisms to ensure effective governance in managing risks associated with cybersecurity threats because we recognize the significance of these threats to our operational integrity and stakeholder confidence.

Board of Directors Oversight

The Audit Committee is central to the Board's oversight of cybersecurity risks and bears the primary responsibility for this domain. The Audit Committee is composed of board members with diverse expertise including, risk management, technology, and finance, equipping them to oversee cybersecurity risks effectively.

Management's Role Managing Risk

The CSI management team play a pivotal role in informing the Audit Committee on cybersecurity risks. In consultation with our legal department and our senior management, they determine whether notification of a cybersecurity incident to the Audit Committee is necessary or advisable. Upon determining that such notification should occur, they provide prompt notification to the Audit Committee.

The Audit Committee actively participates in strategic decisions related to cybersecurity, offering guidance and approval for major initiatives. This involvement ensures that cybersecurity considerations are integrated into our broader strategic objectives. The Audit Committee conducts an annual review of our cybersecurity posture and the effectiveness of its risk management strategies. This review helps in identifying areas for improvement and ensuring the alignment of cybersecurity efforts with the overall risk management framework.

Risk Management Personnel

Primary responsibility for assessing, monitoring and managing our cybersecurity risks rests with our IS Emergency Contact. With almost 10 years of experience in cybersecurity, our IS Emergency Contact has extensive cybersecurity expertise and in-depth knowledge and experience instrumental in developing and executing our cybersecurity strategies.

Monitor Cybersecurity Incidents

The lead of our IS department (the "IS lead") is continually informed about the latest developments in cybersecurity, including potential threats and innovative risk management techniques. This ongoing knowledge acquisition is crucial for the effective prevention, detection, mitigation, and remediation of cybersecurity incidents. The IS lead implements and oversees processes for the regular monitoring of our information systems. This includes the deployment of advanced security measures and regular system audits to identify potential vulnerabilities. In the event of a cybersecurity incident, the IS lead is equipped with a well-defined incident response plan. This plan includes immediate actions to mitigate the impact and long-term strategies for remediation and prevention of future incidents.

Reporting to Board of Directors

The IS lead, in his capacity, regularly informs the Chief Executive Officer, Chief Business Officer and Chief Financial Officer of all aspects related to cybersecurity risks and incidents. This ensures that the highest levels of management are kept abreast of the cybersecurity posture and potential risks facing the Company. Furthermore, significant cybersecurity matters, and strategic risk management decisions are escalated to the Board of Directors, ensuring that they have comprehensive oversight and can provide guidance on critical cybersecurity issues.

PART III

ITEM 17. FINANCIAL STATEMENTS

See the section entitled “Item 18. Financial Statements.”

ITEM 18. FINANCIAL STATEMENTS

The consolidated financial statements and the related notes required by this Item are included in this annual report on Form 20-F beginning on page F-1.

ITEM 19. EXHIBITS

EXHIBIT INDEX

EXHIBIT NUMBER	DESCRIPTION
1.1	Amended and Restated Memorandum and Articles of Association of the Company, effective on April 13, 2023 (incorporated herein by reference to Exhibit 1.1 to the Shell Company Report on Form 20-F (File No. 001-41687) filed with the SEC on April 19, 2023).
2.1	Specimen Ordinary Share Certificate of the Company (incorporated herein by reference to Exhibit 4.1 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
2.2*	Description of Securities Registered under Section 12 of the Securities Exchange Act of 1934.
4.1	Amended and Restated Agreement and Plan of Merger, dated as of December 15, 2021, by and among the Company, Bitdeer, Blue Safari Merge Limited, Blue Safari Merge II Limited, Bitdeer Merge Limited, BSGA and Blue Safari Mini Corp. (incorporated herein by reference to Exhibit 2.1 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
4.2	First Amendment to Amended and Restated Agreement and Plan of Merger, dated as of May 30, 2022, by and among the Company, Bitdeer, Blue Safari Merge Limited, Blue Safari Merge II Limited, Bitdeer Merge Limited, BSGA and Blue Safari Mini Corp. (incorporated herein by reference to Exhibit 2.2 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
4.3	Second Amendment to Amended and Restated Agreement and Plan of Merger, dated as of December 2, 2022, by and among the Company, Bitdeer, Blue Safari Merge Limited, Blue Safari Merge II Limited, Bitdeer Merge Limited, BSGA and Blue Safari Mini Corp. (incorporated herein by reference to Exhibit 2.3 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
4.4	Third Amendment to Amended and Restated Agreement and Plan of Merger, dated as of March 7, 2023, by and among the Company, Bitdeer, Blue Safari Merge Limited, Blue Safari Merge II Limited, Bitdeer Merge Limited, BSGA and Blue Safari Mini Corp. (incorporated herein by reference to Exhibit 2.4 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
4.5	Voting and Support Agreement, dated as of December 15, 2021, by and among BSGA, Bitdeer and certain shareholder of Bitdeer (incorporated herein by reference to Exhibit 10.1 to BSGA's Current Report on Form 8-K filed with the SEC on December 15, 2021)
4.6†*	Bitdeer Technologies Group 2023 Share Incentive Plan, effective on April 13, 2023
4.7†	Form of Employment Agreement between the Company and its executive officers (incorporated herein by reference to Exhibit 10.3 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
4.8†	Form of Indemnification Agreement between the Company's and its executive officers (incorporated herein by reference to Exhibit 10.4 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
4.9#	Lease Agreement, dated as of June 6, 2018, between Alcoa USA Corp. and Dory Creek, LLC (incorporated herein by reference to Exhibit 10.5 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).

EXHIBIT NUMBER	DESCRIPTION
4.10#	<u>First Amendment to the Lease Agreement, dated as of October 18, 2018, between Alcoa USA Corp. and Bitdeer Inc. (formerly known as Bitmain Inc.) (incorporated herein by reference to Exhibit 10.6 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.11#	<u>Second Amendment to the Lease Agreement, dated as of May 1, 2019, between Alcoa USA Corp. and Dory Creek, LLC (incorporated herein by reference to Exhibit 10.7 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.12#	<u>Third Amendment to the Lease Agreement, dated as of May 1, 2019, between Alcoa USA Corp. and Dory Creek, LLC (incorporated herein by reference to Exhibit 10.8 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.13#	<u>Fourth Amendment to the Lease Agreement, dated as of May 11, 2021, between Alcoa USA Corp. and Dory Creek, LLC (incorporated herein by reference to Exhibit 10.9 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.14#	<u>Fifth Amendment to the Lease Agreement, dated as of August 30, 2021, between Alcoa USA Corp. and Dory Creek, LLC (incorporated herein by reference to Exhibit 10.10 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.15#	<u>Sixth Amendment to the Lease Agreement, dated as of October 25, 2021, between Alcoa USA Corp. and Dory Creek, LLC (incorporated herein by reference to Exhibit 10.11 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.16#	<u>Seventh Amendment to the Lease Agreement, dated as of October 1, 2022, between SLR Property I, LP and Dory Creek, LLP (incorporated herein by reference to Exhibit 4.16 to the Shell Company Report on Form 20-F (File No. 001-41687) filed with the SEC on April 19, 2023).</u>
4.17#	<u>Land Lease Agreement, dated as of November 15, 2019, between Norway Hash Technologies AS and Troll Housing AS (incorporated herein by reference to Exhibit 10.12 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.18#	<u>Addendum No. 1 to the Land Lease Agreement, dated as of December 6, 2020, between Norway Hash Technologies AD and Troll Housing AS (incorporated herein by reference to Exhibit 10.13 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.19#	<u>Addendum No. 2 to the Land Lease Agreement, dated as of March 22, 2021, between Norway Hash Technologies AD and Troll Housing AS (incorporated herein by reference to Exhibit 10.14 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.20#	<u>Addendum No. 3 to the Land Lease Agreement, dated as of March 22, 2021, between Norway Hash Technologies AD and Troll Housing AS (incorporated herein by reference to Exhibit 10.15 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.21#	<u>Land Lease Agreement, dated as of April 8, 2021, between Norway Hash Technologies AS and Tydal Data Center AS (incorporated herein by reference to Exhibit 10.16 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>
4.22#	<u>Commercial Purchase and Sale Agreement, dated as of February 26, 2018, between Bitmain Inc. and Kemet Foil Manufacturing LLC (FKA Cornell Dubilier, Foil, LLC) (incorporated herein by reference to Exhibit 10.17 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).</u>

EXHIBIT NUMBER	DESCRIPTION
4.23#	Indenture, dated as of March 20, 2018, between Bitmain Inc. and Carpenter Creek, LLC (incorporated herein by reference to Exhibit 10.18 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
4.24#	Vacant Land Purchase and Sale Agreement, dated as of August 3, 2017, between Blackhawk Development Inc and Ant Creek, LLC (incorporated herein by reference to Exhibit 10.19 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
4.25#	English translation of Custody Agreement, dated as of February 10, 2021, between Sharpening Technology Limited, Bitdeer Sales (USA) Inc, Carpenter Creek LLC and Matrix Guard Limited (incorporated herein by reference to Exhibit 10.20 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
4.26#	Custody Agreement, dated as of February 10, 2021, between Bitdeer Technologies Limited, Straitdeer Pte. Ltd. and Matrix Trust Company (incorporated herein by reference to Exhibit 10.21 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
4.27	2023 Performance Share Plan (incorporated herein by reference to Exhibit 4.1 to the Company’s Form 6-K (File No. 001-41687), filed with the SEC on June 20, 2023).
4.28#	Ordinary Share Purchase Agreement, dated as of August 8, 2023, by and between Bitdeer Technologies Group and B. Riley Principal Capital II, LLC (incorporated herein by reference to Exhibit 10.1 to the Company’s Form 6-K (File No. 001-41687), filed with the SEC on August 9, 2023).
4.29	Registration Rights Agreement, dated as of August 8, 2023, by and between Bitdeer Technologies Group and B. Riley Principal Capital II, LLC (incorporated herein by reference to Exhibit 10.2 to the Company’s Form 6-K (File No. 001-41687), filed with the SEC on August 9, 2023).
4.30#	Land Lease Agreement, by and between Bitdeer Gedu and DHI (incorporated herein by reference to Exhibit 10.1 to the Company’s Form 6-K (File No. 001-41687), filed with the SEC on August 22, 2023).
4.31#	Contract of Sale by and between White Tail Creek and B&D (incorporated herein by reference to Exhibit 10.2 to the Company’s Form 6-K (File No. 001-41687), filed with the SEC on August 22, 2023).
4.32#	Master Agreement between Bitdeer and NVIDIA (incorporated herein by reference to Exhibit 99.2 to the Company’s Form 6-K (File No. 001-41687), filed with the SEC on October 19, 2023).
8.1	List of significant subsidiaries of the Company (incorporated herein by reference to Exhibit 21.1 to Amendment No. 2 to the Registration Statement on Form F-4 (File No. 333-270345), filed with the SEC on March 23, 2023).
11.1	Code of Business Conduct and Ethics of the Company (incorporated herein by reference to Exhibit 99.1 to Post-Effective Amendment No.1 to the Registration Statement on Form F-1 (File No. 333-273905), filed with the SEC on October 10, 2023).
12.1*	Certification of our Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
12.2*	Certification of our Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

EXHIBIT NUMBER	DESCRIPTION
13.1**	Certification of our Chief Executive Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
13.2**	Certification of our Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
15.1*	Consent of Malone Bailey
97.1*	Executive Compensation Clawback Policy

EXHIBIT NUMBER	DESCRIPTION
101.INS*	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Labels Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104*	Cover Page Interactive Data File - the cover page XBRL tags are embedded within the Exhibit 101 Inline XBRL document set

* Filed herewith.

** Furnished herewith.

† Indicates a management contract or any compensatory plan, contract or arrangement.

Portions of this exhibit have been omitted pursuant to Item 601(b)(10)(iv) of Regulation S-K on the basis that the Company customarily and actually treats that information as private or confidential and the omitted information is not material.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Bitdeer Technologies Group

March 28, 2024

By: /s/ Jihan Wu

Name: Jihan Wu

Title: Director and Chairman of the Board

INDEX TO FINANCIAL STATEMENTS

Consolidated Financial Statements as of December 31, 2023 and 2022 and for each of the Three Years in the Period Ended December 31, 2023

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of
Bitdeer Technologies Group

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of Bitdeer Technologies Group and its subsidiaries (the “Company”) as of December 31, 2023 and 2022, and the related consolidated statements of operations and comprehensive income / (loss), changes in equity, and cash flows for each of the three years in the period ended December 31, 2023, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ MaloneBailey, LLP

www.malonebailey.com

We have served as the Company’s auditor since 2021.

Houston, Texas

March 28, 2024

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(Amounts in tables are stated in thousands of U.S. Dollar)

	Note	December 31, 2023	December 31, 2022
ASSETS			
Cash and cash equivalents	6	144,729	231,362
Cryptocurrencies	7	15,371	2,175
Trade receivables		17,277	18,304
Amounts due from a related party	20	187	397
Prepayments and other assets	8	97,433	59,576
Financial assets at fair value through profit or loss	9	37,775	60,959
Restricted cash	6	9,538	11,494
Mining machines	10	63,477	27,703
Right-of-use assets	13	58,626	60,082
Property, plant and equipment	11	154,860	138,636
Investment properties	12	34,346	35,542
Intangible assets		4,777	322
Deferred tax assets	19	991	4,857
TOTAL ASSETS		639,387	651,409
LIABILITIES			
Trade payables		32,484	15,768
Other payables and accruals	15	32,151	22,176
Amounts due to a related party	20	33	316
Income tax payables		3,367	657
Deferred revenue		144,337	182,297
Borrowings	14	22,618	29,805
Lease liabilities	13	70,211	70,425
Deferred tax liabilities	19	1,620	11,626
TOTAL LIABILITIES		306,821	333,070
NET ASSETS		332,566	318,339
EQUITY			
Share capital ⁽¹⁾	18	*	*
Treasury shares	18	(2,604)	-
Retained earnings / (accumulated deficit)	18	(49,853)	6,803
Reserves ⁽¹⁾	18	385,023	311,536
TOTAL EQUITY		332,566	318,339

* Amount less than US\$1,000

⁽¹⁾ After giving the effects of the reverse recapitalization completed in April 2023 as described in Note 1.

The accompanying notes form an integral part of these consolidated financial statements.

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME / (LOSS)
(Amounts in tables are stated in thousands of U.S. Dollar, except for per share data)

	Note	Years ended December 31,		
		2023	2022	2021
Revenue	2(q)	368,554	333,342	394,661
Cost of revenue	16(a)	(290,745)	(250,090)	(153,255)
Gross profit		77,809	83,252	241,406
Selling expenses	16(a)	(8,246)	(11,683)	(8,448)
General and administrative expenses	16(a)	(66,454)	(93,453)	(89,735)
Research and development expenses	16(a)	(29,534)	(35,430)	(29,501)
Listing fee	1	(33,151)	-	-
Other operating income / (expenses)	16(b)	3,791	(3,628)	14,625
Other net gain	16(c)	3,538	357	2,483
Profit / (loss) from operations		(52,247)	(60,585)	130,830
Finance income / (expenses)	16(d)	1,276	(4,181)	59
Profit / (loss) before taxation		(50,971)	(64,766)	130,889
Income tax benefit / (expense)	19	(5,685)	4,400	(48,246)
Profit / (loss) for the year		(56,656)	(60,366)	82,643
Other comprehensive income / (loss)				
Profit / (loss) for the year		(56,656)	(60,366)	82,643
Other comprehensive loss for the year				
<i>Item that may be reclassified to profit or loss</i>				
- Exchange differences on translation of financial statements		(26)	(22)	(195)
Other comprehensive loss for the year, net of tax		(26)	(22)	(195)
Total comprehensive income / (loss) for the year		(56,682)	(60,388)	82,448
Earnings / (loss) per share⁽¹⁾				
Basic	21	(0.51)	(0.56)	0.76
Diluted	21	(0.51)	(0.56)	0.75
Weighted average number of shares outstanding (thousand shares)⁽¹⁾				
Basic	21	110,494	108,681	108,681
Diluted	21	110,494	108,681	111,243

⁽¹⁾ After giving the effects of the reverse recapitalization completed in April 2023 as described in Note 1.

The accompanying notes form an integral part of these consolidated financial statements.

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(Amounts in tables are stated in thousands of U.S. Dollar)

	Note	Share Capital ⁽¹⁾	Treasury Shares	Retained Earnings / (Accumulated Deficit)	Exchange Reserve	Other Reserve ⁽¹⁾	Invested Capital	Total Equity
Balance at January 1, 2021		-	-	-	-	-	145,904	145,904
Profit for the year		-	-	67,169	-	-	15,474	82,643
Other comprehensive loss		-	-	-	(195)	-	-	(195)
Capital share allotment relating to the Reorganization	18	*	-	-	-	*	-	-
Share-based payments	17	-	-	-	-	88,355	-	88,355
Recognition of equity component of convertible debt	14	-	-	-	-	683	-	683
Deemed distribution to related parties		-	-	-	-	-	(29,311)	(29,311)
Reclassification of invested capital		-	-	-	-	132,067	(132,067)	-
Balance at December 31, 2021 and January 1, 2022		*	-	67,169	(195)	221,105	-	288,079
Loss for the year		-	-	(60,366)	-	-	-	(60,366)
Other comprehensive loss		-	-	-	(22)	-	-	(22)
Share-based payments	17	-	-	-	-	90,648	-	90,648
Balance at December 31, 2022 and January 1, 2023		*	-	6,803	(217)	311,753	-	318,339
Issuance of shares through Business Combination		*	-	-	-	18,096	-	18,096
Loss for the year		-	-	(56,656)	-	-	-	(56,656)
Other comprehensive loss		-	-	-	(26)	-	-	(26)
Share-based payments	17	-	-	-	-	45,488	-	45,488
Issuance of shares for exercise of share awards	17	*	-	-	-	412	-	412
Acquisition of treasury shares	18	*	(2,604)	-	-	-	-	(2,604)
Issuance of shares for cash, net of transaction costs	18	*	-	-	-	9,517	-	9,517
Balance at December 31, 2023		*	(2,604)	(49,853)	(243)	385,266	-	332,566

* Amount less than US\$1,000

⁽¹⁾ After giving the effects of the reverse recapitalization completed in April 2023 as described in Note 1.

The accompanying notes form an integral part of these consolidated financial statements.

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in tables are stated in thousands of U.S. Dollar)

	Years ended December 31,		
	2023	2022	2021
Cash flows from operating activities			
Profit / (loss) for the year	(56,656)	(60,366)	82,643
Adjustments for:			
Revenues recognized on acceptance of cryptocurrencies	(342,250)	(304,962)	(333,668)
Depreciation and amortization	75,541	66,424	63,055
Listing fee	33,151	-	-
Share-based payment expenses	45,488	90,648	88,355
(Gain) / loss on disposal of property, plant and equipment and intangible assets	11	(662)	(56)
Changes in fair value of financial assets at fair value through profit or loss	(3,527)	841	-
Net gain on disposal of financial asset at fair value through profit or loss	-	(213)	-
Loss on disposal of mining machines	1,573	497	36
(Gain) / loss on disposal of cryptocurrencies	(2,061)	3,131	(18,725)
Change in fair value of cryptocurrency-settled receivables and payable	(3,305)	-	3,735
Impairment charges	2	-	2,567
Loss on foreign currency transactions	1,016	2,881	226
Gain on extinguishment of debt	-	-	(880)
Gain on modification of convertible debt	(481)	-	-
Gain on settlement of balance with Bitmain	-	-	(4,468)
Loss on disposal of subsidiaries	74	-	8
Interest income	(7,953)	(4,291)	(2,947)
Interest expense on bank loan	-	-	3
Interest accretion on lease liabilities	2,605	2,425	1,217
Interest expense on convertible debt	2,476	2,778	1,223
Gain on lease modification	-	-	(205)
Income tax (benefit) / expense	5,685	(4,400)	48,246
Changes in:			
Restricted cash	1,956	(1,184)	(2,971)
Trade receivables	381	(5,350)	(13,258)
Prepayments and other assets	(49,236)	(21,913)	(4,070)
Mining machines held for sale	4	1,002	5,957
Amounts due from a related party	(111)	337	(413)
Trade payables	13,603	(6,018)	12,508
Deferred revenue	3,542	(9,159)	6,782
Amount due to a related party	(283)	297	19
Other payables and accruals	(5,113)	1,299	12,667
Cash used in operating activities:	<u>(283,868)</u>	<u>(245,958)</u>	<u>(52,414)</u>
Interest paid on leases	(2,605)	(2,425)	(1,217)
Interest paid on convertible debt	(2,181)	(2,433)	(1,080)
Interest received	7,572	2,791	2,202
Income taxes paid	(1,500)	(20,012)	(19)
Income taxes refunded	10,795	-	62
Net cash used in operating activities	<u>(271,787)</u>	<u>(268,037)</u>	<u>(52,466)</u>

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in tables are stated in thousands of U.S. Dollar)

	Years ended December 31,		
	2023	2022	2021
Cash flows from investing activities			
Purchase of property, plant and equipment, investment properties and intangible assets	(63,305)	(63,200)	(62,882)
Purchase of mining machines	(63,041)	-	(26,611)
Purchase of financial assets at fair value through profit or loss	(4,400)	(61,550)	-
Proceeds from disposal of financial assets at fair value through profit or loss	31,111	1,213	-
Purchase of cryptocurrencies	-	(285,990)	(60,045)
Loans to related parties	-	(322)	(32,166)
Repayments from related parties	322	1,087	21,698
Lending to a third party	(61)	(2,546)	-
Proceeds from disposal of property, plant and equipment and intangible assets	73	962	877
Proceeds from disposal of mining machines	27	-	-
Proceeds from disposal of cryptocurrencies	299,128	560,988	568,553
Disposal of subsidiaries, net of cash disposed of	-	9,881	(14,855)
Cash paid for asset acquisition, net of cash acquired	-	(26,730)	-
Net cash generated from investing activities	<u>199,854</u>	<u>133,793</u>	<u>394,569</u>
Cash flows from financing activities			
Capital element of lease rentals paid	(5,191)	(3,884)	(4,181)
Deemed distribution to related parties	-	-	(10,943)
Repayments of borrowings from related parties	-	-	(29,302)
Proceeds from convertible debt	-	-	30,000
Payments of convertible debt redemption	(7,000)	-	-
Net payment related to Business Combination	(7,662)	-	-
Acquisition of treasury shares	(2,604)	-	-
Proceeds from issuance of shares for exercise of share awards	412	-	-
Proceeds from issuance of ordinary shares, net of transaction costs	9,494	-	-
Payment for the future issuance cost	(942)	-	-
Net cash used in financing activities	<u>(13,493)</u>	<u>(3,884)</u>	<u>(14,426)</u>
Net increase / (decrease) in cash and cash equivalents	(85,426)	(138,128)	327,677
Cash and cash equivalents at January 1	231,362	372,088	44,753
Effect of movements in exchange rates on cash and cash equivalents held	(1,207)	(2,598)	(342)
Cash and cash equivalents at December 31	<u><u>144,729</u></u>	<u><u>231,362</u></u>	<u><u>372,088</u></u>

The accompanying notes form an integral part of these consolidated financial statements.

**BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

1. ORGANIZATION

General information

Bitdeer Technologies Group (the “Company” or “BTG”) is a limited liability company incorporated in the Cayman Islands on December 8, 2021. The address of its registered office is 89 Nexus Way, Camana Bay, Grand Cayman KY1-9009, Cayman Islands. The Company was incorporated for the purpose of effectuating the Business Combination (as defined below). Prior to Business Combination, the Company owned no material assets and did not operate any business.

Bitdeer Technologies Holding Company (“Bitdeer”) is a limited liability company incorporated in the Cayman Islands on November 18, 2020. On April 13, 2023, Bitdeer completed the business combination with Blue Safari Group Acquisition Corp. (“BSGA”) via a multiple-merger structure (the “Business Combination”). Upon completion of the Business Combination, with Bitdeer being the surviving entity, both Bitdeer and its subsidiaries, and BSGA became wholly-owned subsidiaries of BTG, the ultimate holding company. See “Business Combination” for details.

The Company does not conduct any substantive operations on its own but conducts its primary operations through its subsidiaries. The Company and its subsidiaries (together, the “Group”) are principally engaged in the following business activities:

- Offering to its customers plan subscriptions, from which the customers receive computing service in quantity measured in hash rate and benefit from such service as a result of directing the computing service to mining pools and receiving cryptocurrency rewards (the “Cloud Hash Rate business”);
- Using the Group’s mining machines to provide computing power to mining pools in exchange for cryptocurrencies rewards (the “Self-mining business”); and
- Providing dynamic hosting solutions in the Group’s mining datacenters (the “Hosting business”, together with Cloud Hash Rate business and self mining business, the “Bitdeer Business”).

Reorganization

Separation from Bitmain

For the period from January 1, 2021 to January 26, 2021, the Bitdeer Business and the mining pool business, including the ownership of and registration right to the domain name btc.com (the “BTC.com Pool Business” or “BTC”), were operated through a number of entities controlled by BitMain Technologies Holding Company (collectively with its subsidiaries, “Bitmain”). Bitdeer was created to separate the Bitdeer Business and the BTC.com Pool Business following a corporate reorganization of Bitmain to effectuate the separation. The separation from Bitmain resulted in the transfer of certain assets, liabilities and contracts related to the Bitdeer Business and the BTC.com Pool Business at their historical book values from Bitmain to Bitdeer on January 26, 2021, when Bitmain distributed by way of dividend in kind the shares of Bitdeer to the then existing Bitmain shareholders and Bitdeer and its subsidiaries began to operate on a stand-alone basis.

Separation of the BTC.com Pool Business

In February 2021, Bitdeer established Blockchain Alliance Technologies Holding Company (“Blockchain Alliance”) to separate the BTC.com Pool Business following a corporate reorganization of Bitdeer to effectuate the separation. The separation was consummated on April 15, 2021, when Bitdeer distributed by way of dividend in kind the shares of Blockchain Alliance to the then existing shareholders of Bitdeer.

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Business Combination

On December 15, 2021, Bitdeer entered into an Amended and Restated Agreement and Plan of Merger, which was subsequently amended on May 30, 2022, December 2, 2022 and March 7, 2023 (the “Merger Agreement”), pursuant to which BTG, Bitdeer and BSGA entered into a Business Combination transaction via a multiple-merger structure, where (i) Blue Safari Merge Limited, a British Virgin Islands business company and a wholly-owned subsidiary of BTG merged with and into BSGA, with BSGA being the surviving entity, (ii) BSGA merges with and into Blue Safari Merge II Limited, a British Virgin Islands business company and a wholly-owned subsidiary of BTG, with Blue Safari Merge II Limited being the surviving entity, and (iii) Bitdeer Merge Limited, an exempted company with limited liability incorporated under the laws of Cayman Islands and a direct wholly-owned subsidiary of BTG, merged into and with Bitdeer, with Bitdeer being the surviving company and becoming a wholly-owned subsidiary of BTG.

On April 13, 2023, the Business Combination was completed in accordance with the Merger Agreement. Upon completion of the Business Combination, (i) each ordinary share of BSGA issued and outstanding were cancelled in exchange for one BTG Class A ordinary shares, of which 2,607,498 Class A ordinary shares were issued, (ii) each ordinary share and preferred share of Bitdeer issued and outstanding were cancelled in exchange for BTG Class A ordinary shares, and, in the case of the ordinary share and preferred share of Bitdeer held by Jihan Wu, founder of Bitdeer, or the entity controlled by him, namely Victory Courage Limited, BTG Class V ordinary shares, at an exchange ratio of approximately 0.00858, of which 60,281,185 BTG Class A ordinary shares and 48,399,922 Class V ordinary shares were issued, (iii) each share award to acquire ordinary shares of Bitdeer granted under Bitdeer’s 2021 Share Incentive Plan outstanding, whether vested or unvested, were assumed by BTG and converted into a share award representing the same rights to receive BTG Class A ordinary shares, except that the number of BTG Class A ordinary shares subject to such share awards shall equal to the product of (A) the number of Bitdeer ordinary shares that were subject to such Bitdeer share awards, multiplied by (B) an exchange ratio of approximately 0.00858.

The share capital, other reserve, weighted average number of shares outstanding and loss per share calculations have been retrospectively restated to the equivalent number of shares reflecting the exchange ratio as a result of the Business Combination.

The Business Combination is accounted for as a “reverse recapitalization” in accordance with IFRS as issued by IASB, as defined below. Under this method of accounting, Bitdeer has been identified as the acquirer and BSGA and BTG have been treated as the “acquired” company for financial reporting purposes. This determination was primarily based on the fact that subsequent to the Business Combination, the Bitdeer’s shareholders have a majority of the voting power of the Company, Bitdeer comprises all of the ongoing operations of the combined company, Bitdeer comprises a majority of the governing body of the combined company, and Bitdeer’s senior management comprises all of the senior management of the combined company. As BSGA does not meet the definition of a business as defined in IFRS 3, “Business Combinations”, the transaction is outside the scope of IFRS 3 and is accounted for as an equity settled, share-based payment transaction in accordance with IFRS 2, “Share-based Payment”. Accordingly, for accounting purposes, the Business Combination was treated as the equivalent of Bitdeer issuing ordinary shares at the fair value in order for the ownership interest in the combined entity to be the same as if the transaction had taken the legal form of Bitdeer acquiring 100% of BSGA and BTG, accompanied by a recapitalization. Any difference between the fair value of the ordinary shares deemed to have been issued by Bitdeer and the amount of pre-existing debtor relationship between Bitdeer and BSGA, and the fair value of BSGA’s and BTG’s net liabilities assumed represents a listing fee through profit or loss. No goodwill or other intangible assets was recorded. Operations prior to the Business Combination was those of Bitdeer.

As a result of this reverse recapitalization, a listing fee of US\$33.2 million has been recorded to reflect the difference between the fair value of ordinary shares deemed to be issued to the shareholders of BSGA, the settlement of pre-existing debtor relationship with BSGA, and the fair value of net liabilities of BSGA and BTG assumed. Bitdeer’s transaction-related costs of US\$8.0 million, such as commissions, professional fees and regulatory fees are directly attributable to this transaction were recorded in equity as a deduction of other reserve. Net payment related to Business Combination is US\$7.7 million, which comprises of the transaction-related costs of US\$8.0 million offset against with cash and cash equivalents of US\$0.3 million acquired.

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

The details of the purchase price allocation of the identifiable assets acquired and liabilities assumed are as follows:

	At April 13, 2023
In thousands of USD, except for the closing price of BSGA’s share and the number of ordinary shares information	
Number of outstanding ordinary shares held by BSGA’s shareholders on acquisition date (thousand shares)	2,607
Closing price of BSGA’s ordinary shares on acquisition date (in USD)	10
Fair value of BSGA’s ordinary shares on acquisition date	26,075
Settlement of pre-existing debtor relationship with BSGA*	2,607
Total fair value of consideration transferred	28,682
Fair value of assets acquired and liabilities assumed:	
Cash and cash equivalents	317
Prepayments and other assets	48
Other payables and accruals	(4,834)
Total fair value of assets acquired and liabilities assumed	(4,469)
Excess of fair value of consideration transferred over fair value of assets acquired and liabilities assumed, recognized as listing fee	33,151

* Settlement of pre-existing debtor relationship with BSGA represents lending made to BSGA. See Note 8.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

a. Basis of preparation

The accompanying consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”).

The consolidated historical financial statements comprise the following financial information:

- the combined results of operations of the Bitdeer Business during the period from January 1, 2021 to April 15, 2021 (the “Carve-out Period”), which have been prepared on a carve-out basis; and
- the consolidated financial position of the Group as of December 31, 2023 and 2022 and the consolidated results of operations of the Group for the years ended December 31, 2023, 2022 and for the period from April 16, 2021 to December 31, 2021, which have been prepared on a consolidated basis (together, the “consolidated financial statements”).

Preparing combined historical financial information of Bitdeer Business on a carve-out basis

Pursuant to the Reorganization discussed in Note 1, the Group prepared the combined historical financial information to capture the stand-alone Bitdeer Business, which has historically operated as part of Bitmain during the Carve-out Period. The Group also excluded the results of operations and cash flows of BTC.com Pool Business from its combined historical financial information as a result of the Reorganization. The combined historical financial information has not historically been prepared for the Bitdeer business.

In preparing the combined historical financial information, certain accounting conventions commonly used for the preparation of combined historical financial information have been applied. The term “combined historical financial information” is used when referring to financial information prepared by aggregating financial statements of separate entities or components of groups that fail to meet the definition of a “group” under IFRS 10 *Consolidated financial statements*. A key assumption underlying the preparation of combined historical financial information is that there is a binding element for the economic activities throughout the period presented. The combined historical financial information of the Group has been prepared by aggregating the financial information of the Bitdeer Business that was bound together by common control but was not a legal group. Intra-group transactions and unrealized gains or losses have been eliminated in the preparation of the combined historical financial information.

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The results of operation, changes in cash flow and equity of the Bitdeer Business during the Carve-out Period, included in the consolidated financial statements of the Group, are derived from the historical accounting records of Bitmain on the following basis:

- (i) The combined results of operation of the Bitdeer Business include all revenues and costs directly attributable to the Bitdeer Business. These include certain common operating and administrative expenses incurred by the Bitdeer Business in conjunction with other business operations of Bitmain and BTC, including financial, human resources, office administration and other support functions. These costs have been allocated on a basis considered reasonable by management using either specific identification or proportional allocations based on usage, headcount, or other reasonable methods of allocation. Income tax expense was estimated based on the statutory tax rate, adjusted as appropriate for the effects of known non-taxable and non-deductible items reported in the consolidated statements of operations and comprehensive income / (loss) as described above. However, the combined results of operations of the Bitdeer Business may not reflect the actual costs that would have been incurred and may not be indicative of the Bitdeer Business's combined results of operations and cash flows had it been operating on a separate, stand-alone basis during the period presented.
- (ii) The Bitdeer Business did not comprise a separate legal entity or group of entities during the Carve-out Period. Therefore, it is not meaningful to present share capital or an analysis of reserves. Changes in net assets attributed to the Group are presented separately in the consolidated statement of changes in equity through the line item "deemed contribution from / (distribution to) related parties". Equity transactions reflecting the internal financing between Bitdeer Business, Bitmain and BTC are included in the financing activities, presented as deemed contribution from / (distribution to) related parties, in the consolidated statements of cash flows.

Consolidation

Subsequent to the Carve-out Period, the Group's financial information is prepared on a consolidated basis, for which the consolidation policies are described below.

Subsidiaries are all entities over which the Group has control. The Group controls an entity where the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

Inter-company transactions, balances and unrealized gains on transactions between the Company and its subsidiaries are eliminated. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

b. Basis of accounting

The consolidated financial statements, except for the consolidated statements of cash flows, are prepared on the accrual basis. The measurement basis used is historical cost, except for certain accounts which are measured using the basis mentioned in the relevant notes herein.

The consolidated statements of cash flows are prepared using the indirect method and present the changes in cash from operating, investing, and financing activities.

The consolidated financial statements provide comparative information in respect of the previous period.

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c. Foreign currency translation

Functional and presentation currency

Items included in the consolidated financial statements of each of the Group's subsidiaries are measured using the currency of the primary economic environment in which the subsidiary operates (the "functional currency"). The Group presents its consolidated financial statements in United States Dollars ("USD", "US\$", or "\$").

Transactions and balances

Foreign currency transactions during the year are translated at the foreign exchange rates ruling at the transaction dates. Monetary assets and liabilities denominated in foreign currencies are translated at the foreign exchange rates ruling at the end of the reporting period. Exchange gains and losses are recognized in profit or loss.

Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the foreign exchange rates ruling at the transaction dates. The transaction date is the date on which the Group initially recognizes such non-monetary assets or liabilities.

Foreign currency translation

The results and financial position of foreign operations that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities for each consolidated statement of financial position presented are translated at the closing rate at the date of that balance sheet,
- income and expenses for each consolidated statement of operations and comprehensive income / (loss) are translated at average exchange rates, and
- all resulting exchange differences are recognized in invested capital and reserves.

d. Use of estimates and judgments

The preparation of financial statements in conformity with IFRSs requires management to make judgments, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Judgments made by management in the application of IFRSs that have significant effects on the financial statements and major sources of estimation uncertainty are discussed in Note 3.

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e. Related parties

A party is considered to be related to the Group if:

- (a) the party is a person or a close member of that person's family and that person
 - i) has control or joint control over the Group;
 - ii) has significant influence over the Group; or
 - iii) is a member of the key management personnel of the Group or a parent of the Group;
- (b) the party is an entity where any of the following conditions applies:
 - i) the entity and the Group are members of the same Group;
 - ii) one entity is an associate or joint venture of the other entity (or of a parent, subsidiary or fellow subsidiary of the other entity);
 - iii) the entity and the Group are joint ventures of the same third party;
 - iv) one entity is a joint venture of a third entity and the other entity is an associate of the third entity;
 - v) the entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group;
 - vi) the entity is controlled or jointly controlled by a person identified in (a);
 - vii) a person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity); or
 - viii) the entity, or any member of the Group of which it is a part, provides key management personnel services to the Group or the parent of the Group.

Close members of the family of a person are those family members who may be expected to influence, or be influenced by, that person in their dealings with the entity.

Transactions involving related parties cannot be presumed to be carried out on an arm's-length basis, as the requisite conditions of competitive, free-market dealings may not exist. Representations about transactions with related parties, if made, shall not imply that the related party transactions were consummated on terms equivalent to those that prevail in arm's-length transactions unless such representations can be substantiated.

f. Cash, cash equivalents and restricted cash

Cash and cash equivalents comprise cash in banks and on hand and short-term, highly liquid investments that are readily convertible into known amounts of cash which are subject to an insignificant risk of changes in value and are within three months of maturity at acquisition. Cash and cash equivalents are assessed for expected credit losses. See further discussion regarding expected credit loss in Note 2(u).

The Group is required to hold a defined amount of cash as security under the terms of standby letters of credits arrangement. See further discussion in Note 6.

g. Trade receivables

Trade receivables are recognized when the Group has an unconditional right to receive consideration. A right to receive consideration is unconditional if only the passage of time is required before payment of that consideration is due. Trade receivables are stated at amortized cost, less a loss allowance based on lifetime expected credit losses at each reporting date, except for balances settled in cryptocurrencies, which are subsequently measured at fair value, see Note 2(h). See further discussion regarding expected credit loss in Note 2(u).

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h. Cryptocurrencies

Cryptocurrencies includes USD Coin (“USDC”) and cryptocurrencies other than USDC held in the Group’s cryptocurrency wallets.

USDC

USDC is accounted for as a financial instrument as one USDC can be redeemed for one U.S. dollar on demand from the issuer. USDC, classified as a debt investment, is measured at fair value through profit or loss.

Cryptocurrencies other than USDC

Cryptocurrencies other than USDC are, by their nature, identifiable non-monetary assets that lack physical substance. Future economic benefits attributable to these cryptocurrencies are expected to flow to the Group because these cryptocurrencies can be exchanged for fiat currencies. Furthermore, the cost of the Group’s cryptocurrencies other than USDC can be measured using the quoted price of such cryptocurrencies at the time the fair value is being measured, which the Group considers to be predominantly a Level 1 fair value input under IFRS 13 Fair Value Measurement fair value hierarchy.

The Group accounts for the cryptocurrencies other than USDC as intangible assets with indefinite useful lives in its consolidated statements of financial position because, at the time of assessment, there is no foreseeable limit to the period over which such assets are expected to generate cash flows.

The Group further adopts the cost model to account for cryptocurrencies other than USDC and reviews their useful life and impairment at each reporting date in accordance with IAS 38 *Intangible Assets*. The Group accounts for cryptocurrencies other than USDC at cost. If circumstances indicate that the carrying amount of cryptocurrencies other than USDC may not be recoverable, the assets may be considered impaired, and an impairment loss may be recognized in accordance with the accounting policy for impairment of cryptocurrencies other than USDC as described in Note 2(u).

Gains or losses arising from the disposal of cryptocurrencies other than USDC are determined as the difference between the net disposal proceeds and the carrying amount of the assets. The Group recognizes realized gains or losses on the date of the disposal using the first-in-first-out method of accounting.

Receivables and payables settled in cryptocurrencies

Receivables and payables settled in cryptocurrencies are measured at the fair value of the underlying cryptocurrencies based on their respective quoted prices initially and subsequently on the measurement date. The change in fair value of the underlying cryptocurrencies, are recognized in other operating income / (expenses) on the consolidated statements of operations and comprehensive income / (loss). Receivable settled in cryptocurrencies is further adjusted for expected credit losses. See further discussion regarding expected credit loss from receivables settled in cryptocurrencies in Note 2(u).

Cryptocurrency lending arrangements

The Group enters into arrangements with counterparties to lend cryptocurrencies on an unsecured basis. No collateral is held for the cryptocurrencies lent. Upon lending, the Group derecognizes the cryptocurrencies lent and concurrently recognizes receivables settled in cryptocurrencies which are measured at the fair value of the cryptocurrencies lent based on their respective quoted prices initially and subsequently on the measurement date and adjusted for expected credit losses. Any differences between the carrying amount of the derecognized cryptocurrencies and the initial measurement of the receivables settled in cryptocurrencies, if applicable, and the change in fair value of the cryptocurrencies lent, are recognized in other operating income / (expenses) on the consolidated statements of operations and comprehensive income / (loss). See further discussion regarding credit losses from receivables settled in cryptocurrencies in Note 2(u). Also refer to Note 20 for more information.

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Cryptocurrency-denoted wealth management products

The Group historically purchased two types of wealth management products:

Wealth management product type A

The Group enters into arrangements with the Matrixport Group, a related party, to purchase cryptocurrency-denoted wealth management products which represent units of interest in the underlying cryptocurrency trading account and the value of the units is based on the performance of the trading account managed by the Matrixport Group. The Group derecognizes the cryptocurrencies paid and concurrently recognizes a cryptocurrency receivable which gives rise to a variable return linked to the performance of the underlying trading account. The receivable contains an embedded derivative which is accounted for separately as an asset or liability based on the change in the fair value of the trading account. The cryptocurrency receivable is measured at the fair value of the cryptocurrencies invested based on their respective quoted prices on the measurement date and adjusted for expected credit losses. Any differences between the carrying amount of the derecognized cryptocurrencies and the initial measurement of the receivables settled in cryptocurrencies, if applicable, and the change in fair value of the cryptocurrencies invested, are recognized in other operating income / (expenses) on the consolidated statements of operations and comprehensive income / (loss).

Wealth management product type B

The Group enters into arrangements with the Matrixport Group, a related party, to purchase cryptocurrency-denoted wealth management products which represent variable-interest cryptocurrency deposit at Matrixport Group. The deposit is not protected by any deposit insurance scheme and non-secured, and the Group may lose some or all of the amount deposited in extreme market conditions. Upon withdrawal, the Group receives the same type of cryptocurrency in the same quantity in principle plus additional interest returns. The deposit can be withdrawn on demand and is generally delivered to the Group within 72 hours. The nature of the wealth management product type B is, in essence, a cryptocurrency lending arrangement. Refer to the discussion on the accounting of cryptocurrency lending arrangements above.

See further discussion regarding credit losses from receivables settled in cryptocurrencies in Note 2(u). Also refer to Note 20 for more information.

The Group presents the revenue recognized on the acceptance of cryptocurrencies, which is a non-cash item, as an adjustment to remove the non-cash item for the cash flows from operating activities and the disposals of cryptocurrencies received in revenue arrangements are presented as cash flows from investing activities in the consolidated statements of cash flows. The purchases and disposals of cryptocurrencies associated with investment or lending transactions are presented as investing activities in the consolidated statements of cash flows.

i. Prepaid expenses and other assets

Prepaid expenses represent prepayments made for operational purposes, such as prepaid utility fees and insurance expenses. Prepaid expenses are amortized over their future beneficial periods using the straight-line method or at a point in time upon the Group's receipt of the underlying goods or service.

Other assets primarily consist of deposits paid to various service providers, such as lessors and electricity vendors.

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j. Intangible assets

Intangible assets acquired by the Group are stated at cost less accumulated amortization (where the estimated useful life is finite) and impairment losses.

Amortization of intangible assets with finite useful lives is charged to profit or loss on a straight-line basis over the assets' estimated useful life, which is the period over which an asset is expected to be available for use. The estimates and associated assumptions of useful life determined by the Group are based on technical or commercial obsolescence, legal or contractual limits on the use of the asset, and other relevant factors. The following intangible assets with finite useful lives are amortized from the date they are available for use and their estimated useful lives are as follows:

• Software	3 -10 years
• Patents, trademarks and other rights	3 -5 years

Both the period and method of amortization are reviewed annually.

Intangible assets are not amortized while their useful lives are assessed to be indefinite. Any conclusion that the useful life of an intangible asset is indefinite is reviewed annually to determine whether events and circumstances continue to support the indefinite useful life assessment for that asset. If they do not, the change in the useful life assessment from indefinite to finite is accounted for prospectively from the date of change and in accordance with the policy for amortization of intangible assets with finite lives as set out above.

k. Property, plant and equipment

Property, plant and equipment are measured at cost, less accumulated depreciation and impairment losses, if any.

Property, plant and equipment are recorded at purchase cost. Direct labor and other directly attributable costs incurred to construct new assets and upgrade existing assets are capitalized. Repairs and maintenance expenditures are recognized in the consolidated statements of operations and comprehensive income / (loss) as incurred. Significant renewals and betterments are capitalized.

Property, plant and equipment are depreciated using the straight-line method based on the estimated useful lives of the assets as follows:

• Buildings	15 – 20 years
• Land	Unlimited
• Machinery	3 – 15 years
• Electronic equipment	3 – 10 years
• Leasehold improvements and property improvements	3 – 15 years

Land acquired by the Group has an unlimited useful life and therefore is not depreciated.

The depreciation method, useful life and residual value of an asset are reviewed at least at each financial year-end and adjusted, if appropriate.

When assets are retired or otherwise disposed of, their cost and the related accumulated depreciation are derecognized from the consolidated statements of financial position and the resulting gains or losses on the disposal or sale of the assets are recognized in the consolidated statements of operations and comprehensive income / (loss).

An asset under construction is stated at cost until the construction is completed, at which time it is reclassified to the property, plant and equipment account to which it relates. During the construction period until the asset is ready for its intended use or sale, borrowing costs, which include interest expense and foreign currency exchange differences arising from foreign currency borrowings to the extent that they are regarded as an adjustment to interest expense, are capitalized in proportion to the average amount of accumulated expenditures during the period. Capitalization of borrowing costs ceases when the construction is completed, and the asset is ready for its intended use or sale.

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I. Investment properties

Investment properties are properties owned or leased to earn rental income or for capital appreciation. Investment properties include right-of-use assets relating to properties that meet the definition of investment properties.

Investment properties other than the ones acquired through leases are measured, under the cost model, initially at cost, including transaction costs and subsequently at cost less accumulated depreciation and impairment loss.

Investment properties acquired through leases are initially measured at cost, which comprises the initial measurement of lease liabilities adjusted for lease payments made on or before the commencement date, plus initial direct costs incurred and an estimate of costs needed to restore the underlying assets, less any lease incentives received. These investment properties are subsequently measured at cost less accumulated depreciation and accumulated impairment loss and adjusted for any remeasurement of the lease liabilities.

Depreciation begins when the investment property is available for use and is calculated using a straight-line method to allocate the depreciable amounts over the estimated useful lives as follows:

• Buildings	15 years
• Leasehold land	15 years
• Machinery, fixtures as part of the buildings	3 – 10 years

The residual values, useful lives and depreciation method of investment properties are reviewed at least at each financial year-end and adjusted, if appropriate.

An investment property is derecognized when either it has been disposed of or when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. Any gains or losses on the disposal or retirement of an investment property are recognized in the consolidated statement of operations and comprehensive income / (loss) in the year of disposal or retirement. A transfer to, or from, an investment property is made when, and only when, there is evidence of a change in use.

m. Mining machines

Mining machines refer to the electronic equipment designed for the sole purpose of completing complex mathematical functions to verify transactions on the blockchain. Mining machines are stated at cost less accumulated depreciation and impairment losses, if any. Depreciation is recorded on a straight-line basis over the estimated useful lives. The Group estimates the useful lives primarily based on the historical measures of (i) the period when each mining machine is able to deliver expected performance and (ii) the frequency of technological advancement, which leads to a new generation of mining machines. The Group also estimates the residual value of the mining machines at the expected time of disposal, taking into consideration factors such as make and model. The depreciation method, useful life and residual value of the mining machines are reviewed at least at each financial year-end and adjusted, if appropriate, to ensure that the method and rates of depreciation are consistent with the expected pattern of realization of economic benefits from mining machines. The Group estimated the useful lives of the mining machines to be one to five years.

The Group routinely sells used mining machines to customers. The net carrying values of the associated mining machines were reclassified as inventories when the Group identified such mining machines for sale and were recognized as cost of revenue on the consolidated statements of operations and comprehensive income / (loss) upon the sale. See Note 2(q).

When mining machines are retired, their costs and the related accumulated depreciation are derecognized from the consolidated statements of financial position and the resulting gains or losses on the disposal of the assets are recognized in the consolidated statements of operations and comprehensive income / (loss).

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n. Leases

As a lessee

The Group accounts for leases under IFRS 16 *Leases*. At the inception of a contract, the Group assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

At inception or on a reassessment of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices.

At the lease commencement date, the Group recognizes a right-of-use asset and a lease liability, except for short-term leases that have a lease term of 12 months or less and leases of low-value assets which, for the Group, are primarily vehicles. When the Group enters into a lease in respect of a low-value asset, the Group decides whether to capitalize the lease on a lease-by-lease basis. The lease payments associated with those leases which are not capitalized are recognized as an expense on a systematic basis over the lease term.

Where the lease is capitalized, the lease liability is initially recognized at the present value of the lease payments payable over the lease term, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, using a relevant incremental borrowing rate. After initial recognition, the lease liability is measured at amortized cost and interest expense is calculated using the effective interest method. Variable lease payments linked to the use of an underlying asset are excluded from the measurement of lease liabilities.

The right-of-use asset recognized when a lease is capitalized is initially measured at cost, which comprises the initial amount of the lease liability plus any lease payments made at or before the commencement date, and any initial direct costs incurred. The right-of-use asset is subsequently stated at cost less accumulated depreciation and impairment losses, if any. Right-of-use assets are subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the unexpired term of the lease. The estimated useful lives of right-of-use assets are determined on the same basis as those of property, plant and equipment.

Provisions for the costs to restore leased assets to their original condition, as required by the terms and conditions of the lease, are recognized and included in the related right-of-use asset when the obligation is incurred, either at the commencement date or as a consequence of having used the underlying asset during a particular period of the lease, at the Group's best estimate of the expenditure that would be required to restore the assets. Estimates are regularly reviewed and adjusted as appropriate for new circumstances.

The lease liability is remeasured when there is a change in future lease payments arising from a change in an index or rate, or there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, or there is a change arising from the reassessment of whether the Group will be reasonably certain to exercise a purchase, extension or termination option. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

As a lessor

At the commencement date of the lease, leases in which the Group does not transfer substantially all the risks and rewards incidental to ownership of an asset are classified as operating leases. Rental income arising is accounted for on a straight-line basis over the lease terms and is included in revenue in the consolidated statement of operations and comprehensive income / (loss).

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o. Trade payables and other payables and accruals

Trade payables are obligations to pay for goods and/or services that have been acquired from suppliers in the ordinary course of business. Other payables and accruals primarily represent obligations to pay staff costs, surtaxes and value-added tax, and other operating service providers.

Trade payables and other payables and accruals are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method, except for balances settled in cryptocurrencies, which are subsequently measured at fair value. See Note 2(h).

p. Share-based payments

Employees (including senior executives and members of the board of directors) and certain service providers of the Group receive remuneration in the form of share-based payment transactions, whereby they render services as consideration for equity instruments (“equity-settled transactions”).

The cost of equity-settled transactions is measured by reference to the fair value at the date on which they are granted.

The cost of equity-settled transactions is recognized, together with a corresponding increase in equity, over the period in which the performance and/or service conditions are fulfilled, ending on the date on which the beneficiary becomes fully entitled to the equity-settled transactions (the “vesting date”). The cumulative expense recognized for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Group’s best estimate of the number of equity-settled transactions that will ultimately vest which includes assumptions on the number of equity-settled transactions to be forfeited due to the grantees’ failing to fulfill the service condition, and forfeitures following the non-completion of performance conditions.

When a modification to the equity-settled instruments occurs, the Group measures the incremental fair value to the equity-settled instruments resulting from the modification as the difference between the fair value of the modified equity-settled instrument and that of the original instrument on the modification date. If a modification increases the fair value of the equity-settled instruments, the incremental fair value is recognized as an expense in addition to any amount in respect of the original instrument, and the original amount is recognized over the remainder of the original vesting period. The Group does not recognize the effect of modification which reduces the fair value of the equity-settled instrument.

q. Revenue recognition

The Group’s revenues are derived principally from the cloud hash rate arrangements, the self-mining arrangements, the cloud hosting arrangements, the sales of mining machines, the general hosting arrangements and the membership hosting arrangements.

Revenue is recognized when control over goods or services is transferred to the customer, at the amount of promised consideration to which the Group is expected to be entitled. Revenue excludes value-added tax (“VAT”) or other sales taxes and is after deduction of trade discount, if any.

Revenue is recognized applying the following five steps:

- i) Identify the contract with a customer;
- ii) Identify the performance obligations in the contract;
- iii) Determine the transaction price;
- iv) Allocate the transaction price to the performance obligations in the contract; and
- v) Recognize revenue when (or as) the Group satisfies a performance obligation.

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For arrangements priced at fiat currency, the Group recognizes revenue based on the contract price. For arrangement priced at cryptocurrency, the Group recognizes revenue based on the spot price of the cryptocurrency to fiat currency on the date when it is earned.

When another party is involved in providing services to a customer, the Group is the principal if it controls the specified services before those services are transferred to the customer.

The primary sources of Group's revenues are recognized as follows:

Cloud Hash Rate

The Group enters into Cloud Hash Rate arrangements with its customers by offering hash rate subscription plans to provide computing power in a specified quantity, measured by computing power per second, or hash rate, derived from the mining machines held by the Group, for a specified period of time. The customer also needs to pay for electricity subscriptions, which are billed separately, to maintain the mining machines that produce the subscribed hash rate over the contract period. The Group connects such computing power to a customer-designated mining pool under the instructions of the customer to simplify the customer's mining experiences. As a result of directing the connection of such computing power to the mining pools, the customers are entitled to the mining rewards, which are directly transferred from mining pools to the customer-designated cryptocurrency wallets.

The Group offers a number of different hash rate subscription plans by plan duration and type of cryptocurrency to be mined. The Group offers electricity subscriptions in short durations and a customer needs to purchase electricity subscriptions multiple times to cover the duration of the hash rate subscription plan. The price of the electricity subscription is fixed at the commencement of each electricity subscription period but subject to adjustment from period to period. Both cryptocurrency and fiat currency are accepted as payments under the Cloud Hash Rate arrangements. Furthermore, the hash rate subscription plans are offered under two modes. Under the classic mode, the customer receives all of the mining rewards from the mining pool. Under the accelerator mode, the customer pays a relatively lower computing power subscription fee. In exchange, the Group is entitled to additional consideration once the customer's cost is recovered.

The Group offers two promises under the Cloud Hash Rate arrangement. One is to provide a specified quantity of computing power during a period of time and the other is to provide maintenance services for computing power generation for a period of time. The two promises are highly interrelated and are not separately identifiable because the customers expect to receive the computing power as a combined output from the hash rate subscription plan and the electricity subscription plan. The two promises provide a series of distinct services, which are substantially the same and have the same pattern of transfer to the customer, over a period of time. As a result, the promises are treated as a single performance obligation satisfied over time.

The transaction price of the performance obligation includes the subscription prices for the hash rate subscription plans and the electricity subscription plans. As the price for the electricity subscription plans may change each electricity subscription period, the Group allocates the variable consideration to each electricity subscription period.

The control of the computing power has been transferred to the customers simultaneously as the customers consume the benefits from the computing power. The revenue is recognized over time where the consideration related to the hash rate subscription is recognized evenly over the contract term and the electricity subscription is allocated to and recognized evenly over each electricity subscription period.

For plans under the accelerator mode, besides the aforementioned subscription prices, the transaction price also includes the additional consideration once the customer's cost is recovered. The additional consideration, which is variable, is determined as a percentage of a customer's mining profit derived from the subscribed computing power and constrained until the mining pool operator finishes the calculation of the mining reward related to the mining activity in a given day. The Group includes such additional consideration in the transaction price and recognizes the revenue when the Group can reasonably calculate the amount and determine it is probable a significant reversal will not occur.

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Self-mining

The Group enters into contracts with mining pool operators to provide computing power generated from the Group's own mining machines to the mining pools. The contracts with mining pool operators are terminable at any time by either party. In exchange for providing computing power to the mining pool, the Group is entitled to cryptocurrency rewards from the mining pool operators, which is a variable consideration calculated based on a predetermined formula agreed by the Group and the mining pool operator as a part of the arrangement. The Group can reasonably estimate the amount of mining rewards by the end of a given day based on the actual amount of computing power provided to the mining pool operators. By then, the Group considers it is highly probable that a significant reversal in the amount of revenues will not occur and includes such variable consideration in the transaction price. Providing computing power is an output of the Group's ordinary activities and the only performance obligation in the Group's contracts with mining pool operators. The Group recognizes the revenue when the variable consideration is reasonably estimable and the performance obligation of providing computing power has been satisfied. Although the cryptocurrency rewards the mining pool operators receive from the blockchain networks include both the block rewards and the transaction verification fees, the transaction price the Group receives is an aggregate amount and primarily includes the block rewards. As a result, the Group does not present disaggregated revenue information on block rewards and transaction verification fees.

Cloud Hosting

The Group provides its customers, through subscription of Cloud Hosting orders, one-stop mining machines hosting solution which integrates the provision of computing power generated from specified second-hand mining machines and the provision of maintenance service, primarily including electricity supply and daily maintenance and repair care. The Group charges the customer an upfront fixed amount at the commencement of the Cloud Hosting arrangement for the customer to secure the procurement of the computing power from the specified mining machines, as well as the variable fees for the provision of maintenance service based on the consumption of resources such as electricity throughout the duration of the service. The Group historically only accepts cryptocurrency as payments for services under the Cloud Hosting arrangement.

The Cloud Hosting arrangements are offered under two modes. Under the classic mode, the customer receives all of the mining rewards from the mining pool. Under the accelerator mode, the customer is charged with a lower upfront amount and enjoys a quicker recovery of the costs. In exchange, the Group is entitled to additional consideration once a customer's cost is recovered.

Two promises are offered under the Cloud Hosting arrangements. One is to provide the computing power generated from the specified mining machines and the other is to perform maintenance services over the life of the mining machines. The two promises are not separately identifiable because the customer expects to receive a steady operation of the mining machines specified in the Cloud Hosting order, which is a combined output of the provision of computing power from the specified mining machines and the provision of maintenance service of the specified mining machines. The two promises provide a series of distinct services, which are substantially the same and have the same pattern of transfer to the customer, over a period of time. As a result, the promises are treated as a single performance obligation satisfied over time.

The transaction price of the performance obligation includes an upfront fee paid upon placement of the Cloud Hosting order and periodical maintenance fees. The periodical maintenance fee is variable in each maintenance period based on the electricity consumption. The Group allocates the variable consideration to each distinct maintenance service period.

The revenue is recognized over time where the fixed upfront fee is recognized evenly over the contract term and the periodical maintenance fee is recognized over each respective service period. The contract term approximates to the life of the specified mining machines and is estimated to be two years. The estimated life of these mining machines is reviewed at least at each financial year-end and adjusted if the expectation of the realization of economic benefits from the specified mining machines is different from the previous estimate.

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For plans under the accelerator mode, besides the aforementioned fees, the transaction price also includes the additional consideration once the customer's cost is recovered. The additional consideration, which is variable, is determined as a percentage of a customer's mining profit derived from the computing power of the specified mining machines and constrained until the mining pool operator finishes the calculation of the mining reward related to the mining activity in a given day. The Group includes such additional consideration in the transaction price and recognizes revenues when the Group can reasonably calculate the amount and determine it is probable a significant reversal will not occur. For all the periods presented, no revenue was generated from the additional consideration from Cloud Hosting arrangements offered under the accelerator mode.

Sale of Mining Machines

The Group recognizes revenue from sales of mining machines to customers at the point in time when control of the mining machines is transferred to the customer, which generally occurs upon shipment of the mining machines as defined in the revenue contract. Sale of mining machine is the sole performance obligation in this type of arrangement. The Group accepts both cryptocurrency and fiat currency as payments for sales of mining machines.

General Hosting

The Group provides general hosting services, which is a combined service package including custody of the customers' mining machines, electricity and network maintenance and other services, that enable customers to run blockchain computing operations. The customer is only able to benefit from the hosting service as a package and the Group has a single performance obligation. The hosting service fee is charged to the customer based on the customer's consumption of resources, such as the amount of electricity used in a period. In the arrangement with certain customers, the Group is also entitled to additional variable consideration based on the customer's mining yield during a period. Revenue from the general hosting service is recognized across each service cycle. The Group accepts both cryptocurrency and fiat currency as payments for the hosting services.

Membership Hosting

The Group offers its large-scale miner customers membership hosting services by entering into a series of contracts, which includes a membership program agreement and a management services agreement. These contracts are signed with the same customer at or near the same time, and they are combined and accounted for as a single contract.

Pursuant to the membership program agreement, a customer subscribing the program is entitled to the program benefit of receiving maintenance services within a predetermined capacity measured by energy consumption (i.e., Kilowatts, or KW) (the "hosting capacity"). The Group provides such designated capacity in a leased mining farm and the program subscription period ends when the Group no longer operates the mining farm. In addition, the Group also agrees to provide other program benefits to the customer when such benefits are readily available to the customer during the program term, including, among other things, (i) early, priority and exclusive access to the newly available hosting capacity that is sufficient for large-scale miners, upon a new mining datacenter becomes available and (ii) more favorable pricing terms for the Group's services, such as mining machine management services, than the prevailing price in the local market. The Group charges an upfront fee for the program benefits subscribed.

Pursuant to the management services agreement, the Group provides management services for the customer's mining machines up to the capacity subscribed in the membership program agreement. In exchange for the management services fee, the Group promises to deliver a package of services to provide an infrastructure for the mining machines, such as a premise for the custody of mining machines, and network and utility to support the operation of the mining machines. Unlike the general hosting service where the Group includes in its service package to host or operate the customer's mining machines under the customer's instructions so that the mining machines keep running and remain connected to the customer designated mining pools (the "mining machine operation service"), under the management services agreement, a customer has the discretion to subscribe to the mining machine operation service or choose to operate the mining machines using the customer's own personnel. The Group charges additional fee, at its stand-alone selling price, for the subscription of the Group's mining machine operation service. The management services fee and the mining machine operation fee, as applicable, are charged to the customer monthly based on the customer's consumption of resources, such as the amount of electricity used in a period.

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The Group's promise associated with the membership program agreement is to stand ready to provide services, and the Group's promise associated with the management services agreement is to provide an infrastructure for the mining machines through the set of services provided under the management services agreement. The two promises are not separately identifiable because the customer expects to receive mining machines management services for the mining machines up to the designated capacity, which is a combined output of the program benefit and management services provided by the Group as a package. The two promises provide a series of distinct services that have the same pattern of transfer to the customer over a period of time. As a result, the promises are treated as a single performance obligation satisfied over time. Revenue associated with the upfront fee for the program benefits is recognized over the program subscription period and revenue associated with the management services is recognized over each distinct service period. The promise to provide the mining machine operation service, if subscribed to by a customer, is accounted for as a separate performance obligation and the associated revenue is recognized over each distinct service period at their respective stand-alone selling price. The Group accepts both cryptocurrency and fiat currency as payments for the membership hosting arrangements. The contract term approximates the lease term of the mining datacenter and is estimated to be 13 years. The estimated lease term is adjusted when there is an indication that the Group is reasonably certain to renew or terminate the lease.

Details of revenues for each category are as follows:

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Self-mining	111,683	62,359	191,693
Cloud hash rate			
Hash rate subscription	40,290	77,862	53,952
Electricity subscription	27,419	39,525	35,113
Additional consideration from Cloud Hash Rate arrangements under acceleration mode	172	3,954	35,140
Sales of mining machines	2	705	45,693
Cloud hosting arrangements (2)	3,248	12,723	7,568
General hosting	97,321	99,251	18,312
Membership hosting	79,906	26,056	-
Others (1)	8,513	10,907	7,190
Total revenues	368,554	333,342	394,661

(1) Others include revenue generated primarily from providing technical and human resources service, repairment services of hosted mining machines, lease of investment properties, the sale of mining machine peripherals and the sale of containerized solution product.

(2) The Group did not generate any revenue from the additional consideration from Cloud Hosting arrangements offered under accelerator mode for the years ended December 31, 2023, 2022 and 2021.

Revenue concentration for the years ended December 31, 2023, 2022 and 2021 is as below:

	Years ended December 31,		
	2023	2022	2021
BTC	*	14.94%	44.68%
Customer A	19.05%	20.07%	*

* Less than 10%

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Contract assets and liabilities

A contract asset is recognized when the Group recognizes revenue before being unconditionally entitled to the consideration under the payment terms set out in the contract. Contract assets are assessed for expected credit losses and are reclassified to receivables when the right to the consideration has become unconditional. As of December 31, 2023 and 2022, the Group did not have any contract assets.

A contract liability is recognized when the customer pays consideration for goods or services before the Group recognizes the related revenue. A contract liability would also be recognized if the Group has an unconditional right to receive non-refundable consideration before the Group recognizes the related revenue. In such cases, a corresponding receivable would also be recognized. As of December 31, 2023 and 2022, the Group had contract liabilities, presented as deferred revenue on the consolidated statements of financial position, of approximately US\$144.3 million and US\$182.3 million. Approximately US\$54.2 million, US\$102.3 million and US\$11.1 million, included in the deferred revenue balance at January 1, 2023, 2022 and 2021, respectively, was recognized as revenue during the years ended December 31, 2023, 2022 and 2021.

r. Cost of revenue

Cost of revenue consists primarily of electricity expenses incurred for operating the Group's mining machines in its revenue-generating activities, depreciation expense from the mining machines and datacenters hosting those mining machines, costs of mining machines sold to customers, and compensation expenses incurred by mining datacenter personnel.

s. Taxes

Income tax

Current and deferred income taxes are recognized as income or expense and included in the consolidated statements of operations and comprehensive income / (loss), except to the extent that the income tax relates to items recognized in comprehensive income / (loss) or directly in equity, in which case the relevant amounts of tax are recognized in comprehensive income / (loss) or directly in equity, respectively.

Current income tax assets and liabilities are measured at the amounts expected to be recovered or paid by using the tax rates and tax laws that have been enacted or substantively enacted at each reporting date. Management periodically evaluates positions taken in the tax reporting process with respect to situations in which applicable tax regulation is subject to interpretation. Where appropriate, management establishes provisions based on the amounts expected to be paid to the tax authorities.

Deferred tax

Deferred tax assets and liabilities arise from deductible and taxable temporary differences respectively, being the differences between the carrying amounts of assets and liabilities for financial reporting purposes and their tax bases. Deferred tax assets also arise from unused tax losses and unused tax credits.

Apart from the temporary differences arising from goodwill not deductible for tax purposes, all deferred tax liabilities, and all deferred tax assets to the extent that it is probable that future taxable profits will be available against which the asset can be utilized, are recognized. Deferred tax assets and liabilities are measured using enacted or substantively enacted tax rates and tax laws at each reporting date which are expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced if it is no longer probable that sufficient taxable profit will be available to compensate part or all of the benefits of deferred tax assets. Unrecognized deferred tax assets are re-assessed at each reporting date and recognized if it is probable that future taxable profits will be available for recovery. Tax deductions arising from the reversal of deferred tax assets are excluded from estimates of future taxable income.

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Deferred taxes on transactions which are recognized outside profit or loss are recognized outside profit or loss. Therefore, deferred taxes on these transactions are recognized either in comprehensive income / (loss) or recognized directly in equity.

Deferred tax assets and liabilities are offset in the consolidated statements of financial position, if and only if it has a legally enforceable right to set off current tax assets and liabilities and the deferred tax assets and liabilities relate to income taxes levied by the same Tax Authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

Uncertainty over income tax treatments

The Group determines the recognition and measurement of tax assets and liabilities that contain uncertainty over income tax by considering the assumptions used in the examination of tax treatments by the tax authorities, the probability that the tax authorities will accept uncertain tax treatment and re-consideration or estimation if there is a change in facts and circumstances.

If the acceptance of tax treatment is probable, the measurement is in line with income tax fillings. If the acceptance of tax treatment is not probable, the Group uses tax amounts using the method that provides a better prediction of resolution (i.e., most likely amount or expected value). Due to the complexity of some of these uncertainties, their ultimate resolution may result in payments that are materially different from current estimates. Any such differences will be reflected as adjustments to income tax expenses in the periods in which they are determined.

t. Financial instruments

Financial assets

The Group classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through other comprehensive income, or through profit or loss), and
- those to be measured at amortized cost.

The classification depends on the Group's business model for managing the financial assets and the contractual cash flow characteristics.

Purchases and sales of financial assets are recognized on trade-date, the date on which the Group commits to purchase or sell the assets. Financial assets are derecognized when the rights to receive cash flows from the assets have expired or the Group has transferred substantially all the risks and rewards of ownership of the assets.

At initial recognition, the Group measures a financial asset at its fair value, plus in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss.

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Debt instruments

Initial recognition and subsequent measurement of debt instruments depend on the Group's business model for managing the asset and the contractual cash flow characteristics of the asset, and the Group reclassifies debt investments only when its business model for managing those assets changes. There are three categories into which the Group classifies its debt instruments:

- **Amortized cost:** Financial assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are classified as and measured at amortized cost. A gain or loss on a debt investment measured at amortized cost which is not part of a hedging relationship is recognized in profit or loss when the asset is derecognized or impaired. Interest income from these financial assets is recognized using the effective interest rate method.
- **Fair value through other comprehensive income:** Financial assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are classified as and measured at fair value through other comprehensive income. Movements in the carrying amount of these financial assets are taken through other comprehensive income, except for the recognition of impairment losses or reversals, interest income and foreign exchange gains and losses which are recognized in profit or loss. When the financial asset is derecognized, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss. Interest income from these financial assets is recognized using the effective interest rate method.
- **Fair value through profit or loss:** Financial assets that do not meet the criteria for amortized cost or fair value through other comprehensive income are classified as and measured at fair value through profit or loss. A gain or loss on a debt investment measured at fair value through profit or loss which is not part of a hedging relationship is recognized in profit or loss for the period in which it arises.

Equity instruments

The Group subsequently measures all equity investments at fair value through profit or loss or other comprehensive income. For investments in equity instruments that are not held for trading, this will depend on whether the Group has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income. Dividends from such investments continue to be recognized in profit or loss when the Group's right to receive payments is established.

- Changes in the fair value of financial assets at fair value through profit or loss are recognized in profit or loss as applicable.

Financial liabilities

The Group's financial liabilities are classified and measured at amortized cost using the effective interest method.

Financial liabilities are derecognized when, and only when, the Group's obligations are discharged, cancelled or expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

A substantial modification of the terms of an existing financial liability or a part of it is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. The terms are substantially different if the discounted present value of the cash flows under the new terms, calculated using the original effective interest rate, is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability. If the modification does not result in extinguishment, the modification gain or loss, measured to be the difference between the original gross carrying value of the financial liability and that calculated using the new contractual cash flows using the original effective interest rate is recognized immediately in profit or loss.

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Financial assets and financial liabilities are offset, and the net amount is reported in the statement of financial position if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the assets and settle the liabilities simultaneously.

Convertible debt

As disclosed in Note 14, in 2021, the Group issued a convertible debt that can be converted into ordinary shares of the Group at the option of the holder. The number of shares to be issued is fixed and does not vary with changes in fair value. The Group accounts for the components of this compound financial instrument separately as a financial liability and an equity instrument. The liability component of the convertible debt is initially recognized at the fair value of a similar liability that does not have an equity conversion option. The equity component is initially recognized at the difference between the fair value of the convertible debt as a whole and the fair value of the liability component. Any directly attributable transaction costs are allocated to the liability and equity components in proportion to their initial carrying amounts. Subsequent to initial recognition, the liability component of the convertible debt is measured at amortized cost using the effective interest method. The equity component is not remeasured.

Interest related to the financial liability is recognized in profit or loss. Upon conversion, the financial liability is reclassified to equity and no gain or loss will be recognized.

u. Credit losses and impairment of assets

(i) Credit losses from financial instruments at amortized cost

The Group recognizes a loss allowance for expected credit losses (“ECL”) on financial assets, such as cash and cash equivalents, restricted cash and trade receivables, which are measured at amortized cost;

Measurement of ECLs

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all expected cash shortfalls (i.e., the difference between the cash flows due to the Group in accordance with the contract and the cash flows that the Group expects to receive). The expected cash shortfalls are discounted using the following discount rates where the effect of discounting is material:

- fixed-rate financial assets, trade and other receivables: effective interest rate determined at initial recognition or an approximation thereof;
- variable-rate financial assets: current effective interest rate.

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

In measuring ECLs, the Group takes into account reasonable and supportable information that is available without undue cost or effort. This includes information about past events, current conditions and forecasts of future economic conditions.

ECLs are measured on either of the following bases:

- 12-month ECLs: these are losses that are expected to result from possible default events within the 12 months after the reporting date; and
- lifetime ECLs: these are losses that are expected to result from all possible default events over the expected lives of the items to which the ECL model applies.

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Loss allowances for trade receivables are always measured at an amount equal to lifetime ECLs. ECL on this type of financial asset is estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors and an assessment of both the current and forecast general economic conditions at the reporting date.

For all other financial instruments, the Group recognizes a loss allowance equal to 12-month ECLs unless there has been a significant increase in the credit risk of the financial instrument since initial recognition, in which case the loss allowance is measured at an amount equal to lifetime ECLs.

Significant increases in credit risk

In assessing whether the credit risk of a financial instrument has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument assessed at the reporting date with that assessed at the date of initial recognition. In making this reassessment, the Group considers that a default event occurs when the borrower is unlikely to pay its credit obligations to the Group in full and without recourse. The Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:

- failure to make payments of principal or interest on their contractually due dates;
- an actual or expected significant deterioration in a financial instrument's external or internal credit rating (if available);
- an actual or expected significant deterioration in the operating results of the debtor; and
- existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

Depending on the nature of the financial instruments, the assessment of a significant increase in credit risk is performed on either an individual basis or a collective basis. When the assessment is performed on a collective basis, the financial instruments are grouped based on shared credit risk characteristics, such as past-due status and credit risk ratings.

ECLs are remeasured at each reporting date to reflect changes in the financial instrument's credit risk since initial recognition. Any change in the ECL amount is recognized as an impairment gain or loss in profit or loss.

The Group recognizes an impairment gain or loss for all financial instruments with a corresponding adjustment to their carrying amount through a loss allowance account.

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Impairment and write-off policy

At each reporting date, the Group assesses whether a financial asset is credit-impaired. A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable events:

- significant financial difficulties of the debtor;
- a breach of contract, such as a default or delinquency in interest or principal payments;
- is becoming probable that the borrower will enter into bankruptcy or other financial reorganization;
- significant changes in the technological, market, economic or legal environment that have an adverse effect on the debtor; or
- the disappearance of an active market for a security because of financial difficulties of the issuer.

The gross carrying amount of a financial asset is written off (either partially or in full) to the extent that there is no realistic prospect of recovery. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off.

Subsequent recoveries of an asset that was previously written off are recognized as a reversal of impairment in profit or loss in the period in which the recovery occurs.

(ii) Credit losses from receivables settled in cryptocurrencies

The Group recognizes an allowance for receivables settled in cryptocurrencies using the general expected credit losses model in manner a similar to the model and consideration used for assessing credit losses from financial instruments discussed above. Under this model, the Group calculates the allowance for credit losses by considering on a discounted basis, all expected shortfalls which are the difference between the quantity of cryptocurrency due to the Group in accordance with the contract and the quantity of cryptocurrency that the Group expects to receive, in various default scenarios for prescribed future periods and multiplying the shortfalls by the probability of each scenario occurring. The allowance on the financial asset is the sum of these probability-weighted outcomes.

The Group considers both internal and external, and quantitative and qualitative factors when estimating ECL for receivables settled in cryptocurrencies such as the creditworthiness of the counterparty, the result of the historical transactions with the counterparty, the business practice of the counterparty, regulatory development relating to the industry, liquidity of the underlying cryptocurrency, and the trend of the general economy.

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The Group recognizes an impairment gain or loss for expected credit losses from receivables settled in cryptocurrencies with a corresponding adjustment to their carrying amount through a loss allowance account. Subsequent recoveries of receivables settled in cryptocurrencies previously written off are recognized as a reversal of impairment in profit or loss in the period in which the recovery occurs.

No allowance, write-offs or recoveries were recognized against the receivables settled in cryptocurrencies for the years ended December 31, 2023, 2022 and 2021.

(iii) Impairment of other assets

Internal and external sources of information are reviewed at the end of each reporting period to identify indications that the following assets may be impaired or, an impairment loss previously recognized no longer exists or may have decreased:

- property, plant and equipment;
- lease right-of-use assets;
- investment properties;
- intangible assets; and
- cryptocurrencies other than USDC.

If any such indication exists, the asset's recoverable amount is estimated. In addition, for cryptocurrencies other than USDC, the recoverable amount is estimated at each reporting date whether or not there is any indication of impairment.

- Calculation of recoverable amount

The recoverable amount of an asset is the greater of its fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Where an asset does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the smallest group of assets that generates cash inflows independently (i.e., a cash-generating unit).

The recoverable amount of cryptocurrencies other than USDC is based on the fair value less costs of disposal. The fair value of these cryptocurrencies is measured using the quoted price of these cryptocurrencies at the time the fair value is being measured.

- Recognition of impairment losses

An impairment loss is recognized in profit or loss if the carrying amount of an asset, or the cash-generating unit to which it belongs, exceeds its recoverable amount. Impairment losses recognized in respect of cash-generating units are allocated first to reduce the carrying amount of any goodwill (if any) allocated to the cash-generating unit (or group of units) and then, to reduce the carrying amount of the other assets in the unit (or group of units) on a pro-rata basis, except that the carrying value of an asset will not be reduced below its individual fair value less costs of disposal (if measurable) or value in use (if determinable).

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- Reversals of impairment losses

An impairment loss is reversed if there has been a favorable change in the estimates used to determine the recoverable amount.

A reversal of an impairment loss is limited to the asset's carrying amount that would have been determined had no impairment loss been recognized in prior years. Reversals of impairment losses are credited to profit or loss in the year in which the reversals are recognized.

v. Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. The timing or amount of the outflow may still be uncertain. Provisions are measured using the best estimate of the expenditure required to settle the present obligation at the end of the reporting period, taking into account risks and uncertainties associated with the obligation. Provisions are discounted where the time value of money is considered material.

w. Segment information

Operating segments are identified on the basis of internal reports about components of the Group that are regularly reviewed by the chief operating decision maker in order to allocate resources to the segments and to assess their performances.

An operating segment is a component of an entity:

- that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to the transactions with other components of the same entity);
- whose operating results are reviewed regularly by the entity's chief operating decision maker to make decisions about resources to be allocated to the segments and assess its performance; and
- for which discrete financial information is available.

The chief operating decision maker makes resource allocation decisions based on internal management functions and assesses the Group's business performance as one integrated business instead of by separate business lines or geographical regions. Accordingly, the Group has only one operating segment and therefore, no segment information is presented.

Disaggregated revenue data by geographical region in terms of the customer's location within the operating segment is as follows:

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Singapore	25,007	27,591	79,537
Asia, excluding Singapore	95,832	136,901	211,805
North America	239,064	141,174	75,559
Europe	6,346	19,075	15,487
Others	2,305	8,601	12,273
Total	368,554	333,342	394,661

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Selected assets of mining machines, property, plant and equipment, investment properties, right-of-use assets and intangible assets by geographical region within the operating segment is as follows:

In thousands of USD	At December 31,	
	2023	2022
Singapore	54,442	46,306
Asia, excluding Singapore	63,180	-
North America	148,021	170,439
Europe	50,443	45,540
Total	316,086	262,285

x. Earnings per share

Basic earnings per share is computed by dividing the income attributable to equity shareholders of the Group by the weighted average number of ordinary shares outstanding during the period.

Diluted earnings per share is computed by dividing the income attributable to equity shareholders of the Group by the weighted average number of ordinary shares outstanding during the period, after adjusting for the effects of the dilutive potential ordinary shares.

y. Asset acquisition

Asset acquisitions are acquisitions that do not qualify as business combinations under IFRS 3. IFRS 3 allows the use of an optional concentration test to determine if an acquisition is a business combination or an asset acquisition. Under the optional concentration test, if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets, the test is met, and the integrated asset of assets and activities acquired is not a business.

Assets acquired in an asset acquisition are initially recognized, at the date of acquisition, at cost. Costs directly attributable to the acquisition of such assets are included in the initial carrying amount.

z. Initial application of new or amended standards during the reporting periods

As from January 1, 2023, the Group adopted the following recently issued or amended standards. These new standards are not expected to have any significant impact on the Group's financial statements:

Standard/Interpretation	Application Date of Standard	Application Date for the Group
IFRS 17, Insurance Contracts and Amendments to Address Concerns and Implementation Challenges	January 1, 2023	January 1, 2023
Amendments to IFRS 4, Expiry Date of the Deferral Approach	January 1, 2023	January 1, 2023
Amendments to IAS 1, Making Materiality Judgement	January 1, 2023	January 1, 2023
Amendments to IAS 1 and IFRS Practice Statement 2, Disclosure of Accounting Policies	January 1, 2023	January 1, 2023
Amendments to IAS 8, Definition of Accounting Estimates	January 1, 2023	January 1, 2023
Amendments to IAS 12, Deferred Tax related to Assets and Liabilities arising from a Single Transaction	January 1, 2023	January 1, 2023
Initial Application of IFRS 17 and IFRS 9—Comparative Information	January 1, 2023	January 1, 2023

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aa. New standards and interpretations not yet adopted

Up to the date of issue of these financial statements, the IASB has issued a number of amendments, which are not yet effective for the year ended December 31, 2023 and which have not been adopted in these financial statements.

Standard/Interpretation	Application Date for the Group
Amendments to IAS 1, Classification of Liabilities as Current or Non-current and Disclosure of Accounting Policies	January 1, 2024
Amendments to IAS 1, Classification of Debt with Covenants	January 1, 2024
Amendments to IFRS 16, Subsequent Measurement of Sale and Leaseback Transactions by a Seller-lessee	January 1, 2024
Amendments to IAS 7 and IFRS 7, Supplier Finance Arrangements	January 1, 2024
IFRS S1, General Requirements for Disclosure of Sustainability-related Financial Information	January 1, 2024
IFRS S2, Climate-related Disclosures	January 1, 2024
Amendments to IAS 21, Lack of Exchangeability	January 1, 2025

The Group is in the process of making an assessment of what the impact of these new and amended standards and interpretations would be in the period of initial application. So far, the Group has concluded that the adoption of these standards and interpretations is unlikely to have a significant impact on the Group's financial position but will have disclosure impacts.

3. USE OF JUDGMENTS AND ESTIMATES

Estimates and judgments are continuously evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates may not be equal to the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

Revenue from the self-mining business

There is currently no specific definitive guidance in IFRS or alternative accounting frameworks for the accounting for the revenue from the self-mining business. The Group's management has exercised significant judgment in determining appropriate accounting treatment for the recognition of revenue from the self-mining business. Management has examined various factors surrounding the substance of the Group's operations, such as the reliability of the measurement of the cryptocurrencies received.

Income taxes

Income tax expense, deferred tax assets and liabilities, and reserves for uncertain tax positions reflect management's best assessment of estimated future taxes to be paid. The Group is subject to income taxes in Singapore and numerous other jurisdictions. Significant judgments and estimates are required in determining the income tax expense.

In determining the current income tax provision, management assesses temporary differences resulting from differing treatments of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are recorded in the consolidated statements of financial position. When management assesses deductible temporary differences, including those originating from tax losses carried forward, management must assess the probability that these will be recovered through adjustments to future taxable income. To the extent the management believes recovery is not probable, no deferred tax asset is recognized.

Forecasting future income requires the use of a significant amount of judgment. In estimating future income, management uses internal operating budgets and long-range planning projections. Management develops its budgets and long-range projections based on recent results, trends and economic and industry forecasts influencing the Group's performance. Significant changes in management's judgment related to the expected realizability of deductible temporary differences result in an adjustment to the associated deferred tax asset.

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The calculation of income tax expense involves dealing with uncertainties in the application of complex tax laws and regulations in numerous jurisdictions in which the Group operates. Management recognizes tax benefits related to uncertain tax positions when, in management's judgment, it is more likely than not that such positions will be sustained on examination, including resolutions of any related appeals or litigation, based on the technical merits. Management adjusts liabilities for uncertain tax positions when its judgment changes as a result of new information previously unavailable. Due to the complexity of some of these uncertainties, their ultimate resolution may result in payments that are materially different from current estimates. Any such differences will be reflected as adjustments to income tax expenses in the periods in which they are determined.

Share-based payments

The determination of the fair value of the Group's ordinary shares and the share awards involves significant judgment and estimates. The Group determined the fair value of the share awards using the Binomial option valuation model. Estimates such as stock price, volatility of the Group's ordinary shares, risk-free interest rate, exercise multiple and the expected dividend yield were used in the valuation model.

During the period from January 1, 2023 to April 13, 2023 and the years ended December 31, 2022 and 2021, the Group determined the fair value of the Group's ordinary shares, or the stock price, used in the determination of the fair value of the share awards, using the discounted cash flow model. Estimates such as the Group's stage of development, financial condition and operating results, general market conditions and the discount for lack of marketability of the Group's ordinary shares were used in the valuation model.

After April 13, 2023, the Group determined the fair value of the Group's ordinary shares, or the stock price, used in the determination of the fair value of the share awards, using the market approach based on the closing price of the Group on the grant date.

The fair value of the Group's ordinary shares and the share awards were determined by the Group with the assistance of an independent third-party valuation firm.

Fair value of financial asset at fair value through profit or loss

Fair value measurements are categorized into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety. The type and level of judgment required is dependent on the amount of observable market-based data available to the Group. For financial assets valued using valuation models and techniques that use significant unobservable inputs and are therefore classified within level 3 of the fair value hierarchy, judgments used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2.

In determining the estimate of fair value for an instrument within level 3, the management firstly determines the appropriate and reasonable valuation model and technique to use. Second, the lack of availability of market-based data requires management to assess relevant empirical data in deriving valuation inputs with significant judgements and assumption. Details of the significant unobservable inputs used in the level 3 valuation are presented in Note 4.

Estimation of unobservable market inputs or other factors can affect the amount of gain or loss recorded in the reporting period and the amount of the position as at year end. The Group believes the estimates applied to be based on reasonable assumptions, but which are inherently uncertain. As a result, actual results may differ from the assumptions and judgments used to determine fair value of the financial instruments acquired. Changes in these estimates and assumptions and valuation model or techniques may have a material effect on the Group's financial condition and results of operations.

Assessment of the asset acquisition

The acquisition of Asia Freeport Holdings Pte., Ltd. was assessed as an asset acquisition by applying the optional concentration test described in Note 2(y). Management applied judgment in identifying the assets acquired, their relative fair value, and if the "substantially all" criterion has been met, based on the previous elements.

To apply the optional concentration test, the Group estimated the fair value of investment properties at the closing date using the discounted cash flow model under the income approach with the assistance of an independent valuation specialist. The key input to the model used for determining the value of the investment properties include the operation projection and the discount rate, which is 7.75%.

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4. FINANCIAL RISK MANAGEMENT AND FAIR VALUES OF FINANCIAL INSTRUMENTS

Financial risk factors

The Group is exposed to various market risks including cryptocurrency risk, interest rate risk, investment risk and foreign currency risk, as well as credit risk and liquidity risk associated with financial assets and liabilities. The Group has designed and implemented various risk management strategies, discussed further below, to ensure the exposure to these risks is consistent with its risk tolerance and business objectives.

a. Market risk

i. Cryptocurrency risk

The Group is exposed to cryptocurrency risk as it yields cryptocurrencies from certain revenue arrangements. The Group recognizes revenue based on the spot fair value of cryptocurrencies on the day they are earned, but the value of the cryptocurrencies is subject to change on the date they are disposed of for fiat currency.

Cryptocurrency prices are affected by various forces including global supply and demand, interest rates, exchange rates, inflation or deflation and the global political and economic conditions. The profitability of the Group is highly correlated to the current and future market price of cryptocurrencies and a decline in the market prices for cryptocurrencies could negatively impact the Group's future operations. In addition, the Group may not be able to liquidate its holdings of cryptocurrencies at its desired price if required, or, in extreme market conditions, the Group may not be able to liquidate its holdings of cryptocurrencies at all.

Cryptocurrencies have a limited history, and the fair value of cryptocurrencies has been very volatile. The historical performance of cryptocurrencies is not indicative of their future price performance. The cryptocurrencies involved in the Group's operation are currently primarily based on Bitcoin and USDT. The Group currently does not use any derivative contracts to hedge its exposure to cryptocurrency risk, but management closely monitors the impact of the mainstream cryptocurrency exchange market on the change of exchange rates from cryptocurrency to fiat currency. The Group limits its exposure to the cryptocurrency risk by including in its operation strategy to dispose of the cryptocurrencies for fiat currency shortly after they are earned unless the cryptocurrencies need to be retained for daily operation.

ii. Interest rate risk

The Group's interest rate risk is primarily attributable to bank deposits, restricted cash and borrowings. Bank deposits, restricted cash and borrowings at variable rates and fixed rates expose the Group to cash flow interest rate risk and fair value interest rate risk respectively. Management closely monitors the fluctuation of such rates periodically.

iii. Investment risk

The Group is exposed to investment risk from investment transactions such as the purchase of cryptocurrency-denoted wealth management products and investment in financial assets at fair value through profit or loss. These investments are not principal-guaranteed, and the Group may suffer material loss from such investments. The Group monitors its investments closely and limits its exposure to the investment risk by including in its operation strategy the requirements to, with regard to the purchase of cryptocurrency-denoted wealth management products, invest only in robust wealth management products and the investments need to be redeemed within the same fiscal quarter, and, with regard to the investment in financial assets at fair value through profit or loss, perform due diligence on the prospect investees to evaluate the business soundness before making an investment, and communicate regularly with the investee, review management report and the latest financial statements, if any, to evaluate the stage of investment and whether any action should be taken regarding the investment.

iv. Foreign currency risk

The Group is exposed to foreign currency risk as it conducts transactions which give rise to payables and cash balances that are denominated in foreign currencies and the fair value or future cash flows of the Group's financial instrument may fluctuate due to movement in foreign exchange rates of these foreign currencies. The volatility of exchange rates depends on many factors that the Group is not able to accurately forecast. Management is closely monitoring the Group's exposure to currency risk and seeks to minimize its exposure to such risk. The Group was not exposed to material foreign currency risk during the years ended December 31, 2023, 2022 and 2021.

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b. Credit risk

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in a financial loss to the Group. Credit risk arises mainly from cash deposited in the banks and cryptocurrencies held in custody, trade receivables, cryptocurrency lending transactions and cryptocurrency-denoted wealth management product purchases.

Cash deposited in the banks

To manage risk arising from cash, cash equivalents and restricted cash, the Group only transacts with reputable financial institutions. There has been no recent history of default in relation to these financial institutions.

Cryptocurrencies held in custody

For the years ended December 31, 2023, 2022 and 2021, substantially all of the Group's cryptocurrencies are stored in wallets held in the custody of Matrix Finance and Technologies Holding Company ("Matrixport Group"), a related party. To limit exposure to credit risk relating to cryptocurrencies under custody, the Group evaluates the system security design of the custody service provider and regularly reviews the exposure of cryptocurrencies held in custody. The Group has further implemented internal controls to ensure the appropriate access to the cryptocurrencies under custody and adopted the operating strategy of disposing of the cryptocurrency for fiat currency shortly after they are earned. The Group expects that there is no significant credit risk from non-performance by Matrixport Group.

However, Bitcoin and other blockchain-based cryptocurrencies have been, and may in the future be, subject to security breaches, cyberattacks, or other malicious activities. A successful security breach or cyberattack could result in a partial or total loss of the Group's cryptocurrencies and such a loss could have a material adverse effect on the Group's financial condition and results of operations.

Trade receivables

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, the Group also considers the factors that may influence the credit risk of the customer base, including the customers' financial condition.

The Group has a receivables management process that facilitates initial and ongoing analysis of customer creditworthiness individually. This analysis comprises payment frequency and timeliness, payment method and payment amount. For customers with relatively short history, the Group limits its exposure to credit risk by collecting deposits from these customers, which will be used to offset against outstanding trade receivables in case of default.

Cryptocurrency lending transactions and cryptocurrency-denoted wealth management product purchases

The Group also has credit exposure to cryptocurrency lending transactions and cryptocurrency-denoted wealth management product purchases. The Group assesses such credit risk both at contract inception and each quarter or in shorter interval by considering the past collection experience and any indications that the corresponding amount may not be fully collected. To manage such exposure, the Group continuously monitors the relevant factors, such as the liquidity of the underlying cryptocurrencies, negative report related to the counterparty, and deals only with creditworthy counterparties and includes in its operation strategy that the lending needs to be collected, and the wealth management products need to be redeemed within the same fiscal quarter. The Group historically only conducts such transactions with the Matrixport Group and the Group did not conduct such transaction in the year ended December 31, 2023. The Group had never experienced credit losses and has no existing exposures to such credit risk as of each end date of the consolidated statement of financial position. Consequently, credit exposure to these transactions is not considered material.

c. Liquidity risk

Liquidity risk arises in situations where the Group has difficulties in fulfilling financial liabilities when they become due.

Prudent liquidity risk management implies maintaining sufficient cash in order to meet the Group's financial obligations. The Group manages its liquidity risk by monitoring cash flow generated from operations and available borrowing capacity, and by managing the maturity profiles of its long-term loans.

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The following is the maturity profile of the Group's financial liabilities based on contractual undiscounted payments:

In thousands of USD	At December 31, 2023					Carrying amount at December 31
	Within 1 year or on-demand	More than 1 year but less than 2 years	More than 2 years but less than 5 years	More than 5 years	Total	
Trade payables	32,484	-	-	-	32,484	32,484
Other payables and accruals	32,151	-	-	-	32,151	32,151
Amount due to a related party	33	-	-	-	33	33
Borrowings	-	23,000	-	-	23,000	22,618
Lease liabilities	7,835	7,787	22,217	48,862	86,701	70,211
	<u>72,503</u>	<u>30,787</u>	<u>22,217</u>	<u>48,862</u>	<u>174,369</u>	<u>157,497</u>

In thousands of USD	At December 31, 2022					Carrying amount at December 31
	Within 1 year or on-demand	More than 1 year but less than 2 years	More than 2 years but less than 5 years	More than 5 years	Total	
Trade payables	15,768	-	-	-	15,768	15,768
Other payables and accruals	22,176	-	-	-	22,176	22,176
Amount due to a related party	316	-	-	-	316	316
Borrowings	29,805	-	-	-	29,805	29,805
Lease liabilities	7,471	6,967	20,290	53,347	88,075	70,425
	<u>75,536</u>	<u>6,967</u>	<u>20,290</u>	<u>53,347</u>	<u>156,140</u>	<u>138,490</u>

Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair values are estimated at a specific point in time, by discounting expected cash flows at rates for assets and liabilities of the same remaining maturities and conditions. These estimates are subjective in nature and involve uncertainties and significant judgment, and therefore, cannot be determined with precision. Changes in assumptions could significantly affect the estimates.

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation techniques:

- Level 1 valuation: unadjusted quoted prices in active markets for identical assets or liabilities at the measurement date.
- Level 2 valuation: inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly.
- Level 3 valuation: fair value measured using significant unobservable inputs.

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

As of December 31, 2023 and 2022, except for the investments in financial assets at fair value through profit or loss, cryptocurrency-settled receivables and payables, and USDC, substantially all of the Group's financial assets and financial liabilities are carried at amortized costs and the carrying amounts approximate their fair values.

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The fair value of financial instruments traded in active markets is determined with reference to quoted market prices at the end of the reporting period. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. These instruments are included in level 1.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required for evaluating the fair value of a financial instrument are observable, the instrument is included in level 2. If one or more of the significant inputs are not based on observable market data, the instrument is included in level 3.

For the years ended December 31, 2022 and 2021, the fair value of the cryptocurrencies lent or invested is measured on a recurring basis at quoted price at the time the fair value of the underlying cryptocurrencies is being measured, which the Group considers to be a Level 1 fair value input. The fair value of the embedded derivative relating to the wealth management product is measured on a recurring basis by taking the net asset value provided by the counterparty, which the Group considers to be a Level 2 fair value input. The Group did not enter into such transactions in the year ended December 31, 2023.

The Group's finance department performs valuations of financial instruments. The finance department reports directly to the chief financial officer and discusses valuation processes and results with the chief financial officer in order to comply with the Group's accounting and reporting requirements.

The valuation procedures applied include consideration of recent transactions in the same security or financial instrument, recent financing of the investee companies, economic and market conditions, current and projected financial performance of the investee companies, and the investee companies' management team as well as potential future strategies to realize the investments. Certain information used in the valuation procedures is obtained through the assistance of independent third-party valuation firm.

The fair value measurement hierarchy for the Group's financial instruments measured at fair value is as follows:

In thousands of USD	Valuation technique(s) and key input	December 31, 2023	Level 1	Level 2	Level 3
USDC	Quoted price	35	35	-	-
Investment A, B, D and E in unlisted equity instrument	Net asset value	23,375	-	-	23,375
Investment F in unlisted equity instrument	Recent transaction price	400	-	-	400
Investment C in unlisted equity instrument	Market calibration method	10,000	-	-	10,000
Investment G in unlisted debt instrument	Net asset value	1,000	-	-	1,000
Investment H in unlisted debt instrument	Recent transaction price	3,000	-	-	3,000

In thousands of USD	Valuation technique(s) and key input	December 31, 2022	Level 1	Level 2	Level 3
USDC	Quoted price	89	89	-	-
Investment A, B and D in unlisted equity instrument	Net asset value	18,348	-	-	18,348
Investment C and E in unlisted equity instrument	Recent transaction price	11,500	-	-	11,500
Investment G in unlisted debt instrument	Net asset value	31,111	-	-	31,111

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For the years ended December 31, 2023, 2022 and 2021, there was no transfer between levels. Transfers between levels of the fair value hierarchy, if any, are deemed to occur at the end of each reporting period.

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Unlisted equity instruments and debt instruments at fair value through profit or loss measured using significant unobservable inputs:			
At January 1,	60,959	1,250	-
Additions	4,400	61,550	1,250
Disposals	(31,111)	(1,213)	-
Net gain on disposal of financial assets at fair value through profit or loss	-	213	-
Net fair value changes recognized in profit or loss	3,527	(841)	-
At December 31,	37,775	60,959	1,250

5. ASSET ACQUISITION

On June 17, 2022, the Group entered into a sale and purchase agreement with Worldwide VGS B.V. and Yves Charles Edgar Bouvier, the ultimate beneficial owner of Worldwide VGS B.V., pursuant to which the Group agreed to purchase the 100% equity interest of Asia Freeport Holdings Pte., Ltd. and its subsidiaries (collectively, “AFH”), which was previously controlled by Worldwide VGS B.V., and the sculpture “Cage Sans Frontieres” created by Ron Arad, which was previously owned by Yves Charles Edgar Bouvier. The acquisition was closed on July 1, 2022.

As the sculpture was placed in an investment property building owned by AFH and cannot be removed or used separately without incurring significant costs, the sculpture is considered attached to the building of AFH. In addition, because Yves Charles Edgar Bouvier is the ultimate beneficial owner of Worldwide VGS B.V., the acquisition of AFH and the sculpture is treated as a single transaction. AFH is based in Singapore and conducts business in providing leases to customers. This transaction has been accounted for as an asset acquisition as the optional concentration test under IFRS 3 has been met.

The total purchase consideration of approximately US\$27 million consisted of cash payment of approximately US\$6 million and settlement of liabilities in the amount of approximately US\$21 million. The Group has measured the group of assets and liabilities acquired based on their fair value at the date of the transaction and allocated the purchase consideration of the group of assets and liabilities to the individual identifiable assets and liabilities acquired on the basis of their relative fair value at the date of purchase.

Details of the net identifiable assets acquired, and purchase consideration are as follows:

Net identifiable assets	At July 1,
In thousands of USD	2022
Investment properties	34,986
Other assets	529
Other liabilities	8,727
Net identifiable assets	26,788
Purchase consideration	At July 1,
In thousands of USD	2022
Cash consideration paid	5,187
Liabilities settled	21,107
Transaction costs	494
Total consideration	26,788

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6. CASH, CASH EQUIVALENTS AND RESTRICTED CASH

The breakdown of cash and cash equivalents is as follows:

In thousands of USD	At December 31,	
	2023	2022
US dollar	137,917	211,253
Singapore dollar	2,991	2,234
Chinese renminbi	585	2,484
Norwegian krone	2,487	12,589
Euro	701	2,791
Hongkong dollar	7	11
Bhutan ngultrum	41	-
Total cash and cash equivalents by currency	144,729	231,362
Restricted cash	9,538	11,494
Total restricted cash	9,538	11,494

As of December 31, 2023 and 2022, the Group owned short-term deposits, which were classified as cash equivalents, in an amount of approximately US\$12 million with maturities in January 2024 and US\$37 million with maturities ranging from January to February 2023, and interest ranging from 2.40% to 4.80% and 0.6% to 4.2%, respectively.

The Group's restricted cash primarily relates to the application of standby letters of credit. The Group has applied a total of three standby letters of credits ("SLCs") from the Signature Bank and CTBC Bank associated with property leased and electricity service subscribed. In April 2023, the SLC from the Signature Bank was cancelled and replaced by the deposit to the property lease holder. The SLCs provide the beneficiaries, which are the service providers, the ability to draw from the banks for a designated maximum aggregate amount (the "Draw Amount"). The details of SLCs are as follows:

	At December 31,	
	2023	2022
Draw Amount (In thousands of USD)	9,538	11,477
Range of expiration dates	July 2024 to August 2024	July 2023 to June 2025

The amount and expiration dates of the SLCs are amended, from time to time, by the Group and beneficiaries, as a result of the amendments to the associated service agreements. In connection with the issuance of the SLCs, the banks held the Group's cash balance equal to the Draw Amount as security. As of December 31, 2023 and 2022, none was utilized by the beneficiaries from the standby letters of credits.

7. CRYPTOCURRENCIES

As of December 31, 2023 and 2022, the Group's cryptocurrencies consist of the following:

In thousands of USD	At December 31,	
	2023	2022
Cryptocurrencies other than USDC	15,336	2,086
USDC	35	89
Total cryptocurrencies	15,371	2,175

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The details of cryptocurrencies are as follows:

In thousands of USD	At December 31,		
	2023	2022	2021
Cost:			
Beginning balances	2,179	6,697	9,656
Additions	310,265	865,333	655,028
Cryptocurrencies paid on behalf of related parties ⁽¹⁾	-	-	(24,852)
Disposals	(297,067)	(569,854)	(562,894)
Loan to a third party ⁽²⁾	-	-	(10,222)
Purchase of cryptocurrency-denoted wealth management product from a related party ⁽⁴⁾	-	(149,972)	(30,004)
Loan to a related party ⁽³⁾	-	(150,025)	(30,015)
Ending balances	<u>15,377</u>	<u>2,179</u>	<u>6,697</u>
Impairment:			
Beginning balances	(4)	(510)	(74)
Additions	(2)	-	(436)
Disposals	-	506	-
Ending balances	<u>(6)</u>	<u>(4)</u>	<u>(510)</u>
Net book value:			
Beginning balances	<u>2,175</u>	<u>6,187</u>	<u>9,582</u>
Ending balances	<u><u>15,371</u></u>	<u><u>2,175</u></u>	<u><u>6,187</u></u>

The supplemental information of cryptocurrencies other than USDC is as follows:

In thousands of USD	At December 31,		
	2023	2022	2021
Cost:			
Beginning balances	2,090	6,598	9,601
Additions	302,621	586,117	575,730
Cryptocurrencies other than USDC paid on behalf of related parties ⁽¹⁾	-	-	(24,852)
Disposals	(289,369)	(425,649)	(513,655)
Loan to a third party ⁽²⁾	-	-	(10,222)
Purchase of cryptocurrency-denoted wealth management product from a related party ⁽⁴⁾	-	(149,972)	(30,004)
Loan to a related party ⁽³⁾	-	(15,004)	-
Ending balances	<u>15,342</u>	<u>2,090</u>	<u>6,598</u>
Impairment:			
Beginning balances	(4)	(510)	(74)
Additions	(2)	-	(436)
Disposals	-	506	-
Ending balances	<u>(6)</u>	<u>(4)</u>	<u>(510)</u>
Net book value:			
Beginning balances	<u>2,086</u>	<u>6,088</u>	<u>9,527</u>
Ending balances	<u><u>15,336</u></u>	<u><u>2,086</u></u>	<u><u>6,088</u></u>

- (1) Cryptocurrencies or cryptocurrencies other than USDC paid on behalf of related parties represent the net effect of cryptocurrencies or cryptocurrencies other than USDC transferred through the wallets held by the Group relating to transactions arising from Bitmain and BTC's businesses during the Carve-out Period.
- (2) Represent an unsecured, interest-free cryptocurrency loan the Group made to a third party. The lending was collected in full as of December 31, 2021. The Group recorded approximately US\$3,735,000 loss on change in fair value of cryptocurrency-settled receivable for the year ended December 31, 2021.
- (3) Represent cryptocurrency loans made to the Matrixport Group, a related party. All loans were fully collected as of December 31, 2022 and 2021 and the collections are included in the additions of cryptocurrencies above. Also see Note 20.
- (4) Represent cryptocurrency-denoted wealth management products purchased from the Matrixport Group, a related party. All such wealth management products were fully redeemed as of December 31, 2022 and 2021, respectively, and the redemptions are included in the additions of cryptocurrencies above during the respective periods. Also see Note 20.

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The management's estimates of impairment provision of cryptocurrencies other than USDC are made based on the current market prices of cryptocurrencies as of each balance sheet date. Fluctuations in the market price of cryptocurrencies after the balance sheet date is not considered in determining the provision for impairment of cryptocurrencies other than USDC.

8. PREPAYMENTS AND OTHER ASSETS

The breakdown of prepayments and other assets is as follows:

In thousands of USD	At December 31,	
	2023	2022
Prepayments to suppliers	35,219	9,664
Deposits (1)	54,304	26,577
Deductible input value-added tax	3,425	757
Prepayments of income tax	15	18,459
Receivable from a third party (2)	-	2,546
Others	4,470	1,573
Total	97,433	59,576

(1) The Group pays deposits to certain electricity service providers. In order to minimize the deposit paid to the electricity supplier, in April 2023, Bitdeer Inc., a subsidiary of the Group, has entered into a guaranty agreement with one of the electricity suppliers to act as a guarantor to provide the assurance for the payment obligation of another subsidiary of the Group in connection with electricity service subscribed. The total liability of the guarantor is limited to the lesser of the guaranteed obligations under all agreements or US\$13 million in each case.

(2) Represent balance due from Blue Safari Acquisition Corp. ("BSGA"), a special purpose acquisition company who has signed a merger agreement with the Group. Associated with the anticipated merger, the Group agreed to lend BSGA an aggregate principal amount of US\$1.99 million in two tranches and additional US\$2.58 million in four tranches to fund any and all amounts required to extend the period of time BSGA has to complete the merger for up to two times for an additional three-month period each time. The lending bears no interest and is repayable only at the closing of the merger by BSGA. The merger was closed in April 2023 and the receivable was settled upon the completion of the merger. See Note 1.

During the years ended December 31, 2023, 2022 and 2021, the Group did not recognize any allowance for expected credit losses or impairment for prepayments and other assets.

9. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

The breakdown of financial asset at fair value through profit or loss is as follows:

In thousands of USD	At December 31,	
	2023	2022
Investments in unlisted equity instruments		
- Investment A	1,000	1,000
- Investment B	1,000	1,000
- Investment C	10,000	10,000
- Investment D – investment in a limited partnership set up by Matrixport Group (1)	19,875	16,348
- Investment E	1,500	1,500
- Investment F	400	-
Investments in unlisted debt instruments		
- Investment G	1,000	31,111
- Investment H	3,000	-
Total	37,775	60,959

(1) See Note 20.

The above investments in unlisted debt and equity instruments at December 31, 2023 and 2022 were investments in funds and privately-held enterprises. These financial assets at fair value through profit or loss are measured at fair value using Levels 3 inputs. Refer to Note 4 for more information. The Group does not have control or significant influence over the privately-held enterprises.

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10. MINING MACHINES

The details of mining machines are as follows:

In thousands of USD	Mining Machines
Cost:	
At January 1, 2021	129,246
Additions	31,645
Disposals	(37,998)
Exchange adjustments	243
At December 31, 2021	123,136
Accumulated depreciation:	
At January 1, 2021	(64,446)
Charge for the year	(43,857)
Disposals	32,005
Exchange adjustments	(263)
At December 31, 2021	(76,561)
Impairment:	
At January 1, 2021	-
Additions ⁽¹⁾	(106)
At December 31, 2021	(106)
Net book value:	
At December 31, 2021	46,469
Cost:	
At January 1, 2022	123,136
Additions	12,016
Disposals	(12,949)
At December 31, 2022	122,203
Accumulated depreciation:	
At January 1, 2022	(76,561)
Charge for the year	(29,281)
Disposals	11,443
At December 31, 2022	(94,399)
Impairment:	
At January 1, 2022	(106)
Disposal	5
At December 31, 2022	(101)
Net book value:	
At December 31, 2022	27,703
Cost:	
At January 1, 2023	122,203
Additions	63,041
Disposals	(16,731)
At December 31, 2023	168,513
Accumulated depreciation:	
At January 1, 2023	(94,399)
Charge for the year	(25,663)
Disposals	15,127
At December 31, 2023	(104,935)
Impairment:	
At January 1, 2023	(101)
Disposal	-
At December 31, 2023	(101)
Net book value:	
At December 31, 2023	63,477

(1) Included in the cost of revenue

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11. PROPERTY, PLANT AND EQUIPMENT

The details of property, plant and equipment are as follows:

In thousands of USD	<u>Construction in progress</u>	<u>Building</u>	<u>Land</u>	<u>Machinery</u>	<u>Electronic equipment</u>	<u>Leasehold improvements and property improvements</u>	<u>Others</u>	<u>Total</u>
Cost:								
At January 1, 2021	3,373	22,563	484	9,143	2,042	28,926	1,996	68,527
Additions	59,524	886	-	479	3,228	-	1,329	65,446
Construction in progress transferred in	(27,097)	-	-	6,133	936	19,646	382	-
Disposals	(2,211)	-	-	(21)	(871)	(147)	(185)	(3,435)
At December 31, 2021	<u>33,589</u>	<u>23,449</u>	<u>484</u>	<u>15,734</u>	<u>5,335</u>	<u>48,425</u>	<u>3,522</u>	<u>130,538</u>
Accumulated depreciation:								
At January 1, 2021	-	(1,288)	-	(1,193)	(703)	(10,418)	(556)	(14,158)
Charge for the year	-	(1,100)	-	(1,235)	(793)	(10,805)	(501)	(14,434)
Disposals	-	-	-	1	462	112	96	671
At December 31, 2021	<u>-</u>	<u>(2,388)</u>	<u>-</u>	<u>(2,427)</u>	<u>(1,034)</u>	<u>(21,111)</u>	<u>(961)</u>	<u>(27,921)</u>
Impairment:								
At January 1, 2021	(2,211)	-	-	-	-	-	-	(2,211)
Disposals	2,211	-	-	-	-	-	-	2,211
At December 31, 2021	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Net book value:								
At December 31, 2021	<u>33,589</u>	<u>21,061</u>	<u>484</u>	<u>13,307</u>	<u>4,301</u>	<u>27,314</u>	<u>2,561</u>	<u>102,617</u>
Cost:								
At January 1, 2022	33,589	23,449	484	15,734	5,335	48,425	3,522	130,538
Additions	54,107	-	-	1,228	4,681	2,431	4,295	66,742
Additions related to asset acquisition (See Note 5)	-	-	-	-	1	-	14	15
Construction in progress transferred in	(71,184)	-	-	16,132	794	53,661	597	-
Disposals	-	-	-	(222)	(187)	-	-	(409)
At December 31, 2022	<u>16,512</u>	<u>23,449</u>	<u>484</u>	<u>32,872</u>	<u>10,624</u>	<u>104,517</u>	<u>8,428</u>	<u>196,886</u>
Accumulated depreciation:								
At January 1, 2022	-	(2,388)	-	(2,427)	(1,034)	(21,111)	(961)	(27,921)
Charge for the year	-	(1,137)	-	(4,392)	(1,532)	(21,892)	(1,485)	(30,438)
Disposals	-	-	-	16	93	-	-	109
At December 31, 2022	<u>-</u>	<u>(3,525)</u>	<u>-</u>	<u>(6,803)</u>	<u>(2,473)</u>	<u>(43,003)</u>	<u>(2,446)</u>	<u>(58,250)</u>
Net book value:								
At December 31, 2022	<u>16,512</u>	<u>19,924</u>	<u>484</u>	<u>26,069</u>	<u>8,151</u>	<u>61,514</u>	<u>5,982</u>	<u>138,636</u>
Cost:								
At January 1, 2023	16,512	23,449	484	32,872	10,624	104,517	8,428	196,886
Additions	49,421	-	1,574	459	3,789	876	88	56,207
Construction in progress transferred in	(35,838)	3,915	-	15,476	909	12,424	3,114	-
Disposals	-	-	-	(69)	(36)	(9)	(50)	(164)
At December 31, 2023	<u>30,095</u>	<u>27,364</u>	<u>2,058</u>	<u>48,738</u>	<u>15,286</u>	<u>117,808</u>	<u>11,580</u>	<u>252,929</u>
Accumulated depreciation:								
At January 1, 2023	-	(3,525)	-	(6,803)	(2,473)	(43,003)	(2,446)	(58,250)
Charge for the year	-	(1,106)	-	(6,678)	(1,994)	(27,978)	(2,143)	(39,899)
Disposals	-	-	-	19	18	3	40	80
At December 31, 2023	<u>-</u>	<u>(4,631)</u>	<u>-</u>	<u>(13,462)</u>	<u>(4,449)</u>	<u>(70,978)</u>	<u>(4,549)</u>	<u>(98,069)</u>
Net book value:								
At December 31, 2023	<u>30,095</u>	<u>22,733</u>	<u>2,058</u>	<u>35,276</u>	<u>10,837</u>	<u>46,830</u>	<u>7,031</u>	<u>154,860</u>

Construction in progress primarily represents the construction of mining datacenters.

The Group had entered into contractual commitments, which was not recognized in payables, for the acquisition of property, plant and equipment amounting to approximately US\$7.5 million and US\$5.4 million as of December 31, 2023 and 2022, respectively.

For the period from January 1, 2021 to January 26, 2021, approximately US\$0.02 million of depreciation expense was allocated to Bitmain and included in changes in invested capital.

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12. INVESTMENT PROPERTIES

The details of investment properties are as follows:

In thousands of USD	<u>Leasehold land</u>	<u>Building</u>	<u>Others</u>	<u>Total</u>
Cost:				
At July 1, 2022 *	-	-	-	-
Acquisition of assets	4,833	29,773	380	34,986
Additions	730	-	-	730
Exchange adjustments	183	906	14	1,103
At December 31, 2022	<u>5,746</u>	<u>30,679</u>	<u>394</u>	<u>36,819</u>
Accumulated depreciation:				
At January 1, 2022	-	-	-	-
Charge for the year	(192)	(1,019)	(26)	(1,237)
Exchange adjustments	(7)	(32)	(1)	(40)
At December 31, 2022	<u>(199)</u>	<u>(1,051)</u>	<u>(27)</u>	<u>(1,277)</u>
Net book value:				
At December 31, 2022	<u>5,547</u>	<u>29,628</u>	<u>367</u>	<u>35,542</u>
Cost:				
At January 1, 2023	5,746	30,679	394	36,819
Additions	82	224	701	1,007
Exchange adjustments	87	370	6	463
At December 31, 2023	<u>5,915</u>	<u>31,273</u>	<u>1,101</u>	<u>38,289</u>
Accumulated depreciation:				
At January 1, 2023	(199)	(1,051)	(27)	(1,277)
Charge for the year	(390)	(2,104)	(107)	(2,601)
Exchange adjustments	(12)	(50)	(3)	(65)
At December 31, 2023	<u>(601)</u>	<u>(3,205)</u>	<u>(137)</u>	<u>(3,943)</u>
Net book value:				
At December 31, 2023	<u>5,314</u>	<u>28,068</u>	<u>964</u>	<u>34,346</u>

* The investment properties were acquired from the acquisition of AFH, which was closed on July 1, 2022. See Note 5

Leasehold land included in investment properties were right-of-use assets associated with leasehold land under operating leases where the building was constructed on. See Note 13.

The Group leases the investment properties to its customers under operating leases for terms ranging from one to 12 years, with an option to extend for an additional lease term. The lease contracts contain market review clauses in the event that the lessees exercise their options to extend. The lessees do not have bargain purchase options to acquire the investment properties at the expiry of the lease term.

The maturity analysis of lease payments receivable under operating leases of investment properties was as follows:

In thousands of USD	<u>At December 31, 2023</u>
2024	3,858
2025	3,396
2026	2,766
2027	1,791
2028	1,769
Thereafter	3,560
Total	<u><u>17,140</u></u>

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The Group has no restrictions on the use of its investment properties and no contractual obligations to each investment property purchased or for repairs, maintenance and enhancements.

The fair value of investment properties of the Group as of December 31, 2023 and 2022 was approximately US\$36.4 million and US\$36.2 million, respectively, determined using the income approach based on the operation projection and the discount rate with the assistance of an independent valuation specialist. The investment properties were classified as Level 3 in the fair value hierarchy.

The Group did not record any impairment related to investment properties as of December 31, 2023 and 2022.

13. LEASES

The Group occupies most of its office premises and certain mining datacenter under lease arrangements, which generally have an initial lease term between one and a half years to 30 years. Lease contracts are typically made for fixed periods but may have extension options. The Group accounts for lease and non-lease components separately, where the non-lease component is charged to expenses as they incur. Any extension options in these leases have not been included in the lease liabilities unless the Group is reasonably certain to exercise the extension option. In addition, periods after termination options are only included in the lease term if the lease is reasonably certain not to be terminated. The Group does not have an option to purchase these leased assets at the expiration of the lease periods.

The consolidated statements of financial position show the following amounts relating to the right-of-use assets:

In thousands of USD	At December 31,	
	2023	2022
Right-of-use assets		
- Land and buildings	58,626	60,082
Investment properties		
- Leasehold land	5,314	5,547

Addition to the right-of-use assets and investment properties of leasehold land, including the increase in the right-of-use assets and investment properties of leasehold land as a result of lease modification, for the years ended December 31, 2023, 2022 and 2021 was approximately US\$5.1 million, US\$7.3 million and US\$47.2 million, respectively. In addition, approximately US\$4.8 million of investment properties of leasehold land for the years ended December 31, 2022 was acquired as a result of the acquisition of AFH (See Note 5), the balance of the underlying right-of-use asset was included in investment properties. See Note 12.

The Group has an obligation to complete the site restoration of its leased land held by AFH in Singapore in relation to the Group's acquisition of AFH in July 2022 (See Note 5). The provision for the site restoration is updated annually.

The following table represents the movement of the restoration provision:

In thousands of USD	
Restoration provision at December 31, 2021	-
Recognition through asset acquisition	1,343
Change in provision	-
Restoration provision at December 31, 2022	1,343
Change in provision	-
Exchange adjustments	20
Restoration provision at December 31, 2023	1,363

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The consolidated statements of financial position show the following amounts relating to the lease liabilities:

In thousands of USD	At December 31,	
	2023	2022
Lease liabilities mature within 12 months	5,288	4,973
Lease liabilities mature over 12 months	64,923	65,452
Total lease liabilities *	70,211	70,425

* Lease liabilities in amount of approximately US\$4.6 million and US\$4.7 million was related to the leasehold land included in the investment properties as of December 31, 2023 and 2022, respectively. See Note 12.

Amounts recognized in profit or loss:

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Depreciation expense of right-of-use assets	6,624	5,371	4,636
Gain on lease modification	-	-	(205)
Interest expense *	2,605	2,425	1,217
Expenses relating to variable payment leases	224	639	610
Expenses relating to short-term leases	286	527	351
Total	9,739	8,962	6,609

* The interest expense includes the amount related to the leasehold land included in the investment properties for the years ended December 31, 2023, 2022 and 2021 of approximately US\$0.2 million, US\$0.1 million and nil, respectively. See Note 12.

The total cash outflow for leases, including the capital element of lease rentals paid and interests paid on leases for the years ended December 31, 2023, 2022 and 2021 was approximately US\$7.8 million, US\$6.3 million and US\$5.4 million, respectively.

14. BORROWINGS

Borrowings consist of the following:

In thousands of USD	At December 31	
	2023	2022
Convertible debt (1)	22,618	29,805
Total	22,618	29,805

(1) The Group issued a US\$30 million promissory note on July 23, 2021. The promissory note is non-secured, bears an annual interest rate of 8%, matures on July 23, 2023 and provides the holder an option to convert all or any portion of the note into the ordinary shares of Bitdeer at US\$0.0632 per share at any time from the issuance of the note to the second anniversary of the date of issuance. Approximately US\$683,000 was recognized as an equity component. In July 2023, the Group repaid US\$7 million in principal and amended the promissory note to extend the maturity of the promissory note to July 21, 2025. In addition, to reflect the reverse recapitalization effectuated in April 2023 as disclosed in Note 1, the shares the promissory note is convertible into was changed from the ordinary shares of Bitdeer to the Class A ordinary shares of the Group, and the per-share conversion price was adjusted to US\$7.3660 from US\$0.0632. The extension of the maturity date is accounted for as a debt modification, and a gain from modification of approximately US\$481,000 was recognized in earnings. The unamortized discount as of December 31, 2023 and 2022 was approximately US\$382,000 and US\$195,000, respectively.

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15. OTHER PAYABLES AND ACCRUALS

Other payables and accruals consist of the following:

In thousands of USD	At December 31,	
	2023	2022
Payables for surtaxes	9,952	8,928
Accrued operating expenses	9,732	5,539
Payables for staff-related costs	2,554	2,182
Deposits from hosting customers	8,114	2,911
Restoration provision for leasehold land	1,363	1,343
Others	436	1,273
Total	32,151	22,176

Except for the deposits from hosting customers, which are repayable to customers based on their respective contractual arrangements, and restoration provision for leasehold land, which is repayable upon the expiration of the lease, all other payables and accruals are expected to be settled within one year or are repayable on demand.

16. EXPENSES BY NATURE AND OTHER INCOME AND EXPENSES ITEMS

(a) Expenses by nature

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Staff cost			
- salaries, wages and other benefits	52,873	50,132	37,730
Share-based payments	45,488	90,648	88,355
Amortization			
- intangible assets	754	97	146
Depreciation			
- mining machines	25,663	29,281	43,857
- property, plant and equipment	39,899	30,438	14,416
- investment properties	2,601	1,237	-
- right-of-use assets	6,624	5,371	4,636
Electricity cost in operating mining machines	180,565	139,469	58,447
Cost of mining machines sold	4	1,002	5,978
Consulting service fee	9,757	6,797	8,787
Tax and surcharge	5,442	3,355	2,202
Advertising expenses	1,383	737	880
Office expenses	3,987	3,124	2,219
Research and development technical service fees	2,854	1,313	1,964
Expenses of low-value consumables	2,557	4,025	1,662
Expenses of variable payment lease	224	639	610
Expenses of short-term leases	286	527	351
Impairment loss of mining machines	-	-	106
Logistic expenses	557	3,060	1,391
Travel expenses	2,843	3,202	1,393
Insurance fee	2,427	3,446	983
Others	8,191	12,756	4,826
Total cost of revenue, selling, general and administrative and research and development expenses	394,979	390,656	280,939

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(b) Other operating income / (expenses)

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Net gain / (losses) on disposal of cryptocurrencies	2,061	(3,131)	18,725
Impairment loss of cryptocurrencies	(2)	-	(436)
Change in fair value of cryptocurrency-settled receivables and payables	3,305	-	(3,735)
Net loss on disposal of mining machine	(1,573)	(497)	(36)
Others	-	-	107
Total	3,791	(3,628)	14,625

(c) Other net gain

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Gain on extinguishment of debt	-	-	880
Net gain / (losses) on disposal of property, plant and equipment and intangible assets	(11)	662	56
Government grants	48	42	35
Changes in fair value of financial asset at fair value through profit or loss	3,527	(841)	-
Net gain on disposal of financial assets at fair value through profit or loss	-	213	-
Impairment loss of a pre-matured investment ⁽¹⁾	-	-	(2,025)
Net gain on settlement of balances with Bitmain	-	-	4,468
Gain on convertible debt modification	481	-	-
Others	(507)	281	(931)
Total	3,538	357	2,483

(1) The Group signed a project investment agreement with a third party in April 2021 and made a payment of approximately \$2 million. The project was later forfeited, and the Group is actively collecting the paid amount, which was impaired as of June 30, 2021 based on management's estimate over the likelihood of collection at current stage.

(d) Finance income / (expenses)

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Interest on lease liabilities	(2,605)	(2,425)	(1,217)
Cryptocurrency transaction service fee	(233)	(159)	(109)
Loss on foreign currency transactions	(1,016)	(2,881)	(226)
Interest income	7,953	4,291	2,947
Interest expenses on bank loan	-	-	(3)
Interest expense on convertible debt	(2,476)	(2,778)	(1,223)
Others	(347)	(229)	(110)
Total	1,276	(4,181)	59

17. SHARE-BASED PAYMENTS

In July 2021, the Board of Directors of Bitdeer approved the adoption of the 2021 Share Incentive Plan (the "2021 Plan"). Bitdeer granted a total of 1,097,852,000 share awards (before the effects of reverse recapitalization) in two batches in August and November 2021 in the year ended December 31, 2021, a total of 139,690,400 share awards (before the effects of reverse recapitalization) in four batches in January, April, July and October 2022 in the year ended December 31, 2022, and a total of 46,805,600 share awards (before the effects of reverse recapitalization) in two batches in January and April 2023, to the designated recipients under the 2021 Plan. Each share award grants an option for the recipient to purchase one share of Bitdeer's ordinary shares at an exercise price of US\$0.03 per share (before the effects of reverse recapitalization). The majority of the share awards vest from two to seven years and certain share awards vest immediately upon issuance. The recipient shall continue to provide services to the Group by each vesting date. All share awards granted expire on July 20, 2031.

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In March 2023, the Board of Directors of BTG approved the 2023 Share Incentive Plan (the “2023 Plan”), which was effective upon the completion of the Business Combination on April 13, 2023. Under the 2023 Plan, the Group is able to issue up to an aggregate of 21,877,912 Class A ordinary shares to the designated recipients. BTG granted a total of 1,256,122 shares awards in two batches in July and October 2023 to the designated recipients under the 2023 Plan. Each share award grants an option for the recipient to purchase one share of the Group’s ordinary shares at exercise prices ranging from US\$3.50 to US\$11.49 per share. The majority of the share awards vest from four to six years and certain share awards vest immediately upon issuance. The recipient shall continue to provide services to the Group by each vesting date. All share awards granted expire on the tenth anniversary from the date of grant.

Upon completion of the Business Combination, the share awards granted under 2021 Plan of Bitdeer were assumed by BTG and converted into the share awards under the 2023 Plan at an exchange ratio of approximately 0.00858 with rounded down to the nearest whole share, and the exercise price of the Bitdeer share awards was also adjusted at an exchange ratio of approximately 0.00858. Also see Note 1. In April 2023, the Group modified the expiration date of all outstanding share awards to be the tenth anniversary from the date of grant. The modification had no impact to the overall financial presentation.

In June 2023, the Board of Directors of BTG approved the 2023 Performance Share Plan (the “2023 Performance Plan”), which was effective in October 2023. Under the 2023 Performance Plan, the Group is able to issue up to an aggregate of 1,112,886 Class A ordinary shares to the designated recipients. The number of Class A ordinary shares available for issuance under the 2023 Performance Plan could be subsequently adjusted to be no more than 11,128,861 based on the Group’s market capitalization as set forth in the 2023 Performance Plan. The Group did not issue any award under the 2023 Performance Plan for the year ended December 31, 2023.

The following table illustrates the number of shares and weighted average exercise prices of, and movements in, share awards. For retrospective presentation, the number of Bitdeer’s share awards have been scaled by the exchange ratio of approximately 0.00858 for periods prior to the completion of the Business Combination on April 13, 2023.

	Number of options (‘000)	Average exercise price per share award (US\$)	Average fair value per share award (US\$)
As at January 1, 2021	-	-	-
Granted	9,419	3.50	26.16
As at December 31, 2021	9,419	3.50	26.16
Granted	1,198	3.50	18.34
Forfeited	(219)	3.50	25.68
As at December 31, 2022	10,398	3.50	25.27
Granted	1,658	4.58	8.15
Exercised ⁽¹⁾	(118)	3.50	19.23
Forfeited	(194)	3.68	17.96
As at December 31, 2023	11,744	3.65	23.04
Vested and exercisable at December 31, 2023	5,460	3.50	23.96

(1) The total proceeds received from the exercised shares under the 2023 plan during the year ended December 31, 2023 was approximately US\$412,000.

The expense recognized for share awards during the year ended December 31, 2023, 2022 and 2021 was approximately US\$45.5 million, US\$90.6 million and US\$88.4 million. The breakdown is as follows:

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Cost of revenue	4,722	10,050	10,424
General and administrative expenses	23,797	48,850	54,458
Research and development expenses	13,377	24,258	18,246
Selling expenses	3,592	7,490	5,227
Total	45,488	90,648	88,355

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The fair value of the share awards is estimated at the grant date using the binomial model with the assistance of an independent valuation specialist. The following table provides the inputs range to the model used for determining the value of the grant for the years ended December 31, 2023, 2022 and 2021:

	Years ended December 31,		
	2023	2022	2021
Dividend yield (%)	-	-	-
Expected volatility (%)	118% - 124%	120% - 128%	130.19% - 130.23%
Risk-free interest rate (%)	3.81% - 4.59%	1.618% - 3.886%	1.24% - 1.57%
Exercise multiple	2.20 - 2.80	2.20 - 2.80	2.20 - 2.80

The incremental fair value related to the modification of expiration date of the share awards is estimated at the modification date using the binomial model with the assistance of an independent valuation specialist. The following table provides the inputs range to the model used for determining the incremental fair value of the modification for the year ended December 31, 2023:

	Year ended December 31, 2023
Dividend yield (%)	-
Expected volatility (%)	119% - 124%
Risk-free interest rate (%)	3.45% - 3.47%
Exercise multiple	2.20 - 2.80

The above inputs for the binomial model have been determined based on the following:

- Dividend return is estimated by reference to the Group's plan to distribute dividends in the near future. Currently, this is estimated to be zero as the Group plans to retain all profit for corporate expansion;
- Expected volatility is estimated based on the daily close price volatility of a number of comparable companies to the Group;
- Risk-free interest rate is based on the yield to maturity of U.S. treasury bills denominated in US\$ at the option valuation date;
- Exercise multiple is based on empirical research on typical share award exercise behavior.

18. EQUITY

Invested capital

The consolidated financial statements were prepared in accordance with principles described in Note 2. Invested capital is derived by aggregating the net assets of the Bitdeer Business's direct and indirect subsidiaries and the net assets of the Bitdeer business activities conducted in direct and indirect subsidiaries of Bitmain as well as BTC. Invested capital also includes changes in reserve due to the effect of foreign currency translation adjustments and capital funding. For the year ended December 31, 2021, invested capital includes the net assets of the activities Bitdeer Business conducted in direct and indirect subsidiaries of Bitmain between January 1, 2021 and January 26, 2021, as well as BTC between January 1, 2021 and April 15, 2021. The balance of invested capital was reclassified to other reserve upon completion of the Reorganization.

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Issued share capital

On April 13, 2023, Bitdeer completed the Business Combination described in Note 1, upon which the Group's equity structure changed to that of BTG and the authorized share capital is US\$50,000 divided into ordinary shares: (i) 499,600,000,000 Class A ordinary shares with a par value of US\$0.0000001 each, (ii) 200,000,000 Class V ordinary shares with a par value of US\$0.0000001 each, (iii) 200,000,000 undesignated shares with a par value of US\$0.0000001 each. Upon completion of the Business Combination, all issued and outstanding 4,384,796,703 Class A ordinary shares, 453,892,313 Series A preferred shares, 870,232,230 Series B preferred shares and 1,314,267,705 Series B+ preferred shares of Bitdeer were cancelled in exchange for newly issued 60,281,185 Class A ordinary shares of BTG at an exchange ratio of approximately 0.00858. All issued and outstanding 5,631,795,619 Class B ordinary shares and 7,141,236 Series A preferred shares were cancelled in exchange for newly issued 48,399,922 Class V ordinary shares of BTG at an exchange ratio of approximately 0.00858. All issued and outstanding 2,607,498 ordinary shares of BSGA were cancelled in exchange for newly issued 2,607,498 Class A ordinary shares of BTG.

Each share of Class A ordinary shares is granted 1 vote and each share of Class V ordinary shares is granted 10 votes. All classes of ordinary shares are entitled to dividend and rank pari passu except for voting rights.

In June and October 2023, the Board of Directors of the Group approved the adoption of two share repurchase programs, pursuant to which the Group was authorized to repurchase its Class A ordinary share for the amount of purchase proceeds up to US\$1 million during the period from June 16, 2023 to December 15, 2023 (as amended) and US\$2 million during the period from October 18, 2023 to April 17, 2024, respectively. During the year ended December 31, 2023, the Group has purchased collectively 606,756 Class A ordinary shares for approximately US\$2.6 million under the share repurchase programs. These shares were not cancelled and not considered outstanding as of December 31, 2023.

In the year ended December 31, 2023, the Group issued 5,554,302 shares which were reserved for future issuance upon the exercise of awards granted under the share incentive plans. As of December 31, 2023, 5,436,385 of such shares were considered not outstanding.

In August 2023, the Group entered into a purchase agreement with B. Riley Principal Capital II, LLC ("B. Riley Principal Capital II"). Pursuant to the purchase agreement, the Group has the right to sell to B. Riley Principal Capital II, up to US\$150,000,000 of its Class A ordinary shares with a par value US\$0.0000001 per share. The purchase agreement has the maturity date of up to 36-month anniversary from the commencement date or on the date which B. Riley Principal Capital II shall have purchased Class A ordinary shares of an aggregate gross purchase price of US\$150,000,000 or other termination conditions stated in the purchase agreement. During the year ended December 31, 2023, the Group newly issued 1,166,533 Class A ordinary shares with net proceeds of approximately US\$9.5 million.

For retrospective presentation, the number of the Group's ordinary shares and preferred shares on the consolidated statements of changes in equity have been scaled by the exchange ratio of approximately 0.00858 for periods prior to the completion of the Business Combination on April 13, 2023.

	Class A Ordinary Shares	Amount in USD	Class V Ordinary Shares	Amount in USD
At January 1, 2021, shares issued and outstanding	-	-	-	-
Share allotment upon Reorganization	60,281,184	6	48,399,922	5
At December 31, 2021, shares issued and outstanding	60,281,184	6	48,399,922	5
At December 31, 2022, shares issued and outstanding	60,281,184	6	48,399,922	5
Issuance of shares through Business Combination	2,607,498	*	-	-
Issuance of shares for exercise of share awards	117,917	*	-	-
Acquisition of treasury shares	(606,756)	*	-	-
Issuance of shares for cash	1,166,533	*	-	-
At December 31, 2023, shares issued and outstanding	63,566,376	6	48,399,922	5

* Amount less than US\$1

**BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

Retained earnings / (Accumulated deficit)

The Group's retained earnings/ (accumulated deficit) include the result of the Group's operations for the years ended December 31, 2023, 2022, and 2021 excluding the activities Bitdeer Business conducted in direct and indirect subsidiaries of Bitmain and BTC, which were included in invested capital as discussed above.

Reserves

The Group's reserves mainly include the following:

- (i) Share premium, which effectively represents the share subscription amount paid over the par value of the shares. The application of the share premium account is governed by Section 34 of the Companies Law, Cap. 22 (Law 3 of 1961, as consolidated and revised) of the Cayman Islands as amended, supplemented or otherwise modified from time to time.
- (ii) All foreign exchange differences arising from the translation of the financial statements of foreign operations.
- (iii) The value of the conversion option of the equity component embedded in the convertible debt.
- (iv) The accumulated share-based payment expenses.

Capital management

The Group's primary objective in terms of managing capital is to

- safeguard the Group's ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders, mainly by pricing products and services commensurately with the level of risk.
- To support the Group's stability and growth
- To provide capital for the purpose of strengthening the Group's risk management capability

The Group's business and financial condition are highly correlated with the market price of cryptocurrencies. For the years ended December 31, 2023, 2022 and 2021, the Group's revenue is substantially generated from cryptocurrency-related operations. The Group has adopted various measures to minimize the risk associated with the fluctuation in the market price of cryptocurrencies, specifically, the Group has implemented an internal strategy requiring prompt conversion of all the cryptocurrencies received from ordinary operations into fiat currencies.

In order to maintain or adjust the capital structure, the Group reviews and manages its capital structure actively and regularly to ensure optimal capital structure and shareholder returns, taking into account the future capital requirements of the Group and capital efficiency, prevailing and projected profitability, projected operating cash flows, projected capital expenditures and projected strategic investment opportunities.

The Group is not subject to externally imposed capital requirements.

19. TAXATION

The subsidiaries of the Group incorporated in the Cayman Islands and British Virgin Islands ("BVI") are not subject to tax on income or capital gain. In addition, payments of dividends by the Group to its shareholders are not subject to withholding tax in the Cayman Islands.

The subsidiaries of the Group incorporated in other countries are subject to income tax pursuant to the rules and regulations of their respective countries of incorporation.

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

The provisions for income taxes for the years ended December 31, 2023, 2022 and 2021 are summarized as follows:

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Current income tax (benefit) / expenses	11,825	(8,244)	13,125
Deferred income tax (benefit) / expenses	(6,140)	3,844	35,121
Total	5,685	(4,400)	48,246

The reconciliation between the income tax benefit / (expenses) calculated by applying the applicable tax rate of 17% to the profit / (loss) before income tax and the net income tax benefit / (expenses) as shown in the statements of operations and comprehensive income / (loss) for the years ended December 31, 2023, 2022 and 2021 is as follows.

	Years ended December 31,		
	2023	2022	2021
Statutory income tax rate	17.00%	17.00%	17.00%
Effect of expenses not deductible for tax purpose	(24.21%)	(22.71%)	11.99%
Effect of income tax difference under different tax jurisdictions	0.53%	(4.03%)	5.64%
Effect of deductible temporary differences not recognized	0.49%	0.75%	0.63%
Prior year true-ups	(5.06%)	16.05%	2.11%
Effect of non-taxable income	-	-	(0.60%)
Others	0.10%	(0.27%)	0.09%
Total	(11.15%)	6.79%	36.86%

Deferred tax assets / (liabilities) as of December 31, 2023 and 2022 comprise the following:

In thousands of USD	At December 31,	
	2023	2022
Deferred tax assets		
Net operating losses	136	4,324
Share-based payments	3,573	2,672
Deferred revenue	4,184	-
Property, plant and equipment, intangible assets and right-of-use assets	1,120	533
Total deferred tax assets	9,013	7,529
Set-off of deferred tax positions relate to income taxes levied by the same tax authority	(8,022)	(2,672)
Deferred tax assets	991	4,857
Deferred tax liabilities		
Property, plant and equipment and intangible assets	(9,642)	(14,298)
Set-off of deferred tax positions relate to income taxes levied by the same tax authority	8,022	2,672
Deferred tax liabilities	(1,620)	(11,626)
Net deferred tax liabilities	(629)	(6,769)

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

The movements in the net deferred tax assets / (liabilities) during the years ended December 31, 2023, 2022 and 2021 are as follows:

In thousands of USD	January 1, 2023	Recognized in profit or loss	December 31, 2023
Tax losses carried forward	4,324	(4,188)	136
Share-based payments	2,672	901	3,573
Deferred revenue	-	4,184	4,184
Property, plant and equipment, intangible assets and right-of-use assets	(13,765)	5,243	(8,522)
Net deferred tax assets / (liabilities)	(6,769)	6,140	(629)

In thousands of USD	January 1, 2022	Recognized in profit or loss	December 31, 2022
Tax losses carried forward	4,362	(38)	4,324
Share-based payments	-	2,672	2,672
Property, plant and equipment	(7,287)	(6,478)	(13,765)
Net deferred tax liabilities	(2,925)	(3,844)	(6,769)

In thousands of USD	January 1, 2021	Recognized in profit or loss	Charged to invested capital ⁽¹⁾	December 31, 2021
Tax losses carried forward	23,592	(21,324)	2,094	4,362
Accrued expenses	704	(704)	-	-
Property, plant and equipment	5,806	(13,093)	-	(7,287)
Net deferred tax assets / (liabilities)	30,102	(35,121)	2,094	(2,925)

(1) Deferred tax assets charged to invested capital is due to the Group recognizing deferred tax assets related to tax losses carried forward based on the tax losses available to the individual legal entities within the Group during the Carve-out Period, which creates differences between the income tax benefit or expense determined based on the operation results of the Bitdeer Business.

The Group has not recognized deductible temporary differences and a portion of the tax loss carryforward because the criteria for recognition (i.e., the probability of future taxable profits) were not met. The amount of such unused tax losses will expire as follows:

Tax Jurisdiction	Amount in thousands of USD	Earliest year of expiration if not utilized
Singapore	5,297	Indefinitely
Hong Kong	4,143	Indefinitely
Norway	14,591	Indefinitely
Bhutan	678	2026
Total	24,709	

20. RELATED PARTY TRANSACTIONS

Compensation for key management and Board of Directors

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Salaries and other emoluments	8,986	11,969	11,627
Total	8,986	11,969	11,627

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Balances and transactions with Bitmain and BTC

During the Carve-out Period, the Group and BTC were integrated into the group-wide operation directed by Bitmain before the completion of the Reorganization.

Bitmain's business model includes a combination of stand-alone and combined business functions between Bitmain, BTC and the Group, varying by service line and country. The consolidated financial statements of the Group include allocations of certain costs between Bitmain, BTC and the Group. Such allocations are estimates, and also may not represent the cost of such services if performed on a stand-alone basis. See further description of cost allocations in Note 2.

The invested capital in the consolidated statements of financial position represents Bitmain's historical investment in the Group, the net effect of allocations from transactions with Bitmain and BTC, and the Group's accumulated retained earnings.

Upon completion of the Reorganization, the Group started operating on a stand-alone basis and Bitmain and BTC no longer hold equity interest, exercise significant influence over, or act as an affiliate of the Group and its operations. As a result, Bitmain and BTC ceased to be related parties to the Group.

The activities between the Group and Bitmain and BTC before the completion date of the Reorganization were presented as related party transactions in the consolidated statements of operations and comprehensive income / (loss), cash flows and changes in invested capital and equity.

A reconciliation of deemed distribution to related parties to the corresponding amounts presented in the consolidated statement of cash flows for all periods presented is as follows:

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Deemed distribution to related parties per consolidated statements of changes in invested capital and equity	-	-	(29,311)
Corporate allocations	-	-	(2,167)
Net effect of attribution of the assets and liabilities from Bitmain's business transferred to the Group during the Reorganization	-	-	20,535
Total deemed distribution to related parties per consolidated statements of cash flows	-	-	(10,943)

Balances and transactions with Bitmain and BTC

As of December 31, 2023 and 2022, balances with Bitmain and BTC are nil.

Transactions with Bitmain and BTC before the completion date of the Reorganization were disclosed as below:

In thousands of USD	Years ended December 31,		
	2023	2022	2021
Revenue from Bitmain and BTC ⁽¹⁾	-	-	73,522

(1) Revenue from Bitmain and BTC arise from the Group's normal course of business, See Note 2.

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Other related party balances and transactions

The following set forth other significant related party and the relationship with the Group:

Name of related party	Relationship with the Group
Matrix Finance and Technologies Holding Group and its subsidiaries (“Matrixport Group”)	The Group’s controlling person is the co-founder and chairman of the board of directors of Matrixport Group and has significant influence over Matrixport Group.

Details of assets and liabilities with the related party are as follows:

In thousands of USD	At December 31,	
	2023	2022
Due from a related party		
- Trade receivables	187	75
- Loans to a related party (1)	-	322
Total due from a related party	<u>187</u>	<u>397</u>
Due to a related party		
- Other payables(2)	33	316
Total due to a related party	<u>33</u>	<u>316</u>

(1) Loans to a related party represent unsecured, interest-free loans made to the related party. These loans are due on demand.

(2) Other payables represent the accrued service expense related to the custody and other services provided by the related party.

Details of transactions with the related party are as follows:

In thousands of USD	Years ended December 31,		
	2023	2022	2021
- Provide service to a related party	754	3,076	530
- Receive service from a related party	228	425	294
- Interest earned from a related party	-	1,499	1,552
- Return of wealth management products from a related party	-	283	737
- Loss on disposal of subsidiaries to a related party	74	-	-
- Changes in fair value of financial assets at fair value through profit or loss	3,527	(952)	-

During the years ended December 31, 2023, 2022 and 2021, substantially all of the Group’s cryptocurrencies were held in custody by Matrixport Group, and the Group’s disposal of cryptocurrencies, at spot price on the date of disposal, was primarily to Matrixport Group.

In February 2021, the Group signed a loan agreement with Matrixport Group, pursuant to which the Group agreed to grant a revolving line of credit with a maximum amount of US\$20 million charged with an annual interest of 12.5% by the Group, each tranche of credit utilized shall be repaid within 60 days. The credit line has expired, and the loan has been fully repaid in June 2021. The Group received an interest of approximately US\$0.8 million associated with the loan.

In July 2022, the Group signed an agreement with Matrixport Group, which is the general partner of a limited partnership set up by the Matrixport Group, to subscribe a limited partner interest in the limited partnership and the capital commitment is amounting to US\$ 20 million. The Group, as a limited partner, does not have control or significant influence over the limited partnership. As of December 31, 2022, the capital contribution made by the Group to the limited partnership is US\$17 million. The Group recorded approximately US\$3.5 million gain and US\$952,000 loss on change in fair value of financial assets at fair value through profit or loss for the years ended December 31, 2023 and 2022, respectively.

During the years ended December 31, 2022 and 2021, the Group made non-secured lending to, and purchased non-principal guaranteed wealth management products from Matrixport Group in cryptocurrencies. The Group did not incur such transactions during the year ended December 31, 2023. The summary of transactions is as follows:

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
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	Type of cryptocurrency	Amount in thousands of cryptocurrencies	Date of purchase / lending	Date of redemption / collection	Effective annual yield of return / interest rate
Loan	USDC	30,000	September 8, 2021	December 27, 2021	8.25%
Wealth management product - type A	USDT	30,000	October 20, 2021	December 28, 2021	13.00%
Wealth management product - type A	USDT	80,000	January 14, 2022	March 27, 2022	1.00%
Loan	USDT	15,000	April 1, 2022	June 28, 2022	5.83%
Loan	USDC	5,000	April 1, 2022	June 28, 2022	7.00%
Wealth management product - type A	USDT	10,000	April 15, 2022	June 17, 2022	3.06%
Loan	USDC	30,000	May 12, 2022	May 19, 2022	15.00%
Wealth management product - type B	USDT	10,000	June 17, 2022	June 28, 2022	5.70%
Wealth management product - type B	USDT	50,000	June 20, 2022	June 28, 2022	5.92%
Loan	USDC	80,000	July 1, 2022	September 28, 2022	4.13%
Loan	USDC	20,000	October 11, 2022	December 28, 2022	3.50%

The Group purchased two types of wealth management products during the years ended December 31, 2022. Wealth management product type A represents the Group's units of interest in the underlying cryptocurrency trading account and the value of the units is based on the performance of the trading account. The Group has the right to redeem the units with Matrixport Group based on the value on the redemption date during certain days of each month. See Note 2(h) regarding the accounting policy for cryptocurrency-denoted wealth management products.

Wealth management product type B represents the Group's variable-interest cryptocurrency deposit at Matrixport Group. The deposit is not protected by any deposit insurance scheme and non-secured, and the Group may lose some or all of the amount deposited in extreme market conditions. Upon withdrawal, the Group receives the same type of cryptocurrency in the same quantity in principle plus additional interest returns. The deposit can be withdrawn on demand and is generally delivered to the Group within 72 hours. The nature of the wealth management product type B is, in essence, a cryptocurrency lending arrangement. See Note 2(h) regarding the accounting policy for cryptocurrency lending arrangements.

As of December 31, 2022 and 2021, corresponding to the above transactions, the balances of receivables settled in cryptocurrencies and embedded derivative were both nil. The change in fair value of the cryptocurrencies lent or invested, and the embedded derivative relating to the wealth management product type A are immaterial as the arrangements are short term in nature and the quoted prices of USDT and USDC are relatively stable.

To facilitate the lending and wealth management products purchases, the Group purchased the aforementioned cryptocurrencies using approximately US\$286 million and nil the years ended December 31, 2022 and 2021, respectively. The total receipts from the collection of lending and redemption of wealth management products were disposed of by the Group for approximately US\$302 million and US\$61 million during the years ended December 31, 2022 and 2021, respectively.

21. EARNINGS / (LOSS) PER SHARE

The calculation of basic earnings / (loss) per share is based on the profit or loss attributable to ordinary equity shareholders of the Group and the weighted average number of ordinary shares outstanding for the years ended December 31, 2023, 2022 and 2021.

Diluted earnings / (loss) per share is computed using the weighted average number of ordinary shares and dilutive potential ordinary shares outstanding during the respective periods.

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
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As the Group incurred losses for the years ended December 31, 2023 and 2022, the potential ordinary shares related to the outstanding share awards exercisable into approximately 11.7 million and 10.4 million ordinary shares and convertible debt into approximately 3.1 million and 4.1 million ordinary shares respectively, were not included in the calculation of dilutive loss per share, as their inclusion would be anti-dilutive. The number of ordinary shares are stated after giving retrospective effects to the reverse recapitalization.

The following reflects the income and share data used in the basic and diluted earnings / (loss) per ordinary share computations:

In thousands of USD, except for the per share data	Years ended December 31,		
	2023	2022	2021
Profit / (loss) attributable to ordinary equity shareholders of the Group	(56,656)	(60,366)	82,643
Weighted average number of ordinary shares outstanding (thousand shares) ⁽¹⁾	110,494	108,681	108,681
Basic earnings / (loss) per share (In USD)	<u>(0.51)</u>	<u>(0.56)</u>	<u>0.76</u>
Profit / (loss) attributable to ordinary equity shareholders of the Group	(56,656)	(60,366)	82,643
Increase in profit attributable to ordinary equity shareholders of the Group resulted from conversion of convertible debt	-	-	1,223
Profit / (loss) attributable to ordinary equity shareholders of the Group for diluted EPS	(56,656)	(60,366)	83,866
Weighted average number of ordinary shares outstanding (thousand shares)	110,494	108,681	108,681
Adjusted for:			
- Assumed conversion of convertible debt	-	-	1,808
- Assumed exercise of share awards	-	-	754
Weighted average number of shares outstanding for diluted EPS (thousand shares)	110,494	108,681	111,243
Diluted earnings / (loss) per share (In USD)	<u>(0.51)</u>	<u>(0.56)</u>	<u>0.75</u>

(1) The weighted average number of ordinary shares outstanding for the years ended December 31, 2022 and 2021 was retrospectively adjusted to reflect the reverse recapitalization effectuated in April 2023. See Note 1

(2) Each Class A ordinary share carries 1 vote and each Class V ordinary share carries 10 votes. All classes of shares are entitled to dividend and rank pari passu except for voting rights. They are included in the ordinary shares and the shareholders of the shares are referred to as the ordinary equity shareholders in the context of notes and presentations of earnings per share.

BITDEER TECHNOLOGIES GROUP AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

22. SUPPLEMENTAL CASH FLOW INFORMATION

The non-cash investing and financing activities are as follows:

In thousands of USD	Years ended December 31,		
	2023	2022	2021
NON-CASH INVESTING AND FINANCING TRANSACTIONS			
Operating lease right-of-use assets and leasehold land obtained in exchange for operating lease liabilities	4,492	7,270	47,178
Operating lease right-of-use assets resulted from lease modification	646	-	-
Settlement of pre-existing relationship with BSGA	2,607	-	-
Payment for purchase of mining machines in form of cryptocurrencies	-	4,805	11,986
Cryptocurrencies paid on behalf of related parties	-	-	24,852
Lending made to a third party in form of cryptocurrencies	-	-	10,222
Collection of lending from a third party in form of cryptocurrencies	-	-	6,487
Lending made to related party in form of cryptocurrencies	-	150,025	30,015
Collection of lending from related party in form of cryptocurrencies	-	151,525	30,735
Purchase of wealth management products using cryptocurrencies	-	149,972	30,004
Redemption of wealth management products in form of cryptocurrencies	-	150,268	30,724
Liabilities assumed in connection with acquisition of property, plant and equipment and intangible assets	8,205	-	3,494
Receivable on the proceeds from issuance of ordinary shares	23	-	-

23. SUBSEQUENT EVENTS

In January 2024, the Group granted a total of approximately 268,087 share awards to the designated recipients under the 2023 Plan. Each share award grants an option for the recipient to purchase one share of the Group's ordinary shares at exercise prices ranging from \$3.50 to \$9.86 per share. The share awards vest up to five years, and the recipient shall continue to provide services to the Group by each vesting date. The share awards expire on the tenth anniversary from the date of grant.

For the period from January 1, 2024 to March 28, 2024, the Group newly issued 6,738,555 Class A ordinary shares with net proceeds of approximately US\$50.8 million.

There were no other material subsequent events during the period from December 31, 2023 to the approval date of this consolidated financial statements on March 28, 2024.

**Certification by the Principal Executive Officer Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002**

I, Jihan Wu, certify that:

1. I have reviewed this annual report on Form 20-F of Bitdeer Technologies Group;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 28, 2024

/s/ Jihan Wu

Name: Jihan Wu

Title: Chief Executive Officer

**Certification by the Principal Financial Officer Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002**

I, Jianchun Liu, certify that:

1. I have reviewed this annual report on Form 20-F of Bitdeer Technologies Group;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 28, 2024

/s/ Jianchun Liu

Name: Jianchun Liu

Title: Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report of Bitdeer Technologies Group (the “Company”) on Form 20-F for the fiscal year ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Jihan Wu, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 28, 2024

/s/ Jihan Wu

Name: Jihan Wu

Title: Chief Executive Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the annual report of Bitdeer Technologies Group (the “Company”) on Form 20-F for the fiscal year ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Jianchun Liu, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 28, 2024

/s/ Jianchun Liu

Name: Jianchun Liu

Title: Chief Financial Officer

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements on Form S-8 (File No. 333-275342) of our report dated March 28, 2024 with respect to the audited consolidated financial statements of Bitdeer Technologies Group, appearing in this Annual Report on Form 20-F for the year ended December 31, 2023.

/s/ MaloneBailey, LLP
www.malonebailey.com
Houston, Texas
March 28, 2024

BITDEER TECHNOLOGIES GROUP
INCENTIVE COMPENSATION RECOUPMENT POLICY

1. INTRODUCTION

The Board of Directors (the “**Board**”) of Bitdeer Technologies Group, a company incorporated in the Cayman Islands (the “**Company**”), has determined that it is in the best interests of the Company and its shareholders to adopt this Incentive Compensation Recoupment Policy (this “**Policy**”) providing for the Company’s recoupment of Recoverable Incentive Compensation that is received by Covered Officers of the Company under certain circumstances. Certain capitalized terms used in this Policy have the meanings given to such terms in Section 3 below.

This Policy is designed to comply with, and shall be interpreted to be consistent with, Section 10D of the Exchange Act, Rule 10D-1 promulgated thereunder (“**Rule 10D-1**”) and Nasdaq Listing Rule 5608 (the “**Listing Standards**”).

2. EFFECTIVE DATE

This Policy shall apply to all Incentive Compensation that is received by a Covered Officer on or after October 2, 2023 (the “**Effective Date**”). Incentive Compensation is deemed “**received**” in the Company’s fiscal period in which the Financial Reporting Measure specified in the Incentive Compensation award is attained, even if the payment or grant of such Incentive Compensation occurs after the end of that period.

3. DEFINITIONS

“**Accounting Restatement**” means an accounting restatement that the Company is required to prepare due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period.

“**Accounting Restatement Date**” means the earlier to occur of (a) the date that the Board, a committee of the Board authorized to take such action, or the officer or officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement, or (b) the date that a court, regulator or other legally authorized body directs the Company to prepare an Accounting Restatement.

“**Administrator**” means the Compensation Committee or, in the absence of such committee, the Board.

“**Code**” means the U.S. Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.

“**Compensation Committee**” means the Compensation Committee of the Board. “**Covered Officer**” means each current and former Executive Officer. “**Exchange**” means the Nasdaq Stock Market.

“**Exchange Act**” means the U.S. Securities Exchange Act of 1934, as amended.

“**Executive Officer**” means the Company’s president, principal financial officer, principal accounting officer (or if there is no such accounting officer, the controller), any vice-president of the Company in charge of a principal business unit, division, or function (such as sales, administration, or finance), any other officer who performs a policy-making function, or any other person who performs similar policy-making functions for the Company. Executive officers of the Company’s parent(s) or subsidiaries are deemed executive officers of the Company if they perform such policy-making functions for the Company. Policy-making function is not intended to include policy-making functions that are not significant. Identification of an executive officer for purposes of this Policy would include at a minimum executive officers identified pursuant to Item 401(b) of Regulation S-K promulgated under the Exchange Act.

“**Financial Reporting Measures**” means measures that are determined and presented in accordance with the accounting principles used in preparing the Company’s financial statements, and any measures derived wholly or in part from such measures, including Company share price and total shareholder return (“**TSR**”). A measure need not be presented in the Company’s financial statements or included in a filing with the SEC in order to be a Financial Reporting Measure.

“**Incentive Compensation**” means any compensation that is granted, earned or vested based wholly or in part upon the attainment of a Financial Reporting Measure.

“**Lookback Period**” means the three completed fiscal years immediately preceding the Accounting Restatement Date, as well as any transition period (resulting from a change in the Company’s fiscal year) within or immediately following those three completed fiscal years (except that a transition period of at least nine months shall count as a completed fiscal year). Notwithstanding the foregoing, the Lookback Period shall not include fiscal years completed prior to the Effective Date.

“**Recoverable Incentive Compensation**” means Incentive Compensation received by a Covered Officer during the Lookback Period that exceeds the amount of Incentive Compensation that would have been received had such amount been determined based on the Accounting Restatement, computed without regard to any taxes paid (*i.e.*, on a gross basis without regard to tax withholdings and other deductions). For any compensation plans or programs that take into account Incentive Compensation, the amount of Recoverable Incentive Compensation for purposes of this Policy shall include, without limitation, the amount contributed to any notional account based on Recoverable Incentive Compensation and any earnings to date on that notional amount. For any Incentive Compensation that is based on share price or TSR, where the Recoverable Incentive Compensation is not subject to mathematical recalculation directly from the information in an Accounting Restatement, the Administrator will determine the amount of Recoverable Incentive Compensation based on a reasonable estimate of the effect of the Accounting Restatement on the share price or TSR upon which the Incentive Compensation was received. The Company shall maintain documentation of the determination of that reasonable estimate and provide such documentation to the Exchange in accordance with the Listing Standards.

“**SEC**” means the U.S. Securities and Exchange Commission.

4. RECOUPMENT

(a) **Applicability of Policy.** This Policy applies to Incentive Compensation received by a Covered Officer (i) after beginning services as an Executive Officer, (ii) who served as an Executive Officer at any time during the performance period for such Incentive Compensation, (iii) while the Company had a class of securities listed on a national securities exchange or a national securities association, and (iv) during the Lookback Period.

(b) Recoupment Generally.

Pursuant to the provisions of this Policy, if there is an Accounting Restatement, the Company must reasonably promptly recoup the full amount of the Recoverable Incentive Compensation, unless the conditions of one or more subsections of Section 4(c) of this Policy are met and the Compensation Committee, or, if such committee does not consist solely of independent directors, a majority of the independent directors serving on the Board, has made a determination that recoupment would be impracticable. Recoupment is required regardless of whether the Covered Officer engaged in any misconduct and regardless of fault, and the Company's obligation to recoup Recoverable Incentive Compensation is not dependent on whether or when any restated financial statements are filed.

(c) Impracticability of Recovery. Recoupment may be determined to be impracticable if, and only if:

(i) the direct expense paid to a third party to assist in enforcing this Policy would exceed the amount of the applicable Recoverable Incentive Compensation; provided that, before concluding that it would be impracticable to recover any amount of Recoverable Incentive Compensation based on expense of enforcement, the Company shall make a reasonable attempt to recover such Recoverable Incentive Compensation, document such reasonable attempt(s) to recover, and provide that documentation to the Exchange in accordance with the Listing Standards; or

(ii) recoupment of the applicable Recoverable Incentive Compensation would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company, to fail to meet the requirements of Code Section 401(a)(13) or Code Section 411(a) and regulations thereunder.

(d) Sources of Recoupment. To the extent permitted by applicable law, the Administrator shall, in its sole discretion, determine the timing and method for recouping Recoverable Incentive Compensation hereunder, provided that such recoupment is undertaken reasonably promptly. The Administrator may, in its discretion, seek recoupment from a Covered Officer from any of the following sources or a combination thereof, whether the applicable compensation was approved, awarded, granted, payable or paid to the Covered Officer prior to, on or after the Effective Date: (i) direct repayment of Recoverable Incentive Compensation previously paid to the Covered Officer; (ii) cancelling prior cash or equity-based awards (whether vested or unvested and whether paid or unpaid); (iii) cancelling or offsetting against any planned future cash or equity-based awards; (iv) forfeiture of deferred compensation, subject to compliance with Code Section 409A; and (v) any other method authorized by applicable law or contract. Subject to compliance with any applicable law, the Administrator may effectuate recoupment under this Policy from any amount otherwise payable to the Covered Officer, including amounts payable to such individual under any otherwise applicable Company plan or program, *e.g.*, base salary, bonuses or commissions and compensation previously deferred by the Covered Officer. The Administrator need not utilize the same method of recovery for all Covered Officers or with respect to all types of Recoverable Incentive Compensation.

(e) No Indemnification of Covered Officers. Notwithstanding any indemnification agreement, applicable insurance policy or any other agreement or provision of the Company's organizational documents to the contrary, no Covered Officer shall be entitled to indemnification or advancement of expenses in connection with any enforcement of this Policy by the Company, including paying or reimbursing such Covered Officer for insurance premiums to cover potential obligations to the Company under this Policy.

(f) Indemnification of Administrator. Any members of the Administrator, and any other members of the Board who assist in the administration of this Policy, shall not be personally liable for any action, determination or interpretation made with respect to this Policy and shall be indemnified by the Company to the fullest extent under applicable law and Company policy with respect to any such action, determination or interpretation. The foregoing sentence shall not limit any other rights to indemnification of the members of the Board under applicable law or Company policy.

(g) **No “Good Reason” for Covered Officers.** Any action by the Company to recoup or any recoupment of Recoverable Incentive Compensation under this Policy from a Covered Officer shall not be deemed (i) “good reason” for resignation or to serve as a basis for a claim of constructive termination under any benefits or compensation arrangement applicable to such Covered Officer, or (ii) to constitute a breach of a contract or other arrangement to which such Covered Officer is party.

5. ADMINISTRATION

Except as specifically set forth herein, this Policy shall be administered by the Administrator. The Administrator shall have full and final authority to make any and all determinations required under this Policy. Any determination by the Administrator with respect to this Policy shall be final, conclusive and binding on all interested parties and need not be uniform with respect to each individual covered by this Policy. In carrying out the administration of this Policy, the Administrator is authorized and directed to consult with the full Board or such other committees of the Board as may be necessary or appropriate as to matters within the scope of such other committee’s responsibility and authority. Subject to applicable law, the Administrator may authorize and empower any officer or employee of the Company to take any and all actions that the Administrator, in its sole discretion, deems necessary or appropriate to carry out the purpose and intent of this Policy (other than with respect to any recovery under this Policy involving such officer or employee).

6. SEVERABILITY

If any provision of this Policy or the application of any such provision to a Covered Officer shall be adjudicated to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Policy, and the invalid, illegal or unenforceable provisions shall be deemed amended to the minimum extent necessary to render any such provision or application enforceable.

7. NO IMPAIRMENT OF OTHER REMEDIES

Nothing contained in this Policy, and no recoupment or recovery as contemplated herein, shall limit any claims, damages or other legal remedies the Company or any of its affiliates may have against a Covered Officer arising out of or resulting from any actions or omissions by the Covered Officer. This Policy does not preclude the Company from taking any other action to enforce a Covered Officer’s obligations to the Company, including, without limitation, termination of employment and/or institution of civil proceedings. This Policy is in addition to the requirements of Section 304 of the Sarbanes-Oxley Act of 2002 (“**SOX 304**”) that are applicable to the Company’s Chief Executive Officer and Chief Financial Officer and to any other compensation recoupment policy and/or similar provisions in any employment, equity plan, equity award, or other individual agreement, to which the Company is a party or which the Company has adopted or may adopt and maintain from time to time; provided, however, that compensation recouped pursuant to this Policy shall not be duplicative of compensation recouped pursuant to SOX 304 or any such compensation recoupment policy and/or similar provisions in any such employment, equity plan, equity award, or other individual agreement except as may be required by law.

8. AMENDMENT; TERMINATION

The Administrator may amend, terminate or replace this Policy or any portion of this Policy at any time and from time to time in its sole discretion. The Administrator shall amend this Policy as it deems necessary to comply with applicable law or any Listing Standard.

9. SUCCESSORS

This Policy shall be binding and enforceable against all Covered Officers and, to the extent required by Rule 10D-1 and/or the applicable Listing Standards, their beneficiaries, heirs, executors, administrators or other legal representatives.

10. REQUIRED FILINGS

The Company shall make any disclosures and filings with respect to this Policy that are required by law, including as required by the SEC.

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BITDEER TECHNOLOGIES GROUP

INCENTIVE COMPENSATION RECOUPMENT POLICY

FORM OF EXECUTIVE ACKNOWLEDGMENT

I, the undersigned, agree and acknowledge that I am bound by, and subject to, the Bitdeer Technologies Group Incentive Compensation Recoupment Policy, as may be amended, restated, supplemented or otherwise modified from time to time (the "**Policy**"). In the event of any inconsistency between the Policy and the terms of any employment agreement, offer letter or other individual agreement with Bitdeer Technologies Group (the "**Company**") to which I am a party, or the terms of any compensation plan, program or agreement, whether or not written, under which any compensation has been granted, awarded, earned or paid to me, the terms of the Policy shall govern.

In the event that the Administrator (as defined in the Policy) determines that any compensation granted, awarded, earned or paid to me must be forfeited or reimbursed to the Company pursuant to the Policy, I will promptly take any action necessary to effectuate such forfeiture and/or reimbursement. I further agree and acknowledge that I am not entitled to indemnification, and hereby waive any right to advancement of expenses, in connection with any enforcement of the Policy by the Company.

Agreed and Acknowledged:

Name: _____

Title: _____

Date: _____
