NORTHERN
DATA GROUP

ANNUAL REPORT 2023

At a glance

Key data of Northern Data Group

		2023	2022
Revenue	EUR million	77.5	193.3
Total income	EUR million	111.0	249.5
EBITDA	EUR million	–28.2	–58.1
Adjusted EBITDA	EUR million	–5.5	42.4
EBIT	EUR million	–153.2	–265.4
Adjusted EBIT	EUR million	–130.4	–59.1
Net result	EUR million	–151.1	–265.8
Cash flow from operating activities	EUR million	–17.6	1.0
Cash flow from investing activities	EUR million	–84.7	–95.2
Cash flow from financing activities	EUR million	305.1	–82.9
Shares outstanding, weighted average (undiluted)	Thousand units	28,941	23,816
Shares outstanding, weighted average (diluted)	Thousand units	28,941	23,816
Earnings per share (undiluted)	EUR	–5.22	–11.16
Earnings per share (diluted)	EUR	–5.22	–11.16
Employees (annual average)	FTE	144	209
		Dec. 31, 2023	**Dec. 31, 2022**
Cash and cash equivalents	EUR million	243.0	39.9

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A

TO THE SHAREHOLDERS

» In a very short period of time, AI has developed such enormous transformative power in a wide range of economic and social areas that it is tantamount to a technical revolution. «

Aroosh Thillainathan

Letter to the shareholders

Dear shareholders, employees and friends of Northern Data AG,

We are pleased to inform you that Northern Data Group successfully took a big step forward in fiscal year 2023 by scaling its business and thus further driving its growth course as a technology company. Above all, the year was characterized by designing the infrastructure and solutions needed to unleash the potential of high-performance computing (HPC) applications. This was made possible by extensive investments in “Taiga Cloud,” “Peak Mining” and “Ardent Data Centers.”

While Peak Mining, with its business activities in Bitcoin mining, was again responsible for the majority of revenue in the fiscal year, we were able to report significant revenue in the cloud segment (Taiga Cloud) for the first time. We fully achieved our forecast with revenue at Group level of EUR 77.5 million and adjusted EBITDA of EUR −5.5 million.

At the pulse of time

The global boom in generative Artificial Intelligence (AI) continued unabated in 2023. In a very short period of time, AI has developed such enormous transformative power in a wide range of economic and social areas that it is tantamount to a technical revolution. At the same time, Bitcoin consolidated its position as the leading global digital asset, grew and established itself further. The price of Bitcoin began an unprecedented rally over the course of the year and more than doubled.

These megatrends go hand in hand with the enormous demand for HPC. Cloud computing – based on special graphic processing units (GPUs) – is the foundation for realizing generative AI. Moreover, Bitcoin mining – based on specialized Application Specific Integrated Circuits (ASIC chips) – would also be unimaginable without HPC.

These developments have once again confirmed that Northern Data AG, with its deep expertise in the field of HPC, is serving exactly the needs and requirements of today. With an installed hash rate of 3.34 exahash per second (EH/s) as of the end of 2023, we are not only one of the largest Bitcoin mining companies in the world, but seize a leading position as a cloud solutions provider, running Europe’s largest cluster of NVIDIA A100 and H100 Tensor Core GPUs. With this HPC infrastructure, we are at the pulse of time.

Three business divisions

It is Northern Data Group’s vision to power the next generation of innovation bravery through sustainable, state of the art, HPC solutions. In 2023, we further aligned our Group structure with the launch of three divisional brands dedicated to our three core business areas. The new brands clearly define the Group’s focus, with each division positioned to capitalize on the demand for HPC power in its respective market.

Our three business divisions provide state-of-the-art data center and cloud environments that optimize performance, maximize revenue and support advanced computing: Taiga Cloud offers sovereign, clean-energy-powered, ultra-fast GPU compute power across Europe. Ardent Data Centers reinvents data center infrastructure to deliver higher performance, density, and availability, whereas Peak Mining secures the Bitcoin network with efficiency gains through state-of-the-art hardware, high-quality infrastructure and leading software technology.

Extensive investments

In order to give our growth plans the necessary boost by scaling our business, we made considerable investments in fiscal year 2023. To realize these investments, we carried out capital increases and raised debt capital. In total, Northern Data AG received around EUR 1 billion (more than USD 1 billion).

We carried out the acquisition of Damoon Limited in stages. Under IFRS, all stages became effective as of the end of December 2023, giving us access to more than 10,000 highly efficient NVIDIA H100 Tensor Core GPUs.

In addition, Northern Data AG has secured a debt financing facility totaling EUR 575 million to be split between our three business divisions. Specifically, the investment was used to support the continued growth of Taiga Cloud by investing in additional NVIDIA hardware through partnerships with GIGABYTE and HPE, expand and enhance Ardent Data Centers' data center portfolio and further scale Peak Mining's business with state-of-the-art liquid-cooled mining technology from our partner MicroBT.

Operational development at the business division level

Following the investments totaling EUR 730 million, Taiga Cloud owns the largest cluster of NVIDIA A100 and H100 Tensor Core GPUs in Europe. This puts us at the forefront to meet the growing demand for generative AI GPUs across Europe and drive AI innovation globally. Initial deployments started in December 2023. With the rollout continuing in 2024, we are scaling our generative AI cloud. Taiga Cloud's entire cloud is 100 percent carbon-neutral and powered and cooled with Power Usage Effectiveness ratios (PUEs) of less than 1.2. Housing these islands of GPUs across European, clean-energy-powered data centers, Taiga Cloud offers high-speed, low latency and data-sovereign compute power along to help its customers to meet their ESG objectives.

Ardent Data Centers currently operates as a colocation service provider with data centers in the United States and Europe. The division brings together the expertise for the planning, construction, and management of data centers within Northern Data Group. In 2023, Ardent Data Centers purchased an existing data center facility in Pittsburgh, PA, and began due diligence on purchasing two other locations (one in the United States, one in Europe) as part of a EUR 110 million investment strategy. This strategy is aimed at expanding Ardent Data Centers' ability to provide colocation services for computing power across Europe and the United States. With the business division Ardent Data Centers, we are focused on building the most efficient, future-ready network of HPC colocation capacity in the market.

Finally, in 2023, Peak Mining focused on building the foundations for the growth of its Bitcoin mining portfolio, which included securing the latest hardware available on the market and developing locations with attractive energy prices for mining. Specifically, in September 2023, the division secured access to liquid-cooled mining hardware, purchasing more than 7 EH/s of the latest generation of WhatsMiners from MicroBT. The first batch of the EUR 140 million (USD 150 million) investment is deployed at our next-generation 30 MW mining site in Grand Forks, North Dakota. Construction of this location has been underway since May 2024. In addition to the hardware investment, Peak Mining purchased a 300 MW, 33-acre location in Corpus Christi, Texas, that has approved power by the Electric Reliability Council of Texas (ERCOT). This represents another significant step in Northern Data Group's investment strategy and will significantly increase Peak Mining's hash rate and Bitcoin production. The first phase of the expansion is underway and will deliver 100 MW of mining capacity by the end of the first half year of 2024. We aim to expand our hash rate to around 7.9 EH/s before the end of 2024.

Positive outlook for 2024 and beyond

In fiscal year 2024, we confirm our expectations for Group revenue in the range of EUR 200 million to EUR 240 million – around three times the revenue of fiscal year 2023. Adjusted EBITDA for 2024 is expected to be in the range of EUR 50 million to EUR 80 million.

For the first time, Taiga Cloud will be the main contributor to revenue and EBITDA. With the significant enhancement of Taiga Cloud's cutting-edge GPU resources, we anticipate revenue for the segment of between EUR 120 million and EUR 150 million and adjusted EBITDA of between EUR 50 million and EUR 65 million. Peak Mining's revenue is expected to be between EUR 80 million and EUR 90 million with adjusted EBITDA of between EUR 7 million and EUR 15 million. For Ardent Data Centers, we expect revenue between EUR 12 million and EUR 15 million and adjusted EBITDA of between EUR −3 million and EUR −1 million.

Thanks to consistent scaling, clear structuring into three synergistically interlinked business divisions and the tailwind from major economic trends, we are ideally positioned. Focusing our vision on the entire Group will drive value creation and lead us to profitable and sustainable growth in the future.

On behalf of the entire management team of Northern Data Group, I would like to thank you – our shareholders, partners and friends – for your trust in Northern Data Group and for accompanying us on our journey. I would also like to thank our employees around the world who, through their commitment and enthusiasm, drive Northern Data Group forward every day in shaping the future of the HPC market.

Together, we enter 2024 well-prepared and confident to capitalize on the exciting opportunities that lie ahead. We look forward to reporting on future developments. Stay tuned for more milestones.

Sincerely yours,

Aroosh Thillainathan
Chairman of the Management Board

Group Leadership

Aroosh Thillainathan

Group Founder, CEO and Chairman of the Management Board

As Chief Executive Officer and Chairman of the Management Board since 2020, Aroosh has been pivotal in shaping the company's strategic direction and success. His entrepreneurial background includes founding several successful ventures and making significant advances in High Performance Computing. Recognized for his market foresight and customer-centric innovations, Aroosh continues to lead Northern Data Group towards new frontiers in the industry.

Rosanne Kincaid-Smith

Group Chief Operating Officer

As Group Chief Operating Officer, Rosanne Kincaid-Smith, is a key player in the company's rise as a leading provider of High Performance Computing solutions. With experience in technology, data analytics, and commercial business strategy, she leads global teams and manages significant operational transformations, driving the business strategy. Rosanne's expertise spans executing restructuring initiatives, spearheading market expansion efforts, navigating intricate mergers and acquisitions and championing innovation.

Group Leadership

Rudolf Haas

Group Chief Legal Officer

As Group Chief Legal Officer, Rudolf Haas is an esteemed legal professional with over 20 years of experience in international law firms, including being a Partner at Latham & Watkins and Managing Director at King & Wood Mallesons in Frankfurt. Rudolf's expertise in finance and capital markets law supports the Group's strategic growth, with a proven track record in navigating the complex intersection of law and business.

Elliot Jordan

Group Chief Financial Officer

As Group Chief Financial Officer, Elliot brings over 20 years of finance experience, including key roles during rapid expansion phases at renowned companies. Serving as CFO at Farfetch, Elliot led the company's successful IPO on the NYSE. Furthermore, he held Finance Director positions at ASOS and J Sainsbury's and is a non-executive Board Member and Chair of the Audit and Risk Committee at HM Land Registry. Elliot now drives Northern Data Group's financial strategy in the High-Performance Computing market.

Mick McNeil

Group Chief Revenue Officer

As Group Chief Revenue Officer, Mick leverages his extensive business development background in technology to drive new product introductions and revenue growth and build effective go-to-market teams. His experience includes pivotal roles at Microsoft and Logicalis, where he led significant transformations. Mick's multi-market expertise enhances Northern Data Group's product, marketing, and commercial strategies, fostering customer-centric innovations and capitalizing on strategic market opportunities.

Divisional Leadership

Corey Needles

Managing Director, Ardent Data Centers

Corey Needles, Managing Director of Ardent Data Centers, is a recognized leader in data colocation, cloud services and cryptocurrency mining, with over 25 years of experience. His expertise includes leading significant capital investment projects and devising strategic long-term technology and business plans that drive substantial revenue growth. Previously, Corey served as SVP and General Manager for INAP USA and SVP of Operations, Engineering, and Construction at zColo, a subsidiary of Zayo Group.

Niek Beudeker

Managing Director, Peak Mining

Niek Beudeker, Managing Director of Peak Mining, is a versatile executive leader in technology, specializing in business strategy, corporate finance and commercials. Previously, Niek has excelled in roles such as Vice President of Operations & Business Development at Bitfield and as Country Manager for the DACH region at the SaaS scale-up Gain.pro. He began his corporate journey in the field of M&A and continues to pioneer the future of large-scale next-generation Bitcoin mining.

Report of the Supervisory Board

Dear Ladies and Gentlemen,

In fiscal year 2023, the Supervisory Board continuously discharged all the duties imposed on it by the law and by Northern Data AG's (hereinafter also referred to as the Company) Articles of Incorporation. Throughout the year, the Supervisory Board consulted with the Management Board and was involved in all decisions of fundamental importance.

Composition of the Supervisory Board and Management Board

In accordance with the provisions of Northern Data AG's Articles of Association, the Supervisory Board consists of three members. In 2023, these were the Chairman of the Supervisory Board, Dr. Tom Oliver Schorling, the Deputy Chairman, Dr. Bernd Hartmann, and – until his departure effective January 17, 2023 – Hermann-Josef Lamberti. His position was taken over by Bertram Pachaly as a substitute member in accordance with Section 104 AktG with effect from January 18, 2023. The Supervisory Board and Management Board thank Mr. Lamberti, who has been a member of the Supervisory Board since November 2020, for his excellent cooperation and commitment to the Company. With his extensive, deep experience and excellent expertise, he was an invaluable active advisor for a young company like Northern Data AG.

In fiscal year 2023, the Management Board was formed by one person, the Chairman, Aroosh Thillainathan.

Work and topics in the Supervisory Board plenum

A total of 15 Supervisory Board meetings were held in fiscal year 2023, all of which were attended by the Supervisory Board as a whole. Six meetings were held in person and nine were held as video conferences. In 31 cases, the Supervisory Board adopted resolutions outside meetings by written procedure.

The Supervisory Board monitored the Management Board's management of the Company throughout fiscal year 2023 and advised the Management Board on the management of the Company. In particular, this included the Company's development of its business, earnings and financial situation and the Company's investment plans. The Management Board always fulfilled its information duties to an appropriate extent. The Management Board informed the Supervisory Board regularly, promptly and comprehensively in written and verbal form about all relevant issues relating to company planning, the course of business, strategic development and the current situation and overall development of the Group.

Supervisory Board Meeting Attendance

Member of the Supervisory Board	Number of Meetings	Attendance Rate
Dr. Tom Oliver Schorling	15/15	100%
Bertram Pachaly	15/15	100%
Dr. Bernd Hartmann	15/15	100%

Overview of meetings and resolutions

In terms of the Company's operating business, 2023 was primarily characterized by the raising and procurement of fresh capital. The focus here was on two capital increases in exchange for cash, two capital increases in exchange for contributions in kind, and two issuances of convertible bonds (discussed in the scope of six meetings in April, June, July, September, October and December) as well as the EUR 575 million debt financing facility that Northern Data concluded with a Tether Group company at the beginning of November with the aim of making further investments in its three business units Taiga Cloud, Ardent Data Centers and Peak Mining. The Supervisory Board held a total of five meetings in October and November to prepare for and approve this credit facility. The Supervisory Board invited members of the Company's global management team, including the Management Board and legal advisors, in various constellations. The Supervisory Board was deeply involved in all investment decisions.

In four meetings at the beginning of the year, the focus was on the Company's annual and consolidated financial statements for 2022 and the requirements for their audit by the auditor KPMG. The Supervisory Board also invited members of the Company's global management team, including the Management Board, as well as representatives of the auditor and the tax advisor, in various constellations.

Further resolutions over the course of the year focused on the following topics, among others: The court settlement with Riot Platforms (March), GPU hardware sales (April, May), customer contracts in the cloud segment (April), the leasing of data center capacity for the cloud business (August, September), site expansion and hosting agreements in the mining segment (August, December), D&O contracts (September), the structuring of the cloud business (December) and the employee share option program (December).

Audit and adoption of the annual financial statements

The annual financial statements and consolidated financial statements of Northern Data AG for fiscal year 2023 have been audited by Liebhart & Kollegen Wirtschaftsprüfer Steuerberater in conjunction with Harris & Trotter LLP, the auditor appointed by the Annual General Meeting, and have been issued with an unqualified audit opinion.

The Supervisory Board examined both the annual financial statements of Northern Data AG as of December 31, 2023, and the consolidated financial statements, in particular with regard to their legality, propriety and appropriateness, and discussed the documents in detail with the Management Board and the auditor on the basis of a draft audit report.

The auditor reported on the progress of the audit at several Supervisory Board meetings and participated in the Supervisory Board meeting on July 10, 2024, at which the results of the audit as a whole and the individual focal points of the audit were reported. The auditor was available to answer any questions arising from the members of the Supervisory Board. The members of the Supervisory Board noted and critically evaluated the audit reports and audit opinions and discussed them, as well as the audits themselves, among themselves and with the auditors. This included a questionnaire on the nature and scope of the audit and on the audit findings. In the process, the Supervisory Board was able to convince itself of the appropriateness of the audits and the audit reports. The Supervisory Board has conclusively assessed the annual financial statements of Northern Data AG as of December 31, 2023, and the consolidated financial statements, taking the auditor's audit reports into account, and raises no objections based on the results of its review. The Supervisory Board approved and thus adopted the annual financial statements prepared by the Management Board by Supervisory Board resolution dated July 10, 2024; it also approved the consolidated financial statements.

Acknowledgement

The Supervisory Board would like to thank the members of the Management Board and all employees of the Company for their personal commitment, their hard work in the interests of the Company and for the successes achieved in fiscal year 2023. The Supervisory Board would also like to thank the shareholders for their interest in the Company and for their trust.

Sincerely yours,

Dr. Tom Oliver Schorling
Chairman of the Supervisory Board

Supervisory Board

Dr. Tom Oliver Schorling

Chairman of The Supervisory Board

Dr. Tom Oliver Schorling has a distinguished law career as a partner in prestigious international law firms where he advised on some of the largest cross-border financing and restructuring transactions. He actively contributes to various tech companies' advisory and investment activities and holds multiple board positions.

Bertram Pachaly

Supervisory Board Member

Bertram Pachaly is the Managing Director of FIT Talent Management and HMP, driving innovation in IT and life sciences. With degrees in physics and business, he formerly led significant projects at Accenture and Icon Medialab, focusing on cloud computing, IT security, and organizational development. His career encapsulates a unique blend of technological proficiency and executive management.

Dr. Bernd Hartmann

Supervisory Board Member

Dr. Bernd Hartmann serves as Managing Director of RoskosMeier, Berlin's top Allianz insurance agency. He crafts specialized insurance solutions for large industrial clients, focusing on financial loss liability and retirement pensions. Holding a doctorate in mineralogy, his expertise also spans the renewable energy sector, notably in photovoltaics and energy storage systems.

Northern Data AG on the capital market

Stock market year 2023

In 2023, the international stock markets experienced significant price fluctuations caused by central banks' interest rate and monetary policies as well as inflationary trends. Although positive economic data was reported in all regions at the beginning of the year, the global economy developed unevenly throughout the year. In the second quarter, China and Europe showed signs of economic weakness, while US equity markets benefited from surprisingly strong economic data. Nevertheless, global equity markets performed well overall in the first half of the year in the face of falling inflation. In the third quarter, uncertainties about US economic growth and rising inflation led to price losses, while the outbreak of the conflict in the Middle East weighed on prices at the beginning of the fourth quarter. Even so, international stock markets proved resilient to the many disruptive factors.

Starting in November 2023, falling inflation figures in Europe and the USA, along with repeated signals from central banks to change their interest rate policy, led to a year-end rally.

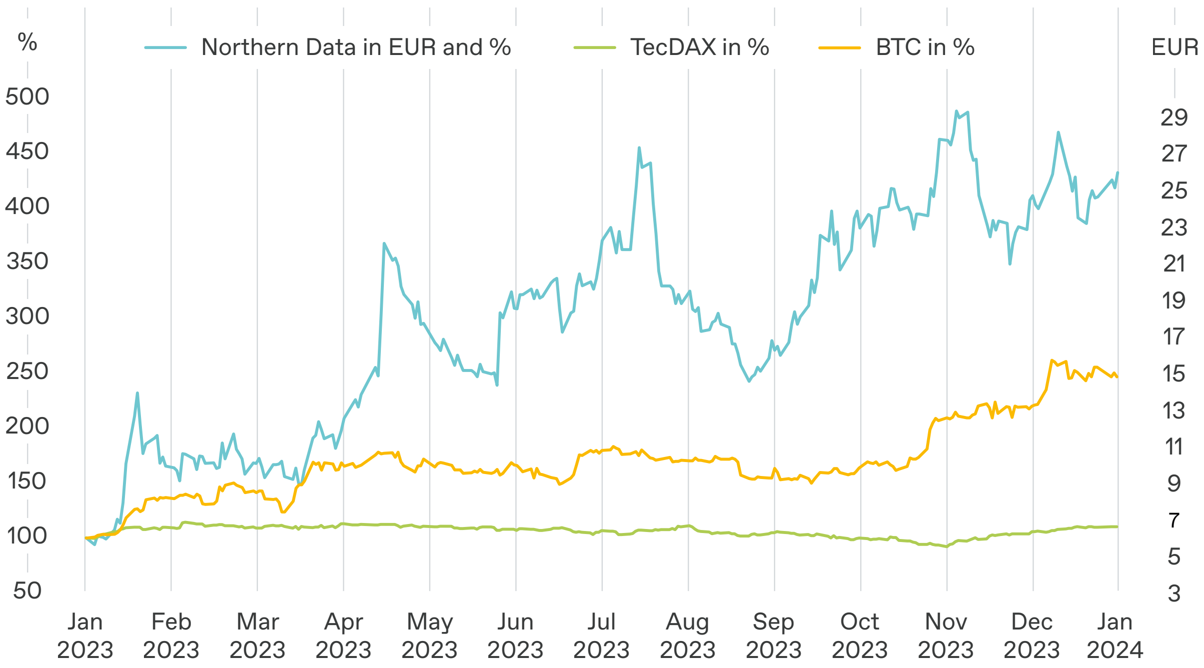
Northern Data AG shares started the trading year at EUR 6.25 on January 2, 2023, reaching their low for the year of EUR 5.56 on the same day. Prices rose to a high of EUR 29.65 as the year progressed. With 42,177,231 shares, Northern Data AG's market capitalization at the end of the reporting year was EUR 1.4 billion at a share price of EUR 26.30. Overall, Northern Data AG's share price more than quadrupled in 2023 by posting an increase of 335.1 percent. The average daily trading volume in Northern Data AG shares on all German stock exchanges was 83,206 shares in the reporting year 2023. In the full year 2022, an average of 50,013 shares were traded per day.

Northern Data AG share price development in 2023	2023	2022
Change of share price from previous year	335.1%	–92.1%
Lowest closing price	EUR 5.56	EUR 5.75
Highest closing price	EUR 29.65	EUR 79.20
Year-end closing price	EUR 26.30	EUR 6.05
Number of shares outstanding at the end of the year	42,177,231	23,815,514
Average number of shares traded daily	83,206	50,013
Market capitalization at the end of the year	EUR 1.4 billion	EUR 144 million

Source: Deutsche Börse, Xetra

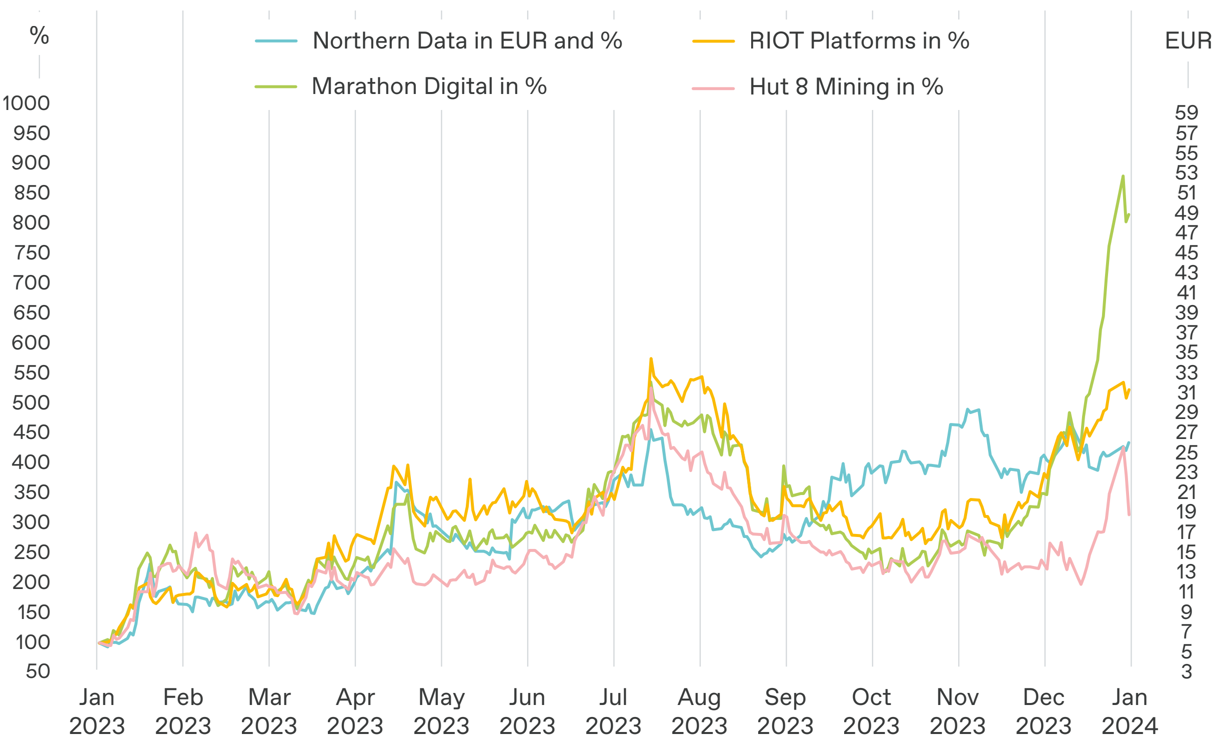
In 2023, the crypto world saw a significant recovery from the setbacks of the previous year, when coin prices plummeted, crypto lenders failed and the majority of the market participants in the crypto industry suffered heavy losses. General improvements in macroeconomic conditions, in particular the decline in inflation, the end of interest rate hikes and the expectation of falling US interest rates in 2024, have brightened the environment for digital assets. Another important milestone was the upcoming Bitcoin halving, which ultimately took place on April 20, 2024. The Bitcoin halving after the end of the reporting period cut the number of newly created Bitcoins, which resulted in fewer new Bitcoins coming into circulation. In addition, signs of the approval of the first Bitcoin ETF in the US boosted interest in cryptocurrencies as more investors would gain easy and regulated access to this asset class.

Indexed development of the Northern Data AG share compared to the TecDAX and Bitcoin from January 1, 2023, to December 31, 2023



Source: Deutsche Börse, Coinbase

Indexed development of the Northern Data AG share compared to a peer group from January 1, 2023, to December 31, 2023



Source: Deutsche Börse, Coinbase

Shareholder structure

As of December 31, 2023, Northern Data AG was not aware of any individual shareholders holding a stake of more than 25 percent in Northern Data AG pursuant to Section 20 of the German Stock Corporation Act (AktG).

Capital measures

In the reporting year 2023, Northern Data AG resolved two cash capital increases totaling proceeds of EUR 64,540,032.10 to accelerate growth plans in its divisions Taiga Cloud, Ardent Data Centers and Peak Mining divisions. The share capital entered in the commercial register as of December 31, 2023, was EUR 42,177,231.00. Northern Data AG raised contributions totaling around EUR 533 million from the issue of two convertible bonds, the two capital increases against cash contribution mentioned above, and two capital increases against contributions in kind.

Dialogue with the capital market

Northern Data AG engaged in an intensive dialogue with current and potential shareholders in the reporting year and is in continuous contact with media representatives, investors, and analysts. Presentation material and recordings of the events are available in the Investor Relations section of the homepage at www.northerndata.de. An overview of the conferences held in the reporting year is shown in the following table:

Conference overview 2023

May 2023	MKK Münchner Kapitalmarktkonferenz, Munich
September 2023	H.C. Wainwright Global Investment Conference, New York
September 2023	Baader Investment Conference, Munich
October 2023	Munich Stock Exchange Technology Conference, Munich
November 2023	Capital Markets Day, Frankfurt/Main
November 2023	RBC Capital Markets Global Technology, Internet, Media and Telecom Conference, New York
November 2023	Oppenheimer Blockchain & Digital Assets Summit, Virtual
November 2023	Wiener Kapitalmarktkonferenz, Vienna
December 2023	Berenberg European Conference, London

Research coverage

In 2023, Northern Data AG shares were followed by Edison Investment Research. In their latest research reports from 2024, they emphasize Northern Data's value proposition in driving AI and data center technology.

Research	Date	Target Price	Recommendation
Edison Investment Research	Dec. 19, 2023	*)	*)

*) The qualitative research reports by Edison Investment Research were prepared without a price target or recommendation.

Basic information on the Northern Data AG share

Share information on the Northern Data AG share as of December 31, 2023	
Initial listing	April 1, 2015
Stock exchange	Xetra, Frankfurt, Munich, Berlin, Düsseldorf, Hamburg, Hanover, Tradegate
Market segment	Open market
Transparency level	m:access
Symbol	NB2
ISIN/WKN	DE000A0SMU87/A0SMU8
Type of shares	Bearer shares with no nominal value
Total number of shares	42,177,231
Amount of share capital	EUR 42,177,231
Designated sponsor	mwb fairtrade Wertpapierhandelsbank AG

As designated sponsor, mwb fairtrade Wertpapierhandelsbank AG provides binding bid and ask quotes and ensures sufficient liquidity of the Northern Data AG share. Further information is available to interested investors in the Investor Relations section of the homepage at www.northerndata.de.

ESG REPORT (UNAUDITED)

ESG Report (UNAUDITED)

ESG – Acting responsibly with an eye to the future

As a Group that builds and operates global HPC infrastructure, Northern Data Group has a special responsibility, especially regarding the environmental aspects of ESG. Wherever possible, Northern Data Group strives to operate its data centers with renewable energy. When setting up the data centers and operating and maintaining the hardware, Northern Data Group relies on efficient software and hardware tools to ensure that every kilowatt-hour of electricity flowing into the data centers is used as efficiently as possible. At its most efficient data center in Boden, Sweden, Northern Data Group achieves a best-in-class Power Usage Effectiveness (PUE) of 1.09 (2023). In addition to this, Northern Data Group continuously deals with options on how to improve the impact on the environment. At the same time, Northern Data Group takes the social and economic aspects of the sustainability agenda no less seriously.

Northern Data Group already integrated ESG criteria into its corporate culture at an early stage and has also participated in ratings. This sustainability report is already the third that Northern Data AG presents, even though ESG reporting is not yet mandatory for the Group. The aim of this approach to sustainability is to continuously monitor relevant ESG topics, improve their implementation, and report on key ESG KPIs to be prepared for the upcoming regulatory requirements.

The Management Board, together with the IR department, has identified common international standards – such as the United Nations Sustainable Development Goals (SDGs) and the Global Reporting Initiative (GRI) standards – as guidelines for shaping the Group's sustainability agenda. Among the GRI standards, Northern Data Group has selected some of them as a guideline for its ESG Report and as a basis for future improvement of its reporting practices. These include GRI 3 on the process for identifying material ESG topics, GRI 302 on energy reporting and GRI 402 on diversity reporting. In addition, Northern Data Group follows two of the six Principles for Responsible Investment:

Principle 1: Northern Data Group incorporates ESG issues into its decision-making processes.

Principle 2: Northern Data Group is committed to integrating ESG issues into its ownership policies and practices.

The Corporate Sustainability Reporting Directive (CSRD) under the requirements of the European Sustainability Reporting Standards represents a major upcoming regulatory requirement. This will require large companies to report on the consideration and handling of social and environmental challenges. Northern Data Group will have to report in accordance with CSRD for the first time for the 2025 reporting year. CSRD aims to ensure that companies provide reliable and comparable sustainability information that stakeholders need to assess non-financial corporate performance. In 2023, Northern Data Group began addressing the requirements of the CSRD to ensure timely compliance with the reporting obligations. Thus, Northern Data Group has implemented a project to ensure CSRD compliance in the future.

ESG Data Overview

	Material topic	Reported indicator	Figure in 2023	Figure in 2022	Variation
E	Energy efficiency and energy mix	Total energy consumption	787 GWh	963 GWh	–18%
		Share of renewable energy	41%	45%	–4%
		Share of nuclear energy	22%	23%	–1%
		Share of fossil fuel energy	37%	32%	+5%
		Power Usage Effectiveness			
		Boden, Sweden	1.09	1.06	+2%
		Lefdal Mine, Norway (contracted third-party data center)	1.15 (guaranteed)	1.15 (guaranteed)	–
S	Employee recruitment, apprecia-tion and motivation	Employee number as of December 31	145	209	–31%
	Diversity	Workforce breakdown: Contract	Contract without fixed term: 100%	Contract without fixed term: 99%	+1 pp
			Fixed-term contract: 0%	Fixed-term contract: 1%	–1 pp
		Workforce breakdown: Age	<30: 26%	<30: 21%	+1 pp
			30–50: 62%	30–50: 52%	+10 pp
			>50: 12%	>50: 8%	+4 pp
			Unknown: 0%	Unknown: 19%	–19 pp
		Workforce breakdown: Gender	Men: 69%	Men: 75%	–6 pp
			Women: 31%	Women: 25%	+6 pp
		Workforce breakdown: Nationalities	Germany: 32%	Germany: 39%	–7 pp
			USA: 24%	USA: 15%	+9 pp
			United Kingdom: 9%	United Kingdom: 3%	+6 pp
			Norway: 6%	Norway: 5%	+1 pp
			Canada: 4%	Canada: 21%	–17 pp
			Sweden: 3%	Sweden: 3%	–
			Other: 22%	Other/Unknown: 14%	+8 pp
G	Anti-corruption and compliance	Reported whistleblowing cases	4	5	–1
		Investigated whistleblowing cases	–	2	–2
		Negligible whistleblowing cases	4	3	+1
	Data privacy	Known data privacy breaches	0	0	–
	Cyber security	Known cyber security breaches	5	0	+5

ESG Reporting at Northern Data Group

ESG Management

The responsibility for ESG topics lies with the Management Board of Northern Data AG, which aims to ensure that sustainability with all its facets is implemented in Group-wide processes. In past fiscal years, the overall operative management and the reporting process for ESG topics were led by the Investor Relations department. In the course of 2023, the strategy department was increasingly involved in responsibilities, as ESG is to be fully implemented into the global Group-wide strategy.

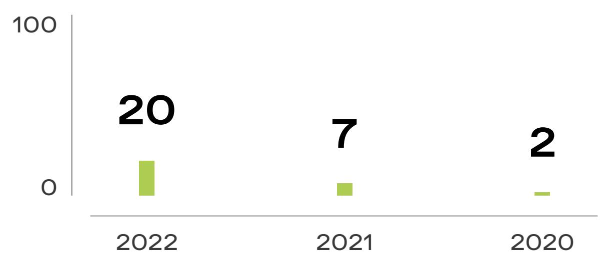
2023 ESG Reporting

The 2023 ESG Report is structured along the lines of Northern Data AG's 2022 and 2021 ESG Reports and therefore shows comparable parameters. Northern Data AG did not review the materiality analysis in 2023 as there will be a comprehensive revision in 2024 to comply with CSRD. The Group collected data in accordance with the material topics. The Energy, Operations, Human Resources, and Risk & Compliance departments played a key role. Where available, data and information were included in the reporting. In cases in which data could not be sufficiently collected, planning and implementation of actions to collect data were started. The ESG reporting in 2023 serves as a tool for Northern Data Group to identify the baseline from which to develop a long-term ESG strategy and define the ESG KPIs that will be reported on in the future. In addition, it provides a stable groundwork for ESG rating agencies to carry out sound ESG ratings on Northern Data AG.

ESG Rating

ESG rating agencies regularly evaluate and review the sustainability performance of companies. Intensive dialogue on all ESG topics is very important to Northern Data AG. Northern Data Group is working hard to further increase transparency on all topics that are important to its stakeholders. Northern Data has been actively participating in the process of the S&P Global rating since reporting year 2020.

Development of Northern Data's S&P Global Rating



The S&P Global ESG Score measures companies' exposure to and performance on key ESG risks and opportunities, the quality and completeness of public disclosures, and their awareness of emerging ESG issues. The score is measured on a scale of 0 – 100 (maximum) and reflects a company's score compared to its industry peers. The scores in the chart are based on Northern Data´s responses for the years 2020, 2021 and 2022 to the Corporate Sustainability Assessment questionnaire (CSA) and on information available in the public domain.

More information available at https://www.spglobal.com/esg/scores/results?cid=4812275.

Source: S&P Global

Material Topics

Stakeholder analysis

The stakeholder analysis describes the stakeholders' expectations of Northern Data Group. There were no changes in the stakeholder analysis in fiscal year 2023 compared to the previous year. The results of the stakeholder analysis are presented in the table below:

	Stakeholder	Expectation from Northern Data
Internal	Employees	A secure job with career opportunities, flexible working conditions regarding working hours and opportunities for home office, work-life balance, recognition and appreciation of one's own work performance, pleasant working atmosphere, fair salary, training and learning opportunities, a possibility to implement own ideas, benefits and incentives, sought-after employer with good image
	Students/interns	Assignment according to own abilities, learning opportunities, flexible working conditions regarding working hours and opportunities for home office, fair salary, excellent internship certification, approachable mentors
External	Investors	Sustainable growth, good operational performance, solid financial figures, research coverage with buy-rating, credible and experienced management, knowledge of the market, high potential for innovations, transparent investor communication, ESG compliance, good ESG ratings
	Customers	Added value at good prices, reliability, competent and proactive advice and support, easy to reach, expert problem-solving, smooth running of customer projects, ESG-compliant behavior, highest data security, principal "one face to the customer"
	Partners, suppliers	Reliable adherence to agreements and prices, high quality and ESG standards, smooth and easy cooperation, expertise, professionalism
	Media, press	Easy and quick access to all relevant information, accessibility of spokespersons and management, quick response to inquiries, press releases with substantial content, transparent and continuous updated information
	NGOs	High environmental standards and moral values, transparency, safety, human rights commitment, environmental commitment
	Public	High environmental standards and moral values, taking corporate social responsibility seriously, local engagement as a "good citizen"
	HPC expertise industry	Supporting the goals of the Crypto and Bitcoin industry, engagement in HPC and crypto industry associations (events, fairs, representatives), sharing of expertise
	Legislator and authorities	Observing and meeting national laws and regulations as well as internal company guidelines (compliance), observing and fulfilling regulations of the stock exchange, EU taxonomy

Materiality analysis

Due to the upcoming CSRD, Northern Data Group has begun to address the requirements of the CSRD to ensure timely compliance with the reporting obligations. Northern Data Group did not review the materiality analysis in 2023 as there will be a comprehensive revision in 2024 to comply with CSRD. Therefore, no changes were made in the materiality analysis compared to fiscal year 2022.

For the purpose of the materiality analysis, Northern Data Group was guided by common international standards and concepts such as the Sustainable Development Goals (SDGs) of the United Nations, the Global Reporting Initiative (GRI) and the Principles for Responsible Investment (PRI). The topics identified are ranked according to importance to key stakeholders and impact on Northern Data Group's business activities. The ranking distinguishes between low and high importance to stakeholders (y-axis) and low and high impact on Northern Data Group's activities (x-axis).

Material analysis matrix

Environmental		Social		Governance	
1	Energy efficiency and energy mix	4	Employee recruitment, appreciation, and motivation	10	Cyber security
2	Disposal and electronic waste	5	Diversity	11	Anti-corruption and compliance
3	Carbon footprint	6	Employee health and safety	12	Corporate governance and culture
		7	Human rights		
		8	Social and local impact		
		9	Data privacy		

The table below explains the materiality of the chosen topics for Northern Data:

No	Topic	Definition of materiality
1	Energy efficiency and energy mix	Northern Data Group's business is very energy intensive. Therefore, factors such as the amount of energy used and where the energy comes from are important. Also, the more efficiently energy is used, the more profitable and environmentally sustainable Northern Data Group's business becomes.
2	Disposal and electronic waste	Northern Data Group operates tens of thousands of servers in its data centers. Computer hardware that runs constantly will eventually need to be replaced and therefore will be electronic waste by then.
3	Carbon footprint	Northern Data Group wants to comply with its own business ethics, such as global goals and standards that are aimed at controlling global warming.
4	Employee recruitment, appreciation, and motivation	Northern Data Group's success is dependent on its employees. Northern Data Group believes that good work and development require employee satisfaction and well-being. Northern Data Group wants its employees to learn, grow, and realize their full potential to ensure employee satisfaction and to stay on track with developments in the business.
5	Diversity	Northern Data Group as a globally operating Group is an employer of people from many different nationalities and backgrounds. Thus, diversity is at the core of the business.
6	Employee health and safety	The safety and well-being of its employees are the top priority for Northern Data Group. This applies to safety procedures in the data centers as well as in the offices.
7	Human rights	Northern Data Group commits to human rights under the UN Guiding Principles on Business and Human Rights. Northern Data Group wants to proactively identify and assess potential impacts and risks relating to respecting human rights and address these successfully.
8	Social and local impact	Northern Data Group wants to strengthen its reputation as a responsible Group and have a positive impact on both local communities and society as a whole.
9	Data privacy	Due to its business model, data protection plays an important role at Northern Data Group. In times when even large amounts of data can be stored, duplicated, and sent very quickly, it is crucial to identify and avoid potential data violations at an early stage.
10	Cyber security	As a Group that is digital, decentralized and global with multiple locations in different countries, cyber security is an important component. Like any high-tech company, Northern Data Group also relies on digital and cloud services and needs to address how to maintain the operations and best protect its customers' data as well as its own.
11	Anti-corruption and compliance	Breaches of compliance guidelines, unlawful conduct and failure to comply with internal Group standards can have far-reaching consequences for Northern Data. These include claims for damages and monetary fines, which can inflict both financial and major reputational damage on Northern Data Group.
12	Corporate governance and culture	Northern Data Group is growing rapidly, which means that the number of employees is also increasing at a fast pace. It is therefore important for Northern Data Group to establish a legal and factual regulatory framework for the management and supervision of the Group based on good corporate governance.

Environmental

As part of ESG compliance, Northern Data Group has a particular level of responsibility in the area of environmental protection due to its high electricity requirements. Northern Data Group aims to make its energy consumption, which is also a significant operational cost factor, as efficient and environmentally friendly as possible. At the end of 2023, Northern Data Group operated 14 data centers in Germany, the Netherlands, Sweden, Norway, the USA and Canada, whose design and operating processes are aimed at achieving maximum energy efficiency. The data centers include contracted sites. The monitoring and recording of energy consumption and other relevant environmental parameters can currently only be fully documented for the site in Sweden but are planned for all data center sites in the future.

Energy efficiency

Power Usage Effectiveness (PUE) defines the metric that describes how efficiently data centers use electricity to generate computing power. PUE is the ratio of the total amount of energy used by a computer data center facility to the energy delivered to computing equipment. An ideal PUE is 1.0. Anything that isn't considered a computing device in a data center (e.g. lighting, cooling, etc.) falls into the category of facility energy consumption.

Northern Data Group calculates data center PUE by dividing the amount of energy fed into the data center by the amount of energy used to operate the IT infrastructure in the data center.

To optimize energy efficiency and thus further minimize emissions, all three business divisions are moving towards liquid-cooled hardware. At the Grand Forks, North Dakota, site, which the Peak Mining business division commissioned in the first quarter of 2024, this has already been implemented with direct-to-chip liquid-cooling technology. The switch to liquid-cooled hardware is also imminent at the Taiga Cloud sites, which are operated completely CO_2-neutrally in Europe, as well as at Ardent Data Centers.

The PUE values for two data centers were determined in the reporting year 2023. A PUE value of 1.09 was determined for the data center in Sweden. According to Deutsche Rechenzentren GmbH, values of 1.5 are considered efficient and values of less than 1.2 are considered very efficient. Lefdal Mine, one of Northern Data Group's contracted data centers, guarantees a PUE of 1.15. Northern Data Group is currently preparing the introduction of suitable measurement procedures in all data centers in order to determine the PUE value globally in a standardized procedure, as in Sweden.

PUE values for two data centers

Lefdal Mine Datacenter (LMD), Lefdal, Norway: PUE = 1.15

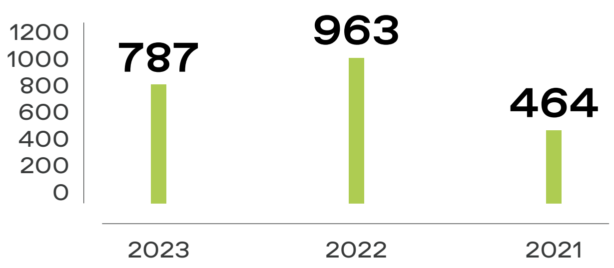
Data center in Boden, Sweden: PUE = 1.09 (2023)

Total energy consumption

Total energy consumption is defined as the sum of all electrical energy consumed in Northern Data Group's data center operations, including contracted third-party data centers. The data for the energy consumption is provided by the contracted energy suppliers according to the data center location.

Based on this information, total energy consumption for 2023 was 787 GWh (prior year: 963 GWh). In essence, the decrease in total energy consumption compared to the previous year can be attributed to the termination of Ethereum mining in September 2022.

Total energy consumption in GWh

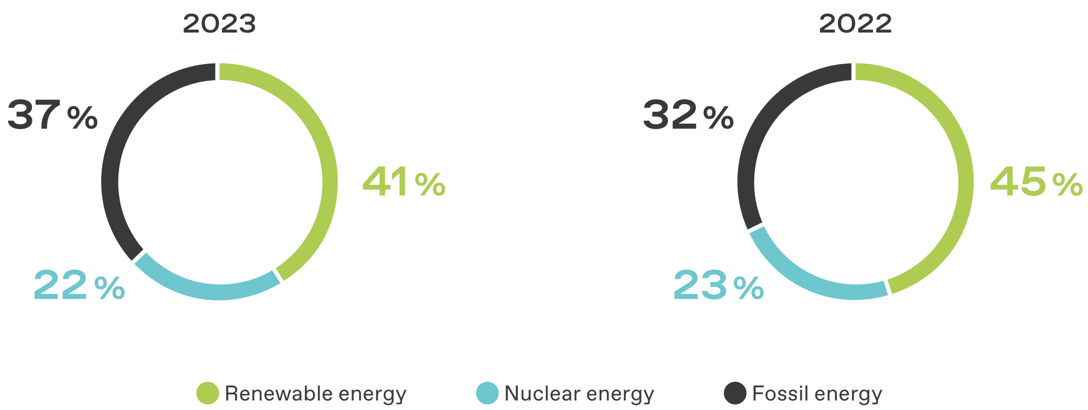


Energy mix

Northern Data Group reports on the share of renewable, nuclear and fossil energy. The share of nuclear and renewable energy was determined by multiplying the data taken from the fuel mix by the amount of energy used in the data centers. In 2023, 41 percent (prior year: 45 percent) of the energy consumption was drawn from renewable energies and 22 percent (prior year: 23 percent) from nuclear energies.

37 percent (prior year: 32 percent) was drawn from fossil fuel sources. The total energy mix of Northern Data Group's data centers shifted slightly towards fossil fuels in 2023 compared to 2022. This is primarily due to the fact that the energy mix of some electricity grids that some of the existing data centers are connected to have shifted in the direction of fossil energies.

Energy mix



Carbon footprint

Carbon footprint of data center operations
No carbon footprint of data center operations was reported in 2023, as Northern Data was reviewing its measurement operations on a global level.

Carbon footprint of business travel
Northern Data Group is certified to offset 100 percent of the CO_2 from most of its business travel. The majority of business travel at Northern Data Group is booked through GreenPerk, TravelPerk's carbon-neutral business travel program. GreenPerk partners with carbon calculation and offsetting providers, so that Northern Data Group compensates for its CO_2 emissions directly through the platform. Offsetting is done on a per-trip basis, helping to reduce the carbon footprint of the Group's business travel. With this contribution, Northern Data Group supports projects to combat deforestation in Indonesia, to aid reforestation in Cambodia and to empower the use of hydropower in Turkey. All projects are VERRA/GOLD-awarded and audited.

Electronic waste disposal

Electronic waste is considered as all kinds of discarded electronic devices and assets nearing or that have reached the end of their lifecycle. In 2023, Northern Data Group managed its electronic waste by deciding whether it can be remarketed, refurbished, recycled, or must be disposed via Northern Data Group's established hardware lifecycle program. The Group strives to give end of first lifecycle assets a second life where possible, supporting the environment and contributing to the circular economy. No assets were discarded in 2023, hence no waste was measured. Northern Data Group handles the recycling and disposal of electrical waste in accordance with local and European laws and guidelines.

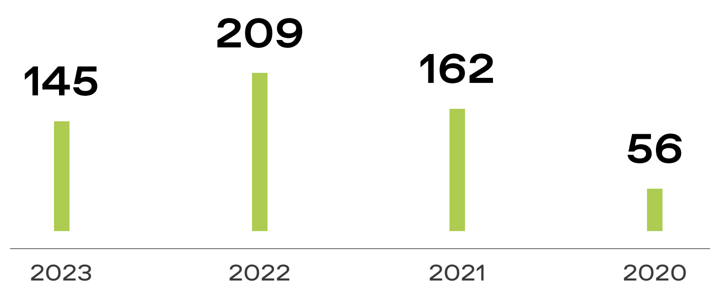
Social

Attracting new and retaining existing employees is critical to Northern Data Group's future success. In 2023, the focus on implementing a global strategy on people and culture, including standard processes, frameworks, and tools continued. In 2023, specifically, Northern Data Group worked on the transformation to the Northern Data Group structure with three independent business divisions (Taiga Cloud, Ardent Data Centers, Peak Mining). Furthermore, the HR department was joined by Charlotte Park, VP of People, who has been successfully leading the HR department since October 2023.

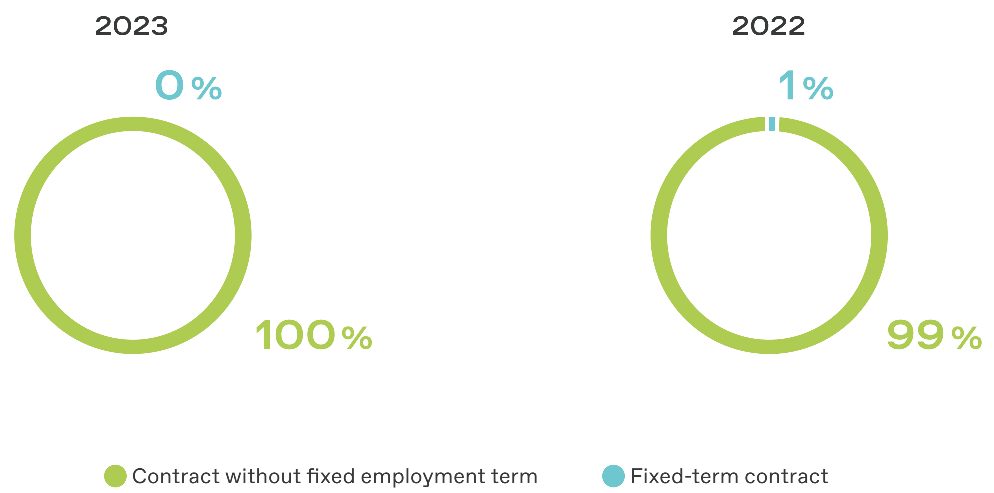
Employee recruitment

To achieve its recruiting goals, the HR department is continuing the employee referral program that motivates employees to recruit experts from their own network for Northern Data Group. In view of the many changes that have been made, the People team focused on defining and adapting new processes. Northern Data Group is hiring internationally in accordance with the global People & Culture strategy. In 2023, Northern Data Group launched an onboarding handbook that facilitates the onboarding process of new employees. On December 31, 2023, Northern Data Group employed 145 employees, all of whom have contracts without a fixed employment term.

Number of employees as of December 31



Type of contract



Employee appreciation and motivation

Every employee should be given the opportunity to develop his or her personal and professional ambitions to the fullest. To underpin this belief, Northern Data Group is pursuing a recognition strategy. As part of this strategy, Northern Data Group offers competitive salaries, flexible working hours and supports professional development. In line with the recognition strategy, a performance/bonus framework recognizes good and rewards exceptional performance. Quarterly appraisals are conducted as part of the performance process. These are designed to help the supervisors and employees track their performance and determine the next steps. The basic idea is to keep employees motivated and help them achieve their goals. At Northern Data Group, good performance is incentivized. However, to motivate employees to go one step further, exceptional performance is rewarded even higher.

Furthermore, Northern Data Group has generous benefit schemes in place, including pension, death in service, accident cover and wellbeing programs available to those who opt to receive Private Medical Insurance. Besides, the Group has a share option program under which employees and management can be offered subscription rights to share options.

Northern Data Group invests in world class office spaces for employees across all regions and has various social events in each country. For example, employees had the opportunity to take part in the JP Morgan Run in Frankfurt. Moreover, end of year activities and gift programs for each region are arranged, based on their geographical spread and the staff population size.

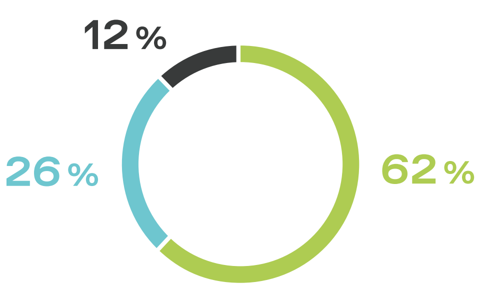
Employee development

The professional and personal development of employees is very important to Northern Data Group. To contribute to the development of its employees, Northern Data Group pursues continuous reviews and target-setting cycles with both line managers and professionals. There is a training budget available to each employee. Northern Data Group offers several self-study training courses in various areas via the Haufe Academy, an e-learning platform. In addition, Northern Data Group also promotes training measures that are in line with the employee's individual performance plan.

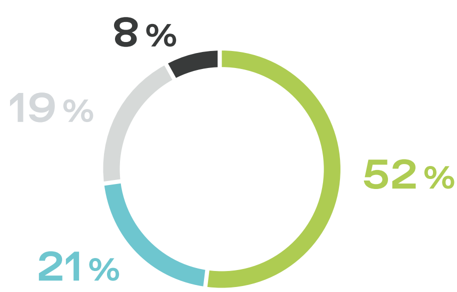
Diversity

Northern Data Group consistently opposes discrimination based on gender, ethnicity, age, sexual orientation, and religion. Northern Data Group documents its workforce data broken down by age, nationality, and gender. In fiscal year 2023, 62 percent (prior year: 52 percent) of the workforce were between 30 and 50 years old, 26 percent (prior year: 21 percent) were under 30, and 12 percent (prior year: 8 percent) were 50 or older. 31 percent (prior year: 25 percent) of the workforce were female and 69 percent (prior year: 75 percent) were male. In the reporting year, Northern Data had employees of 26 different nationalities, hailing from five continents. 32 percent of them are German (prior year: 39 percent), 24 percent American (prior year: 15 percent), 9 percent British (prior year: 3 percent), 6 percent Norwegian (prior year: 5 percent), 4 percent Canadian (prior year: 21 percent), and 3 percent Swedish (prior year: 3 percent). The remaining 22 percent of the workforce hails from other countries.

Age of workforce in 2023

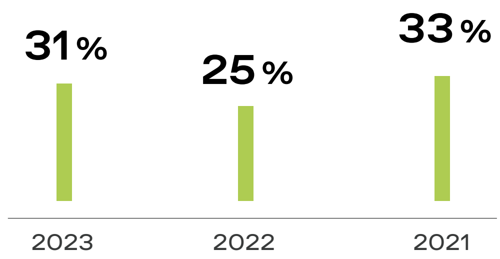


Age of workforce in 2022

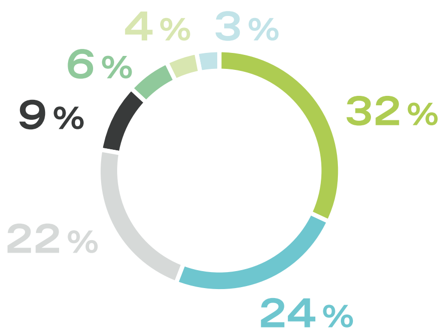


30–50 <30 >50 n.a.

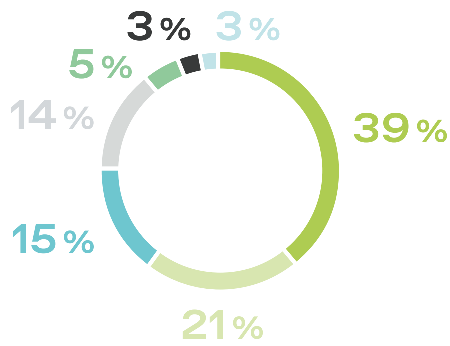
Development of the share of women in the workforce



Origin of the workforce in 2023



Origin of the workforce in 2022



Germany · Unites States · Other/n.a. · U.K. · Norway · Canada · Sweden

Employee Health and Safety

Northern Data Group places great importance on the physical and mental well-being of its employees. The rules of conduct for a safe workplace and healthy interaction are documented in Northern Data Group's Code of Ethics and Conduct. Northern Data Group pursues a Health, Safety and Environmental (HSE) Program that covers key elements such as a comprehensive safety plan, accident and damage reporting, safety, orderliness and cleanliness, organization of first aid, risk audits, instructions, training and drills, contractor qualifications.

Human Rights

Northern Data Group's approach to respecting and complying with human rights is set out in Northern Data Group's Human Rights Policy. Northern Data Group's policy is based on the international human rights principles contained in the Universal Declaration of Human Rights, the International Labor Organization (ILO) Declaration, the Fundamental Principles and Rights at Work, the United Nations Global Compact and the United Nations Guiding Principles on Business and Human Rights. It applies throughout the Group and covers the topics of anti-discrimination, freedom of association and collective bargaining, a safe and healthy workplace, forced labor, human trafficking, child labor and working hours.

Governance

Northern Data Group takes the topic of responsible corporate governance very seriously and aims to sustainably increase the value of the Group. ESG is integrated into the Group-wide risk management system, and a Conflict-of-Interest Register is maintained. In addition, there are obligatory training courses for all employees in the field of acting safely and responsibly in the workplace. Most importantly, Northern Data Group was certified according to ISO 27001 in 2023, the international standard for information security, which works on three principles: confidentiality, integrity, and availability of data. In 2023, Northern Data Group deepened its focus on ESG and started preparations for the coming Corporate Sustainability Reporting Directive (CSRD). With the introduction of the three business divisions (Taiga Cloud, Ardent Data Centers, Peak Mining) a corresponding start was made in 2023 on converting the ESG strategy to the division level.

Data privacy

Group-wide Risk and Compliance Management is responsible for preserving data privacy. It is carefully considered – especially when hiring freelancers, implementing new software, making changes in processing personal data, answering incoming questions from customers, business partners or suppliers, video surveillance, and when personal data is transferred outside the European Economic Area (EEA). To ensure Group-wide data privacy, all employees attend data privacy training once a year. The requirements with regard to data privacy are recorded in Northern Data Group's privacy policies, which are all third-party audited. They cover all GDPR-relevant procedures and apply to the entire operations, including suppliers. Northern Data Group is ISO 27001 certified. There were no data protection breaches in 2023 and Northern Data Group expects to maintain this result.

Cyber security

Cyber security is of critical importance for all departments that are directly connected with IT activities. In 2023, these departments included internal IT, the team responsible for the data center infrastructure and the cloud department. For the Group-wide workforce, Northern Data Group has a cyber security policy in place that offers recommendations and sets rules in the fields of email security, password protection, and multi-factor authentication.

Newly hired employees receive an IT guide during onboarding. Training materials and information are regularly provided on the intranet and via IT newsletters. To ensure that every employee knows the basics of IT security, everyone is required to attend IT security training once a year. Moreover, there are regular phishing simulations that show potential areas of risk.

To manage incidents and breaches in the internal IT, several security mechanisms (Defender for Endpoint, Defender for O365, Identity Security) that all report to one central location are put to use. Depending on the incident, the management system automatically executes actions or calls for a manually executed action. In addition, all software installed is analyzed frequently for possible vulnerabilities and outdated versions. During fiscal year 2023, several cyber security incidents were recorded, including multiple phishing attempts and one malware detection. In all cases, the IT department was able to successfully block access and prevent any harm or impact to Northern Data Group. The technical and manual measures in place were effective in mitigating the risks and ensuring the safety and security of Northern Data Group's data and systems.

Anti-corruption and compliance

Northern Data Group does not tolerate any form of corrupt practices, including, but not limited to, extortion, fraud, or bribery. Northern Data Group encourages employees who suspect that serious issues exist to report them using a whistleblowing form without fearing any kind of reprisal. Normally, suspected irregularities must be reported to the respective manager, who examines the matter and seeks a solution. If, for whatever reason, an employee does not feel comfortable with reporting the issue to the manager, the Compliance or People Team may be approached directly. Whistleblowing, however, does not only concern employees. Northern Data Group provides a whistleblowing form on its website to enable members of the public to report wrongdoing. In fiscal year 2023, four cases of whistleblowing were reported. All of them were considered negligible.

Corporate governance and culture

Northern Data Group is committed to the highest values and morals. These are presented in Northern Data Group's Code of Conduct. The "Code of Business Conduct &

Ethics" applies to all employees, suppliers, customers and partners. It provides guidelines that must be followed under all circumstances. The code covers important topics such as health and safety, equality and anti-discrimination, conflicts of interest, the confidentiality of information, intellectual property, competition and antitrust, risk management and awareness, money laundering and insider trading. The code is centrally placed on the Northern Data Group intranet and has been translated into German, English, and French. To ensure consent and compliance, all employees are required to complete a course that teaches the basics of the Code of Conduct and confirm that they agree with and follow it.

ESG in the future

As social actors, corporations share the responsibility for sustainable development. Northern Data Group has accepted this responsibility and decided to report on its contribution to sustainable development with this voluntary ESG Report. In accordance with the growth of Northern Data Group, its structures, and procedures, the professional monitoring of ESG reporting is further developed and continuously improved. With regard to the imminent Corporate Sustainability Reporting Directive (CSRD), Northern Data Group is developing measures and implementing structures to be fully prepared when the directive comes into effect. Thus, at the beginning of fiscal year 2024, Northern Data Group started a wide-ranging ESG project in conjunction with the corporate strategy. The goal for future ESG reporting is to maintain a transparent, sincere, and comparable ESG data record that is developed in line with global standards and frameworks and serves the overall vision to become as sustainable as possible. Northern Data Group wants to actively take part in the process of creating a more sustainable world for current and future generations.

GROUP MANAGEMENT REPORT

Group Management Report

Basis of the Group

Business Model

Northern Data Group (hereinafter also referred to as Northern Data or the Group), headquartered in Frankfurt/Main, Germany, develops and operates global infrastructure solutions in the field of High-Performance Computing (HPC). HPC is characterized by the provision of computing power in a short period of time. HPC accelerates computing and provides many times the computing power and storage capacity of conventional server systems. This comes with increased heat generation and therefore also requires special thermal management. The HPC computing power provided in the operation of Northern Data Group's data centers is based on two different types of microchips that are specialized for different applications: ASICs (Application-Specific Integrated Circuits) enabling Bitcoin mining and GPUs (Graphic Processing Units) enabling cloud computing.

In 2023, Northern Data AG reports on three segments, namely "Peak Mining," "Taiga Cloud" and "Ardent Data Centers," for the first time. The reason for this new reporting structure (previously "Mining" and "Hardware & Other") is the strict allocation of use cases to the corresponding independently acting Group divisions. The segments are described below:

Peak Mining: Developer, constructor and operator of mining data centers utilizing self-owned Bitcoin mining hardware to generate hash power

Peak Mining's main activity is Bitcoin mining for its own account. For this purpose, Peak Mining purchases highly efficient Bitcoin mining hardware, ASICs, and operates them in own purpose-built mining data centers. The ASIC machines consume electricity and generate computational outputs, known as hash rate. The hash rate is sent directly to mining pools, which are hash rate aggregators and risk-mitigation intermediaries that reduce the volatility of mining rewards. In simple terms, Peak Mining's hash rate is used by the pool to secure the Bitcoin network. In response, Peak Mining receives variable compensation in the form of rewards and transaction fees paid in Bitcoin. Peak Mining is not exposed to the block reward risk that miners have when mining directly to the Bitcoin network, as the pool pays out a market rate for the daily number provided. Peak Mining's operations team installs, manages, and maintains the ASIC machines to ensure high uptime and long machine life cycles. Peak Mining's leadership sources and selects locations for future expansion on the basis of attractive long-term power prices.

Taiga Cloud: Regional European provider of generative AI cloud services

Taiga Cloud provides customers with access to GPU hardware. The contracts are sold to customers with a fee per GPU, per hour and for an agreed period of time. The cloud proposition focuses on providing computing power for generative AI purposes where and when companies need it. Revenues are generated through partnerships with companies that have customers in need of computing power. Those partners are well-known manufacturers, such as NVIDIA, Gigabyte, and AMD that already have strong relationships with end-user customers and offer the necessary services to support their customers' ML and AI needs. Taiga Cloud's entire cloud is 100 percent carbon-neutral and powered and cooled with Power Usage Effectiveness ratios (PUEs) of less than 1.2. By housing islands of GPUs across its European data center estate, Taiga Cloud offers high-speed, low latency and data-sovereign compute power along with helping its customers to meet their ESG objectives.

Ardent Data Centers: Provider of data center environments, purpose built with liquid cooling technology

Ardent Data Centers manages Northern Data Group's data centers, including their acquisition or planning, construction or conversion, and operation. The business division procures, installs, and manages server hardware in its data centers that is owned by customers or attributable to the other Northern Data Group business divisions. Ardent Data Centers focuses on building the most efficient, future-ready network of HPC colocation capacity on the market. Thus, the infrastructure serves as a platform for colocation services as well as the Group-owned cloud business (Taiga Cloud). The data centers are located in North America and Europe. The revenues in this segment are mainly generated from colocation and engineering.

Corporate Governance

Management Board
Northern Data AG is run by the Management Board. The Group's strategic development is closely coordinated with the Supervisory Board. The Supervisory Board is always kept informed about new strategies as well as opportunities and risks by the Management Board.

The Management Board is responsible for the strategic development and successful management of Northern Data. In fiscal year 2023, the Management Board consisted of one person, Group CEO Aroosh Thillainathan.

Supervisory Board
The Supervisory Board acts as an oversight body for the Management Board and consisted of three members in fiscal year 2023: These were the Chairman of the Supervisory Board, Dr. Tom Oliver Schorling, the Deputy Chairman, Dr. Bernd Hartmann, and – until his departure effective January 17, 2023 – Hermann-Josef Lamberti. His position was taken over by Bertram Pachaly as a substitute member in accordance with Section 104 AktG with effect from January 18, 2023.

Group Structure Overview as of December 31, 2023

Northern Data Group is managed by Northern Data AG, registered in Frankfurt/Main (Germany). The Company performs central management and administrative functions for the Group companies, such as finance, investor relations, risk, human resources, and other general and administrative tasks.

The Group included the following significant subsidiaries:

- Northern Data Services (UK Limited) (Great Britain) provides a wide range of services to affiliated companies.
- Northern Data US, Inc. (USA), is the holding company for the US subsidiaries of the Group and provides a wide range of services to affiliated companies.
- Northern Data Software GmbH (Germany) provides a wide range of services to affiliated companies.
- Damoon Limited (Ireland) facilitates funding to Group subsidiaries expanding hardware investment for cloud services.
- Northern Data CA Ltd. (Canada) is owner of pods (mobile data centers), which are leased to Northern Data Quebec Limited.
- Northern Data Quebec Ltd. (Canada) is the lessor of pods (mobile data centers) from Northern Data CA Ltd, and the lands on which it operates the pods.
- Northern Data NOR (Norway) and its subsidiaries (Northern Data Real Estate I AS; Northern Data Real Estate II AS) are owners and operators of different types of hardware. The Norwegian companies provide high processing compute power to affiliated companies.
- Bitfield N.V. (Netherlands) is a holding company.
- Decentric Europe B.V. (Netherlands), is the owner and operator of hardware used for generating high processing compute power and providing services to affiliated companies.
- Peak Mining, LLC (USA) is a holding company. Its subsidiaries (North Georgia Data LLC; Northern Data Hosted Mining, LLC; Northern Data ND, LLC; Northern Data NY, LLC; 1102 McKinzie LLC; Northern Data US Procurement, LLC. Northern Data Hosted Mining) sell hash rate to external pools, relying on services acquired from affiliated companies.
- Northern Data (CH) AG (Switzerland) sells hash rate to external pools, relying on services acquired from affiliated companies.
- Taiga Cloud Ltd. (Ireland) provides cloud services to external customers worldwide. The company is responsible for developing and executing the Group strategy in the area of cloud services.
- Hydro66 Services AB (Sweden) operates the hardware necessary to generate compute power and provides services to Taiga Cloud Ltd. Throughout part of the year, Hydro66 Services AB was providing external customers with colocation services. Following a change in the company's business activity, the company is now operating the hardware necessary to generate compute power and providing services to Taiga Cloud Ltd. Taiga Cloud NL B. V. (Netherlands) operates the hardware necessary to generate compute power and provides services to its parent company, Taiga Cloud Ltd.

- ND CS (Services) GmbH (Germany) provides support activities in the areas of technology and infrastructure. Throughout part of the year, ND CS was providing external customers with cloud services. Following a change in the company's business activity, the company is now providing a range of services to affiliated companies.

- Hydro66 Svenska AB (Sweden) is the owner and operator of the data center located in Boden, Sweden, that provides colocation services to affiliated companies and external customers.

- Ardent Data Services, LLC (USA) is the intended owner and operator of a data center that is currently in development and will provide colocation services to external customers and related parties.

- Ardent Data Centers, LLC (USA) is a holding company.

Significant changes from the previous year
The following significant changes occurred within Northern Data Group's subsidiaries in fiscal year 2023:

- The following entities have undergone a name change: Northern Data US Mining Holdco, LLC (now Peak Mining, LLC); Northern Data NE, LLC (now Ardent Data Services, LLC); Northern Data DCI Holdco (now Ardent Data Centers, LLC).

- The following were not classified as material in the previous year: Northern Data CA Ltd. (Canada); Northern Data Quebec Ltd. (Canada); Northern Data Software GmbH (Germany); Northern Data NOR AS (Norway); Northern Data Real Estate I AS; Northern Data Real Estate II AS; Hydro66 Services AB (Sweden); Hydro66 Svenska (Sweden); Bitfield N.V. (Netherlands), Northern Data Services (UK) Limited; Northern Data US Mining Holdco, LLC; Northern Data ND, LLC; Northern Data DCI Holdco, LLC.

- In 2023, Northern Data Group decided to shift all operating activities to the business lines and the entities thereunder and Northern Data AG is to serve as a holding company that provides financing and general services to its subsidiaries. The reorganization is still underway.

- The following entities moved to the Peak Mining division to support the expansion of business: North Georgia Data LLC; Northern Data ND, LLC, Northern Data NY, LLC, Northern Data PA, LLC.

- 1102 McKinzie LLC, (USA) was acquired as part of the Group's efforts to expand investment in infrastructure supporting the mining businesses.

- Taiga Cloud Ltd. (Ireland), Damoon Limited (Ireland), and Taiga Cloud NL B.V. (Netherlands) were established/acquired in 2023, each with the intended business purposes outlined in the section above.

- Minondo Ltd. (Gibraltar) ceased all business activity as of Dec. 31, 2022.

Economic Report

Macroeconomic and Industry-Specific Conditions

Global economy
The global economy only grew by 3.1 percent in 2023 after 3.5 percent in the previous year, according to the International Monetary Fund (IMF). In particular, the tightening of monetary policy to curb inflation had a negative impact on economic development. Countries heavily dependent on Russian energy imports experienced a more pronounced economic slowdown caused by the sharp rise in prices. Nevertheless, the global economy proved resilient and continued to recover slowly from the effects of the pandemic, the Russian invasion of Ukraine, and the sharp rise in the cost of living over the course of the year.[1]

Peak Mining – Bitcoin Mining
The crypto market recovered significantly in 2023 compared to the challenging previous year. In particular, the decline in cryptocurrency prices combined with rising energy costs had a negative impact. The environment for cryptocurrencies brightened with the general improvement in macroeconomic conditions, in particular the decline in inflation, the end of interest rate hikes, and the expectation of falling interest rates in 2024. In addition, signs of the approval of the first Bitcoin ETF in the US spurred interest in cryptocurrencies, as more investors would gain easy and regulated access to this asset class.[2] Bitcoin spot ETFs were approved after the end of the reporting period at the beginning of January 2024[3]. In addition, technological developments also contributed to positive Bitcoin sentiment and thus rising prices. Among these was the upcoming Bitcoin halving, which ultimately took place in April 2024. The Bitcoin halving after the end of the reporting period cut the number of newly created Bitcoins per block in half from 6.25 to 3.125, which resulted in fewer new Bitcoins coming into circulation.[4]

Overall, the cryptocurrency market rose by around 110 percent in fiscal year 2023 and reached a market capitalization of over EUR 1.5 trillion (USD 1.6 trillion) as of December 31, 2023.[5] Bitcoin recorded an increase of over 155 percent to around EUR 42,300/BTC.[6]

Taiga Cloud – Cloud Services
Global spending on cloud infrastructure services grew 18 percent to EUR 230 billion (USD 247 billion) in the full year 2023, according to the market research firm Canalys. At the same time, the impact of enterprise IT optimization on the cloud services market decreased as more customers expanded their engagement with hyperscalers in anticipation of higher usage requirements. At the same time, cloud migration efforts picked up again, along with an increase in new demand, particularly in the widespread adoption of AI applications. Here, the integration of generative AI into mainstream software products is accelerating, potentially leading to quicker commercialization of generative AI applications as well as an associated investment increase in AI cloud capabilities.[7]

Ardent Data Centers – Data Center Infrastructure
The market research firm Global Market Insights expects the data center infrastructure market to have grown by at least 12 percent to EUR 60 billion (USD 64 billion) in 2023.[8] According to the industry experts at Clifford Chance, the digitalization of business processes and the increasing use of streaming and the Internet are driving demand for data and the market for data centers. The data center infrastructure industry in 2023 explored new ways to increase energy efficiency and reduce the environmental impact, such as designing higher buildings, more efficient hardware and infrastructure, and a greater focus on the use of renewable energy. In 2023, the breakthrough of Artificial Intelligence in particular has led to an increase in demand for specialized, high-performance computing platforms in the data center sector.[9]

1 https://www.imf.org/-/media/Files/Publications/WEO/2024/Update/January/English/text.ashx
2 https://10xdna.com/de/posts/df566cb4-crypto-rckblick-und-update-zum-jahresende-2023/
3 https://www.reuters.com/technology/why-us-bitcoin-etf-is-game-changer-crypto-2024-01-10/
4 https://10xdna.com/de/posts/df566cb4-crypto-rckblick-und-update-zum-jahresende-2023/
5 https://coinmarketcap.com/charts/
6 Will Bitcoin and Ethereum prices stagnate, sink or rebound in 2023? | TechCrunch
7 https://www.canalys.com/newsroom/worldwide-cloud-q4-2023
8 https://www.gminsights.com/industry-analysis/data-center-infrastructure-market
9 https://www.cliffordchance.com/content/dam/cliffordchance/briefings/2023/02/data-centre-trends-in-2023.pdf

Business Performance

Northern Data Group progressed with its market development and establishment in fiscal year 2023. Notably, the business activities that were previously assigned to the segments "Mining" and "Hardware & Other," were organized into three independent business divisions:

Peak Mining: Purchase and operation of Bitcoin mining hardware and mining data centers to generate hash power

Taiga Cloud: Regional European provider of generative AI cloud services

Ardent Data Centers: Provider of data center environments, purpose built with liquid cooling technology

As in the prior fiscal year, revenue from Bitcoin mining activities (Peak Mining) accounted for the vast majority of Group revenue. As the demand for compute power increased in 2023, significant growth in revenue from cloud computing (Taiga Cloud) was achieved. Ardent Data Centers' revenues were predominantly generated internally.

The fiscal year was primarily characterized by substantial growth investments across all three business lines. Around EUR 1 billion (over USD 1 billion) was raised through capital increases, convertible bonds, and a debt facility. Thus, Taiga Cloud was granted access to more than 10,000 highly sought-after NVIDIA H100 Tensor Core GPUs, Peak Mining's operations were scaled by acquiring new hardware and supporting the development of the blockchain with special liquid-cooled mining technology, and Ardent Data Centers' portfolio was expanded.

Peak Mining

Fiscal year 2023 generally offered good conditions for Bitcoin mining, as the Bitcoin price rose from a January level of EUR 17 thousand by more than 2.5 times to around EUR 42 thousand at the end of the year. At the same time, there was a linear increase in the hash rate, which only doubled over the course of the year from around 253 exahash per second (EH/s) to around 500 EH/s compared to the Bitcoin price.

Peak Mining continued to use the flexibility of the electricity contracts concluded on a daily basis to ensure maximum profitability by specifically managing the utilization time of the hash power. To this end, Peak Mining flexibly switched mining hardware on and off or moved it to locations with lower operating costs. Thus, average power costs of EUR 40/MWh were achieved. As a result, Bitcoin mining was again more profitable than in the previous year with average revenue of EUR 25,973 per coin at production costs of EUR 15,660. Overall, 2,298 Bitcoin were produced in 2023. The strategy of only mining for its own account and selling all coins produced on a daily basis was maintained.

The number of installed self-mining hardware devices increased by around ten percent over the course of the year compared to the previous year, with a peak value of 40,643 installed devices and an installed hash rate of 3.78 EH/s in May 2023. At the end of the year, 35,639 self-mining ASIC servers were installed with a hash rate of 3.34 EH/s as certain sites with higher power prices have been shut down and the business looked to optimize the overall hardware portfolio.

Investments were mainly made in new, modern machines with liquid cooling. The Peak Mining business division acquired more than 7 EH/s of the latest generation of liquid-cooled WhatsMiners from MicroBT (models M53S+/M53S++ and M50S+/M50S++) for EUR 140 million (USD 150 million) in 2023. In November, Peak Mining announced the start of construction on its 30 MW plant in Grand Forks, North Dakota. The plant that has been operational since May 2024 features direct-to-chip liquid cooling technology. The first batch of MicroBT's liquid-cooled M53S++ miners will be assembled in the United States and installed at this location.

Taiga Cloud

In fiscal year 2023, two non-cash capital increases and convertible bonds of Northern Data AG were used to acquire Damoon Limited, Dundalk, Ireland, a company that in turn acquired more than 10,000 NVIDIA H100 Tensor Core GPUs (20 NVIDIA H100 GPU pods with 512 H100 GPUs each) worth around EUR 400 million. The transaction was completed in stages. Under IFRS, all stages became effective as of the end of December 2023, giving Taiga Cloud access to more than 10,000 highly efficient NVIDIA H100 Tensor Core GPUs.

The acquired hardware was configurated in partnership with GIGABYTE in pods of 512 GPUs connected to islands of four pods (2,048 GPUs) using NVIDIA BlueField DPUs and the NVIDIA Quantum-2 InfiniBand platform. This configuration enables efficient and fast training of large language models (LLMs) and provides organizations with AI results in a much shorter timeframe. Taiga Cloud's NVIDIA H100 GPU islands are distributed across Ardent Data Centers clean-powered data centers in Sweden and Norway and several external colocation provider data centers, providing additional resiliency and redundancy as well as European data sovereignty.

In September, Taiga Cloud received certification as an Elite Partner of NVIDIA and the status of an official Cloud Service Provider (CSP) in the NVIDIA Partner Network (NPN). As the highest level of partnership, elite status is reserved for NVIDIA partners who make the greatest contribution to the NVIDIA ecosystem.

A further investment was announced at the end of November. It consisted of more than EUR 330 million, provided by a debt financing facility to Northern Data AG, invested in 384 server cabinets with Hewlett Packard Enterprise (HPE) Cray XD supercomputers consisting of approximately 8,200 NVIDIA H100 Tensor Core GPUs. The HPE Cray XD supercomputers are designed to support generative AI and other large-scale AI projects for Taiga Cloud customers. Taiga Cloud customers will have access to HPE technology purpose-built for generative AI with the scale and performance of a supercomputer, required for a growing market of compute-intensive AI workloads. HPE Cray supercomputers are designed for speed, compute performance and energy efficiency. The first deployed H100 GPUs have been in operation since December 2023 and the rollout will continue in 2024.

Taiga Cloud has the largest cluster of NVIDIA A100 Tensor Core and H100 Tensor Core GPUs in Europe. The first customers were acquired in 2023. At the end of December 2023, Taiga Cloud secured an USD 30 million contract for H100s and A100s for 12 months. Furthermore, three customer contracts are in the pipeline. The four contracts cover a total of more than 6000 H100 GPUs. The contract terms range from one month to 36 months, and the number of GPUs can vary from less than 512 GPUs to more than 2,048 GPUs.

Ardent Data Centers
In 2023, Ardent focused on supporting its sister business divisions Taiga Cloud and Peak Mining and expanding its Tier 3 data centers portfolio to provide colocation services in Europe and the US. In the fiscal year, the business division negotiated five colocation agreements for four sites to house Taiga Cloud's NVIDIA H100 GPU islands and implemented a EUR 110 million investment strategy aimed at expanding Ardent Data Centers' ability to provide colocation services for HPC computing across Europe and the United States.

Development of the Asset, Financial, and Earnings Position

The comparability of the asset, financial, and earnings position of the current reporting period with the corresponding comparative period of the previous year is only possible to a limited extent, as certain investments were made as of the end of 2023.

Asset Position
In fiscal year 2023, Northern Data Group's total assets increased by 129.72 percent to EUR 1,035,084 thousand (December 31, 2022: EUR 450,586 thousand).

Overall, non-current assets in total assets rose in 2023 at 12.91 percent (December 31, 2022, non-current assets fell by 29.77 percent) to EUR 365,290 thousand (December 31, 2022, EUR 323,535 thousand). This is mainly driven by an increase in property, plant and equipment.

Property, plant and equipment increased by 15.42 percent to a total of EUR 326,348 thousand (December 31, 2022: EUR 282,745 thousand). This resulted from additional prepayments paid for GPUs and miners and is reduced by regular depreciation of EUR 60,882 thousand and additional impairments of EUR 12,420 thousand relating to ASIC miners used for Bitcoin mining, EUR 41,487 thousand relating to PODs and EUR 5,856 thousand relating to mobile substations (previous year: impairments of EUR 64,592 thousand processed on GPUs previously used for Ethereum mining). Goodwill remained constant at EUR 13,376 thousand (December 31, 2022: EUR 13,376 thousand).

Other intangible assets increased by 112.50 percent to a total of EUR 3,774 thousand (December 31, 2022: EUR 1,766 thousand) mainly due to an acquired intangible asset.

Rights of use assets from lease agreements decreased by 32.94 percent to a total of EUR 6,834 thousand (December 31, 2022: EUR 10,191 thousand) primarily due to the amortization of existing lease agreements.

Shares in other companies decreased to a total of EUR 6,464 thousand (December 31, 2022: EUR 9,851 thousand) mainly due to decreased fair valuation of the shares in Lancium.

Other non-current assets increased by 48.25 percent to a total of EUR 3,767 thousand (December 31, 2022: EUR 2,541 thousand) mainly due to energy tax claims in Sweden.

Recognized deferred tax assets increased to a total of EUR 4,727 thousand (December 31, 2022: EUR 3,065 thousand) despite a decrease in temporary differences between the tax base of assets and their carrying amount in accordance with IFRS. This is due to the fact that lower netting of deferred tax assets and deferred tax liabilities results in a higher amount of deferred tax assets.

Current assets in total amount to EUR 669,794 thousand (December 31, 2022: EUR 127,051 thousand). Here, the inventories increased to EUR 56,534 thousand (December 31, 2022: EUR 7,200 thousand) mainly due to inventory being purchased and held on hand at year end. Total trade receivables increased to EUR 8,614 thousand (December 31, 2022: EUR 2,908 thousand) driven by increased activity in the cloud business segment. Income tax receivables decreased to EUR 5,004 thousand (December 31, 2022: EUR 5,122 thousand) mainly due to refunds expected on prepaid taxes in Gibraltar and Canada. Current assets classified as held for sale amount to EUR 18,423 thousand (December 31, 2022: EUR 0 thousand). Other assets increased to EUR 338,227 thousand (December 31, 2022: EUR 71,942 thousand) mainly due to an increase in prepayments and deposits. Cash and cash equivalents increased by 509.32 percent to EUR 242,992 thousand (December 31, 2022: EUR 39,879 thousand) due to increased cash resources drawn from funding resources.

Equity and Liability Position

The equity share rose by 104.33 percent to EUR 734,384 thousand (December 31, 2022: EUR 359,407 thousand). Subscribed capital rose to EUR 48,734 thousand (December 31, 2022: EUR 23,816 thousand) due to the fact that new shares were issued. In addition, the issuance of the mandatory convertible bond increased equity by EUR 86,954 thousand. The capital reserve increased by 99.28 percent to EUR 835,756 thousand (December 31, 2022: EUR 419,392 thousand) due to additional share options from the share option program launched in 2023. Translation differences decreased marginally to EUR −10,338 thousand (December 31, 2022: EUR −10,780 thousand) as a result of foreign exchange fluctuations.

Non-current liabilities in total amount to EUR 178,081 thousand (December 31, 2022: EUR 10,077 thousand). The increase was largely driven by borrowings in the form of a shareholder loan of EUR 171,858 thousand. Lease liabilities amounted to EUR 5,165 thousand (December 31, 2022: EUR 7,872 thousand), decreasing by 34.39 percent, primarily due to the amortization of existing lease agreements. Provisions remained constant at EUR 5 thousand (December 31, 2022: EUR 5 thousand). Deferred tax liabilities decreased to EUR 1,053 thousand (December 31, 2022: EUR 2,200 thousand) due to a change in the temporary differences between the tax base of assets and their carrying amount in accordance with IFRS and the effect of netting.

Current liabilities in total amount to EUR 122,619 thousand (December 31, 2022: EUR 81,102 thousand). Trade payables increased by 74.47 percent to EUR 62,510 thousand (December 31, 2022: EUR 35,829 thousand) as a result of capital investment activity. Lease liabilities decreased by 26.19 percent to EUR 2,054 thousand (December 31, 2022: EUR 2,783 thousand) due to the amortization of existing lease agreements as described above. Income tax liabilities decreased to EUR 20,091 thousand (December 31, 2022: EUR 27,992 thousand). Current provisions increased by 69.05 percent to EUR 3,244 thousand (December 31, 2022: EUR 1,919 thousand) due to an increase in tax provision. Other current liabilities increased to EUR 34,261 thousand (December 31, 2022: EUR 12,357 thousand) mainly driven by financing costs associated with capital measures.

Cash Development

Cash and cash equivalents comprising bank balances amounted to EUR 242,992 thousand as of the reporting date (previous year: EUR 39,879 thousand). Cash flow from operating activities amounted to EUR −17,601 thousand (previous year: EUR 960 thousand). The cash flow in fiscal year 2023 mainly consists of making use of the working capital, increasing the current payables and reducing the current receivables, as well as the sale of cryptocurrencies generated through own mining. Cash flow from investing activities (EUR −84,672 thousand; previous year: EUR −95,217 thousand) mainly comprises the investments in property, plant and equipment

(EUR –95,332 thousand; previous year: EUR –100,151 thousand). Investments in property, plant and equipment mainly relate to the business division Taiga Cloud and the investing in MicroBT servers. The positive cash flow from financing activities (EUR 305,106 thousand; previous year: EUR –82,914 thousand) in fiscal year 2023 resulted mainly from the issuance of shares and the related acquisition of subsidiary Damoon Ltd. (EUR 133,123 thousand; previous year: EUR 0 thousand) as well as obtaining a loan (EUR 175,400 thousand; previous year: EUR 0 thousand).

Earnings
Northern Data Group reported sales revenues of EUR 77,527 thousand (previous year: EUR 193,287 thousand) and EBITDA of EUR –28,232 thousand (previous year: EUR –58,117 thousand).

Sales revenues of EUR 77,527 thousand in fiscal year 2023 (previous year: EUR 193,287 thousand) resulted primarily from the provision of computing power for cryptocurrency mining (EUR 59,838 thousand; previous year: EUR 163,315 thousand); revenue from cloud computing services (EUR 14,256 thousand; previous year: EUR 1,390 thousand); the sale of hardware (EUR 58 thousand; previous year: EUR 25,544 thousand) and hosting and colocation services (EUR 410 thousand; previous year: EUR 3,038 thousand). The associated costs for this purpose are reported under cost of materials (EUR 41,398 thousand; previous year: EUR 98,864 thousand) mainly comprising electricity costs of EUR 38,383 thousand (previous year: EUR 59,980 thousand).

Other income in the fiscal year (EUR 33,479 thousand; previous year: EUR 56,181 thousand) resulted mainly from the sale of assets (EUR 10,984 thousand) and favorable currency translation differences, amounting to EUR 16,249 thousand (previous year: EUR 38,608 thousand). In the previous year, other income resulted mainly from favorable currency translation differences, amounting to EUR 38,608 thousand and refunds from reclaimable energy taxes.

The decrease in personnel expenses by EUR 13,395 thousand to EUR 36,503 thousand (previous year: EUR 49,898 thousand) is mainly due to a lower average of employees in the fiscal year.

Other expenses (EUR 61,337 thousand; previous year: EUR 158,823 thousand) mainly include legal and consulting fees (EUR 20,945 thousand; previous year: EUR 24,025 thousand); expenses from currency translations (EUR 23,092 thousand; previous year: EUR 24,792 thousand) and the loss on the disposal of tangible and intangible assets (EUR 2,705 thousand; previous year EUR 12,182 thousand). The U.S. dollar depreciated against the euro in fiscal year 2023, with the result being that the euro strengthened from USD 1.07 on December 31, 2022, to USD 1.11 at the end of the reporting period. The favorable differences from currency translation resulting from this development is recognized in Other Comprehensive Income in the amount of EUR 442 thousand. Consequently, EBITDA amounted to EUR –28,232 thousand (previous year: EUR –58,117 thousand) in the fiscal year.

Depreciation, amortization, and impairment losses (EUR 124,929 thousand; previous year: EUR 207,234 thousand) in the fiscal year include, among other items, depreciation of EUR 60,882 thousand (previous year: EUR 91,318 thousand) for property, plant and equipment; impairments of EUR 12,420 thousand relating to ASIC miners used for Bitcoin mining, EUR 41,487 thousand relating to PODs and EUR 5,855 thousand relating to mobile substations; impairment losses on cryptocurrencies of EUR 0 thousand (previous year: EUR 29,050 thousand) and impairment losses on goodwill amounting to EUR 0 thousand (previous year: EUR 5,714 thousand). Compared to the previous year, the decrease in depreciation for property, plant and equipment resulted due to the age of assets in use as well as impairments processed at the end of the previous year.

Financial expenses of EUR 1,448 thousand (previous year: EUR 3,166 thousand) mainly comprise interest charges related to borrowings and the mandatory convertible bond (EUR 1,158 thousand). In the previous year, financial expenses mainly related to interest expenses to the shareholder loans in the amount of EUR 2,824 thousand. Financial income of EUR 1,084 thousand (previous year: EUR 99 thousand) is primarily comprised of interest income on VAT receivables.

Income tax charges for the current period is EUR 2,470 thousand tax income (previous year: EUR 2,643 thousand tax income), which includes actual tax expenses of EUR 382 thousand (previous year: EUR 3,501 thousand tax income) and deferred tax income of EUR 2,852 thousand (previous year: EUR 858 thousand deferred tax expense). The income from deferred taxes mainly resulted from temporary differences in asset tax vs book values, and the netting with deferred tax assets.

In total, a consolidated net loss for the year of EUR −151,055 thousand (previous year: consolidated net loss of EUR −265,775 thousand) is reported.

Financial Performance Indicators

Northern Data Group
The key figures of sales revenues and adjusted EBITDA (adjusted income from operations before depreciation and amortization) contribute to the management of the Group and serve as the basis for strategic decisions. Adjusted EBITDA is a financial measure defined as Northern Data's EBITDA, adjusted to eliminate the effects of certain non-cash and/or other items that do not reflect the ongoing strategic business operations. EBITDA is computed as net income before interest, taxes, depreciation, and amortization. Management believes this performance measurement represents a key indicator of the Group's core business operations.

The sales revenue forecast in the range of EUR 65 million to EUR 75 million for fiscal year 2023 was exceeded. At EUR −5.5 million, adjusted EBITDA was in line with the forecast for adjusted EBITDA in the range of EUR −20 million to EUR −5 million. The adjustments add back the impacts of non-cash and non-recurring items which currently include (i) stock option plan expenses, (ii) legal costs, (iii) systems implementation, (iv) restructuring project.

in EUR '000	2023
EBITDA	−28,232
Stock option plan expenses	15,972
Legal costs	1,961
Systems implementation	3,343
Restructuring project	1,480
Adjusted EBITDA	−5,476

in EUR '000	2022
EBITDA	−58,117
Trading losses/gains from cryptocurrencies	44,970
Stock option plan expenses	16,840
Lawsuits (including Whinestone and BaFin) (legal fees associated with these matters)	18,487
Systems implementation	5,695
Executive severance payments	4,132
Impairments of receivables related to third-party bankruptcy	4,656
Write-down of assets non-commissioned	5,737
Adjusted EBITDA	42,400

Business Divisions
In assessing operating performance, Northern Data's management focuses on the core businesses, which consist of the segments "Peak Mining," "Ardent Data Centers," and "Taiga Cloud" for 2023 (previous year: "Mining" and "Hardware & Other"). In this context, Northern Data's management uses the financial performance indicators of sales and adjusted EBITDA to manage the segments.

For the reporting period, the "Peak Mining" segment generated EUR 62,802 thousand in external sales (previous year: EUR 184,739 thousand). The revenue result is therefore higher than the expected target range of the Group. The revenue in this segment is mainly attributable to the computing power generated in the area of crypto mining. The revenues are hereby volume-driven and also directly depend on the development of the cryptocurrency exchange rate. EBITDA for the segment amounts to EUR −13,677 thousand (previous year: EUR 95,941 thousand). In the reporting period, the "Ardent Data Centers" segment generated external sales of EUR 469 thousand (previous year: 7,158 thousand). The main revenue drivers within this were hardware sales. The segment posted EBITDA of EUR 11,329 thousand (previous year: EUR −122,880 thousand). For the reporting period, the

“Taiga Cloud” segment generated EUR 14,256 thousand in external sales revenue (previous year: EUR 1,390 thousand), which are driven by cloud computing services. The revenue result is therefore slightly above the expected target range of the Group. The segment reported EBITDA of EUR –11,548 thousand (previous year: EUR 2,949 thousand).

Non-Financial Performance Indicators

Environmental protection
One focus of the Group is on resource-conscious management and environmental protection. The generation of computing power and the cooling of the equipment require a lot of energy. The data centers in Scandinavia obtain their electricity mostly from hydroelectric power.

Furthermore, the software is constantly optimized for the prudent use of the servers. The prudent use of resources is of vital importance to Northern Data Group not only from an ecological but also from an economic point of view. Northern Data Group is already focusing on energy efficiency in the expansion of new data centers as well as in the operation of its current facilities.

Employees
As of December 31, 2023, the Group employed a total of 145 people, 30.06 percent less than at the end of the previous year.

Ethical Principles
The Group-wide Code of Business Conduct & Ethics reflects social, cultural and societal standards.

Opportunity, Risk and Forecast Report

Opportunity and Risk Management at Northern Data Group

For Northern Data Group, systematically addressing potential opportunities and risks is one of the cornerstones of responsible corporate governance. Identifying and acting quickly on opportunities as well as mitigating risks is essential to the Group's success. Northern Data Group defines opportunities and risks as events that, if they occur, will lead to positive or negative deviations from its business objectives. To act in a forward-looking and controlled manner, Northern Data Group identifies potential opportunities and risks and evaluates them in terms of their probability of occurrence and possible extent of their impact.

Acting on an international level, Northern Data Group has exposure to macroeconomic, segment-specific, and Group-specific risks and opportunities. This Opportunity and Risk Report presents the risks and opportunities considered material for Northern Data Group.

Responsibility for the development and maintenance of an effective Risk Management System (RMS) in the Group lies with the Management Board. The Management Board, as well as the operative management level of the respective business areas and segments, have the direct responsibility for the early and ongoing identification, assessment and management of risks and opportunities. To ensure that a holistic approach is taken, the Risk & Compliance Team works throughout Northern Data Group in close coordination with the risk owners from relevant departments, segments and significant companies affected by the opportunities and risks.

Structure of the Risk Management System

The Risk Management Policy defines the strategic principles for the development, implementation, and operation of the RMS of Northern Data Group. Northern Data's RMS provides the organizational roles, responsibilities, and authorities, as well as the processes to identify, assess, manage and report risks.

The RMS is reviewed regularly and further developed to fit the evolving needs of the Group. This ensures that the RMS meets current requirements and provides effective support in managing risks. The RMS has been automated in accordance with the ISO 27001 certification and the risk register was incorporated into Jira, a system used throughout the business.

The Risk Management process is integrated into Northern Data business processes. They are designed as a continuous cycle that enables timely feedback to all functions involved in Risk Management activities.

Northern Data's risk management process

Objectives of the Risk Management System

The objectives of the RMS are the early identification of risks that could threaten the Group's ability to continue as a going concern, the maintenance of transparency for decision-makers to determine respective appropriate actions, the promotion of a risk vigilant culture and the maintenance of a common understanding of risks within Northern Data Group.

Identification and Monitoring of Risks and Opportunities

Through existing processes (including workshops and self-assessments), the identification and assessment of risks and opportunities is carried out by both the risk owners during day-to-day operations and the Risk & Compliance Team on an annual basis.

Northern Data has also embedded a reporting process for urgent risk events and major changes in materiality levels to be escalated to the Risk & Compliance Team and the Management Board.

Risk Management

All individual risks identified are continuously assessed in terms of their probability of occurrence and their potential impact. The risks identified are then summarized and classified according to the following scale:

- low (risk score: 3–6),
- moderate (risk score: 7–9),
- significant (risk score: 10–11) and
- substantial (risk score: 12–15).

The summary is presented using the following risk matrix:

Impact	very low	low	moderate	significant	substantial
substantial	11	12	13	14	15
significant	9	10	11	12	13
moderate	7	8	9	10	11
low	5	6	7	8	9
very low	3	4	5	6	7

Probability of occurance

3–6 low 7–9 moderate 10–11 significant 12–15 substantial

The probability of occurrence represents the probability with which a certain impact of a risk could materialize within the defined period of one year. The assessment of the potential impact is made using quantitative or qualitative scales. The quantitative scale refers to the potential operating profit impact against EBIT as well as considering the KPI against adjusted EBITDA (see section "Financial Performance Indicators" in the Group Management Report). The qualitative scale considers the impact on Northern Data Group's reputation, financial performance, customers and changing regulatory requirements.

Net risks are considered when assessing individual risks. The net risk is the residual risk remaining after all reasonably practicable risk-reducing measures have been taken into account. The risks presented in this report exclusively reflect the net risk.

Based on the assessment and the respective combination of probability of occurrence and impact, risks are classified as low, moderate, significant or substantial. The main risks currently identified are described in detail in this report.

Management of Risks and Opportunities
Risk owners are responsible for developing and implementing effective measures to mitigate risks within their areas of responsibility. Depending on the nature, characteristics and assessment of the risks, different risk responses, or a combination of responses, can be applied by the Risk owners to reduce the risk after considering their costs and benefits. Possible risk responses include acceptance, avoidance, mitigation or the transfer of a risk to third parties.

Improvement in Risk Management and Reporting
The Risk & Compliance Team reports to the Management Board on an annual basis on the Group-wide risk situation, while risk events occurring during the year and major changes in materiality levels of previously reported risks are reported on an ad-hoc basis.

In 2023, the RMS was automated in accordance with the ISO 27001 certification and the risk register was included in Jira.

To support and continuously foster Northern Data Group's risk culture, risk activities for the entire Northern Data Group such as mandatory training in ethical behavior, the Code of Conduct and risk management are conducted.

Opportunity Report

Opportunity management is based on strategic planning and the resulting measures for the development of the Group and its segments. The Management Board, as well as the operative management level of the respective business areas and segments, have the direct responsibility for the early and ongoing identification, assessment, and management of opportunities.

The Management team makes use of evaluations on current and future trends regarding technologies, products, and market potential in the Group's fields of activity. The potential opportunities identified during these strategic analyses are then examined with regard to the critical success factors and existing external conditions and possibilities in planning discussions between the Management Board, Supervisory Board, and operational managers before being implemented in the form of specific measures, targets and milestones. The progress and success of these measures is continuously monitored and analyzed by operational management as well as the Management Board and the Managing Directors of the respective segments.

The Group's management follows the latest developments in the cryptocurrency sector as well as in the generative AI industry. The Group mainly benefits from a global development in the cryptocurrency mining sector. In addition, Northern Data Group is upscaling its business in Cloud Solutions and creating additional growth opportunities, focusing on the fast-growing generative AI industry. The growth has been fueled by the latest technology being developed by NVIDIA which has stimulated a new wave of products and services, most notably OpenAI with their conversational Large Language Model (LLM) known as ChatGPT, their text-to-image generator Dall-E and their latest text-to-video implementation, Sora. This has set a mega-trend of other hyperscalers, enterprises and start-ups to invest in generative AI as well.

The main opportunities arising for Northern Data Group or the individual segments during 2023 – "Peak Mining," "Taiga Cloud" and "Ardent Data Centers" – are described below.

Strategic Opportunities

In this Opportunity Report, Northern Data Group presents a strategic overview of its material opportunities sorted according to their significance, to guide its focus and efforts towards maximizing potential benefits for the Group.

Opportunities due to the continued interest in cryptocurrencies (Segment: Peak Mining)
After the severe setback that financial markets and cryptocurrency markets at large felt during fiscal year 2022, many analysts questioned the viability of cryptocurrencies as a going concern. In December 2022, the Bitcoin price was below EUR 16 thousand (USD 17.6 thousand) and thus at a three-year low in a bear market from which investors

were hoping for an imminent breakout[10]. A December 2022 CoinWire survey showed that 64 percent of investors believed the market was about to bottom and that Bitcoin would rise to EUR 33 thousand (USD 35 thousand) by the end of 2023.[11] Their predictions became true, and by the end of December 2023, the cryptocurrency market had enjoyed great returns, with Bitcoin alone enjoying up to 140 percent returns and breaking above EUR 40 thousand right before the new year.[12, 13] This means that Bitcoin alone had a market capitalization of about EUR 800 billion as of the middle of December 2023.[14] Furthermore, cryptocurrencies are used by a growing number of more than 500 million people across the globe.[15] This does not, however, take into account how the launch of the Bitcoin ETFs unlocks access through a regulated investment vehicle for trillions of dollars of capital to access Spot Bitcoin and how that will increase Bitcoin adoption.[16]

Only two factors determine the market price of Bitcoin, supply and demand. The main driving factor on the demand side of the price discovery of Bitcoin is the increase in global adoption of the asset, its subsequent increase in utilization, and the inclusion of Bitcoin as an asset class in the traditional financial ecosystem. At the same time, Bitcoin's fundamental principle of having a predictable and finite supply is the main driver of the supply side of the price discovery process. The regular use of halving events, which happen every four years (most recent in April 2024), is expected to lead to a higher Bitcoin price due to the liquid supply shock this will entail, while demand can be expected to stay steady or increase. On the other hand, macroeconomic factors such as rising global interest rates, worldwide uncertainty and economic stagnation, typically add to volatility and dampen the upwards price action of Bitcoin. Northern Data Group is confident that the Bitcoin price will increase in the long term (5+ years) thanks to the increasing future demand and the limited and dwindling supply, thereby making up for expected macroeconomic headwinds.

Opportunities created by utilizing stranded and unused energy from typically (renewable) power producers (Segment: Peak Mining)

There are incentives for renewable energy facilities to produce their maximum capacity to deliver electricity in accordance with their contractual agreements even when the demand is not there. Furthermore, regions exist where power is in abundance due to oversupply imbalances, changes in demand and/or supply, or general grid congestion, which make it impossible for power producers to sell their power, thus being forced to either shut off power or waste it. In both cases, this oversupply of electricity can lead to low or sometimes negative electricity prices which negatively affect the financial situations of renewable energy asset managers. With the steep (and required) growth in renewables, this imbalance is becoming more prevalent worldwide and thus becoming a worldwide problem.

The characteristics of Bitcoin mining, such as the ability to consume power in remote areas, close to any form of power generation, and the ability to quickly change power consumption during periods of excess supply and/or low market demand, provide strong incentives and synergies to build up additional renewable energy capacity.[17] This has been shown and is supported by both the latest academic research and ERCOT's executive management.[18] It is becoming apparent that existing and new (renewable) power producers and grid managers could use Bitcoin mining as a way to enhance financial returns and stabilize the grid. This creates additional opportunities for growth of renewable energy in areas where an imbalance remains between supply and demand of power or an oversupply

10 Bitcoin December 2022: Is the Bear Market finally losing steam? (watcher.guru)
11 crypto-report-2022-final-3.pdf (coinwire.com)
12 https://www.cnbc.com/2024/01/05/bitcoin-has-surged-67-percent-in-value-since-september.html
13 https://en.econostrum.info/bitcoin-more-than-doubles-in-2023-surging-to-43k/
14 With about 19,5m Bitcoins in circulation, at $41.000 per coin, Bitcoin would have an approx. market cap of $800B.
15 https://www.statista.com/statistics/1202503/global-cryptocurrency-user-base/
16 https://edition.cnn.com/2024/01/10/markets/bitcoin-etf-sec/index.html
17 bitcoins-role-esg-imperative.pdf (kpmg.com)
18 ERCOT is the grid system with the most Bitcoin Miners and generation dedicated to Bitcoin mining in the world. The interim-CEO Brad Jones oversaw this rise in Bitcoin mining and reported that Bitcoin Mining was the ideal Industrial consumer of energy in order to perform grid balancing services required in order to accommodate the Renewable Energy Producers' imbalances. Study Reveals Bitcoin Mining as a Catalyst for Renewable Energy Growth and Flexible Load Systems – Bitcoin News

of renewable energy producers leading to a phenomenon called "cannibalization."[19] All of this additional growth would be enabled, financed and facilitated by Bitcoin Mining companies like Northern Data Group's segment Peak Mining.

Due to the energy contracts entered into and Northern Data Group's ability to increase production at short notice, there are opportunities to benefit from low, and sometimes negative, electricity prices. Furthermore, there is the opportunity for Northern Data Group's segment Peak Mining to participate alongside the grid managers in order to perform grid balancing services, which could provide additional diversified revenues for the Group.

Opportunities due to increased demand for digitalization and cloud-based solutions (Segment: Taiga Cloud)
The growing demand in the industry, driven by structural megatrends such as digitalization, leveraging significant catch-up potential in web presence and an ongoing shift from on-premise to cloud environments, creates an opportunity for Northern Data Group to quickly and successfully establish its Cloud segment (Taiga Cloud) in the market and to benefit from growth opportunities. With the increasing adoption of AI and the pressure to keep up with the demand for AI-based services and tools, most organizations will use codeless development tools for at least 30 percent of AI and automation initiatives by 2024. Trends continue to show that 85 percent of organizations will combine human expertise with AI, ML, natural language processing (NLP) and pattern recognition by 2026 to improve foresight and increase employee productivity by 25 percent.[20]

Taiga Cloud offers Generative AI Infrastructure as a Service (IaaS) and is expanding the ML & AI services and further developing the software stack to offer its customers an additional service layer to complement the IaaS. Taiga Cloud, an Elite CSP Partner of NVIDIA, has now established itself as the largest Generative AI IaaS provider in Europe. This offers a competitive advantage by bringing scale, speed, sovereignty and sustainability to the region.

Opportunities due to a general focus on sustainability
Sustainability is a key focus area for Northern Data Group. It is important for companies to adapt to the global economic and environmental situation in a sustainable manner within the context of preserving and conserving natural resources. Northern Data Group develops and operates its data centers with the highest interest in doing business sustainably and invests in energy-efficient technologies, such as advanced liquid cooling systems and renewable energy sources linked to the Group's infrastructure. This focus creates an opportunity for Northern Data Group to differentiate itself from competitors as this agenda evolves.

Opportunities from diversification of data center locations (Segment: Ardent Data Centers)
Diversification of Ardent Data Centers' data center locations offer substantial benefits in mitigating risks and enhancing operational resilience. By strategically dispersing data centers across multiple geographical regions, Ardent can improve reliability, scalability, disaster recovery capabilities, regulatory compliance, and geopolitical risk mitigation. Investing in diversification is crucial for safeguarding data assets, maintaining customer trust, and sustaining its competitive advantage in today's dynamic business landscape.

Risk Report

As mentioned above, the Management Board of Northern Data Group is responsible for establishing and maintaining an appropriate RMS. The risks identified were reported to the Management Board.

All known, material strategic, operational and compliance risks are presented below in the order of their probability of occurrence. The risks identified below relate to all segments or, where indicated, to specific segments of Northern Data Group.

Overall, no risks that could threaten Northern Data Group's ability to continue as a going concern were identified.

Strategic Risks

Risks from Bitcoin market price volatility – Risk classification: substantial (Segment: Peak Mining)
The price of Bitcoin is volatile. It is widely recognized to be

19 A simmering cauldron of renewables 'revenue cannibalization' – pv magazine International (pv-magazine.com)
20 40 cloud computing stats and trends to know in 2023 | Google Cloud Blog

a commodity and Northern Data Group does not have any control over the asset's price. Consequently, this means that revenues and margins are also volatile. This is because costs (energy, people and other) are mainly fixed while the price, a key revenue input, fluctuates wildly. As the cryptocurrency market turned into a bear market in the third quarter of 2022, all mining companies were hit as a result. However, the market has already experienced a similar bear market three times before, each lasting longer than 20 months and resulting in a decline in the Bitcoin price of more than 70 percent from its peak. The current bear market was fueled by the collapse of the Terra ecosystem, the collapse of FTX, massive user withdrawals, and significant fear, uncertainty, and doubt.[21] By the end of December 2022, the price of Bitcoin had declined by 75 percent from the all-time high of 2021, which also impacted the Cryptocurrency Mining segment and led to a significant decline in revenues.[22]

Conversely, over the course of 2023, the Bitcoin price has recovered significantly since the latest lows in December 2022. Margins have improved, but only to a certain extent. As the prices increased, hash rate also increased since it attracted new entrants and new investment from current participants, dampening the positive effects that rising prices would have on the margins. Thus, despite the general improvement in the Bitcoin Mining margins and cash flow, any downward volatility or black swan event could squeeze them back down.

If the Bitcoin price falls too much and with it the rewards for the hash power produced, at some point it may no longer be profitable to run the business for a certain period of time.

Risks from the Bitcoin halving – Risk classification: moderate (Segment: Peak Mining)
At the halving in April 2024[23], block rewards for Bitcoin mining were halved, which means that revenue from mining immediately decreased by 50 percent (ceteris paribus). This decline in revenue is typically partially offset when the least efficient miners or producers with the highest energy costs need to shut down, and the proportional reward for existing (more efficient and lower cost) miners is thereby increased again. It is uncertain how long such a period of lower revenue will last before market participants shut down and it could mean that profitability will also remain low for Northern Data Group.

This was not an active risk in 2023, but it surely poses a risk for 2024. The best mitigation strategy from an operational perspective is buying efficient miners and/or having access to low cost of power, which will lead to a stronger competitive position throughout any halving-related events. Further strategies could be performed on a financial or balance sheet basis, by acquiring or securing enough funding to weather any short- or medium-term negative cash flow situations before less efficient competition shuts off and the hash price (revenue per produced computation/hash) recovers.

As the market supply of new Bitcoin halves and assuming a stable demand (in terms of fiat purchasing of Bitcoin), it is plausible that the Bitcoin price appreciates as supply and demand are not in balance. This can offset the lower block rewards. However, this is not a given and it can take a long time before the price appreciates because of the reduction in supply.

Risks from non-effective growth – Risk classification: moderate
Northern Data Group aims to expand its market position in all segments and achieve profitable growth through sustainable, powerful, and sovereign cloud solutions in Euope and worldwide in line with the deployment of Northern Data Group's expansion strategy over the next 3 years and beyond. The Group is currently developing various sites and expanding its operational capacities. The development of new sites places a heavy burden on Northern Data Group's managerial, operational, and financial systems. As a result, processes, structures, and any type of organization must be readjusted and expanded regularly. Possible adjustments or changes to Northern Data Group's growth strategy could have a corresponding impact on the business and financial results if managerial, operational, and financial systems are not optimally aligned.

21 The Collapse of FTX: What Went Wrong With the Crypto Exchange? (investopedia.com)
22 Surviving the Perfect Storm – 2022 End of Year Mining Report | Galaxy
23 Bitcoin Halving 2024: Everything You Need to Know | IG International

Operational risks

Electricity price and availability risk – Risk classification: substantial (Segment: Peak Mining, Taiga Cloud)
A secure, reliable and cost-effective power supply is of great importance to Northern Data Group's business. For Mining, the electricity prices in the markets Northern Data Group operates in are volatile and have a direct impact on its profitability. A way to manage fluctuations in electricity prices is to enter into hedging contracts or longer-term fixed price contracts with the electricity providers. However, with the fluctuations in Bitcoin prices, hedging power at too high a price also comes with risks. It is therefore of paramount importance to carefully manage these decisions and take a tactical approach to electricity price opportunities available in the market.

Furthermore, some unexpected events that lie outside the Company's control can lead to interruptions in the energy supply to the data centers and have a direct impact on the computing performance. For the segment Peak Mining, the impact is less than for Taiga Cloud, due to the absence of customers with potential uptime guarantees, and due to lower requirements for power reliability. These situations occur when technical failures of outages occur at power suppliers which negatively affect power generation or power delivery to the datacenters. In this context, administrative decisions, such as stricter environmental regulations or levies related to energy supply, could also have a negative impact. Direct damage to the data centers, due to severe weather conditions, for example, could also cause outages. However, the availability risk is to be minimized by selecting sites with good infrastructure, reliable sources of power or grids, and predefined conditions (in terms of power and network capacities).

Cyber and information security risks – Risk classification: substantial
An increase and professionalization of cybercrime can be seen around the world. The rapid evolution of technology, including the use of Artificial Intelligence, and the increasing reliance on digital systems have resulted in more frequent and sophisticated cyber-attacks, introducing new security challenges for organizations. The functional security of the Group's internal network and systems is an extremely important foundation for Northern Data Group's business.

In the event of a cyber-attack, Northern Data Group could suffer reputational damage, operational disruptions, the loss of intellectual property and the loss of some or all its digital assets. For this reason, Northern Data goes to great lengths to protect its own information technology as well as to ensure the security of its data centers. The Group is aware of the risks posed by the increasing professionalization of computer crime, the use of Artificial Intelligence in cyber-attacks and the expansion of the "cybercrime-as-a-service" underground economy and ecosystem.

To counter these risks, the Group's measures include, but are not limited to, state-of-the-art security systems, vulnerability management, regular updates, multi-factor authentication, risk-based authentication protection, constant review of systems, robust data encryption and the implementation of processes and procedures that follow international information protection frameworks.

With the security certification (ISO 27001), Northern Data Group has established an information security management system that specifically supports creating and maintaining a framework for protecting sensitive information and ensuring confidentiality, integrity and availability. Furthermore, all employees are required to follow global security policies, security standards, procedures and best practices, underpinned by participation in mandatory security and compliance training sessions.

Risks from technical progress – Risk classification: significant (Segment: Taiga Cloud)
Market developments, technology trends and new scientific findings can also pose risks if they are recognized too late. New technical developments on the part of competitors could lead to a reduction in Northern Data Group's competitiveness. Likewise, the emergence of strong new competitors or of new business models previously unrecognized or not recognized in time are possible. In order not to miss out on new technical developments and trends, Northern Data Group works closely with market-leading partners such as NVIDIA to gain access to the latest technologies and products to keep up with the times.

Risk that Northern Data Group will not be able to gain a sufficient number of customers in the short term – Risk classification: moderate (Segment: Taiga Cloud)
Due to the highly competitive market segment, there is a risk that Northern Data Group will not be able to gain a sufficient number of customers in the short term

to generate stable revenues and achieve the targeted rapid growth in the Taiga Cloud segment (Taiga Cloud). Northern Data is countering this risk by entering into strategic partnerships with NVIDIA and other providers to jointly drive demand for new cloud-based generative AI offerings. Northern Data Group already achieved the Elite Partner status with NVIDIA in 2023 and was classified as a Cloud Service Provider in 2022, which creates additional synergy effects and strengthens its market position.

Risk from shortage of skilled workers in the Cloud team – Risk classification: moderate (Segment: Taiga Cloud)
There is a risk that certain positions (which require special knowledge or experience) cannot be filled with the optimal expertise and human capital. This entails that Northern Data Group may not be able to rapidly scale the sales and customer support functions in the Taiga Cloud segment (Taiga Cloud) to provide the necessary internal capacity to achieve and sustain the targeted growth. To counteract this risk, the Group is investing more in recruiting activities.

Risks from building and operational requirements and customer acquisition – Risk classification: moderate (Segment: Ardent Data Centers)
Building and running a colocation liquid-cooled data center presents several inherent risks that need to be carefully managed to ensure operational stability, efficiency, and security. These risks include, but are not limited to complexity of implementation, maintenance challenges, energy efficiency challenges, environmental impact, and regulatory compliance.

Effectively managing these inherent risks requires comprehensive planning, proactive risk mitigation strategies, and ongoing monitoring and maintenance efforts. Data center operators should prioritize safety, reliability, and environmental sustainability while leveraging liquid cooling technologies to optimize performance and efficiency.

Customer acquisition also poses a risk due to the fact that established service providers already have a broad customer base and long-standing business relationships. Ardent Data Centers aims to mitigate this risk through its relationship with Taiga Cloud as an anchor tenant in its facilities, which is further mitigated by Ardent Data Centers' various relationships with brokers and partners around the world.

Risks from the loss of technical know-how – Risk classification: low
Highly skilled and well-trained employees form the basis for the economic success of Northern Data Group. In addition to the successful recruitment of qualified personnel, the Group puts great emphasis on the personal development and long-term retention of top performers within the Group, especially those that are strategically important. If the Group fails to develop and retain executives and employees with specialist or technological knowledge, there is a risk that Northern Data Group may not be able to effectively conduct its business and achieve its growth targets within the business segments. The concentrated accumulation of strategic knowledge and skills can have a considerable impact on the performance of the Group if well-qualified employees are no longer available.

The Group counters this risk by continuously developing employee and management competencies.

A coaching program that focuses on the further development of talent and leadership competencies was offered to the Group's employees in 2022. This program continues until today.

Northern Data Group also benchmarks salaries to ensure that the Company offers competitive packages to retain staff and has rolled out a performance management toolkit to observe, monitor and improve performance across the business to ensure that staff have the appropriate opportunities to develop in their careers. Team structures are reviewed regularly to avoid silos and potential buildups of IP with specific individuals. In addition, new software has been implemented in order to better understand the organizational charts and areas where extra support is needed.

Economic, Political, Social and Regulatory Risks

Risks arising from uncertainty in the global economy and/or on the financial markets as well as social and political instability caused by state conflicts, terrorist attacks, unrest, war – Risk classification: moderate
Acting on a global level, Northern Data Group is influenced by numerous external factors that are difficult to predict, can develop rapidly and are beyond the Group's influence and control. These include, among others: Crises in the

credit or liquidity markets; regional or global recessions; sharp fluctuations in commodity prices, exchange rates or interest rates; inflation or deflation; unfavorable geopolitical events (such as Russia's invasion of Ukraine, the war in Gaza and the unrest in the US due to the illegal migration crisis on the southern border); increasing military tensions around the world (such as in China, Taiwan) and particularly within European borders; global politics, including the United States, the European Union, Russia and China; and global pandemics.

Any of these events could have an adverse effect on the operations, logistics, reputation, business, competitive or financial position, profit, and cash flows of Northern Data Group.

The situation in Ukraine has developed into a war of attrition with an uncertain duration and outcome. Northern Data Group does not actively pursue any business activities in the countries involved in the war. Ukraine, Russia, and Belarus are not target countries for Northern Data Group companies and there are no data center locations in these countries.

Against this backdrop, the war only had an indirect impact on the Group's business performance or financial condition, due to the rising electricity prices in Europe and increased procurement costs. Nevertheless, Northern Data Group continuously monitors and evaluates global and political developments and cannot rule out the possibility that the occurrence of one or more of the risks associated with this risk factor could have a significant impact.

Risks from international laws and regulations – Risk classification: moderate
Laws, regulatory requirements and standards in Germany, the European Union, the United States and elsewhere continue to be very stringent. Northern Data Group's international business activities and processes expose the Group to numerous and often conflicting laws and regulations, policies, standards, or other requirements, and sometimes even conflicting regulatory requirements.

As a European company domiciled in Germany with subsidiaries in Europe, the United Kingdom and the United States, Northern Data Group complies with the governance and regulatory frameworks of Germany, the European Union, the UK, the US, and other jurisdictions where the operations are conducted.

Northern Data Group's cryptocurrency segment, Peak Mining, and cloud business, Taiga Cloud, are subject to numerous risks inherent to international business operations and associated consequences, such as changes in tax laws, as well as the introduction of new tax concepts that harm digitalized business models. As an energy-intensive activity, cryptocurrency mining also draws specific scrutiny from regulators in times of threatened energy shortages. Other sources of uncertainty originate from the actions of national governments and central banks with regard to cryptocurrencies; import and export regulations as well as trade sanctions; embargoes; and newly emerging cybersecurity and Environmental, Social and Governance (ESG) compliance and disclosure laws.

As Northern Data Group expands into new countries and markets, including medium-risk markets, these risks could intensify. The application of the respective local laws and regulations to the business is sometimes unclear, subject to change over time and often conflicting among jurisdictions. Compliance with these varying laws and regulations, including antitrust regulations, can incur significant costs. Non-compliance could result in the imposition of penalties or cancellation of orders due to alleged non-compliant activity.

Any of these events could have a material adverse effect on Northern Data Group, local subsidiaries or the Group's segments, which could have a material adverse effect on Northern Data Group's business and financial position.

Northern Data Group has established measures intended to address and mitigate the risks described and adverse effects. For example, Northern Data Group endeavors to limit its growth strategy to locations in politically stable regions and countries; monitors new and increased regulatory requirements; continuously improves and standardizes global processes and procedures; and consults external tax advisors, law firms, and authorities in the concerned countries.

Data Protection and Privacy – Risk classification: moderate
Non-compliance with increasingly complex, stringent, or even conflicting, applicable data protection and privacy laws, or failure to meet the contractual requirements of Northern Data Group's customers with respect to the services, could lead to civil liabilities and fines as well as the loss of customers. As a global cloud service provider,

Northern Data Group is required to comply with local laws wherever it does business. One of the relevant European data protection laws is the General Data Protection Regulation (GDPR). International data transfers to third countries that do not provide for an adequate level of data protection require additional safeguards, including transfer impact assessments, to justify a transfer from the EU to a third country under the new EU standard contractual clauses.

Furthermore, evolving data protection and privacy laws, regulations, and other standards around the world are increasingly aimed at protecting individuals' personal information. The changing criteria also impacts the compliant use of new technology, such as machine learning and Artificial Intelligence.

Non-compliance with applicable data protection and privacy laws by the Group or any sub processor within the processing of personal data cloud lead to risks. These include, among others: mandatory disclosure of breaches to affected individuals, customers, and data protection supervisory authorities; investigations and administrative measures by data protection supervisory authorities, such as the instruction to alter or stop non-compliant data processing activities, including the instruction to stop using non-compliant sub processors; or the possibility of damage claims by customers and individuals, contract terminations, and potential fines.

In addition, the German Federal Office for the Protection of the Constitution and security industry experts continue to warn of risks related to a globally growing number of cybersecurity attacks aimed at obtaining or violating company data including personal data.

Any of these events could have a material adverse effect on Northern Data's business, reputation, or financial position.

Northern Data Group has established measures intended to address and mitigate the described risks and adverse effects. For example, Northern Data Group: has implemented internal processes and measures to enable the Group to comply successfully and sufficiently with applicable data protection requirements; has established a competent and resourceful internal IT team; continuously reviews Northern Data Group's existing standards and policies to address changes to applicable laws and regulations; and actively monitors legal developments.

Compliance Risks

Ethical Behavior – Risk classification: moderate
Northern Data Group's global business is exposed to risks related to unethical behavior and non-compliance with policies by employees, partners and third parties.

Northern Data Group is subject to risks and associated consequences in the following areas, among others: non-compliance with the Group's policies and violations of compliance-related rules, regulations and legal requirements including but not limited to, antitrust, anticorruption, antibribery legislation in Germany, the US Foreign Corrupt Practices Act, the UK Bribery Act and other local laws prohibiting corrupt conduct; unethical and fraudulent behavior leading to criminal charges, fines and claims by affected parties; collusion with external third parties; and fraud and corruption.

Any of these events could have a material adverse effect on Northern Data Group's business, reputation, or financial position.

Northern Data Group has established measures intended to address and mitigate the described risks and adverse effects. For example, the Group has implemented compliance policies and processes to perform compliance due-diligence activities prior to the engagement with third parties and has also improved associated business processes to prevent future and further violations. Northern Data Group has also improved the Whistleblowing platform "Northern Data – Speak up!," through which anyone inside and outside of the Company can confidentially or anonymously report concerns about ethics and compliance.

Financial Risks

Funding requirements – Risk classification: significant (Segment: Peak Mining, Ardent Data Centers)
Due to the need to seize attractive opportunities when they arise, Northern Data Group may enter into binding contracts and incur obligations for new projects before securing the necessary financing to implement them. In this situation, the Group is at risk of defaulting on its obligations under those contracts and potentially missing out on growth opportunities if the financing cannot be secured in a timely manner.

Liquidity risks – Risk classification: moderate
Liquidity risk refers to the risk that Northern Data Group will not be able to meet its short-term financial obligations. In the event that sufficient free cash flows are not generated, the Group would be dependent on further equity and/or debt financing to meet its funding requirements. Should it be unable to obtain sufficient external financing, this could have an adverse material effect on the Group's assets, financial condition, and earnings position. As part of the listing on the Open Market of the Munich Stock Exchange, Northern Data Group is also exposed to valuation by the capital market. In this respect, Northern Data Group may be restricted in its business model with regard to the financing that can be obtained via the capital markets. In order to prevent insolvency or sustained damage to its image, Northern Data Group's business model is geared towards generating continuous cash inflows that can grow or accumulate on an ongoing basis or be used as a basis for growth investments.

Operational liquidity management is coordinated at the level of the parent company and is carried out in cooperation with its subsidiaries worldwide. Within the scope of economic possibilities, cryptocurrency holdings are liquidated on a daily basis in order to ensure liquidity and to ensure the successful development of the Group's planned investments. In addition to annual forecast planning, ongoing liquidity planning is carried out on a weekly basis with the aim of ensuring that Northern Data Group can access sufficient reserves of liquid funds at any time. In this way, fluctuations in working capital due to oscillating cryptocurrency rates as well as rising electricity prices could be managed in fiscal year 2023, balanced with cost management activities, such as curtailments directed by the operations management team. In essence, Northern Data Group is able to manage the direct cost basis associated with cryptocurrency mining more efficiently in times where mining profitability is at lower levels or less favorable Bitcoin price changes are experienced.

Northern Data Group entered into a debt financing facility of EUR 575 million with Tether Group in November 2023, which is only partially drawn at the time of this report. This financing facility forms part of Northern Data Group's broader liquidity management strategy.

Interest rate risks – Risk classification: moderate
Interest rate risk refers to the risk that fair values or future interest payments on current and future financial liabilities will fluctuate because of changes in market interest rates.

Northern Data Group entered into a debt financing facility of EUR 575 million with Tether Group in November 2023. This facility bears interest at an arm's length interest rate which is linked to prevailing market interest rates. As a result, fluctuations in market interest rates could result in Northern Data Group paying higher interest on the facility as a result.

Currency risks – Risk classification: low
Some companies within Northern Data Group are located outside the euro zone. The Group is subject to exposure on the translation of the net assets of foreign currency subsidiaries into its reporting currency, the euro. Northern Data Group is exposed to risks associated with changes in foreign exchange rates when entering transactions with international counterparties that result in future cash flows being denominated in foreign currencies or in currencies other than the Group's functional currency. The Group's primary balance sheet translation exposures are to the US Dollar, Canadian Dollar, Norwegian Krone, Swiss Franc, Swedish Krone, and Pound Sterling. To mitigate currency risk, Northern Data Group's contracts are structured so that the receivables due from Northern Data Group are denominated in the same currency as the payment obligations to be met by the Group. Within the Group, transactions, including intra-Group financing and investments, are primarily denominated in euros and US Dollars in order to limit the risk of currency fluctuations.

A hypothetical change in the US Dollar exchange rate as of the balance sheet date by +/– 5 percent would result in a theoretical change in the Group's forecast EBITDA for 2024 of EUR 524 thousand, with the exchange rate fluctuation having a hypothetical impact on revenue of EUR 1,920 thousand.

Changed Assessment of Risks After the End of the Reporting Period

Unrest in the Middle East – Risk classification: low
Taiga Cloud concluded a significant contract with customers based in the United Arab Emirates (UAE) in the first quarter of 2024. At the time of publication of this report, the UAE is not involved in the war in Gaza. Therefore, Northern Data Group does not expect there to be any impact for Taiga Cloud on the business from customers in the UAE. However, Northern Data Group cannot rule out some lingering and very low probability risk that the contract is affected.

Overall Assessment by the Management Board

The previous sections have reported on the main opportunities and the main individual risks. The overall risk situation of the Group is composed of the individual risks of all risk categories of the subsidiaries and the main divisions and the segments.

Despite the existence of these risks, Northern Data Group's liquidity planning for the forecast period assumes a balanced liquidity position and the continuation of the Group's activities. However, this assumes the occurrence of a number of assumptions underlying the Group's liquidity planning.

As Northern Data Group continues to generate a significant portion of its revenue from Bitcoin mining, it is dependent on the development of the Bitcoin price, the Bitcoin hash rate and the associated development of mining profitability.

This includes risks from the halving, which could result in a decline in mining revenues, profitability and cash flows.

In addition, the Group has planned and started extensive investments in the Taiga Cloud, Ardent Data Centers and Peak Mining segments. The investments are to be financed to a large extent by taking out a shareholder loan, some of which was already drawn down in 2023 and a further part is to be drawn down in 2024. The shareholder loan provides for a number of financial conditions (covenants) to be complied with at various times. The fulfilment of the covenants is contingent on the achievement of the key growth assumptions associated with the investments, particularly in the area of Taiga Cloud. Since Taiga Cloud, as a relatively new business segment, has so far only generated a relatively small amount of revenue, this assumption is associated with significant uncertainties; for example, it may not be possible to conclude customer contracts to the planned extent and generate profitable revenues from them. In the event of non-performance of the financial covenants, the lender would be entitled to terminate the loan and reclaim the funds disbursed from the loan. In such a case, under the current conditions, the Northern Data Group would not be able to repay the loan amount directly, unless, for example, other debt or equity financing could be realized or parts of the acquired hardware could be sold to third parties.

Forecast and Future Development

Overall economic development

The International Monetary Fund (IMF)[24] expects the global economy to grow by 3.2 percent in 2024 and 2025, 0.1 percentage points higher in 2024 and 0.3 percentage points lower in 2025 than in its January forecast. Growth will thus remain below the long-term average of 3.8 percent. The historically low pace of expansion reflects tight monetary policy and the withdrawal of fiscal support, as well as low underlying productivity growth. Given the global tightening of monetary policy and the associated softening of labor markets, the IMF expects global inflation to fall from an average of 6.8 percent in 2023 to 5.9 percent in 2024 and 4.5 percent in 2025.

Risks relate to new price spikes resulting from geopolitical tensions, including the war in Ukraine and the conflict in Gaza and Israel, and persistent core inflation as labor markets remain tight, which could raise interest rate expectations and lower asset prices. A divergence in the pace of inflation targeting across major economies could also lead to currency fluctuations, putting pressure on the financial sector. In China, growth could stall without a comprehensive response to the ailing real estate sector, with impact on trading partners. Given the high levels of public debt in many economies, a disruptive turn toward tax increases and spending cuts could weaken economic activity, undermine confidence, and erode support for reforms and spending to reduce climate change risks. Geoeconomic fragmentation could increase, with higher barriers to the movement of goods, capital, and people leading to a supply-side slowdown.

On the upside, looser fiscal policy than required and assumed in the projections could boost activity in the short term, although it risks a more costly policy adjustment later. Inflation could fall faster than expected amid further increases in labor force participation, allowing central banks to bring forward their easing plans. Artificial intelligence and stronger-than-expected structural reforms could boost productivity.

24 https://www.imf.org/-/media/Files/Publications/WEO/2024/April/English/text.ashx

Northern Data Group Forecast
Since January 1, 2023, the Group has been managed according to three segments, which are assigned to its core business areas:

- Peak Mining: Contribution to the Bitcoin network, with industry-leading efficiency in Bitcoin mining operations and energy consumption
- Taiga Cloud: European regional provider of generative AI cloud services
- Ardent Data Centers: provider of data center environments purpose-built with liquid cooling technology

Central functions such as Legal, Finance, Investor Relations and Strategy are located at Group level and support all three divisions.

The forecast includes all the Group's confirmed investments at the time of reporting and considers the associated opportunities and risks.

Peak Mining:
In January, 2024 the business started with a deployed exahash (EH) capacity of 3.3 EH. To increase the deployed capacity to up to 7.9 EH by the end of the year, the Company invested in highly efficient miners. Forecast assumptions for 2024 consider the latest development in the global market, including the Bitcoin halving that took place on April 20, 2024, and reduced the overall daily produced Bitcoin from 900 to 450.

Mining profitability projections were made with prudent assumptions ranging from EUR 0.04 to 0.06 per terahash, factoring in the impact of the Bitcoin halving event as well as more efficient mining hardware resulting in higher global hash rate. Electricity costs were forecast to remain at the previous year's level. The expected uptime has improved, reaching 80 to 90 percent on average and the Company expects to further optimize this. Notably, the transition to direct liquid chip cooling has rendered the systems less susceptible to temperature fluctuations during the summer months, ensuring consistent and reliable performance throughout the year.

The principal risk in fiscal 2024 lies in possible delays in the delivery of critical infrastructure components. These components are essential for Peak Mining's planned exahash expansion. As the Company is reliant on external third parties to procure these components, any delays in delivery could jeopardize its expansion plans. To minimize this risk, a diversified procurement strategy is pursued and close relationships with several suppliers are maintained. Given the already conservative assumptions for the profitability of mining, electricity prices and operating time, Northern Data does not expect any further risks for the mining business. Please also refer to the respective explanations in the Risk Report.

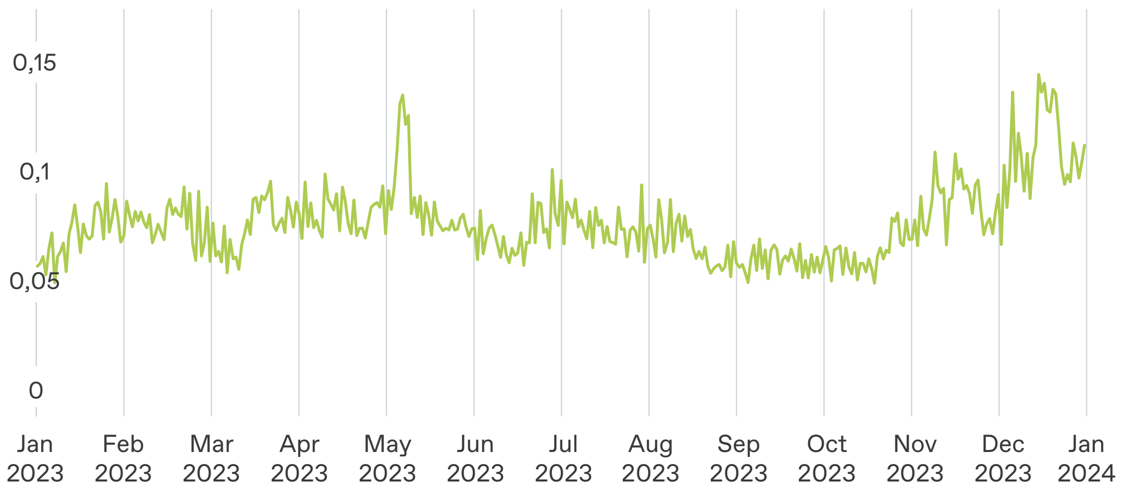
The renegotiated contract with a major mining hardware supplier has positioned the Company to maintain a competitive advantage in 2024, following the halving event. The existing hardware infrastructure has been upgraded with cutting-edge technology, ensuring optimal performance and efficiency.

Furthermore, the company has expanded its operations by establishing new state-of-the-art mining facilities in Texas and Paraguay. These sites will be equipped with the latest generation of liquid-cooled miners, enabling the company to achieve its target hash rate of 7.9 exahash. The deployment of liquid-cooled miners not only enhances computational power but also promotes energy efficiency and sustainability, aligning with the industry's growing emphasis on environmental responsibility.

In light of the Bitcoin halving event, a strategic realignment was undertaken. Consequently, the decision was made to phase out smaller mining facilities previously dedicated to the mining operation. This strategic move impacted approximately 2 exahash of mining capacity. The investments earmarked for replacement have been redirected towards locations deemed more strategically valuable, aligning with the company's long-term objectives.

For fiscal year 2024, management expects revenue for the segment Peak Mining of between EUR 80 million and EUR 90 million and adjusted EBITDA of between EUR 7 million and EUR 15 million.

Bitcoin mining profitability (in USD) – January 23 – December 23



Taiga Cloud:
In 2023, the cloud computing business made its first substantial contribution to revenue, driven by the deployment of 2,480 A100 GPUs and the repurposing of A6000 GPUs previously used for Ethereum mining. However, the landscape is poised for a transformative shift in 2024.

Through a non-cash capital increase at the Group level and further debt financing, the Group has made significant investments in NVIDIA's latest generation of hardware, the powerful H100 Tensor Core GPUs. The newly acquired hardware will be strategically deployed across multiple locations in Europe over the course of this year. These facilities are designed as carbon-neutral, sustainable data centers with low latency, ensuring an environmentally conscious and efficient operation. By the end of 2024, over 20,000 H100 GPUs are expected to be operational, marking a substantial expansion of the Group's computing capabilities.

The NVIDIA H100 Tensor Core GPU is a powerful graphics card specifically designed for demanding workloads in the areas of High-Performance Computing (HPC) and Artificial Intelligence (AI), making it highly versatile. It is ideal for training and inference of large neural networks and language models, computationally intensive applications in fields such as biosciences, physics, chemistry, climate research, and other scientific disciplines, or demanding graphics computations and visualizations in areas like medicine, engineering, and the entertainment industry.

Accordingly, customer demand is high, and by early 2024, a large portion of the future available capacity of the H100 GPUs has already been sold.

By mid-2024, more than half of the newly acquired H100 GPUs will already be installed. Once installed, Taiga Cloud expects a utilization rate of more than 80 percent, as it will initially focus primarily on long-term reserved capacity contracts with durations of 3–24 months. The price per GPU hour depends on volume and duration, ranging between EUR 2.40 and EUR 3.00 per GPU hour.

The A100 GPUs will also be sold mainly as reserved capacity with long-term contracts, with prices ranging between EUR 1.6 and EUR 2.0 and utilization rates of 60 to 80 percent. The A6000 GPUs will be increasingly sold on-demand, resulting in somewhat more volatile utilization rates, and due to the use cases, the price is lower.

The primary risk factor for fiscal year 2024 revolves around potential delays in the procurement and delivery of critical infrastructure components, as well as the readiness in time of Taiga Cloud's third-party colocation provider.

Overall, it shows that the rapidly growing demand for cloud services is leading to bottlenecks in data center infrastructure and critical raw materials. Accordingly, there may be delays in the delivery of critical infrastructure components for both Taiga Cloud and its external colocation providers, which could lead to delays in commissioning.

However, Taiga Cloud is in constant communication with its suppliers and colocation providers in order to identify potential bottlenecks early and respond accordingly where possible. To minimize this risk, Taiga Cloud also pursues a diversified procurement strategy and maintains close relationships with several suppliers.

The risk of falling prices in the market has initially been minimized with long-term contracts, beyond that, Taiga Cloud is working with strong strategic partners to expand its product range and thereby further increase the potential customer base and the product margin.

With the significant enhancement of Taiga Cloud's cutting-edge GPU resources, the management anticipates fiscal year 2024 revenue for the segment Taiga Cloud of between EUR 120 million and EUR 150 million and adjusted EBITDA of between 50 million and EUR 65 million.

Ardent Data Centers:
The Ardent Data Centers division is focused on the build-out of high standard data center to provide colocation services and wants to become the global leader of next-gen high density and high-performance compute data center solutions.

Currently Ardent Data Centers provides colocation services in the existing datacenter in Boden, Sweden, where the division predominantly serves Taiga Cloud, as well as a few external customers.

In addition, another data center in Pittsburgh with a capacity of 20 MW has already been acquired and is currently being retrofitted. Further growth opportunities are under evaluation/due diligence and will contribute more significantly to external revenue generation from fiscal year 2025 onwards.

For fiscal year 2024 management expects revenue for the segment Ardent Data Centers of between EUR 12 million and EUR 15 million and adjusted EBITDA of between EUR −3 million and EUR −1 million.

Overall statement on the expected development of the Group

For fiscal year 2024, Northern Data Group expects revenue of EUR 200 million to EUR 240 million.

Adjusted EBITDA of Northern Data Group is expected to be in a range of EUR 50 million to EUR 80 million for fiscal year 2024.

Frankfurt/Main, July 10, 2024

Aroosh Thillainathan
Chairman of the Management Board

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GROUP FINANCIAL STATEMENTS

Group Financial Statements

Consolidated Statement of Comprehensive Income for the year ended 31 December

EUR ’000, unless stated otherwise	Notes	2023	2022
Sales revenues	3.1	77,527	193,287
Other operating income	3.2	33,479	56,181
Total income		**111,006**	**249,468**
Cost of materials	3.3	–41,398	–98,864
Personnel expenses	3.4	–36,503	–49,898
Other operating expenses	3.5	–61,337	–158,823
Operating profit before depreciation and amortization – EBITDA		**–28,232**	**–58,117**
Depreciation, amortization and impairment	4.1; 4.2; 4.3	–124,929	–207,234
Operating result – EBIT		**–153,161**	**–265,351**
Financial income	3.6	1,084	99
Financial expenses	3.6	–1,448	–3,166
Financial result		**–364**	**–3,067**
Earnings before income taxes – EBT		**–153,525**	**–268,418**
Income taxes	3.7	2,470	2,643
Loss for the year		**–151,055**	**–265,775**
of which attributable to shareholders of Northern Data AG		–151,055	–265,775
Other comprehensive income			
Fair value loss (gain) on equity investments designated at FVOCI	5.2	–2,646	7,666
Items that will not be reclassified to profit or loss in the future		**–2,646**	**7,666**
Currency translation		442	–10,275
Items that may be reclassified to profit or loss in the future		**442**	**–10,275**
Other comprehensive income		**–2,204**	**–2,609**
Total comprehensive income		**–153,259**	**–268,384**
of which attributable to shareholders of Northern Data		–153,259	–268,384
Earnings per share	**3.8**		
Undiluted (in EUR)		–5.22	–11.16
Diluted (in EUR)		–5.22	–11.16

The Consolidated Statement of Comprehensive Income shown above should be read in conjunction with the notes below.

Consolidated Statement of Financial Position as of December 31

ASSETS in EUR '000	Notes	2023	2022
Non-current assets		**365,290**	**323,535**
Goodwill	4.1	13,376	13,376
Other intangible assets	4.1	3,774	1,766
Property, plant and equipment	4.2	326,348	282,745
Right-of-use assets	4.3	6,834	10,191
Shares in other companies	5.2; 5.3.1	6,464	9,851
Other assets	4.5	3,767	2,541
Deferred tax assets	3.7	4,727	3,065
Current assets		**669,794**	**127,051**
Inventories	4.4	56,534	7,200
Trade receivables	3.1.2; 5.2	8,614	2,908
Income tax receivables		5,004	5,122
Other assets	4.5	338,227	71,942
Cash and cash equivalents	5.2	242,992	39,879
Non-current assets held for sale	4.2.2	18,423	–
Total assets		**1,035,084**	**450,586**

EQUITY AND LIABILITIES in EUR ’000	Notes	2023	2022
Equity	**4.6**	**734,384**	**359,407**
Subscribed capital		48,734	23,816
Capital reserve		835,756	419,392
Mandatory convertible bonds issued		86,954	–
Fair value reserve of financial assets at FVOCI		5,020	7,666
Currency translation differences		–10,338	–10,780
Retained earnings		–231,742	–80,687
Non-current liabilities		**178,081**	**10,077**
Borrowings	4.8	171,858	–
Lease liabilities	4.8	5,165	7,872
Provisions	4.7	5	5
Deferred tax liabilities	3.7	1,053	2,200
Current liabilities		**122,619**	**81,102**
Financial liabilities	4.8	448	–
Liabilities to companies in which an equity investment is held	5.3.1	2	–
Lease liabilities	4.8	2,054	2,783
Trade payables	4.8	62,510	35,829
Contract liabilities	3.1.2	9	222
Income tax liabilities	3.7	20,091	27,992
Provisions	4.7	3,244	1,919
Other liabilities	4.9	34,261	12,357
Total liabilities and shareholders’ equity		**1,035,084**	**450,586**

The Consolidated Statement of Financial Position shown above should be read in conjunction with the notes below.

Consolidated Statement of Changes in Equity for the year ended December 31

EUR '000	Notes	Subscribed capital	Capital reserve	Mandatory convertible bond issued	Fair value reserve of financial assets at FVOCI	Currency translation differences	Retained earnings	Total
Balance on 01/01/2022		**23,816**	**402,552**	**–**	**–**	**–505**	**186,406**	**612,269**
Loss for the year				**–**			**–265,775**	**–265,775**
Currency translation				–		–10,275		–10,275
Fair value gain on equity investments designated at FVOCI	5.2				7,666			7,666
Other comprehensive income				**–**	**7,666**	**–10,275**		**–2,609**
Total comprehensive income				**–**	**7,666**	**–10,275**	**–265,775**	**–268,384**
Share-based remuneration	5.4		16,840	–				16,840
Disposal of Groupe Kelvin Emtech Inc.							–1,318	–1,318
Transactions with shareholders			**16,840**				**–1,318**	**15,522**
Balance on 12/31/2022		**23,816**	**419,392**	**–**	**7,666**	**–10,780**	**–80,687**	**359,407**
Balance on 01/01/2023		**23,816**	**419,392**	**–**	**7,666**	**–10,780**	**–80,687**	**359,407**
Loss for the year							**–151,055**	**–151,055**
Currency translation						442		442
Fair value loss on equity investments designated at FVOCI	5.2				–2,646			–2,646
Other comprehensive income					**–2,646**	**442**		**–2,204**
Total comprehensive income					**–2,646**	**442**	**–151,055**	**–153,259**
Issuance of ordinary shares	4.6	24,918	420,544					445,462
Issuance of convertible bonds	4.6			86,954				86,954
Deduction of direct transaction costs			–20,152					–20,152
Share-based remuneration	5.4		15,972					15,972
Transactions with Shareholders		**24,918**	**416,364**	**86,954**				**528,236**
Balance on 12/31/2023		**48,734**	**835,756**	**86,954**	**5,020**	**–10,338**	**–231,742**	**734,384**

Consolidated Statement of Cash Flows for the year ended December 31

EUR '000	Notes	2023	2022
Consolidated net income		**–151,055**	**–265,775**
Depreciation and amortization of non-current assets	4.2	124,929	207,234
Increase/decrease in provisions	4.7	1,326	–1,467
Other non-cash expenses/income	3.2; 3.5	–18,877	28,467
Decrease in inventories, trade receivables and other assets not attributable to investing or financing activities		8,351	42,355
Decrease in trade payables and other liabilities not attributable to investing or financing activities		–26,937	–15,155
Cryptocurrency received for providing computing services		–594	–114,873
Cryptocurrency sold		60,354	127,036
Losses on disposal of non-current assets		–8,279	–117
Financial income	3.6	364	3,067
Income tax income/expense	3.7	382	–3,501
Income tax payments		–7,565	–6,311
Cash flow from operating activities		**–17,601**	**960**
Payments made for investments in intangible assets	4.1	–3,157	–539
Proceeds from disposals of property, plant and equipment		12,991	6,547
Payments made for investments in property, plant and equipment	4.2	–95,332	–100,151
Cash outflows for investments in financial assets		–	–1,173
Interest received	3.6	826	99
Cash flow from investing activities		**–84,672**	**–95,217**
Proceeds from contributions to equity by shareholders of the parent company (cash capital increases)	4.6.1	133,123	–
Proceeds from issuance of borrowings	4.8	175,400	–
Outflows from the redemption of bonds and financial loans and liabilities from lease agreements	4.3; 4.8	–2,437	–3,187
Cash outflows for the repayment of financial liabilities to shareholders of the parent company	4.8	–	–76,561
Interest paid	3.6	–980	–3,166
Cash flow from financing activities		**305,106**	**–82,914**
Cash-effective change in cash and cash equivalents		**202,833**	**–177,171**
Currency-related change in cash and cash equivalents		280	–4,547
Cash and cash equivalents at the beginning of the period		**39,879**	**221,597**
Cash and cash equivalents at the end of the period		**242,992**	**39,879**

For additional information, see 5.1 of the accompanying Notes to the Consolidated Statement of Cash Flows.

NOTES TO THE GROUP FINANCIAL STATEMENTS

Notes to the Group Financial Statements

1 Information about the Group and basics of the preparation of the Group financial statements

1.1 Reporting company

Northern Data AG (hereinafter also referred to as the "Company") is a listed stock corporation with its registered office in Frankfurt/Main, Germany. The business address is: An der Welle 3, 60322 Frankfurt/Main. Northern Data AG is registered with the Local Court of Frankfurt/Main (HRB 106 465).

Northern Data Group (hereinafter also referred to as Northern Data or the Group), headquartered in Frankfurt/Main, Germany, develops and operates global infrastructure solutions in the field of High-Performance Computing (HPC). HPC is characterized by the provision of computing power in a short period of time. HPC accelerates computing and provides many times the computing power and storage capacity of conventional server systems. This comes with increased heat generation and therefore also requires special thermal management. The HPC computing power provided in the operation of Northern Data Group's data centers is based on two different types of microchips that are specialized for different applications: ASICs (Application-Specific Integrated Circuits) chips enabling Bitcoin mining and GPUs (Graphic Processing Units) enabling cloud computing.

In 2023, the infrastructure for HPC was developed and expanded. To pursue this objective, Northern Data launched three independent business divisions: "Peak Mining," "Ardent Data Centers" and "Taiga Cloud." In terms of revenues, "Peak Mining" represented the main activity for the Group in the reporting year. Peak Mining, with its business activities in Bitcoin mining, was again responsible for the majority of revenue in the fiscal year, however a significant increase in revenue in the cloud segment (Taiga Cloud) was reported for the first time.

The shares of Northern Data AG are traded on the Open Market of the Frankfurt Stock Exchange and the Munich Stock Exchange (m:access).

1.2 Basic principles of the preparation of the financial statements

Northern Data AG prepares its Consolidated Financial Statements in accordance with International Financial Reporting Standards (IFRS) and the interpretations of the International Financial Reporting Standards Interpretations Committee (IFRS IC) as adopted by the European Union. In addition, the application of commercial law provisions pursuant to Section 315e (1) of the German Commercial Code (HGB) is made in these financial statements.

The financial statements of the companies included in the Group are based on uniform accounting policies in accordance with IFRS. The fiscal year of all companies included in the Group corresponds to the calendar year.

A distinction is made in the Consolidated Statement of Financial Position between current and non-current assets and liabilities. The Consolidated Statement of Comprehensive Income has been prepared using the nature of expense method. The Consolidated Financial Statements are prepared on the basis of historical cost, with the following exceptions:

- Financial assets whose cash flows do not consist solely of principal or interest payments are measured at fair value.
- Monetary assets and liabilities denominated in foreign currencies are translated at closing rates.
- Current assets denominated in cryptocurrencies as well as cryptocurrencies are measured at fair market value.

The Consolidated Financial Statements are prepared in euro (EUR), which is the reporting currency. Unless stated otherwise, all figures are presented in EUR thousand. The tables and figures presented can contain differences due to rounding.

Northern Data Software GmbH and ND CS (Services) GmbH have made use of the exemption provision pursuant to section 264 (3) of HGB for the fiscal year 2023.

1.3 Principles of consolidation

1.3.1 Scope of consolidation

Subsidiaries are entities that are directly or indirectly controlled by Northern Data AG. Control exists only when Northern Data AG is exposed, or has rights, to variable returns from its involvement with an investee and has the ability to affect those returns through its power over the investee.

In accordance with the principles of full consolidation, the Consolidated Financial Statements of Northern Data AG include all domestic and foreign subsidiaries over which Northern Data AG exercises direct or indirect control and which are not of minor significance.

Number	2023	2022
Northern Data AG and fully consolidated subsidiaries		
Domestic	3	3
Abroad	28	21
Non-consolidated subsidiaries		
Domestic	–	–
Abroad	4	7
Total	**35**	**31**

The change in the number of consolidated and non-consolidated subsidiaries results from a merger of subsidiaries, the consolidation of subsidiaries that have previously not been consolidated, and asset acquisitions. One non-consolidated subsidiary has been disposed of due to its dissolution in fiscal year 2023. The non-consolidated subsidiaries have not been included in the scope of consolidation for reasons of materiality. A complete list of shareholdings can be found in Note 5.10 “List of shareholdings of Northern Data AG pursuant to Section 313 (2) no. 1 to 4 HGB.”

1.3.2 Consolidation methods

Companies newly acquired during the fiscal year are included in the Consolidated Financial Statements from the date on which control is transferred in accordance with IFRS 10 and are fully consolidated using the purchase method. Subsidiaries are deconsolidated from the date on which control is lost.

Capital consolidation is performed by offsetting the carrying amounts of the investments against the Group’s share in the equity of the subsidiaries. In the case of business combinations, initial consolidation is performed in accordance with IFRS 3 using the purchase method by offsetting the acquisition cost against the fair values of the identifiable assets acquired and liabilities and contingent liabilities assumed at the date of acquisition. Goodwill is recognized if the acquisition cost of the investment exceeds the proportionate share of the acquired revalued equity. If this is a negative goodwill of a debt nature, the purchase price calculation and allocation are to be reassessed. If this has been correctly accounted for, any remaining negative goodwill is recognized in other operating income in the year of acquisition.

Intra-Group transactions are eliminated. Receivables and payables between consolidated companies are offset against each other. Intercompany profits and losses are eliminated and intercompany income is offset against the corresponding expenses.

In the course of transactions in which shareholders of Northern Data contribute shares of third parties in exchange for equity instruments of Northern Data, the transaction is not accounted for in accordance with IFRS 3. In the course of initial consolidation, the net assets acquired are recognized at fair value and added to equity as a contribution. The difference between the fair value of the equity instruments issued and the fair value of the net assets acquired is not recognized.

1.3.3 Currency translation

The financial statements of subsidiaries in countries outside the euro area are translated using the functional currency concept. For the subsidiaries, the functional currency is based on the primary environment in which they operate. In the Group, the functional currency of all companies corresponds to the respective local currency. The reporting currency of the Consolidated Financial Statements is the euro (EUR).

Transactions in foreign currencies are translated at the relevant foreign exchange rates at the time of the transaction. In subsequent periods, monetary assets and liabilities are measured at the closing rate and translation differences are recognized in profit or loss. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. In addition, non-monetary items measured at fair value in a foreign currency are translated at the exchange rate prevailing at the date of the fair value measurement.

The financial statements of foreign subsidiaries whose functional currency is not the euro are translated into the Group currency, the euro, using the modified closing rate method. For simplification purposes, items of the Statement of Comprehensive Income are translated at the average exchange rate for the year. Equity is translated at historical rates, asset and liability items at the closing rate on the reporting date. All differences resulting from the translation of financial statements prepared in foreign currencies are recognized in other comprehensive income.

The euro exchange rates on which the currency translation is based are shown below:

	2023	2022
Closing rate EUR/USD	1.1050	1.0666
Average rate EUR/USD	1.0816	1.0539
Closing rate EUR/CAD	1.4642	1.4440
Average rate EUR/CAD	1.4596	1.3703
Closing rate EUR/GBP	0.8691	0.8869
Average rate EUR/GBP	0.8699	0.8526
Closing rate EUR/NOK	11.2405	10.5138
Average rate EUR/NOK	11.4243	10.1015
Closing rate EUR/SEK	11.0960	11.1218
Average rate EUR/SEK	11.4728	10.6274
Closing rate EUR/CHF	0.9260	0.9847
Average rate EUR/CHF	0.9717	1.0052

1.4 Valuation premise of a going concern

The preparation of the consolidated financial statements requires an assessment of the premise of a going concern. The Management Board has reviewed the forecasts for a period of at least twelve months from the date of approval of the consolidated financial statements. In doing so, the Management Board has taken into account the possible adverse development of the Bitcoin price, as well as impacts associated with the expected halving of the reward for Bitcoin mining ("halving") from the second quarter of 2024. In addition, the Management Board has taken into account risks arising from the planned expansion of business and the associated debt financing through shareholder loans.

As the Group continues to generate a significant portion of its revenue from Bitcoin mining, the Group is dependent on the development of the Bitcoin price and the associated development of mining profitability. This includes risks from the expected halving, which could result in a decline in mining revenues, profitability, and cash flows.

In addition, the Company has planned and started extensive investments in the Taiga Cloud, Ardent Data Centers and Peak Mining segments. The investments are partially financed through a shareholder loan, which was awarded in late 2023, and has been further drawn down in 2024. The shareholder loan provides for a number of financial conditions ("covenants") to be complied with at various times. The fulfilment of the covenants is contingent on the achievement of the key growth assumptions associated with the investments, particularly in the area of Taiga Cloud. In the event of non-performance of the financial covenants, the lender would be entitled to terminate the loan and reclaim the funds disbursed from the loan. In such a case, under the current conditions, the Company would not be able to repay the loan amount directly, unless, for example, other debt or equity financing could be realized or parts of the acquired hardware could be sold to third parties.

Although such uncertainty exists in principle, the Management Board assumes a balanced liquidity position and the continuation of the Company's activities in view of the liquidity planning, taking into account all opportunities and risks and using existing management instruments such as postponement or cancellation of investments, cost reduction, the sale of hardware as well as additional equity or debt financing.

After reviewing the Group's annual budget, plans and financing arrangements, the Management Board considers that the Group has adequate resources to continue operating and that it is therefore appropriate to continue to adopt the going concern basis in preparing the Group Consolidated Financial Statements contained in the Annual Report.

1.5 IFRS standards applied

Standards, interpretations and amendments whose application was mandatory for the first time in the past fiscal year and whose application will be mandatory in future reporting periods

The following new or amended accounting standards already adopted by the IASB have not been taken into account in the Consolidated Financial Statements for fiscal year 2023 where there was no obligation to apply them yet, with the exception of the standards whose application is mandatory as of January 1, 2023. Some of the effects of these new or amended accounting standards on the financial statements are still being examined.

Standards/ Interpretations	Title	Mandatory date of application according to the EU as of fiscal years beginning on or after:	Impact
IAS 1, Practice Statement 2	Amendments to IAS 1 "Presentation of Financial Statements" and IFRS Practice Statement 2: Disclosure of Accounting policies (issued on February 12, 2021)	January 1, 23	No significant effects
IAS 8	Amendments to IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors" – Definition of Accounting Estimates (issued February 12, 2021)	January 1, 23	No significant effects
IAS 12	Amendments to IAS 12 "Income Taxes" regarding "Deferred Tax related to Assets and Liabilities arising from a Single Transaction" (issued on May 7, 2021)	January 1, 23	No significant effects
IFRS 17	Insurance Contracts (issued on May 18, 2017); including Amendments to IFRS 17 (issued on June 25, 2020)	January 1, 23	No relevance
IFRS 17	Amendments to IFRS 17 regarding the initial application of IFRS 17 and IFRS 9 – comparative information (issued on December 9, 2021)	January 1, 23	No relevance
IAS 12	Amendments to IAS 12 "Income taxes" regarding International Tax Reform – Pillar Two Model Rules (issued May 23, 2023)	Immediately and January 1, 23	No relevance
IFRS 16	Amendments to IFRS 16 "Leases" regarding "Lease Liability in a Sale and Leaseback" (issued on September 22, 2022)	January 1, 24	No significant effects are expected
IAS 1	Amendments to IAS 1 "Presentation of Financial Statements" • Classification of Liabilities as Current or Non-current Date (issued on January 23, 2020); • Classification of Liabilities as Current or Non-current – Deferral of Effective Date (issued on July 15, 2020); and • Non-current Liabilities with Covenants (issued on October 31, 2022)	January 1, 24	No significant effects are expected
IAS 7, IFRS 7	Amendments to IAS 7 "Statement of Cash Flows" and IFRS 7 "Financial Instruments" – "Disclosures: Supplier Finance Arrangements" (issued on May 25, 2023)	January 1, 24	No significant effects are expected
IAS 21	Amendments to IAS 21 "The effects of changes in foreign exchange rates" regarding "Lack of Exchangeability" (issued on August 15, 2023)	EU endorsement pending	No significant effects are expected
IFRS 18	"Presentation and Disclosure in Financial Statements" (issued on April 9, 2024)	EU endorsement pending	Effects are currently being evaluated
IFRS 19	"Subsidiaries without Public Accountability: Disclosures" (issued on May 9, 2024)	EU endorsement pending	No relevance

Status as of June 27, 2024, according to EFRAG Endorsement Status Report

1.6 Discretionary decisions and estimation uncertainties

Discretionary decisions must be taken into account in two respects when preparing the Consolidated Financial Statements. In addition to the need to interpret indeterminate terms and rules, Management is required to make (forward-looking) assumptions and estimates that can have an impact on the asset, financial and earnings position. Estimation uncertainties also arise from forward-looking company planning.

1.6.1 Property, plant and equipment and intangible assets (excluding goodwill)

In estimating the useful lives of assets, judgment is required on the part of the Group's management. In making this assessment, Northern Data takes the experience already gained from comparable assets as well as from current and future technological changes into account, among other information.

Northern Data assesses on each reporting date whether there is any indication that a non-financial asset might be impaired. If any such indication exists, or when annual impairment testing for an asset is necessary, Northern Data makes an estimate of the asset's recoverable amount. The recoverable amount is determined for each individual asset, unless an asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. If the carrying amount of an asset or a cash-generating unit exceeds its recoverable amount, the asset is impaired and written down to its recoverable amount.

To determine the value in use, the expected 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. In order to determine the fair value less costs of disposal, recent market transactions are taken into account. If no such transactions can be identified, an appropriate valuation model is applied. This is based on valuation multiples, stock market prices of exchange-traded shares in companies or other available fair value indicators.

Impairment losses are recognized in profit or loss. This does not apply to assets that have previously been revalued, provided that the increases in value resulting from the revaluation have been recognized in other comprehensive income. For these, the impairment loss is also recognized in other comprehensive income up to the amount of the previous revaluation.

1.6.2 Non-current assets held for sale

Management applies judgment in determining when assets (or disposal groups) meet the criteria to be classified as held for sale. According to IFRS 5 'Non-current Assets Held for Sale and Discontinued Operations,' an asset (or disposal group) is classified as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use, and a sale is considered highly probable. In making this assessment, management considers factors such as:

- Management's commitment to a plan to sell
- Active efforts to locate a buyer and complete the plan
- The asset is available for immediate sale in its present condition.
- The sale is expected to be completed within one year from the date of classification.

Once classified as held for sale, the asset (or disposal group) is measured at the lower of its carrying amount and fair value less costs to sell. This requires significant estimation and involves:

- Determining the fair value of the asset, which involves obtaining market valuations, using comparable market transactions, or applying other valuation techniques
- Estimating the costs to sell, including legal fees, sales commissions, and any costs directly attributable to the sale

The judgements and estimates are based on information available at the time of assessment and may be subject to changes in market conditions. Since the estimates are subject to inherent uncertainties and changes in market conditions, the final measurements of the assets held for sale may be affected.

Details are provided in Notes 1.8.7 and 4.2.2 "Non-current assets held for sale."

1.6.3 Leases
Discretionary decisions were made in assessing whether to extend current leases. Economic and operational factors were taken into account in the assessment of probability.

1.6.4 Revenue recognition

1.6.4.1 Provision of computing power for mining cryptocurrencies
The Group operates several data centers to provide computing power directly to a crypto mining pool or to sell them independently to third parties. Discretionary decisions are required when assessing whether contracts with third parties are within the scope of IFRS 15. In particular, Northern Data considers whether the contract was negotiated with economic substance. In determining the consideration Northern Data expects to receive for the transfer of promised products or services from a customer, the company exercises judgment. This includes estimates of the amount of consideration to be received. In some cases, the company has the discretion to determine whether the consideration is cash (FIAT currency) or non-cash (cryptocurrency). In the case of non-cash computing services, significant judgments are present on the part of Northern Data's management, particularly with respect to the inclusion of the trading platform Coinbase for cryptocurrency exchange rates and the selection of the cut-off date. Any subsequent exchange rate losses or increases are not recognized in revenue but in other operating expenses or income in profit or loss. Furthermore, contracts for the provision of computing power very rarely include significant financing components.

1.6.4.2 Engineering, hosting and cloud computing
It is possible for several IFRS 15 contracts to be concluded with the same customer. The Group treats these contracts as one contract for accounting purposes if the contracts are entered into at the same time or with a small-time interval and are economically interrelated. Judgments are required in assessing whether different contracts are related. Consideration is given to whether a single economic purpose has been negotiated, whether the consideration for one contract is contingent on the performance of the other contract, or whether some or all of the products in the contracts represent a single performance obligation.

Products and services are normally classified as separate performance obligations. The portion of the contract price allocated to them is recognized separately. However, the determination of whether a product or service is considered a separate performance obligation requires the use of judgment. Particularly in the case of engineering and hosting activities, judgment is required to assess whether these services are significantly interdependent. As a rule, engineering services relate to fundamental conceptual designs, while hosting involves simple operation and maintenance measures.

1.6.4.3 Basic discretionary decisions
Northern Data exercises judgment in determining the timing of fair value measurements for non-cash consideration.

Discretion is used in assessing whether revenue from the products and services (hosting and provision of computing services) is to be recognized over time or at a point in time. In particular, it is taken into account whether the customer already has control and derives economic benefits from the product or service while it is being provided. At Northern Data, this applies in particular to hosting and engineering services.

In determining the timing, the Group applies a simplification principle (right to invoice), as monthly invoicing is performed, and the Group is therefore entitled to the hours worked. Revenue is therefore recognized in the amount that the company is entitled to invoice.

Judgments and estimates related to revenue recognition can have an impact on the timing and amount of revenue to be recognized.

1.6.5 Purchase price allocation
For the purchase price allocation in the context of business combinations, assumptions must be made regarding the recognition and measurement of assets and liabilities. The determination of the fair value of the assets acquired and liabilities assumed at the time of acquisition, as well as the useful lives of the intangible assets and property, plant and equipment acquired, involves assumptions. The valuation of intangible assets is based to a large extent on projected cash flows and discount rates. Actual cash flows can differ significantly from the cash flows used in determining fair values, which can result in different values and impairment losses. At the time of preparation, it can be assumed that there is no significant risk with regard to estimation uncertainties or discretionary decisions that a

material change in the carrying amounts will occur in the next reporting period. Any discretionary judgments and estimates in connection with business combinations relate to the previous year. There were no business combinations within the meaning of IFRS 3 in the current reporting period.

1.6.6 Impairment of goodwill
In accordance with the accounting policy set out below, goodwill is tested for impairment at least once a year and additionally if there are indications of possible impairment. Goodwill is initially allocated to a cash-generating unit and tested for impairment on the basis of forward-looking assumptions. Details are provided in Notes 1.8.5 “Goodwill” and 4.1 “Goodwill and other intangible assets”.

1.6.7 Financial instruments
Information on the respective judgments and estimation uncertainties can be found in the Notes to the Consolidated Financial Statements under 1.8.3.2 “IFRS 13 Fair value”, 1.8.3.3 “Impairment” and 5.2 “additional disclosures on financial instruments”.

1.6.8 Deferred tax assets
Deferred tax assets are recognized for all unused tax loss carryforwards to the extent that it is probable that future taxable profit will be available against which the loss carryforwards can be utilized. In determining the carrying amount of deferred tax assets, significant judgment is required by the Management Board with respect to the expected timing and amount of future taxable income.

Further details are presented in Note 3.7 “Income taxes”.

1.6.9 Relationships with related companies and persons
Discretionary decisions are made in the identification of related party relationships, in particular in the determination of significant influence between Northern Data and other companies.

1.7 Implications of the war in Ukraine

1.7.1 Impact on Management’s judgments and estimates
Discretionary decisions and estimates (see Note 1.6 “Discretionary decisions and estimation uncertainties”) can have an impact on the measurement and disclosure of assets and liabilities as well as on the income and expenses recognized for the reporting period. Due to the global impact of the ongoing war in Ukraine, these management judgments and estimates remain subject to uncertainty.

The Russian war in Ukraine continued in 2023. The situation in Ukraine has developed into a war of attrition with an uncertain duration and outcome. Northern Data Group does not actively pursue any business activities in the countries involved in the war. Ukraine, Russia, and Belarus are not target countries for Northern Data companies and there are no locations in the aforementioned countries. Against this backdrop, the war only had an indirect impact on the Group’s business performance or financial condition, due to the prior rises in electricity prices in Europe and increased procurement costs. Through long-term electricity price contracts and hedging, the Group was able to partially compensate for the increased costs. The energy-intensive provision of computing power in the context of cryptomining or in the HPC sector is essentially carried out in the data centers in Norway, Sweden, and North America. The Scandinavian data centers are powered using local hydropower as a regenerative energy source. Nonetheless, the shortage of energy has lead to higher prices. Increases in energy prices softened during the year and towards the latter part of the year elevated inflation levels started to smoothen. For detailed information on this, please refer to the Risk and Opportunity Report and the Forecast Report.

The actual amounts can differ from Management’s judgments and estimates. Changes in these judgments and estimates could have a material impact on the Consolidated Financial Statements. In the process of continually updating Management’s judgments and estimates, all available information regarding expected economic developments and governmental actions has been considered. This information was also included in the evaluation of the recoverability and collectability of assets and receivables. The Group has made the underlying estimates and assumptions based on the knowledge and best information available at the time. An end and the associated economic as well as geopolitical consequences are currently difficult to forecast or estimate due to the current initial situation. It is therefore difficult to estimate the extent of the impact on the asset, financial and earnings position.

1.7.2 General effects on the 2023 Consolidated Financial Statements
Overall, the impact of the war in Ukraine on Northern Data Group’s Consolidated Financial Statements is insignificant.

1.8 Accounting and valuation principles

The main accounting and valuation principles are presented below.

1.8.1 Business combinations

Business combinations are accounted for using the purchase method at the date of transfer of control. Under this method, the assets, liabilities, and contingent liabilities of the acquired company, identified in accordance with the provisions of IFRS 3, are measured at fair value at the acquisition date and compared with the cost of the consideration transferred. Any goodwill is determined by the excess of the cost of the acquisition over the fair value of the identifiable assets acquired and liabilities assumed.

Goodwill is tested for impairment at least once a year and subject to an additional test if there are indications of potential impairment. Any impairment loss is recognized as an expense. The impairment test is performed in accordance with IAS 36.

Acquisition-related costs are expensed as incurred, with the exception of transaction costs in connection with the issue of new shares which are recognized in equity.

IFRS does not apply to acquisitions of an asset or a group of assets that do not meet the definition of a business in accordance with IFRS 3. For such transactions, the acquirer identifies and recognizes the individual identifiable assets acquired, including intangible assets that meet the definition and recognition criteria of IAS 38, and liabilities assumed. In such cases, the cost of the group is allocated to the individual assets and liabilities on the basis of their relative fair values at the date of purchase. Such transactions or events do not give rise to goodwill.

In the course of transactions in which shareholders of Northern Data contribute shares of third parties in exchange for equity instruments of Northern Data, the transaction is not accounted for in accordance with IFRS 3. In the course of initial consolidation, the net assets acquired are recognized at fair value and added to equity as a contribution. The difference between the fair value of the equity instruments issued and the fair value of the net assets acquired is not recognized.

1.8.2 Business transactions in foreign currency

Transactions in foreign currencies are translated into the respective functional currency of the Group companies at the spot rate on the date of the transaction. Non-monetary assets and liabilities measured at fair value in a foreign currency are translated at the exchange rate that applies on the date the fair value was determined on. Non-monetary items measured at historical cost in a foreign currency are translated using the exchange rate on the date of the transaction. Currency translation differences are generally recognized in profit or loss for the period and reported within financing expenses.

1.8.3 Financial instruments

A financial instrument is a contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

1.8.3.1 Notes on interest income and interest expense

The interest income and expense from all interest-bearing assets and liabilities are recognized as interest income and expense using the effective interest rate method. The effective interest rate (EIR) is a method of calculating the amortized cost and of allocating the interest income or expense over the relevant period using the contractual future cash flows. Fees that are considered to be integral to the effective interest rate, direct and incremental transaction costs and all other premiums or discounts are taken into account.

1.8.3.2 IFRS 13 Fair value

Fair value is the price that would be received to sell an asset or be paid to transfer a liability in an arm's length transaction at the measurement date.

The financial instruments carried at fair value have been categorized under the three levels of the IFRS fair value hierarchy as follows:

Level 1: Quoted prices (unadjusted) in active markets for identical assets and liabilities.

Level 2: Financial instruments valued with valuation techniques using observable market data and financial instruments where the fair value can be determined by reference to similar instruments trading in active markets, or where a technique is used to derive the valuation but where all inputs to that technique are observable market data.

Level 3: Valuation parameters for assets or liabilities that are not based on observable market data

If, in determining the fair value of an asset or liability, input parameters are used that can be assigned to different levels of the fair value hierarchy, the fair value measurement is assigned in its entirety to the level of the fair value hierarchy that corresponds to the lowest input parameter that is significant to the determined fair value as a whole.

The fair value of a financial instrument in active markets is determined based on quoted prices where these represent prices used in regular and current transactions. The fair value on the a financial instrument also takes into account credit risk (asset site the counterparty risk and on the liability site the own credit risk).

Where quoted prices do not exist in an active market, Northern Data uses valuation techniques that maximize the use of relevant observable inputs and minimize the use of unobservable inputs. The valuation techniques used incorporate all factors that market participants would consider in pricing such a transaction.

Northern Data records reclassifications between the different levels of the fair value hierarchy at the end of the reporting period in which the change occurred.

At the end of the reporting period, a review is carried out to determine whether reclassifications between assessment hierarchies need to be made. In the reporting year, there were no reclassifications between the measurement hierarchies.

In determining fair value, Northern Data considers factors such as bid and ask spreads. If an asset or liability measured at fair value has a bid price and an ask price, Northern Data measures assets or long positions at the bid price and liabilities or short positions at the ask price.

In most cases, the fair value at the acquisition date corresponds to the transaction price or the acquisition cost. If Northern Data determines that the fair value at initial recognition differs from the transaction price, Northern Data measures that financial instrument at fair value at initial recognition.

If the difference identified is a gain, it is recognized in profit or loss on a systematic basis only to the extent that it arises from changes in factors that market participants would consider in pricing the liability, or over the expected life of the transaction. If the difference calculated represents a loss, it is recognized when it is probable that a loss has been incurred and the loss can be reliably estimated.

Valuation techniques and significant unobservable inputs

As no comparable values are available for the financial assets and financial liabilities to be measured at fair value and thus fair values have to be determined using modeling techniques, valuation techniques such as the Discounted Cash Flow (DCF) method, Net Asset Value (NAV), as well as Monte Carlo Simulation regarding complex options which take into account current market conditions for credit, interest rate, share prices, liquidity and other risks, are used.

The table below shows the valuation techniques used in determining Level 2 and Level 3 fair values and the significant unobservable inputs used.

Industry standard modeling techniques	Input factors Level 2	Input factors Level 3
• DCF models • NAV model • Forward market standard model • Option pricing model/Monte Carlo Simulation	• Estimated future cash flows • Market interest rates • Currency rates • Share prices	• Estimated future cash flows • Asset and liability prices

Parameters, quoted parameter inputs and price data are obtained from third-party sources, including stock exchanges. The sources for the input parameters used are reviewed and assessed to ensure the quality of the fair value to be determined. Where possible, the results are compared with actual transactions in the market to ensure that the model valuations are calibrated against market prices. If no verification can be made due to a lack of observable data, the estimated fair value is assessed for reasonableness using appropriate procedures.

The determination of fair values of financial instruments is subject to judgment and estimation uncertainty. Where available, Northern Data determines the fair value of financial assets and financial liabilities based on quoted prices in an active market for them. If no market values are available for the measurement of financial assets and financial liabilities, the fair values are determined using valuation models. Estimates, assumptions, and modeling techniques in the valuation of financial instruments for which there are no market prices or market observable comparative parameters are to be made. In addition, parameters are based on the appropriate exercise of judgment by management, particularly with regard to the appropriate selection and application of parameters.

The use of valuation techniques or models requires Management to make assumptions and estimates, the extent of which depends on the level of transparency regarding the financial instruments and their markets, and the complexity of those assets and liabilities. If management decisions are required to a significant extent for value determinations, these are identified and documented. As part of the validation of the models and valuations used, subjectivity and estimation issues are assessed in particular. Valuations that are to be assigned to Level 1 generally do not take management estimates into account. In Level 2, or in the case of valuations using standard industry models and input parameters that are observable in active markets, the consideration of management estimates is rather limited. In Level 3, non-observable input parameters, including historical data, are also used in the context of measurement using standard industry models, which means that management estimates are incorporated to a greater extent. If Northern Data is able to access valuation results from multiple valuation techniques, Management chooses the estimate within the range that best reflects fair value. In addition, valuation adjustments may be required by Management to determine fair value. Valuation adjustments are part of the valuation process. The choice of model, the assumptions and methods used, and the input parameters are based on expert estimates.

For more information on the assumptions used in determining fair values, see Note 5.2 “Disclosures on financial instruments.”

1.8.3.3 Impairment

For financial assets measured at amortized cost, the expected credit loss (ECL) model is used to determine impairment losses in accordance with IFRS 9.

Expected credit loss is equal to the gross carrying amount, multiplied by the probability of default and a factor reflecting the loss given default less collateral. Expected credit losses are the probability-weighted estimates of credit losses. The determination of the loss allowances represents a forward-looking assessment of future credit losses. The expected credit loss is to be discounted using the effective interest rate of the financial asset.

The determination of the loss allowances and the impairment losses is subject to discretionary decisions and estimation uncertainties. Estimation uncertainties arise in connection with the recognition of provisions for risks when expected direct and indirect effects. Climate and environmental risks can have an impact on credit risk and risk provisioning. However, none have been identified.

In accordance with IFRS 9, the risk provisioning requirement is determined in three different stages.

Stage 1: Northern Data recognizes a credit loss allowance at an amount equal to 12-month expected credit losses for financial assets, assuming that credit risk has not increased significantly after initial recognition

Stage 2: If there is a significant increase in the default risk at the measurement date, the loss allowances must be recognized for the remaining term of the receivable (lifetime expected credit loss). The expected loss is a probability-weighted estimate of credit losses. Interest income is recognized on the basis of the gross carrying amount

Stage 3: If there are objective indications of impairment, financial assets are to be allocated to Stage 3. The calculation of the loss allowances is based on the lifetime expected credit loss. Interest income is recognized on the basis of the gross carrying amount less the loss allowances

If financial assets are credit-impaired, interest revenue is calculated by applying the effective interest rate to the amortized cost amount (gross carrying amount of a financial asset after adjusting for any impairment allowance).

The determination of whether the credit risk of a financial asset has increased significantly since initial recognition is based on both quantitative and qualitative information and analyses, which are based on Northern Data's past experience and sound judgment, including forward-looking information. Significant weight is given to the past due status of a receivable. A significant increase in credit risk and therefore in default risk is assumed if the internally determined probability of default based on company-specific ratings has deteriorated since initial recognition.

If there is objective evidence of an actual default, the transfer is made to Level 3. If external rating information is available, the expected credit loss is determined on the basis of this data. Otherwise, Northern Data determines the default rates on the basis of historical default rates, taking into account forward-looking information on economic developments. Indicators that a financial asset is credit-impaired and therefore in Stage 3 are significant financial difficulties experienced by customers, a breach of contract, such as a default or past due status of more than 90 days and the likelihood that customers will enter bankruptcy or other reorganization proceedings.

Northern Data considers a financial asset to be in default if it is unlikely that the debtor will be able to pay its credit obligation in full to Northern Data without Northern Data having to resort to measures such as liquidation of collateral. This is mainly the case if the debtor is more than 180 days overdue.

The impairment of trade receivables is determined using an allowance matrix. Impairment is determined by reference to the past due date, based on a rating and taking into account macroeconomic factors and forward-looking information.

The gross carrying amount of a financial asset is written off when Northern Data does not have a reasonable expectation that all or a portion of the financial asset will be recoverable. Northern Data writes off the gross carrying amount when the financial asset is past due, based on past experience in realizing such assets. Northern Data makes an individual assessment of the timing and amount of the write-off based on whether there is a reasonable expectation of recovery. Northern Data does not expect a significant recovery of the amount written off.

Further supplementary disclosures regarding risk provisioning and counterparty risk are presented in Note 5.2.1 "Credit risk."

Classification and measurement

Financial assets and liabilities are classified and measured based on Northern Data's business model and the nature of the cash flows (known as Solely Payments of Principal and Interest or "SPPI").

The following table provides an overview of the basic measurement categories and their abbreviations:

Measurement category of IFRS 9	Abbreviation
At amortized cost	AC
At fair value through profit or loss	FVPL
At fair value through other comprehensive income	FVOCI

Financial assets

Financial assets measured at amortized cost include:

- Trade receivables
- Receivables from affiliated companies
- Other receivables and assets
- Cash and cash equivalents

Northern Data makes an assessment of the objectives of the business model in which the financial asset is held at an overall business level, as this best reflects the way in which the business is managed, and information is provided to management. The information to be considered includes the management's stated strategy for realizing the contractual cash flows, how results are evaluated at the overall business level and reported to Group management and the risks that affect the results of the business model and how those risks are managed.

The contractual cash flows must fulfil the SPPI criterion and be consistent with a basic lending arrangement. The "principal amount" is the fair value of the financial asset at initial recognition. The interest is defined as a charge for the time value of money and for the default risk associated with the principal outstanding over a period of time, as well as for other basic credit risks, liquidity risk, costs (e.g. administrative costs), and a profit margin.

Financial assets held with the objective to collect contractual cash flows (business model: Hold to Collect) are classified and subsequently measured at amortized cost.

Financial assets classified as at amortized cost are subsequently measured at amortized cost using the effective interest method (see Notes 1.8.3.2 "IFRS 13 Fair value"; 3.6 "Financial result"; 5.2 "Disclosures on financial instruments"). Initial measurement is at fair value (see Notes 1.8.3.2 "IFRS 13 Fair value"; 3.6 "Financial result"; 5.2 "Disclosures on financial instruments"). Amortized cost is reduced by impairment losses and repayments. Interest income, foreign exchange gains and losses, and impairment losses are recognized in profit or loss. A gain or loss on derecognition is recognized in profit or loss.

Financial assets held with the objective of both collecting contractual cash flows as well as selling financial assets (business model: Hold to Collect and Sell) are recorded as financial assets at fair value through other comprehensive income on the Group's Consolidated Statement of Financial Position. Foreign exchange gains and losses and impairment losses are recognized in profit or loss. Other net gains or losses are recognized in other comprehensive income. Upon derecognition, accumulated other comprehensive income is reclassified to profit or loss. Interest income is calculated using the effective interest method and is also recognized in the Statement of Comprehensive Income.

An equity investment that is neither held for trading nor contingent consideration recognized by an acquirer in a business combination to which IFRS 3 applies is classified as at fair value through other comprehensive income (excluding recycling). Dividends are recognized as income in the Statement of Comprehensive Income unless the dividend clearly represents coverage of part of the costs of the investment. Other net gains or losses are recognized in other comprehensive income (OCI), with no reclassification to profit or loss. Northern Data designates corporate investment as equity investments valued at FVOCI because they represent investments that Northern Data intends to hold for strategic purposes over the long-term. All financial assets not classified at AC or at FVOCI are therefore financial assets classified at FVPL and are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in other operating expenses in the Statement of Comprehensive Income.

Upon initial recognition, Northern Data may irrevocably elect to designate financial assets that otherwise qualify for measurement at AC or at FVOCI classified as at FVPL if doing so results in the elimination or significant reduction of accounting mismatches that would otherwise occur (fair value option).

Financial assets are not reclassified after initial recognition unless Northern Data changes its business model for managing the financial assets. In this case, all financial assets affected by the change are reclassified on the first day of the reporting period. When financial assets are reclassified, a prospective adjustment is made from the date of reclassification. Previously recognized gains, losses (including impairment losses or income), or interest, are not adjusted.

Financial liabilities
Financial liabilities measured at amortized cost include:
- Trade payables
- Loans/shareholder loan

Northern Data measures financial liabilities – with the exception of liabilities for which the fair value option has been exercised – at amortized cost using the effective interest method (Note 3.6 "Financial result" and 5.2 "Disclosures on financial instruments"). Interest expense and foreign currency translation differences are recognized in the Statement of Comprehensive Income. Gains or losses on derecognition are also recognized in the Statement of Comprehensive Income.

Contracts for differences as energy price derivatives are within the scope of IFRS 9 and are classified as at fair value through profit or loss.

Hybrid financial liability contracts contain both an embedded derivative and a non-derivative component, the contract. If the economic characteristics and risks of embedded derivatives are not closely related to those of the host financial liability contract and the hybrid financial liability contract itself is not carried at fair value through profit or loss, the embedded derivative is bifurcated and accounted for separately as derivatives.

Mandatory convertible notes are assessed to determine whether they should be accounted for entirely as debt or split into an equity component and a debt component. The directly attributable costs along with the debt component, which corresponded to the present value of the future interest payments, were deducted from the proceeds of the issue. The debt component is accounted for as a financial liabilities. The remaining amount constituted the equity component.

Derivatives and embedded derivatives separated from the host contract, which are not classified as hedging instruments in hedge accounting, are classified as FVPL. Gains or losses on these financial assets are recognized in profit or loss.

Recognition and derecognition
A regular way purchase or sale of financial assets shall be recognized or derecognized either at the trade date or at the settlement date. Northern Data applies the trade date accounting method.

Northern Data derecognizes a financial asset when its contractual rights to receive cash flows from the financial asset expire or it transfers its rights to receive contractual cash flows in a transaction in which either substantially all the risks and rewards of ownership of the financial asset are transferred or Northern Data no longer retains substantially all risks and rewards of ownership of the financial asset while not retaining control of the asset.

Northern Data derecognizes a financial liability when the contractual obligations are discharged, cancelled, or expire. When a financial liability is derecognized, the difference between the carrying amount of the liability extinguished and the consideration paid is recognized in profit or loss.

When the contractual terms of financial assets or financial liabilities are renegotiated or modified and the modification does not result in derecognition, a gain or loss is recognized in profit or loss for the difference between the original contractual cash flows and the modified cash flows discounted at the original effective interest rate. Significant modifications result in the derecognition of the recognized original agreement and the recognition of a new financial asset or a new financial liability in accordance with the renegotiated contractual terms.

Financial assets and liabilities are offset, and their net amount recognized in the Consolidated Statement of Financial Position only when there is a legal right to do so and an intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

1.8.4 Intangible assets (excluding goodwill)
Intangible assets (excluding goodwill) are generally carried at amortized cost less straight-line amortization (except for assets with indefinite useful lives) and impairment losses.

In 2022, any remaining balances from cryptocurrencies held long-term that were accounted for using the revaluation method were reclassified to Other Assets due to a change in the business model from long-term holding to exclusively holding to selling cryptocurrencies. Initial measurement of all cryptocurrencies is done based on daily market rate when obtaining crypto as remuneration for hash power. The subsequent measurement is performed using the first-in, first-out method. At the balance sheet date, cryptocurrencies were measured at fair value to closing spot rate.

Internally generated intangible assets are capitalized if the criteria (technical feasibility, intention to complete, ability to use and sell, etc.) set out in IAS 38.57 are cumulatively met. If the criteria are not met, they are recognized as an expense.

Separately acquired licenses and permits are shown at historical cost. Licenses and permits acquired in a business combination or transaction classified as a group of assets acquisition are recognized at fair value at the acquisition date. They have a finite useful life and are subsequently carried at cost less accumulated amortization and impairment losses.

The economic useful lives, residual carrying amounts and amortization methods of intangible assets are reviewed at least at each reporting date. The expected useful lives are as follows:

Asset	Useful life
Customer base	7–15 years
Paid acquired licenses and other rights	3–10 years
Similar rights and assets	3–10 years

If expectations differ from previous estimates, the corresponding changes are recognized as changes in accounting estimates in accordance with IAS 8.

Gains or losses on the disposal of intangible assets are determined as the difference between the proceeds on disposal and the carrying amount of the intangible assets and are recognized in the Statement of Comprehensive Income under "Other operating income" in the case of a gain or under "Other operating expenses" in the case of a loss.

1.8.5 Goodwill
Goodwill is tested for impairment annually or whenever events or changes in circumstances indicate that it may be impaired by comparing the carrying amount of the cash-generating unit or units with their recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and its value in use. The Group generally determines the fair value less costs of disposal for this purpose.

If the carrying amount exceeds the recoverable amount, the asset is impaired and must be written down to the recoverable amount. If the fair value less costs of disposal is higher than the carrying amount, it is not necessary to calculate the value in use; the asset is then not impaired. An appropriate valuation method is used to determine the fair value less costs of disposal. This is based on discounted cash flow valuation models or the market data available (input factors) for the fair value. A subsequent reversal of an impairment loss recognized for goodwill due to the discontinuation of the reasons for the impairment loss is not permitted. Goodwill is recognized in the functional currency and translated at the closing rate.

1.8.6 Property, plant and equipment
Property, plant, and equipment are measured at amortized cost less straight-line depreciation and impairment losses, if any. Assets under construction are stated at cost, net of accumulated impairment losses, if any. Prepayments made for fixed assets are disclosed under assets under construction and are stated at cost. Cost includes costs directly attributable to the acquisition as well as borrowing costs if the recognition criteria are met. Subsequent costs are recognized in the carrying amount of the item of property, plant and equipment when the costs are incurred if it is probable that future economic benefits associated with the item will flow to the entity and the cost of the item can be measured reliably.

Repair and maintenance expenses are expensed as incurred. Plots of land and buildings are recognized separately. Land has an indefinite useful life and is not depreciated.

Asset	Useful life
Buildings & data centers	7–25 years
Servers, accessories, and other operating equipment	3–5 years
Office and other business equipment	3–5 years

The depreciable amount of property, plant and equipment is determined after deducting the estimated residual value. The estimated residual values and useful lives are reviewed at each reporting date and adjusted if necessary. Property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the asset may be impaired. An impairment loss is recognized in the amount by which the estimated residual value exceeds the recoverable amount. If necessary, the remaining useful life is adjusted accordingly.

If the reasons for a previously recognized impairment loss no longer apply, the impairment loss is reversed through profit or loss, with the reversal not exceeding the carrying amount that would have been determined had no impairment loss been recognized in prior periods.

Gains or losses on the disposal of property, plant and equipment are determined as the difference between the proceeds on disposal and the carrying amount of the item and are recognized in the Statement of Comprehensive Income under "Other operating income" in the case of a gain or under "Other operating expenses" in the case of a loss.

1.8.7 Non-current assets held for sale
Non-current assets (or disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable. They are measured at the lower of their carrying amount and fair value less costs to sell, except for assets that are carried at fair value and contractual rights under insurance contracts, which are specifically exempt from this requirement.

An impairment loss is recognized for any initial or subsequent write-down of the asset (or disposal group) to fair value less costs to sell. A gain is recognized for any subsequent increases in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognized. A gain or loss not previously recognized by the date of the sale of the non-current asset (or disposal group) is recognized at the date of derecognition.

Non-current assets (including those that are part of a disposal group) are not depreciated or amortized while they are classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale continue to be recognized.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the statement of financial position. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the statement of financial position.

A discontinued operation is a component of the entity that has been disposed of or is classified as held for sale and that represents a separate major line of business or geographical area of operations, is part of a single coordinated plan to dispose of such a line of business or area of operations, or is a subsidiary acquired exclusively with a view to resale. The results of discontinued operations are presented separately in the statement of profit or loss.

1.8.8 Cash and cash equivalents

Cash and cash equivalents comprise bank accounts as well as all near-cash assets with a remaining term of less than three months at the time of acquisition. Cash and cash equivalents are measured at amortized cost.

1.8.9 Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories (with the exception of advance payments received) is generally based on the first-in, first-out method. Net realizable value is determined as the estimated selling price of inventories less estimated costs to sell.

1.8.10 Provisions

Provisions are recognized when the Group has a present obligation as a result of a past event and 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 amount of the provision is the best estimate of the settlement amount of the present obligation at the reporting date.

Expected reimbursements from third parties are not netted but recognized as a separate asset if realization is virtually certain. If the effect of the time value of money is material, the provision is discounted at the pre-tax market rate of interest with matching maturities. Subsequent interest accretion is recognized as a financing expense.

1.8.11 Equity

Transaction costs relating to the issue of equity instruments are treated as a deduction from equity, taking the tax effects into account. The inflows received after deduction of directly attributable transaction costs are added to the share capital (nominal value) and the capital reserve.

1.8.12 Contingent liabilities and unrecognized contractual obligations

Contingent liabilities and unrecognized contractual obligations based on present obligations are not recognized as liabilities in the Consolidated Financial Statements until utilization is probable.

However, in the context of a business combination, contingent liabilities are recognized in accordance with IFRS 3 if their fair value can be reliably measured.

1.8.13 Income taxes

Tax expense comprises current and deferred taxes. Current and deferred taxes are recognized in profit or loss, except to the extent that they relate to a business combination or to an item recognized directly in equity or in other comprehensive income.

The Group has determined that interest and penalties on income taxes, including uncertain tax items, do not meet the definition of income taxes and are therefore accounted for in accordance with IAS 37.

1.8.13.1 Current taxes

Current taxes are the expected tax payable or receivable on the taxable income or tax loss for the fiscal year, based on tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years. The amount of the expected tax liability or tax receivable reflects the best estimate, taking tax uncertainties, if there are any, into account. Current tax liabilities also include any tax liabilities arising as a result of the determination of dividends.

Current tax assets and liabilities are offset only under certain conditions.

1.8.13.2 Deferred taxes

Deferred taxes are recognized in respect of temporary differences between the carrying amounts of assets and liabilities for accounting purposes and the amounts used for tax purposes. Deferred taxes are not recognized for:

- Temporary differences arising on initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting profit nor taxable profit

- Temporary differences associated with investments in subsidiaries, associates and jointly controlled entities, provided that the Group is able to control the timing of the reversal of the temporary differences and it is probable that they will not reverse in the foreseeable future

- Taxable temporary differences on initial recognition of goodwill

A deferred tax asset is recognized for unused tax losses, unused tax credits and deductible temporary differences to the extent that it is probable that future taxable profit will be available against which they can be utilized. Future taxable profits are determined based on the reversal of taxable temporary differences. If the amount is not sufficient to fully capitalize deferred tax assets, future taxable profits – taking the reversal of temporary differences into account – are determined on the basis of the subsidiaries' individual business plans. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realized; reversals are made when the probability of future taxable profits improves.

Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it is probable that future taxable profit will allow them to be recovered. Deferred tax is measured at the tax rates that are expected to apply to temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date. Deferred taxes reflect any uncertainty in income taxes. The measurement of deferred taxes reflects the tax consequences that would follow from the manner in which the Group expects to recover the carrying amounts of its assets or settle its liabilities at the reporting date. Deferred tax assets and deferred tax liabilities are offset if certain conditions are met.

1.8.14 Leases

Northern Data assesses at contract inception whether the contract is, or contains, a lease in accordance with IFRS 16. IFRS 16 defines a lease as a contract that gives the right to control the use of an identified asset for a specified period of time in exchange for payment of a consideration. A lease conveys the right to control the use of an identified asset provided that the lessee has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use (for example, by having the exclusive right to use the asset during that period) and to direct the use of the identified asset during the period of use.

As a lessee, the rights and obligations arising from all leases must be recognized in the Consolidated Statement of Financial Position as rights of use and lease liabilities. The lease liability is measured at the present value of the future lease payments at the time the lease is granted. These include fixed payments less any lease incentives to be received, variable lease payments linked to an index or (interest) rate, amounts expected to be paid by Northern Data under residual value guarantees, the exercise price of a purchase option if Northern Data is reasonably certain to exercise that option, and lease termination penalties if the lease term indicates that the lessee will exercise the termination option. The lease payments are discounted at the respective interest rate underlying the lease agreement. If this interest rate cannot be readily determined, Northern Data uses the incremental borrowing rate. Generally, Northern Data applies a marginal borrowing rate for discounting purposes, adjusted for country-specific risk, contract currency risk and the contract term. The right-of-use asset is measured at cost. The cost of the right-of-use asset comprises the amount of the initial measurement of the lease liability plus lease payments made at or before the date of origination plus initial direct costs and any asset retirement obligations, and less lease incentives received.

After the provision date, the lease payments are divided into principal and interest payments. The lease liability is subsequently measured by increasing the carrying amount by the interest cost of the lease liability using the effective interest rate and reducing the carrying amount by the lease payments made. The carrying amount of the lease liability is remeasured if there is a reassessment or modification of the lease (including a change in the assessment of whether it is probable that an option to renew or terminate the lease will be exercised). Subsequently, the right-of-use asset is measured at cost less accumulated depreciation and impairment losses and adjusted for certain revaluations of the lease liability. Generally, the right-of-use asset is amortized on a straight-line basis over the shorter of the lease term or the useful life of the leased asset.

The Group exercises the option not to apply the recognition and measurement requirements of IFRS 16 for leases where the underlying asset is of low value (up to EUR 5,000). Furthermore, use is made of the relief to classify leases with a term of less than 12 months as short-term leases. Both lease payments for assets of low value and short-term leases are recognized as expenses. The Group does not make use of the option under IFRS 16.15 to account for lease and non-lease components uniformly in accordance with IFRS 16.

Lease expenses comprise depreciation expense on right-of-use assets and interest expense on lease liabilities.

As the lessor, leased products (operating leases) are measured at cost. Initial direct costs incurred in negotiating and concluding an operating lease, if applicable, are added to the carrying amount of the leased asset and depreciated together with it to its residual value over the term of the lease. In determining the term of a lease, extension periods are taken into account in addition to the non-cancellable basic term, provided that the exercise of the underlying extension options is deemed to be sufficiently certain.

1.8.15 Revenue recognition

The following table provides information on the nature and timing of performance obligations from contracts with customers, including significant payment terms, and the related revenue recognition policies.

A contract liability is recognized when the customer makes payment or payment becomes due before Northern Data transfers the respective goods or services to the customer and Northern Data has an unconditional right to receive specified consideration before transferring the goods or service to the customer. Contract liabilities are recognized as revenue when Northern Data satisfies its obligations under the contract or when control of the related goods or services is transferred to the customer.

Supplementary explanations can be found in Note 3.1 “Sales revenues.”

Sales class	Type and time of fulfilment of the performance obligation, including the main payment terms	Revenue recognition method
Provision of computing power for mining crypto-currencies	The customer obtains control over the computing power at the exact moment it is provided.	Revenue is recognized at a certain point in time, namely when the cryptocurrency is credited to the wallet, as all performance obligations have thus been fulfilled using the closing price per each day. Cryptocurrency is awarded based on utilization of the computing power provided by the Group.
Hosting	The customer acquires the power of disposal continuously. Invoices are issued at monthly intervals and must be paid within 10–20 days.	Revenue is recognized over a certain period of time. Remuneration is based on hourly rates and the Company therefore makes use of the simplification rule and recognizes revenue upon invoicing.
Hardware sales	Customers obtain control over hardware products when the goods are shipped from the Group's warehouse. At this point, invoices are issued and sales are recognized. Invoices are generally payable within 10–30 days.	Revenue for hardware products is recognized when the goods are shipped from the Group's warehouse or the manufacturer's warehouse.
Engineering	Invoices for consulting and construction are issued on a monthly basis and are generally payable within 60 days.	Revenue is recognized over a period of time. The stage of completion, according to which revenue is recognized, is determined on the basis of an appraisal of the work performed. Remuneration is based on hourly rates and the Company therefore makes use of the simplification rule and recognizes revenue with invoicing.
Cloud computing	The customer obtains control over the cloud computing capacity based on the contract structure with the Company for either reserved or on-demand capacity. For reserved capacity contracts, the performance obligation is fulfilled when the server capacity becomes available to the customer at the commencement of the contract. Invoices are issued at monthly intervals and must be paid within 10–20 days. For on-demand capacity contracts, the customer obtains control over the capacity at the exact moment he calls it up at and to the extent of the server capacity that he uses. Invoices are issued at monthly intervals and must be paid within 10–20 days.	Revenue is recognized over a period of time based on the contracted period. Remuneration is based on hourly rates and the Company therefore makes use of the simplification rule and recognizes revenue upon invoicing. For on-demand capacity, revenue is determined based on actual capacity utilized. For reserved capacity, contract revenue is determined based on pre-agreed prices for capacity utilized over the contracted period.

1.8.16 Financial income and financial expenses

The Group's financial income and financial expenses comprise:

- Measurements of financial assets and liabilities
- Interest income and expense

1.8.17 Earnings per share

Earnings per share are calculated as the Group's profit after tax attributable to the equity holders of the parent divided by the weighted average number of ordinary shares outstanding during the reporting period.

Diluted earnings per share are based on the assumption of the exercise of other contracts for the issue of ordinary shares such as stock options and the servicing of the convertible bond in shares.

1.8.18 Share-based payments

Under equity-settled share-based payment transactions, the fair value on the date share-based payment arrangements is granted to employees is recognized as an expense with a corresponding increase in equity over the period in which the employees become unconditionally entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the relevant service conditions and non-market performance conditions are expected to be satisfied, so that the final amount recognized as an expense is based on the number of awards that satisfy the relevant service conditions and non-market performance conditions at the end of the vesting period. For share-based payment awards with non-vesting conditions, the fair value is determined at the grant date taking these conditions into account. No adjustment is to be made for differences between expected and actual outcomes.

2 Changes to the scope of consolidation

Acquisition of shares in 1102 McKinzie LLC

On December 1, 2023, the Group company Peak Mining LLC ("Peak Mining") acquired 100 percent of the shares in 1102 McKinzie LLC, a 300MW mining data center site in Corpus Christi, Texas, USA, for an aggregate purchase price of USD 13,600 thousand. For not fulfilling the definition of a business, the acquisition of 1102 McKinzie LLC is not considered a business combination within the meaning of IFRS 3.

Acquisition of shares in Damoon Limited

Effective December 22, 2023, Northern Data AG acquired 48.07 percent of the shares in Damoon Ltd., Dundalk (Ireland) ("Damoon") against issuing 10,478,826 new shares in Northern Data AG to the seller of Damoon. With issuance on December 12, 2023, further 21.85 percent of the shares in Damoon were acquired against the issuance of a mandatory convertible bond in the nominal amount of EUR 87,402 thousand in denominations of EUR 1 at an interest rate of 0.5 percent. Upon conclusion of these first two acquisition steps, Northern Data AG was granted a unilateral option, exercisable until December 31, 2024, to acquire the remaining 30.08 percent of shares in Damoon. These were acquired against issuing 6,556,949 new shares in Northern Data AG, becoming effective on January 3, 2024. As of the reporting date for the fiscal year 2023, Northern Data AG held, from an economic point of view, 100 percent ownership in Damoon (and its subsidiary Damoon Norway AS). Damoon is engaged in the provision of GPU hardware. For not fulfilling the definition of a business, the acquisition of Damoon is not considered a business combination within the meaning of IFRS 3.

Northern Data invested EUR 730,000 thousand through partnerships with GIGABYTE and HPE. Northern Data's cloud business, which operates as Taiga Cloud since 2023, acquired 20 NVIDIA H100 GPU pods, at a purchase price of EUR 400,000 thousand, with deliveries expected in the next 9 months. On November 29, 2023, Taiga Cloud announced an additional investment of EUR 330,000 thousand with Hewlett Packard Enterprise (HPE), for the supply of HPE Cray XD supercomputers, equipped with the aforementioned NVIDIA H100 GPU Tensor Core GPUs.

Business combinations in the prior year 2022

Disposal of Groupe Kelvin Emtech Inc

Under the agreement dated December 30, 2022, Northern Data sold its Canadian subsidiary Groupe Kelvin Emtech Inc., Québec, Canada, which consisted of Groupe Kelvin Emtech Inc., which is the sole shareholder of Kelvin Emtech Inc., KE Technologies Inc., CEDTECH Construction Inc. and Le Groupe Berman Inc., to Ouellette Holdco. The sales price amounting to EUR 460 thousand which was not paid cash but entitles Northern Data AG and its affiliates to receive further engineering services provided by Groupe Kelvin Emtech Inc. in the respective amount. This results in a deconsolidation loss of EUR −4,323 thousand for the Group, which is reported under other operating expenses in the previous year.

3 Notes to the Statement of Comprehensive Income

3.1 Sales Revenues

The Group currently generates the majority of its sales revenues from the mining of crypto assets and cloud computing. In the fiscal year, the company was able to generate significant income and cash inflows from this. In fiscal year 2023, cloud computing contributed for the first time to sales revenues.

The following section provides comprehensive and supplementary information on customer contracts. In particular, this includes explanations of how Northern Data Group recognizes revenue and information on the allocation of revenue to trade receivables and, where applicable, customer-related obligations.

Sales revenues were generated from Europe and the U. S., mainly from the provision of computing power for mining cryptocurrencies and cloud computing services. Cloud computing revenues are currently predominantly derived from Germany and Ireland.

Breakdown of sales revenues

The following table shows the breakdown of sales by main geographical markets:

in EUR '000	2023	2022
Europe (excluding Germany)	37,095	42,439
North America	32,114	41,297
Germany	8,318	109,551
Total	**77,527**	**193,287**

The following table shows the breakdown of sales by sales class. A reconciliation to the reportable segments is provided in Note 5.6 "Segment reporting."

in EUR '000	2023	2022
Segment Peak Mining Total	**62,802**	**184,739**
Provision of computing power for mining cryptocurrencies	59,838	163,315
Hardware sales	–	21,424
Other	2,964	–
Segment Taiga Cloud Total	**14,256**	**1,390**
Cloud computing services	14,256	1,390
Segment Ardent Data Centers Total	**469**	**7,158**
Hardware sales	58	4,120
Hosting and colocation	411	3,038
Total	**77,527**	**193,287**

In 2023, the business activities were organized into the following three segments:

(i) Peak Mining – Cryptocurrency mining: This division includes the provision of computing power for crypto mining. Crypto mining involves generating computing power for the Bitcoin blockchain via ASIC miners.

(ii) Taiga Cloud – Provision of cloud computing services: Taiga Cloud provides customers with access to GPU hardware. The cloud proposition focuses on providing computing power for generative AI purposes where and when companies need it.

(iii) Ardent Data Centers – Colocation and associated fees: Ardent Data Centers manages Northern Data Group's data centers, including their acquisition or planning, construction or conversion, and operation. The business division procures, installs, and manages server hardware in its data centers that is owned by customers. Ardent Data Centers focuses on building the most efficient, future-ready network of HPC colocation capacity on the market. The revenues in this segment are mainly generated from colocation and engineering.

Hardware sales represents another revenue stream that can be associated with the three segments, depending on where the machines are acquired for resale purposes.

The revenue classes presented show external revenues only. Supplementary disclosures can be found in Note 5.6 “Segment reporting.”

3.1.1 Outstanding performance obligations

The portion of the transaction price of a customer contract that is allocated to performance obligations still outstanding represents the revenue from the contract that has not yet been recognized. Both the amounts recognized as contract liabilities and the amounts contractually agreed but not yet due are included here.

As permitted by IFRS 15, no information is provided on the remaining performance obligations as of December 31, 2023, or December 31, 2022, that have an expected original maturity of one year or less. None of these performance obligations exceeds a maturity of twelve months.

3.1.2 Contract liabilities

The following table provides information on receivables and contract liabilities arising from contracts with customers:

in EUR ‘000	2023	2022
Trade receivables	8,614	2,908
Contract liabilities	9	222

Trade receivables exclusively comprise receivables from customers for services rendered up to the respective reporting date.

The revenue recognized in the reporting period that was included in the contract liability balance at the beginning of the period amounted to EUR 213 thousand (previous year: EUR 20,841 thousand).

For further information regarding provision for credit risk on financial assets, see Note 5.2.1 “Credit risk” in the Notes to the Consolidated Financial Statements.

3.2 Other operating income

Other operating income breaks down as follows:

in EUR '000	2023	2022
Gains from currency translation	16,249	38,608
Sales of assets	10,984	117
Refunds from other taxes	2,188	10,357
Relating to other periods	1,915	–
Tax refunds	1,163	–
Exchange rate differences on cryptocurrencies	601	2,248
Reversal of provisions and accrued liabilities	77	1,151
Refunds of legal costs	–	1,213
Other	302	2,487
Total	**33,479**	**56,181**

Income from refunds from other taxes in the reporting period includes reclaimable energy taxes (EUR 2,188 thousand; previous year: EUR 10,200 thousand). Income from tax refunds in fiscal year 2023 relates to taxes from prior periods.

3.3 Cost of materials

Cost of materials break down as follows:

in EUR '000	2023	2022
Power purchase for data centers	38,383	59,980
Hosting	1,871	4,523
Shipping and costs for material transportation	834	3,696
Hardware and components for servers	242	23,761
Loss from inventory valuation	–	5,957
Other	68	947
Total	**41,398**	**98,864**

3.4 Personnel expenses and number of employees

Personnel expenses break down as follows:

in EUR '000	2023	2022
Wages and salaries	17,884	26,282
thereof pension plans	781	698
Social security contributions	1,646	2,191
thereof pension plans	474	784
Share-based payments	15,972	16,840
Other profit and profit sharing	617	444
Benefits on the occasion of termination of employment	236	4,051
Benefits after termination of employment	119	0
Other	29	90
Total	**36,503**	**49,898**

The average number of employees breaks down as follows:

Number of employees	2023	2022
Salaried	144	209
thereof senior executives	6	5

The average number of employees in the previous year and in the fiscal year was distributed among the regions as follows:

2023	Germany	Other countries in Europe	North America
as of March 31	90	33	35
as of June 30	76	29	37
as of September 30	65	29	41
as of December 31	62	37	42
Average number	**73**	**32**	**39**

2022	Germany	Other countries in Europe	North America
as of March 31	88	35	64
as of June 30	98	36	74
as of September 30	103	41	79
as of December 31	104	37	78
Average number	**98**	**37**	**74**

The average number of employees in the Group of the fiscal year was 144 of which six are senior executives. Please refer to Note 5.4 “Share-based payments” for expenses and further information on share-based payments and to Note 5.5 “Employee benefits” for company pension plans.

3.5 Other operating expenses

Other operating expenses are composed as follows:

in EUR ‘000	2023	2022
Losses from currency translation	23,092	24,792
Legal and consulting fees	20,945	24,025
Loss on the disposal of tangible and intangible assets	2,705	12,182
Travel and representation expenses	2,451	3,162
Recruiting and HR expenses	2,004	1,544
Advertising costs	1,573	2,559
Incidental costs from rent, lease and other occupancy costs	905	2,320
Allowance for bad debts	847	3,205
Shipping costs and outgoing freight	792	128
Losses from the sale of crypto-currencies	404	42,010
Third-party work	509	986
Impairment of other receivables	–	29,122
Valuation of cryptocurrencies	–	4,622
Write-off of loans	–	2,078
Other	5,110	6,088
Total	**61,337**	**158,823**

Other operating expenses classified as “other” in the reporting period include general admin expenses for office and computer supplies in particular.

3.6 Financial result

in EUR ‘000	2023	2022
Financial income, net	**1,084**	**99**
thereof interest and similar income	826	99
thereof repayment of convertible bond	258	–
Financial expenses, net	**–1,448**	**–3,166**
thereof interest and similar expenses	–1,158	–2,824
thereof interest expense from leases	–290	–340
thereof allowance for losses on financial assets	–	–2
Financial result	**–364**	**–3,067**

The increase in interest and similar income in financial year 2023, compared to the prior year, mainly results from interest on VAT receivables received from tax authorities in Norway.

In fiscal year 2023, financial expenses mainly result from interest charges related to borrowings and the mandatory convertible bond using the effective interest method. For details on the shareholder loan see Note 5.3.1 Related companies and for the convertible bonds see Note 4.6 “Equity”.

In the prior year, interest and similar expenses mainly resulted from interest repaid on shareholder loans, which have been completely repaid in the previous year.

Expenses and income are presented on a net basis.

Financial risks and possible impairments resulting from the financial result are explained in Note 5.2.1 “Disclosures on financial risks and risk provisioning.”

3.7 Income taxes

Income taxes include current taxes paid or owed by the consolidated companies as well as deferred taxes.

in EUR '000	2023	2022
Current tax (expense)/income on profits for the period	–747	–2,200
Current tax (expense)/income from previous years	365	5,701
Total current tax (expense)/ income	**–382**	**3,501**
Deferred tax (expense)/income due to temporary differences	2,070	–1,477
Deferred tax (expense)/income due to tax loss carryforwards	782	619
Total deferred tax (expense)/ income	**2,852**	**–858**
Total	**2,470**	**2,643**

The deferred tax income due to temporary differences in fiscal year 2023 is mainly attributable to matters relating to non-current assets. The deferred tax income reported due to tax loss carryforwards of EUR 782 thousand primarily includes interest expenses to affiliated companies that were not fully deductible in the fiscal year 2023 but can be carried forward and deducted in future periods. The nominal tax rate applicable to Northern Data AG was 31.9 percent in the fiscal year (previous year: 31.9 percent).

The following overview presents the reasons for the difference between the expected and the reported tax expense in the Group:

	2023	2022
Tax rate of the parent company in percent	31.9	31.9
in EUR '000		
Consolidated (loss)/profit before income taxes	**–153,525**	**–268,418**
= Expected tax (expense)/income	**49,012**	**85,692**
Deviating tax rates of the subsidiaries	–8,620	–2,133
Tax-exempt income	–	57
Non-deductible expenses	–8,389	–3,766
Other permanent differences	2,685	–
Change in valuation of deferred tax assets	–63	–6
Taxes relating to previous years	365	5,700
Effect from temporary differences and losses for which no deferred taxes were recognized	–41,655	–125,807
Effect of the change in temporary differences and losses and utilization of tax loss carryforwards	9,427	43,114
Other effects	–292	–208
Total income taxes	**2,470**	**2,643**

The tax liabilities reported in the Consolidated Statement of Financial Position result from the income taxes of the companies included in the Consolidated Financial Statements for fiscal year 2023 and partly for the previous year. The companies are subject to the respective tax laws of their countries. When assessing tax assets and tax liabilities, the interpretation of tax legislation may be subject to uncertainties, and a divergent view of the respective tax authority cannot be ruled out. Changes in assumptions about the correct interpretation of tax regulations are reflected in the recognition of uncertain income tax assets and liabilities. Uncertain income tax items are recognized at the most probable value.

Deferred taxes were recognized on temporary differences between the carrying amounts in the IFRS balance sheets of the Group companies, including disclosed hidden reserves, and the tax balance sheets, as well as on tax loss carryforwards that are expected to be utilized. Deferred tax assets and liabilities are measured using tax rates that are expected to apply to the period when the asset is realized, or the liability is settled. The tax rates and tax regulations used are those that are enacted or substantively enacted on the reporting date.

IFRIC 23 clarifies how the recognition and measurement requirements set out in IAS 12 should be applied when there is uncertainty about income tax treatments and includes current and deferred tax assets or liabilities. In accordance with IFRIC 23, uncertain tax treatments may be accounted for separately or together with one or more other uncertain tax treatments. The method that is better suited to predicting the resolution of the uncertainty must be selected. When making the assessment, it must be assumed that a tax authority will examine all amounts that it is authorized to examine and that it has all relevant information for the examination. If it is considered unlikely that the tax authority will accept an uncertain tax treatment, either the most likely amount or the expected value should be applied to each uncertain tax treatment to account for the effect of the uncertainty, depending on which method is more appropriate for predicting the resolution of the uncertainty.

The companies of the Group are subject to income tax in a large number of countries worldwide. When assessing global income tax assets and liabilities, the interpretation of tax regulations in particular can be subject to uncertainty. Differences in the views of the respective tax authorities regarding the correct interpretation of tax standards cannot be ruled out. Changes in assumptions regarding the correct interpretation of tax standards, for example due to changes in case law, are included in the recognition of uncertain income tax assets and liabilities in the corresponding fiscal year.

The total amount of tax loss carryforwards amounts to EUR 345,396 thousand (of which EUR 270,141 thousand for corporation tax and other comparable foreign taxes and EUR 75,255 thousand for trade tax). Deferred tax assets on tax loss carryforwards were only capitalized if, on the basis of planning, it is considered probable that future taxable income will be available to offset these losses. No deferred tax assets are recognized for corporation tax and trade tax loss carryforwards of EUR 205,977 thousand.

No deferred tax assets were recognized on temporary differences in the amount of EUR 122,492 thousand. Deferred tax liabilities relating to temporary differences with shares in subsidiaries (so-called “outside basis differences”) are not recognized, as the company holding the investment can control the timing of the reversal and a reversal is not expected in the foreseeable future.

In respect of the surplus of deferred tax assets in the amount of EUR 4,727 thousand, some of the Group entities recognized such surplus of deferred tax assets despite ending the period on a loss position. These companied are operating on Cost Plus basis and are estimated to recognize sufficient taxable income in future periods that will exceed the recognized deferred tax assets in the amount of EUR 4,727 thousand.

Deferred tax assets are based on the following temporary differences and tax loss carryforwards:

in EUR ‘000	2023	2022
Property, plant and equipment	3,380	2,912
Trade receivables/due from affiliated companies	**925**	–
Other assets	–	632
Cash and cash equivalents (mainly currency translation)	–	475
Trade payables/due to affiliated companies	1,299	1,810
Lease liabilities	1,497	1,495
Other accruals	7,453	8,774
Tax loss carryforwards and tax credits	1,339	595
Total	**15,893**	**16,693**
Netting (per consolidation unit)	**–11,166**	**–13,628**
Balance sheet item	**4,727**	**3,065**

Deferred tax assets on property, plant and equipment are recognized at the level of the Consolidated Financial Statements due to the different accounting assessment.

Deferred tax liabilities result from the following temporary differences:

in EUR '000	2023	2022
Intangible assets	153	151
Property, plant and equipment	2,334	4,788
Trade receivables and payables	8,192	9,888
Cash and cash equivalents (mainly currency translation)	14	268
Trade payables/due to affiliated companies	66	7
Other accruals	1,460	656
Other assets	–	70
Total	**12,219**	**15,828**
Netting (per consolidation unit)	–11,166	–13,628
Balance sheet item	**1,053**	**2,200**

Deferred tax liabilities mainly result from currency translation.

The income and expenses from deferred taxes recognized in profit or loss in the fiscal year relate to the following temporary differences and tax loss carryforwards:

in EUR '000	2023	2022
Intangible assets	–60	72
Property, plant and equipment	2,982	–10,125
Inventories	0	1
Trade receivables/due from affiliated companies	2,610	–8,962
Other assets	–563	1,046
Cash and cash equivalents	–480	4,798
Transaction costs from capital procurement measures	0	2,545
Trade payables/due to affiliated companies	–569	996
Contract liabilities, deferred revenue	3	1,465
Provisions	–5	5
Other accruals	–1,848	6,683
Tax loss carryforwards and tax credits	782	619
Total deferred tax expense/income	**2,852**	**–857**

3.8 Earnings per share

The following table shows the calculation of undiluted and diluted earnings per ordinary share attributable to shareholders of the parent company:

		2023	2022
Profit attributable to shareholders of the parent company	in EUR '000	–151,055	–265,775
Weighted average number of shares for the calculation of earnings per share			
Undiluted	Number	28,940,547	23,815,514
Diluted	Number	28,940,547	23,815,514
Earnings per share			
Undiluted	EUR	–5.22	–11.16
Diluted	EUR	–5.22	–11.16

In fiscal year 2023, the diluted number of shares includes mandatory convertible bonds and the interest charges related thereto are considered in the calculation of earnings per share.

4 Notes to the Statement of Financial Position

4.1 Goodwill and other intangible assets

in EUR '000	Goodwill	Customer base	Paid acquired licenses and other rights	Similar rights and assets	Crypto currencies	Total
Acquisition and production costs						
Balance on 01/01/2022	**31,163**	**3,551**	**4,494**	**163**	**66,948**	**106,319**
Disposals from the scope of consolidation	–1,008	–3,710	–1,082	6	–	**–5,794**
Additions	–	–	539	–	–	**539**
Disposals	–	–	–871	–116	–20	**–1,007**
Reclassifications	–	–	–	–	–66,582	**–66,582**
Net translation differences	–	159	–8	–14	–346	**–209**
Balance on 01/01/2023	**30,155**	**–**	**3,072**	**39**	**–**	**33,266**
Additions	–	–	3,157	–	–	**3,157**
Disposals	–	–	–64	–	–	**–64**
Reclassifications	–	–	–	–	–	**–**
Net translation differences	–	–	–63	1	–	**–62**
Balance on 12/31/2023	**30,155**	**–**	**6,102**	**40**	**–**	**36,297**
Accumulated amortization and impairments						
Balance on 01/01/2022	**11,065**	**382**	**1,591**	**116**	**7,529**	**20,683**
Disposals from the scope of consolidation	–	–382	–327	–	–	**–709**
Additions (scheduled amortization)	–	–	816	35	–	**851**
Impairments	5,714	–	–	–	29,050	**34,764**
Disposals	–	–	–748	–116	–19	**–883**
Reclassifications	–	–	–	–	–36,570	**–36,570**
Net translation differences	–	–	–20	–2	10	**–12**
Balance on 01/01/2023	**16,779**	**–**	**1,312**	**33**	**–**	**18,124**
Additions (scheduled amortization)	**–**	–	459	6	–	**465**
Impairments	**–**	–	633	–	–	**633**
Disposals	**–**	–	–64	–	–	**–64**
Net translation differences	**–**	–	–12	1	–	**–11**
Balance on 12/31/2023	**16,779**	**–**	**2,328**	**40**	**–**	**19,147**
Carrying amounts						
Balance on 12/31/2022	**13,376**	**–**	**1,760**	**6**	**–**	**15,142**
Balance on 12/31/2023	**13,376**	**–**	**3,774**	**–**	**–**	**17,150**

In the prior fiscal year, the reported figures for disposals from acquisition and production costs as well as accumulated amortization for paid acquired licenses and other rights were overstated by EUR 1,439 thousand. Consequently, these figures have been adjusted in the schedule above. The opening balance of the net book value is unchanged and consistent to the previous year. There is no impact on other sections of the financial statements.

4.1.1 Paid acquired licenses and other rights

In December 2023, the Group acquired an intangible asset of EUR 3,600 thousand relating to an approved license for 300 MW power by the Electric Reliability Council of Texas (ERCOT) for its recently acquired site in Corpus Christi, Texas, US. The first phase of the expansion is underway and will deliver 100 MW of mining capacity by the end of the first half year of 2024.

4.1.2 Impairment test

Intangible assets mainly comprise goodwill and acquired intangibles related during the acquisition of 1102 McKinzie LLC.

The determination of the cash-generating units (CGU) is generally based on the locations of the data centers. This results in the following CGUs with the designation "Sweden-Mining" and "Sweden-HPC."

Goodwill is not amortized but rather tested for impairment at least once a year in accordance with IAS 36 based on fair value less costs of disposal. The corresponding cash-generating unit is tested for impairment in the same way as described in Note 1.8.3.3 "Impairment". The value in use was determined as the recoverable amount.

Goodwill with the initial amount of EUR 24,771 thousand for the acquisition of Hydro66 UK Ltd in 2021 was allocated 46 percent to the CGU "Sweden-Mining" and 54 percent to the CGU "Sweden-HPC." The goodwill allocated to the CGU " Sweden-Mining" was fully impaired in 2022.

The following table shows the allocation of the carrying amounts for goodwill as of December 31, 2023, and 2022:

in EUR '000	Goodwill as of	
	12/31/2023	12/31/2022
CGU Sweden – HPC	13,376	13,376

4.1.2.1 Sweden-HPC

A WACC of 10.9 percent (pre-tax 13.7 percent) was calculated for the "Sweden-HPC" CGU. The discount rate is based on a risk-free rate of 2.7 percent and a market risk premium of 6.5 percent. Furthermore, a beta factor derived from a peer group, a credit spread, and a typified capital structure are taken into account.

The impairment test is based on the current planning status of Northern Data. The planning covers the years 2024 to 2028. The detailed planning period for 2024 is subject to the company's planning approved by management and released by the Supervisory Board; the detailed planning for 2024 to 2028 is based on the multi-year planning approved by the Management Board.

Only the investments in GPUs already committed to in fiscal year 2023 and the GPUs portfolio at the end of 2023 were included in the impairment test. Sustainable reinvestments based on annuities were taken into account to determine the "terminal value." A terminal growth rate of two percent is assumed. Furthermore, Management assumes that revenues will increase as a result of selling more GPU hours at a higher GPU capacity (50 to 85 percent) and at a market related rate to customers, thus contributing to increased EBITDA and cash flows.

The recoverable amount as of December 31, 2023, EUR 556,257 thousand (previous year: EUR 156,068 thousand) is determined on the basis of a value in use using cash flow forecasts.

On the basis of the impairment test in accordance with IAS 36, there was no impairment of the goodwill for the CGU "Sweden-HPC" as of December 31, 2023 and December 31, 2022, respectively.

4.1.2.2 Sweden-Mining

On the basis of the impairment test in accordance with IAS 36, the goodwill for the CGU "Sweden-Mining" was impaired by EUR 5,714 thousand in the previous year. The previous year impairment loss is recognized under "Depreciation, amortization and impairment" in the Statement of Comprehensive Income.

4.2 Property, plant and equipment

in EUR '000	Plots of land and buildings	Data centers: servers, accessories, operating equipment	Office and other business equipment	Advance payments made and assets under construction	Total
Acquisition and production costs					
Balance on 01/01/2023	**90,730**	**300,600**	**3,598**	**85,596**	**480,524**
Additions	9,127	13,344	122	195,621	**218,214**
Disposals	–4,008	–83,189	–142	–304	**–87,643**
Reclassifications	–1,657	–87,156	–1,955	–28,312	**–119,080**
Net translation differences	–3,042	–269	–191	–209	**–3,711**
Balance on 12/31/2023	**91,150**	**143,330**	**1,432**	**252,392**	**488,304**
Accumulated depreciation and impairments					
Balance on 01/01/2023	**7,622**	**189,515**	**642**	**–**	**197,779**
Additions (scheduled depreciation)	8,581	51,924	377	–	**60,882**
Impairment	32,077	12,420	–	15,266	**59,763**
Disposals	–3,143	–79,696	–93	–	**–82,932**
Reclassifications	–147	–71,851	–543	–	**–72,541**
Net translation differences	–1,085	194	–56	–48	**–995**
Balance on 12/31/2023	**43,905**	**102,506**	**327**	**15,218**	**161,956**
Carrying amounts					
Balance on 12/31/2022	**83,108**	**111,085**	**2,956**	**85,596**	**282,745**
Balance on 12/31/2023	**47,245**	**40,824**	**1,105**	**237,174**	**326,348**

4.2.1 Disposals of property, plant and equipment
In 2023, the Group sold equipment with a total net carrying amount of EUR 4,711 thousand (previous year: EUR 251 thousand) for a cash consideration of EUR 12,991 thousand. The net gains on these disposals were recognized as part of other operating income in the statement of profit or loss.

4.2.2 Non-current assets held for sale
The decrease in the market price of existing M30S and M30S+ miners, linked to the next halving for the Bitcoin blockchain anticipated to occur in April 2024, indicated that an impairment triggering event had occurred. The assessment performed indicated the fair value of the Company's M30S and M30S+ miners to be less than their net carrying value as of 31 December 2023 and an impairment charge of EUR 12,420 thousand was recognized (previous year EUR 12,113 thousand), decreasing the net carrying value of the Company's M30S and M30S+ miners to their estimated fair value. The estimated fair value of the Company's M30S and M30S+ miners was classified in Level 2 of the fair value hierarchy due to the quoted market prices for similar assets.

These assets, which form part of the operation of Peak Mining are classified as a disposal group of assets held for sale on the basis of Management's decision to replace these in the next year. The carrying amount will be recovered principally through a sale transaction rather than through continuing use. Based on the following reasons, Northern Data considers the following criteria met in order for such assets to be classified as held for sale.

The assets are available for immediate sale in their present condition subject only to terms that are usual and customary for sales of such assets and their sale is highly probable. Management is committed to a plan to sell the assets and an active program to locate buyers and complete the plan has been initiated. The assets are actively marketed for sale at a price that is reasonable in relation to their current fair value.

The completed sale of the assets is expected within one year from the date of classification.

4.2.3 Impairment of other property, plant and equipment
Further impairment losses totaling EUR 46,144 thousand (previous year: EUR 0 thousand) relate to Pods, whose carrying amount was written down to fair market value. The estimated fair value of the Company's Pods was classified in Level 2 of the fair value hierarchy due to the quoted market prices for similar assets.

4.3 Leases

4.3.1 Leases as lessee
The current leases mainly relate to the rental of office space and other operating and office equipment. The term of these leases is typically at least two years with an option to extend. The lease agreements can generally be renewed at the end of the lease term. Lease payments are renegotiated at irregular intervals to reflect market developments in an agile manner.

Northern Data leases various smaller office premises with contractual terms of less than one year. Northern Data has decided not to recognize either rights of use or lease liabilities for these leases. Expenses for short-term leases amounted to EUR 203 thousand in fiscal year 2023 (previous year: EUR 356 thousand). Expenses for low-value lease liabilities amounted to EUR 0 thousand (previous year: EUR 6 thousand).

4.3.1.1 Rights of use from lease agreements

in EUR '000	Plots of land and buildings	Operating equipment	Total
Acquisition and production costs			
Balance on 01/01/2023	**7,868**	**7,296**	**15,164**
Additions	1,296	50	1,346
Disposals	–	–5,643	–5,643
Net translation differences	–7	4	–3
Balance on 12/31/2023	**9,157**	**1,707**	**10,864**
Accumulated depreciation and impairments			
Balance on 01/01/2023	**1,393**	**3,580**	**4,973**
Additions (scheduled depreciation)	1,679	1,504	3,183
Disposals	–	–4,137	–4,137
Translation differences	1	10	11
Balance on 12/31/2023	**3,073**	**957**	**4,030**
Carrying amounts			
Balance on 12/31/2022	**6,475**	**3,716**	**10,191**
Balance on 12/31/2023	**6,084**	**750**	**6,834**

4.3.1.2 Amounts recognized in the Statement of Comprehensive Income

In EUR '000	2023	2022
Interest expenses	290	340
Expenses for short-term leases	203	356
Expenses for low-value leases	–	6
Expenses for variable lease payments not included in the measurement of lease liabilities	43	471

4.3.1.3 Amounts recognized in the cash flow statement

in EUR '000	2023	2022
Total cash outflows for leases	2,757	4,818

4.3.1.4 Extension options

Some real estate leases contain renewal options that are exercisable by the company up to one year prior to the expiration of the non-cancellable lease term. The renewal options are exercisable only by the company and not by the lessor. The Group assesses on the commitment date whether the exercise of renewal options is reasonably certain. The Group reassesses whether the exercise of a renewal option is reasonably certain upon the occurrence of a significant event or a significant change in circumstances that the event or change is within its control. Currently, no renewal options have been determined by the company to be reasonably certain.

Information on the remaining terms of the lease liabilities is provided in the table in Note 4.8 "Financial liabilities."

4.4 Inventories

Inventories of EUR 56,534 thousand (previous year: EUR 7,200 thousand) relate to hardware inventories for sale. In 2023, EUR 0 thousand (previous year: EUR 220 thousand) was recognized as an expense for inventories carried at net realizable value. This is recognized in cost of materials (see Note 3.3).

4.5 Other assets

The following are reported as other assets in the Consolidated Statement of Financial Position:

in EUR '000	12/31/2023	12/31/2022
Financial assets non-current		
Deposits	3,116	1,369
Other receivables	651	1,172
Total	**3,767**	**2,541**
Total non-current	**3,767**	**2,541**
Financial assets current		
Deposits	15,300	2,217
Advance payments	8,031	3,056
Creditors with debit balances	26	–
Loans to employees	16	30
Other receivables	286,395	35,840
Total	**309,768**	**41,143**
Non-financial assets current		
Taxes that are not income taxes	28,403	30,557
Short-term held cryptocurrencies	56	242
Total	**28,459**	**30,799**
Total current	**338,227**	**71,942**

The security deposits (non-current) relate primarily to agreements with electricity suppliers and long-term rental agreements. Advance payments in financial assets (current) are mainly prepaid expenses. Other receivables mainly consist of receivables from transitory cash items related to an asset acquisition. Taxes other than income taxes relate to sales taxes.

4.6 Equity

Neither in fiscal year 2023 nor in the previous year were any dividends paid. The key figures used to monitor capital are as follows:

	12/31/2023	12/31/2022
Equity ratio (percent)	70.9	79.8

	2023	2022
Return on equity (percent)[1]	–3.8	–16.2

4.6.1 Notes to equity

The subscribed capital amounts to EUR 48,734,176 as of the reporting date (previous year: EUR 23,815,514) and is divided into 48,734,176 ordinary shares with a nominal value of EUR 1 per share.

Using part of the Authorized Capital 2021/II, a capital increase against cash contributions was resolved by the Board of Directors on April 12, 2023, and entered in the commercial register on April 27, 2023. The Company's share capital was increased from EUR 23,815,514 by EUR 2,381,551 to EUR 26,197,065 by issuing 2,381,551 new par-value bearer shares. Each share was issued with a notional interest in the Company's share capital of EUR 1.00, carrying full dividend rights from January 1, 2022, against cash contributions, making partial use of the existing authorized capital and excluding the statutory subscription right of the Company's shareholders.

Making partial use of the Authorized Capital 2023/I, a capital increase against cash contributions was resolved by the Board of Directors on June 25, 2023, and entered in the commercial register on July 6, 2023. The Company's share capital was increased from EUR 26,197,065 by EUR 2,619,706 to EUR 28,816,771 by issuing 2,619,706 new par-value bearer shares. Each share was issued with a notional interest in the Company's share capital of EUR 1.00, carrying full dividend rights from January 1, 2022, against cash contributions, making partial use of the existing authorized capital and excluding the statutory subscription right of the Company's shareholders. The respective 10 percent share capital increases resulted in net proceeds of EUR 32.3 million and EUR 48.0 million.

Using part of the Contingent Capital 2023, resolved by the Board of Directors on September 7, 2023, a capital increase against issuance of a mandatory convertible bond was resolved on October 26, 2023, and entered in the commercial register on November 3, 2023. The Company's share capital was increased from EUR 28,816,771 to EUR 31,698,405 against issuance of a mandatory convertible bond, under exclusion of the subscription rights, of EUR 52,878,000, divided into 52,878 partial bonds, each with a nominal amount of EUR 1,000 at an interest rate of 0.5 percent p.a. and initially convertible at a rate of EUR 18,35 per convertible share against issuing 2,881,634 no-par value bearer shares.

As part of the acquisition of Damoon Ltd., Dundalk (Ireland) ("Damoon"), two capital increases against contributions in kind were resolved and carried out in the period from September 2023 to January 2024. Making partial use of Authorized Capital 2023/I, the Board of Directors, with the approval of the Supervisory Board, resolved on September 11, 2023, and entered in the commercial register on December 22, 2023, a capital increase from EUR 31,698,405 against contributions in kind of EUR 10,478,826 to EUR 42,177,231 by issuing 10,478,826 no-par value bearer shares, under exclusion of the statutory subscription right of the Company's shareholders, each with a notional interest in the share capital of EUR 1.00. Thereby, Northern Data AG acquired 48.07 percent of the shares in Damoon.

Based on the conditional increase of the share capital and the entry into the commercial register regarding a capital increase using part of the Authorized Capital 2023/I from EUR 28,816,771 against contributions in kind by EUR 10,478,826 to EUR 39,295,597, and the entry into the commercial register regarding the Authorized Capital 2023/II, a second capital increase against contributions in kind, making partial use of Authorized Capital 2023/II, was resolved on September 11, 2023, and carried out on January 3, 2024, against issuing 6,556,949 new par-value bearer shares from EUR 42,177,231 to EUR 48,734,180. Each share was issued against contributions in kind with a notional interest in the Company's share capital of EUR 1.00, carrying full dividend rights as from January 1, 2022, and excluding the statutory subscription right of the Company's shareholders. Thereby, Northern Data AG acquired another 30.08 percent of the shares in Damoon.

1 Return on equity is defined as the ratio of EBITDA to shareholders' equity.

In this regard, Zettahash was admitted to subscribe to the new shares of Northern Data AG against (i) contribution and transfer of 3,008 shares in the Company, in the total nominal amount of EUR 3,008 and (ii) contribution and assignment of the pro rata loan repayment claim of Zettahash against Damoon under the loan agreement dated October 11, 2023, in the amount of EUR 120,319,699.20. The Articles of Association were amended accordingly upon entry in the commercial register on January 3, 2024, with the result that the Authorized Capital 2023/I has since remained in the total amount of up to EUR 13,090,849.

Based on the conditional increase of the share capital using part of the Authorized Capital 2023/I, another capital increase was resolved on December 8, 2023, against issuance of a mandatory convertible bond in the nominal amount of EUR 87,402,000, in denominations of EUR 1,000, thus divided into 87,402 partial bonds, at an interest rate of 0.5 percent p.a. with a maturity at December 31, 2024, convertible at any time, (at the sole discretion of Northern Data AG) into 4,763,051 new shares to be issued from the Contingent Capital 2022, resolved by the Annual General Meeting on October 19, 2022. The convertible bond was issued on December 12, 2023, and entered in the commercial register on December 15, 2023. On February 2, 2024, the convertible bond was converted against issuance of 4,763,051 new shares at a share price of EUR 18.35 against contribution in kind to acquire the remaining 21.85 percent of the shares in Damoon.

The equity component of the mandatory convertible bond is reported under the separate item 'mandatory convertible bonds issued' in equity. When the shares were issued on March 4, 2024, a transfer was made to subscribed capital in the amount of the nominal value of the shares, amounting to EUR 4,763,051. The subscribed capital was increased from EUR 48,734,180 by EUR 4,763,051 to EUR 53,497,231. This was filed with the Local Court of Frankfurt/Main and entered in the commercial register on March 4, 2024. The difference in the amount of EUR 82,191,455.35 was reclassified to the capital reserve.

As of the reporting date for the fiscal year 2023, Northern Data AG held, from an economic point of view, 100 percent ownership in Damoon Ltd. (and its subsidiary Damoon Norway AS). Hence, Damoon Ltd. has been included in the scope of consolidation of the Northern Data Group (see Note 1.3 "Scope of consolidation").

4.7 Provisions

in EUR '000	Balance on 01/01/2023	Addition	Consumption	Reversal	Balance on 12/31/2023
Financial statements and audit	1,355	1,329	–836	–127	1,721
Retention requirements	5	–	–	–	5
Tax provisions	64	1,005	–45	–	1,023
Other	500	–	–	–	500
Total	**1,924**	**2,334**	**–881**	**–127**	**3,249**

4.8 Financial liabilities

Contractual maturities: in EUR '000	< 1 year	1–5 years	> 5 years	12/31/2023
Trade payables	62,510	–	–	62,510
Lease liabilities	2,054	5,055	110	7,219
Liability component convertible bond	448	–	–	448
Borrowings	–	171,858	–	171,858
Total	**65,012**	**176,913**	**110**	**242,035**

Contractual maturities: in EUR '000	< 1 year	1–5 years	>5 years	12/31/2022
Trade payables	35,829	–	–	35,829
Lease liabilities	2,783	7,849	23	10,655
Total	**38,612**	**7,849**	**23**	**46,484**

The liabilities shown in the preceding table, which are not traded on an active market, are valued using the method described in Note 1.8.3 "Financial instruments" in the Notes to the Consolidated Financial Statements.

In the fiscal year, financial liabilities mainly arise from the fact that a shareholder loan was drawn down in the course of the acquisition of a subsidiary. For details on the shareholder loan, please see Note 5.3.1 "Related companies" and for the convertible bonds, please see Note 4.6 "Equity." The lease liabilities mainly stem from rental and lease agreements.

In the previous year, the shareholder loan was paid back in the lead up to August 2022 (EUR 76,891 thousand). In 2022, the lease liabilities mainly stem from rental and lease agreements.

4.9 Other liabilities

in EUR '000	12/31/2023	12/31/2022
Current other liabilities		
Accrued liabilities	24,635	4,076
Liabilities from sales tax	3,846	2,432
Employee-related liabilities	3,396	5,846
Miscellaneous other liabilities	2,384	3
Total other current liabilities	**34,261**	**12,357**

Other current liabilities to third parties include mainly provisions for accrued invoices, personnel liabilities as well as liabilities from other taxes.

5 Other explanatory notes

5.1 Notes to the Consolidated Statement of Cash Flows

The Consolidated Statement of Cash Flows shows how cash and cash equivalents have changed during the fiscal year. In accordance with IAS 7 "Statements of Cash Flows," a distinction is made between changes in cash and cash equivalents resulting from operating, investing and financing activities.

The changes in liabilities from financing activities in fiscal year 2023 are as follows:

		Cash-effective	Non-cash-effective				
in EUR '000	**Balance on 01/01/2023**	**Other cash flows for financing**	**Change in the scope of consolidation**	**Change in fair value**	**Exchange rate changes**	**Other**	**Balance on 12/31/2023**
Borrowings	–	175,400	–	–	–	-3.542	171,858
Lease liabilities	10,655	–2,757	–	–	–15	–665	7,218
Liability component convertible bond	–	–	–	–	–	448	448
Total	**10,655**	**172,643**	**–**	**–**	**–15**	**–3,759**	**179,524**

The changes in liabilities from financing activities in fiscal year 2022 are as follows:

		Cash-effective	Non-cash-effective				
in EUR '000	**Balance on 01/01/2022**	**Other cash flows for financing**	**Change in the scope of consolidation**	**Change in fair value**	**Exchange rate changes**	**Other**	**Balance on 12/31/2022**
Loan liabilities	76,891	–76,561	–84	–	–246	–	–
Lease liabilities	9,046	–3,187	–178	–	–	4,974	10,655
Total	**85,937**	**–79,748**	**–262**	**–**	**–246**	**4,974**	**10,655**

5.2 Additional disclosures on financial instruments

The table below shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy:

In EUR '000	Valuation category according to IFRS 9	Carrying amount as of 12/31/2023	AC	FVOCI	FVPL	Total carrying amount as of 12/31/2023	Fair value as of 12/31/2023	Level within the fair value hierarchy
Financial assets								
Cash and cash equivalents	AC	242,992	242,992			**242,992**	n/a	
Trade receivables	AC	8,614	8,614			**8,614**	n/a	
Total	**AC**	**251,606**	**251,606**			**251,606**		
Shares in other companies	FVOCI	6,462		6,462		**6,462**	6,462	3
Financial liabilities								
Trade payables	AC	62,510	62,510			**62,510**	n/a	
Liability component convertible bond	AC	448			448		448	
Shareholder loan	AC	171,858	171,858			**171,858**	179,456	
Total	**AC**	**234,816**	**234,368**		**448**	**234,368**	**179,904**	

The table below shows the positions for the fiscal year 2022:

in EUR '000	Valuation category according to IFRS 9	Carrying amount as of 12/31/2022	AC	FVOCI	FVPL	Total carrying amount as of 12/31/2022	Fair value as of 12/31/2022	Level within the fair value hierarchy
Financial assets								
Cash and cash equivalents	AC	39,879	39,879			**39, 879**	n/a	
Trade receivables	AC	2,908	2,908			**2,908**	n/a	
Total	**AC**	**42,787**	**42,787**			**42,787**		
Shares in other companies	FVOCI	9,851	–	9,851		**9,851**	9,851	3
Liabilities								
Trade payables	AC	35,829	35,829			**35,829**	n/a	

Financial liabilities
Cash and cash equivalents, trade receivables, and other current financial assets and liabilities are predominantly short-term and with a low credit risk. Therefore, their carrying amounts at the reporting date approximate their fair values.

Northern Data bought a sufficient stake in a company to ensure to have access to technologies which this company develops. The FVOCI-classified equity investment reported with a value of EUR 9,108 thousand in the previous year has a fair value and thus a carrying amount of EUR 6,462 thousand as of December 31, 2023, with no dividend payments in the reporting year or the previous year. For the fair value measurement as of December 31, 2022, the net-asset value (NAV) approach was used. The FVOCI classified equity instrument is in Level 3 of the IFRS fair value hierarchy.

For the fair values of the equity investments, a deemed possible change in one of the significant unobservable inputs, with all other inputs held constant, would have the following effects. The sensitivity analysis focuses on the quantitative influence of each balance sheet position on the development of the NAV. The influence of increases and decreases in each balance sheet position was simulated in steps of 5 percent in a value spectrum of 80 percent to 120 percent. As a result of the analysis, the most dominant positions of the Consolidated Statement of Financial Position had the biggest influence on the NAV, more specific property, plant and equipment and cash and cash equivalents. The simulated variations of +/–20 percent indicated a change of EUR +/–19 thousand (16.5 percent) of the NAV in property, plant and equipment and a EUR +/–3 thousand (2.8 percent) change of the NAV from the variation of cash and cash equivalents.

5.2.1 Disclosures on financial risk and risk provisioning
Northern Data is exposed to a number of different financial risks, the risks and the management of the risks are explained in the Management Report as credit risk, market price risk and liquidity risk. Risk management is performed by the Group Finance department. The Group Finance department identifies, assesses, and hedges risks in close cooperation with the Group's operating units. Changes in the risk situation are responded to with appropriate measures. The aim of risk management is to reduce financial risks through planned measures (see also Chapter "Opportunity, Risk and Forecast Report" in the Management Report).

Credit risk
Credit risk is the possibility of a loss happening due to a borrower's failure to repay a loan or to satisfy contractual obligations. In addition, the credit risk, known as default risk, is a way to measure the potential for losses that stem from a lender's ability to repay their loans.

Credit risk is managed at Group level also taking into account the country risk. Credit risks arise from cash and cash equivalents, financial assets, trade receivables, and other receivables. Credit risks are systematically recorded, analyzed, and managed at the respective subsidiary, using both internal and external sources of information (for further details, please refer to Note 1.8.3.3 "Impairment").

As Northern Data's business model is based on a selected customer base, the risk and therefore a significant default on receivables is considered to be low. To the extent that default risks are identifiable, they are countered by active receivables management and credit checks in the course of onboarding of new customers.

Northern Data's default risk is mainly influenced by the individual characteristics of each customer. Risk Management, in cooperation with receivables management, has implemented that new customers are first analyzed individually with regard to their creditworthiness before Northern Data offers standardized or essentially individual delivery and payment terms. This analysis includes external ratings, where available, information from credit agencies, and industry information. In particular, contractual and statutory termination rights are also taken into account when forecasting the exposure over the entire term of the financial asset.

Credit risks are measured and managed using the general expected credit loss model (for further details, please refer to Note 1.8.3.3 "Impairment"). At December 31, 2023 and 2022, the Group finance department determined no material allowance for bad debt in accordance with IFRS 9 expected credit loss model.

Cash and cash equivalents are receivables due on demand or in the short term from banks domiciled in Germany, the USA and Canada. Northern Data generally selects banks with an investment grade rating. Due to the short-term nature of the receivables from banks with investment grade ratings, Northern Data makes use of the low credit risk exception. Assets that have an investment grade rating are always assigned to Level 1.

Default risk mainly arises from trade receivables. Northern Data limits its risk of default on trade receivables by setting a maximum payment term of one month. Northern Data does not require collateral for trade and other receivables.

Northern Data Group's risk management also takes into account the factors that may affect the default risk of a portfolio of customers, including the default risk of the industries, countries, and regions in which the customers operate.

For the purpose of monitoring default risk, customers are divided into groups with regard to their creditworthiness. In principle, a geographical distinction is made due to the small number of customers. Northern Data monitors the economic conditions in the USA, Canada, and Europe. The industry, age structure, and occurrence and duration of payment problems are also taken into account. Due to the generally short terms of the receivables and financial assets, a risk assessment is carried out over the entire life of the receivables. All trade receivables amounting to EUR 8,614 thousand (previous year: EUR 2,908 thousand) are in stage 2 of the expected credit loss model. In fiscal year 2023, EUR 847 thousand (previous year: EUR 3,205 thousand) of uncollectible receivables were written off.

Possible expected credit losses mainly result from receivables management. Compliance with payment targets and overdue payments is monitored. Expected credit losses over the term are expected credit losses resulting from all possible default events during the expected life of the financial instrument. This requires significant judgment regarding the extent to which expected credit losses are affected by changes in economic factors. This assessment is determined on the basis of weighted probabilities. Assumptions about future developments and, in particular, macroeconomic aspects are taken into account in the assessment.

Northern Data's maximum credit exposure is equal to the carrying amount of assets subject to credit risk. The maximum default risk was reflected by the carrying amounts of the financial assets recognized in the Consolidated Statement of Financial Position. There were no collateral or other credit enhancements that would reduce the default risk arising from financial assets.

For information on concentration risks, see chapter "Opportunity, Risk and Forecast Report" of the Group Management Report.

Market risks

Currency risk

Currency risk (exchange rate risk) refers to the potential for gains or losses resulting from the fluctuations between various currencies.

The Group is exposed to currency risks that are only of minor significance. Sales are mainly generated in US dollars. Translation risks from the conversion of assets and liabilities of foreign subsidiaries into the reporting currency are generally not hedged.

Due to the Group-wide cash management, intercompany receivables and payables are denominated in euros. As a result, those subsidiaries of Northern Data whose functional currency is not the euro may incur effects in the Statement of Comprehensive Income from currency-related exchange rate fluctuations.

For information on concentration risks, see chapter "Opportunity, Risk and Forecast Report" of the Group Management Report. Further information on currency risks can be found in the "Financial risks" and "Currency risks" sections of the Group Management Report.

Interest rate risk

Interest rate risk is the possibility of a loss that could result from a change in interest rates. In case the rate increases, the value of assets will decline. Rising interest rates result in rising income with regard to variable-interest assets and rising expenses with regard to variable-interest liabilities. In the event of falling interest rates, this has the opposite effect on the annual result of Northern Data.

Northern Data is in particular exposed to interest rate risk with regard to the shareholder loan received in 2023 (see Note 5.3.1 "Related companies") as well as the interest rate risk from a convertible bond (see Note 4.6 "Equity"). A change in interest rate by 50 bps would have caused a deviation of +/ – EUR 450 thousand in interest expense. The analysis is based on the assumption that all other variables, in particular foreign exchange rates, are not altered.

Liquidity risk
Liquidity risk is the risk that the Group may not be able to meet its financial obligations as contractually required by delivering cash or another financial asset.

The Group's objective in managing liquidity is to ensure that, as far as possible, sufficient cash is always available to meet payment obligations as they fall due under both normal and stressed conditions without incurring unacceptable losses or damage to the Group's reputation.

In fiscal year 2023, selected transactions, in particular the usage of the shareholder loan (see Note 5.3.1 "Related companies"), have taken place to secure the Group's liquidity. In the event that Northern Data does not generate sufficient free cash flow, the Group would be dependent on further equity and/or further debt financing to meet its funding requirements. Should Northern Data be unable to obtain sufficient additional external financing, this could have an adverse material effect on the Group's assets, financial condition, and earnings position. As part of the listing of its shares on the Open Market of the Munich Stock Exchange, Northern Data is also exposed to valuation by the capital market. In this respect, Northern Data may be restricted in its business model with regard to the financing that can be obtained via the capital markets. In order to prevent insolvency or sustained damage to its image, Northern Data's business model is geared towards generating continuous cash inflows that can grow or accumulate on an ongoing basis or be used as a basis for growth investments.

Operational liquidity management is coordinated at the level of the parent company and is carried out in cooperation with the subsidiaries worldwide. Within the scope of economic possibilities, cryptocurrency holdings are liquidated on a daily basis in order to ensure liquidity and to be able to carry out planned investments. In addition to annual forecast planning, ongoing liquidity planning is carried out on a weekly basis with the aim of ensuring that Northern Data Group can access sufficient reserves of liquid funds at any time. In this way, fluctuations in working capital due to falling cryptocurrency rates as well as rising electricity prices could be managed in fiscal year 2023.

Liquidity risks are monitored and managed centrally for the whole Group by Northern Data's operational cash management. The risk of any liquidity shortage is monitored by means of periodic liquidity planning and monthly cash flow analyses.

In addition, procurement transactions are pre-financed by means of advance payments from customers as part of operating activities by means of appropriate contractual arrangements.

Composition and remaining maturities

in EUR '000	< 1 year	1–5 years	> 5 years	12/31/2023
Contractual maturities				
Trade payables	62,510	–	–	62,510
Liability component convertible bonds	448	–	–	448
Lease liabilities	2,054	5,055	110	7,219
Shareholder loan	–	171,858	–	171,858
Total	**65,012**	**176,913**	**110**	**242,035**

in EUR '000	< 1 year	1–5 years	> 5 years	12/31/2022
Contractual maturities				
Trade payables	35,829	–	–	35,829
Lease liabilities	2,783	7,849	23	10,655
Total	**38,612**	**7,849**	**23**	**46,484**

Security deposits are receivables that serve as collateral and at the same time as advance payments for the purchase of energy. A higher demand for energy and a higher need for price hedging transactions for energy deliveries may lead to an expansion of the cash collateral to be provided.

For information on concentration risks, see chapter “Opportunity, Risk and Forecast Report” of the Management Report. Further information on liquidity risks can be found in the “Financial Risks” and “Liquidity Risks” sections of the Management Report.

Principles and objectives of capital management
The main objective of Northern Data Group with regard to capital management is to ensure a solid capital and liquidity base for the Group’s operating activities and sustainable growth. In this context, shareholder confi-dence and return expectations are also to be safeguarded and stakeholder interests are taken into account.

As an emerging and growing group of companies, Northern Data monitors capital using the equity ratio and the ratio of EBITDA to equity (return on equity). There is no externally defined target for the ratio of equity to debt.

To meet growth targets, the Group assesses its capital and liquidity needs by managing its equity and debt positions and exploring potential future funding options that align with business requirements. Additionally, to manage working capital, procurement transactions are pre-financed through advance payments from customers using appropriate contractual arrangements.

5.3 Business transactions with related parties

Related parties as defined by IAS 24 are natural persons or entities that can be influenced by Northern Data that can exert an influence on Northern Data or that are under the influence of another party related to Northern Data.

5.3.1 Related companies

As at the reporting date and throughout the fiscal year, Tether Holdings Limited, Tortola, British Virgin Islands (“Tether”) exercised a significant influence over Northern Data AG. In the previous year, no party was able to exercise a controlling interest over Northern Data AG.

Intercompany transactions and balances are eliminated on consolidation and therefore are not disclosed.

The open balances at the end of the reporting period are unsecured and settled by cash payment or netting of receivables and payables.

Northern Data AG had transactions with Apeiron Investment Group Limited in 2022 relating to investor introductions, investor conferences, promotion and participation fees totaling EUR 840 thousand.

The companies Bitfield and Decentric were acquired by Northern Data AG in the third quarter of 2021.

In the course of the acquisition of Decentric Europe B.V. (see Note 2 “Business combinations”), Block.one issued a shareholder loan in the amount of USD 130 million, which was repaid by Northern Data by the third quarter of 2022.

There are no guarantees for receivables from and payables to related companies. There were no valuation allowances on receivables from related companies.

Tether Holdings Limited, Tortola, British Virgin Islands (“Tether”), holds 100 percent of the shares in Zettahash Inc., Tortola, British Virgin Islands (“Zettahash”). Zettahash acquired 2,619,706 shares in Northern Data AG as a result of a cash capital increase from the Authorized Capital 2023/I under simplified exclusion of shareholders’ subscription rights, entered in the commercial register on July 6, 2023. Tether subsequently informed the Company that it had thus exceeded the shareholding threshold of 20 percent in the Company (20.43 percent). As a result of the issue of shares in the Company from Contingent Capital 2023/I following the conversion of convertible bonds by third parties, Tether’s indirect shareholding in the Company to the Company’s knowledge initially fell to 19.84 percent on October 24, 2023, and then further to 18.58 percent on October 25, 2023, thus falling below the participation threshold of 20 percent again. As part of the increase in the Company’s share capital to EUR 42,177,231 using Authorized Capital 2023/I, entered in the commercial register on December 22, 2023, Zettahash acquired a further 10,478,826 shares in the Company in return for the contribution of a stake in its subsidiary Damoon, and part of a loan receivable due to it from Damoon. As at December 31, 2023, Tether thus indirectly held around 38.81 percent of the Company’s share capital to the Company’s knowledge.

Tether therefore also informed the Company in January 2024 that it indirectly held more than 25 percent of the Company's share capital. Zettahash acquired a further 6,556,949 shares as part of the increase in the Company's share capital to EUR 48,734,180 from Authorized Capital 2023/II entered in the commercial register on January 3, 2024, in return for the contribution of further shares in Damoon and a further portion of the loan receiv-able due to it from Damoon. As a result, Tether's indirect shareholding in the Company increased to 47.04 percent to the Company's knowledge. By converting convert-ible bonds in the amount of EUR 87,402,000, Zettahash acquired a further 4,763,051 shares in the Company on February 2, 2024.

In November 2023, Northern Data entered into a shareholder loan agreement with Zettahash. Zettahash hereby granted a term loan facility amounting to EUR 575,000,000 under market conditions, with an interest rate equal to EURIBOR plus 300 basis points. As of December 31, 2023, an amount of EUR 175,400,000 was drawn down by Northern Data.

5.3.2 Related persons

Related parties are those persons who have significant influence over the financial and operating policies of Northern Data, including their close family members. These include the members of the Management Board and Supervisory Board of Northern Data.

5.3.2.1 Management Board

During the past fiscal year, Northern Data's Management Board included the following individuals:

- Aroosh Thillainathan, Chief Executive Officer.

The member of the Management Board held the following internal Group mandates:

- Aroosh Thillainathan, Managing Director, Northern Data Software GmbH.
- Aroosh Thillainathan, Managing Director, ND CS (Services) GmbH.
- Aroosh Thillainathan, Managing Director, Northern Data (CH) AG.
- Aroosh Thillainathan, President/Secretary/Director, Northern Data US Inc.
- Aroosh Thillainathan, President, Northern Data CA Ltd.
- Aroosh Thillainathan, President, Northern Data Quebec Ltd.
- Aroosh Thillainathan, Director, Taiga Cloud Ltd.

The total compensation of the Management Board is as follows:

in EUR '000	2023	2022
Short-term benefits (emoluments)	2,938	7,359
Share-based payment	10,881	12,442
Total	**13,819**	**19,801**

Additional disclosures on share-based payment programs in the context of Management Board remuneration:

in thousand options	
Number of shares 12/31/2022	**1,444**
Exercisable shares 12/31/2022	**–**
Average remaining waiting period	2 years
Issued in 2023	–
Exercised in 2023	–
Expired in 2023	329
Number of shares 12/31/2023	**1,115**
Exercisable shares 12/31/2023	**–**
Average remaining waiting period	4 years

The average remaining waiting period has increased due to the repricing of shares.

5.3.2.2 Supervisory Board

Name	Profession practiced	Member since	Appointed until/ stepped down on	Further mandates in 2023 (during the term of office)
Dr. Bernd Hartmann	Managing Director	07/25/2014	2024	Shareholder and Managing Director of Roskos & Meier OHG Shareholder and Managing Director of Roskos Meier Finanzdienstleistungen GmbH Shareholder of SimpliUs Holding GmbH Member of the Board of Trustees of the Hans and Charlotte Krull Foundation Chairman of the Board of Frankfurt Intern e.V. Member of the Board of Marketingclub Berlin
Dr. Tom Oliver Schorling	Independent Lawyer	11/10/2020	2024	Deputy Chairman of the Supervisory Board of Exaloan AG, Frankfurt/Main Chief Executive Officer of Dioscure Therapeutics SE, Bonn
Hermann-Josef Lamberti	Entrepreneur	11/10/2020	Until January 17, 2023	Member of the Board of Trustees of the Frankfurt Institute for Advanced Studies (FIAS)
Bertram Pachaly	Entrepreneur and Managing Director	01/18/2023	2029	Managing Director of Holger Manske & Partner GmbH, Berlin, Amtsgericht Charlottenburg HRB 61048 and FIT Talent Management GmbH, Berlin, Amtsgericht Charlottenburg HRB 126966

For the remuneration of the Supervisory Board, the Chairman receives fixed annual compensation of EUR 120 thousand (previous year: EUR 120 thousand), the Deputy receives EUR 90 thousand (previous year: EUR 90 thousand) and the regular members receive fixed annual compensation of EUR 60 thousand (previous year: EUR 60 thousand), as well as any reimbursement of their expenses. The total remuneration for the fiscal year amounted to EUR 270 thousand (previous year: EUR 270 thousand).

5.3.3 Director's Dealings
Pursuant to Art. 19 (1) of the Market Abuse Regulation (Regulation (EU) No. 596/2014), the members of the Management Board and Supervisory Board as well as certain relatives must immediately disclose all sales and purchases of Northern Data shares and other rights related thereto if the threshold of EUR 20,000 is exceeded within the calendar year.

The following table shows a list of the transactions published in fiscal year 2023:

Notifiable	Communication from	Date of Transaction	Type of business	Price in EUR (aggregated)	Volume in EUR thousand (aggregated)
ART Beteiligungs Management GmbH	09/22/2023	19/09/2023	Purchase of new convertible bonds to be issued	1,000	37,015

The following table shows a list of the transactions published in fiscal year 2022:

Notifiable	Communication from	Date of Transaction	Type of business	Price in EUR (aggregated)	Volume in EUR thousand (aggregated)
Dr. Tom Oliver Schorling	11/17/2022	11/16/2022	Purchase	9.15	27

5.4 Share-based payments

5.4.1 Description of the share-based payment agreement
On December 30, 2019 (amendments made on October 1, 2020), the Management Board of Northern Data AG resolved, with the consent of the Annual General Meeting the Stock Option Program 2020 ("SOP 2020"). On April 28, 2021, Stock Option Program 2021 ("SOP 2021") was initiated whereas Stock Option Program 2021/II ("SOP 2021/II") was approved on December 20, 2021. On April 28, 2021, Stock Option Program 2023 ("SOP 2023") was initiated whereas Stock Option Program 2021/II ("SOP 2021/II") was approved on December 20, 2021. These stock option programs are settled in equity instruments. The resulting expense is shown in the personnel expenses item, and the liability increases the capital reserves.

Under the stock option programs, members of the Management Board and employees of the company as well as members of the management bodies and employees of affiliated companies are entitled to acquire shares in Northern Data AG. In this context, the holders of exercisable options have the right, under certain conditions, to acquire shares at the strike price (corresponds to the unweighted arithmetic mean of the prices determined in the closing auction in XETRA® trading or a comparable successor system or successor price during the last ten stock market trading days prior to the date on which the option is granted).

All options are to be settled by physical delivery of the shares. However, the company is entitled, at its own discretion, to settle the option by granting a cash settlement. The cash settlement to be granted is calculated as the difference between the strike price and the unweighted arithmetic mean of the prices of the shares of Northern Data AG determined in the closing auction in XETRA® trading or a comparable successor system or successor price during the last ten stock market trading days prior to exercise of the option.

In fiscal years 2020 to 2022, a total of 2,383,948 stock options were issued to members of the Management Board and employees of the company as well as members of the management bodies and employees of affiliated companies. The options, with the exception of those that have lapsed in the meantime, can be exercised for the first time after the expiry of a holding period of four years from the respective issue date. Furthermore, the terms and conditions of exercise stipulate that option holders may only exercise the options if the option holder remains in principle with the company for more than three years (vesting period) and the compound annual growth rate (CAGR) of the Group's sales in the reference period is at least 25 percent.

5.4.2 Determination of fair values

The fair values of the SOP 2020, the SOP 2021, the SOP 2021/II and SOP 2023 were determined using the Black-Scholes formula. Service and non-market performance conditions associated with the transactions were not considered in determining the fair value.

The parameters used in determining the fair values at the grant date of the SOP 2020 include, in particular:

- the share price on the respective grant date (average share price: EUR 50.92), the price also corresponds to the average exercise price of the options.

- expected volatility: 54.6 percent, based on 180-day volatility from an appropriate peer group, as Northern Data had very high non-representative volatility due to its business performance in fiscal year 2020.

- expected term: 4.0 years (weighted average)

- expected dividends: 0.0 percent of share price

- risk-free interest rate: –0.5 percent

The parameters used in determining the fair values at the grant date of the SOP 2021 include, in particular:

- the share price on the respective the grant date (average share price: EUR 59.44), the price also corresponds to the average exercise price of the options.

- expected volatility depending on grant date between 42.5 and 94.4 percent, based on 180-day volatility of the Northern Data share.

- expected term: 4.3 years (weighted average)

- expected dividends: 0.0 percent of share price

- risk-free interest rate: –0.5 percent

The parameters used in determining the fair values at the grant date of the SOP 2021/II include, in particular:

- the share price on the respective grant date (average share price: EUR 48.87), the price also corresponds to the average exercise price of the options.

- expected volatility depending on the grant date between 94.25 and 95.5 percent, based on 180-day volatility of the Northern Data share.

- expected term: 4.0 years (weighted average)

- expected dividends: 0.0 percent of share price

- risk-free interest rate depending on the grant date: –0.5 percent (March 2022) and 0.83 percent (May 2022)

The parameters used in determining the fair values at the grant date of the SOP 2023 include, in particular:

- the share price on the respective grant date (average share price: EUR 25.75), the price also corresponds to the average exercise price of the options.

- expected volatility, based on 180-day volatility of the Northern Data share, is measured at 94.53 percent.

- expected term: 4.0 years (weighted average)

- expected dividends: 0.0 percent of share price

- risk-free interest rate depending on the grant date: –1.95 percent (December 2023)

In each case, the expected term of the instruments is based on the general behavior of the option holders. The first opportunity to exercise the options is four years after the grant date. The option holder subsequently has the right to exercise the options over a period of five years. For the purpose of assessing the value of the options, it is assumed that the option holders will exercise the right to subscribe to the shares immediately after four years.

In December 2023, the base price was modified to ascertain that employees continue to be incentivized to make use of the option. Only the stock options under the SOP 2020, SOP 2021, SOP 2021/II were affected and offered the new base price. In determining and calculating the fair value of the modification, the market price, interest rate and volatility at the effective date were taken into account.

The incremental fair value granted, as a result of the modification is EUR 11,177 thousand and will proportionally be recognized over the remaining vesting period of the various SOPs.

5.4.3 Reconciliation of outstanding stock options
The number of stock options under the SOP 2020, SOP 2021, SOP 2021/II and SOP 2023 developed as follows:

in thousand options	2023
Outstanding as of January 1, 2023	**2,157**
Expired during the year	–240
Exercised during the year	–
Committed during the year	500
Outstanding as of December 31, 2023	**2,417**
Exercisable as of December 31, 2023	**–**

in thousand options	2022
Outstanding as of January 1, 2022	**1,429**
Expired during the year	–100
Exercised during the year	–
Committed during the year	828
Outstanding as of December 31, 2022	**2,157**
Exercisable as of December 31, 2022	**–**

The options outstanding at December 31, 2023 had an exercise price in the range of EUR 14.12 to EUR 23.56 (previous year: EUR 23.72 to EUR 110.50) and a weighted-average contractual life of 4.18 years (previous year: 4.12 years).

5.4.4 Expenses recognized in profit or loss
Expenses of EUR 15,972 thousand (previous year: EUR 16,840 thousand) were recognized in personnel expenses in fiscal year 2023 in connection with the share-based payment agreement.

5.5 Employee benefits

The Group operates company pension plans in the form of defined contribution plans.

Defined contribution plans take the form of retirement, disability and surviving dependents' benefits, the amount of which is based on length of service and salary. The employer's contributions to the statutory pension insurance to be paid in Germany are to be regarded as such defined contribution plans. In the Group, payments to defined contribution plans relate predominantly to contributions to the statutory pension insurance scheme in Germany. In the reporting period, expenses in connection with defined contribution plans amounted to EUR 1,254 thousand (prior year: EUR 1,482 thousand).

5.6 Segment reporting

In accordance with IFRS 8, operating segments are defined on the basis of the Group's internal management and reporting. The organisational and reporting structure of Northern Data Group is based on management by business unit. Based on the reporting system it has established, the Management Board, as the chief operating decision maker, assesses the performance of the various segments and the allocation of resources. The segmentation is as follows:

5.6.1 Peak Mining
The "Peak Mining" business unit comprises mainly Bitcoin mining for its own account. The business unit purchases and operates Bitcoin mining hardware and mining data centers to generate hash power.

5.6.2 Taiga Cloud
The "Taiga Cloud" business unit comprises the provision of GPU compute power to customers.

5.6.3 Ardent Data Centers
The "Ardent Data Centers" business unit operates as a colocation service provider and manages the Group's data centers, including their acquisition or planning, construction or conversion, and operation.

The accounting policies of the segments are the same as those applied for external financial reporting. For details, please refer to Note 1.8 "Accounting and valuation principles." The most important financial targets and performance indicators for the Northern Data Group are revenue and EBITDA. Transactions between the segments take place to an insignificant extent.

Information regarding the results of each reportable segment is presented below:

2023 in EUR '000	Reportable segments Peak Mining	 Taiga Cloud	 Ardent Data Centers	 Total	Other companies and Group functions	Consolidation	Group after consolidation
Revenues	**156,134**	**22,127**	**31,456**	**209,717**	**46,309**	**−178,499**	**77,257**
thereof external sales	62,802	14,256	469	77,527	–	–	77,257
thereof intercompany sales	93,332	7,871	30,987	132,190	46,309	−178,499	–
EBITDA	**−13,677**	**−11,548**	**11,329**	**−13,896**	**−18,981**	**4,645**	**−28,232**
Depreciation, amortization and impairment	−102,096	−19,025	−3,937	−125,058	−13,479	13,608	−124,929
thereof impairments	−64,698	–	–	−64,698	−2,024	6,323	−60,399
EBIT	**−115,773**	**30,573**	**7,392**	**−138,954**	**−32,460**	**18,253**	**−153,161**

The eliminated sales of the segments generated with other segments that are also consolidated can be seen in the reconciliation column to sales.

Due to the change in the breakdown of reportable segments in the current financial year, the previous year comparatives have been transferred to the new reporting structure presented below:

2022 in EUR '000	Reportable segments Peak Mining	 Taiga Cloud	 Ardent Data Centers	 Total	Other companies and Group functions	Consolidation	Group after consolidation
Revenues	**414,811**	**13,609**	**41,959**	**470,378**	**39,630**	**−316,721**	**193,287**
thereof external sales	184,739	1,390	7,158	193,287	–	–	193,287
thereof intercompany sales	230,071	12,219	34,801	277,091	39,630	−316,721	–
EBITDA	**95,941**	**2,949**	**−122,880**	**−23,991**	**−41,945**	**7,819**	**−58,117**
Depreciation, amortization and impairment	−130,206	−53,088	−6,422	−189,715	−2,724	−14,795	−207,234
thereof impairments	−73,072	−25,709	−1,833	−100,613	–	−10,856	−111,469
EBIT	**−34,265**	**−50,139**	**−129,302**	**−213,706**	**−44,669**	**−6,975**	**−265,351**

The amounts in the reconciliation column to Group EBIT include the effects of consolidation adjustments recognized in profit or loss, in which income and expenses at two partners do not offset each other in the same amount or the same period.

In the following, information is provided at company level in accordance with IFRS 8.31 et seq.

Northern Data Group's external sales break down by geographical region (location of the companies included) as follows:

In EUR '000	2023	2022
Domestic	8,318	109,551
Abroad	69,209	83,736
thereof USA	32,109	37,616
Total	**77,527**	**193,287**

The carrying amounts of non-current assets break down as follows:

In EUR '000	12/31/2023	12/31/2022
Domestic	36,640	112,769
Abroad	317,459	197,851
thereof Netherlands	2,949	12,080
thereof Canada	11,280	33,775
thereof Norway	14,203	22,965
thereof Sweden	55,507	17,182
thereof UK	1,201	1,745
thereof Ireland	107,846	–
thereof USA	124,473	110,104
Total	**354,099**	**310,620**

For the presentation of information on geographical regions, sales, and non-current assets are stated according to the location of the respective Northern Data company. Non-current assets by region comprise non-current assets less deferred tax assets, shares in other companies, and other financial assets. Due to the exchange of services within the Group, sales are in some cases recognized differently from the geographical location of the non-current assets.

5.7 Other financial obligations

As of the reporting date, other financial obligations amounted to EUR 101,295 thousand (previous year: EUR 308 thousand). Included in the financial obligations in 2023 are rental and lease agreements with a remaining term of up to one year amounting to EUR 3,817 thousand (previous year: EUR 139 thousand) and a remaining term of one to five years amounting to EUR 16,299 thousand (previous year: EUR 169 thousand). The latter is mainly comprised of obligations arising from a lease contract signed in 2023 and commencing in 2024, amounting to EUR 15,632 thousand. For 2023, other financial obligations included contractual commitments for the acquisition of property, plant and equipment amounting to EUR 81,179 thousand.

For 2022, other financial obligations included low value and short term rental and lease agreements with a remaining term of up to one year and one to five years. For financial obligations arising from rental and lease agreements, reference is also made to Note 4.8 “Financial liabilities.”

5.8 Other matters

BaFin investigation

The Frankfurt/Main public prosecutor's office examined a suspicious activity report filed by the German Federal Financial Supervisory Authority (BaFin) on February 10, 2021, for alleged market manipulation. After reviewing the report and the company's statement, the public prosecutor's office discontinued the preliminary investigation on November 26, 2021, due to a lack of initial suspicion of criminal conduct.

In a letter dated November 26, 2021, BaFin issued a further statement in which it reiterated its allegations and stated that it had identified “indications of further market manipulation.” The public prosecutor's office has again examined this new submission, without affirming any initial suspicion to date. It is up to the public prosecutor's office to decide whether investigations are to be commenced or whether the statement is also to be dismissed.

The management of the company is of the opinion that the aforementioned facts do not give rise to any initial suspicion of criminal conduct and that, moreover, there is no sufficient likelihood of sanctions being imposed. Accordingly, no provision has been recognized in respect of these matters as of December 31, 2023, and December 31, 2022, respectively. The investigation (“Vorermittlungsverfahren”) by the public prosecutor's office was officially closed on June 7, 2023.

Riot/Whinstone purchase price adjustment

In 2021, Northern Data sold the Whinstone site to Riot Blockchain. In connection with the preparation of closing accounts, the parties disagreed on the proper implementation of the purchase price adjustment mechanism. Consequently, Riot filed a lawsuit against Northern Data. Northern Data and Riot entered into a settlement agreement under which they jointly dismissed their initial litigation in the Delaware Court of Chancery. The parties agreed that their disputes regarding the purchase price adjustment process would be resolved by an accounting expert, as contemplated by the parties' Stock Purchase Agreement.

On June 9, 2023, the independent accountant rendered an opinion regarding the purchase price adjustment in favor of Riot, entitling Riot to most of the funds held in escrow that were already paid by Riot at the time of the initial sale of Whinstone, meaning that no additional cash outflows were made by Northern Data upon judgment.

Northern Data filed a second Delaware litigation (petition for an order vacating certain determinations of the independent accountant) that is currently in process over what Northern Data believes are errors in the purchase price adjustment decision by the independent accountant. Oral arguments regarding Riot's motion to dismiss were held in February 2024, a decision thereon is pending.

5.9 Fees and services of the auditor

Pursuant to Section 315e (1) of the German Commercial Code (HGB) in conjunction with Section 314 (1) No. 9 HGB, the following fees and services for the auditor of the Consolidated Financial Statements are to be disclosed as follows:

in EUR '000	2023	2022
Final audit	900	1,000
Total	**900**	**1,000**

Liebhart & Kollegen Wirtschaftsprüfer Steuerberater in conjunction with Harris & Trotter LLP were appointed as the auditors for the 2023 financial audit. The fees above are reflective of the audit services provided by both parties for the audit of the Consolidated Financial Statements of the Group, the annual financial statements of the Company and its subsidiaries.

5.10 List of shareholdings of Northern Data AG pursuant to Sec. 313 (2) no. 1 to 4 of the German Commercial Code (HGB)

Subsidiary	Seat	Share in percent	Full consolidation (V) Participation (B)	Equity EUR	Result EUR
			12/31/2023	12/31/2023	12/31/2023
Northern Data CA Ltd.	Montreal (Canada)	100	V	–27,763,896	–23,532,594
Northern Data NL BV	Amsterdam (Netherlands)	100	V	–1,884,389	–1,193,977
Northern Data NOR AS	Notodden (Norway)	100	V	–7,801,707	–10,169,551
ND Real Estate 1 AS	Notodden (Norway)	100	V	–268,850	–221,189
ND Real Estate 2 AS	Notodden (Norway)	100	V	–148,992	–164,630
Northern Data Software GmbH*	Frankfurt/Main (Germany)	100	V	21,142,967	–1,956,530
Northern Data Hosted Mining LLC	Reston (USA)	100	V	–22,845,418	–20,658,616
Northern Data US Procurement LLC	Reston (USA)	100	V	–5,185,915	–15,789,930
Northern Data US, Inc.	Reston (USA)	100	V	–31,088,798	–15,591,306
Northern Data NY, LLC	Reston (USA)	100	V	–8,758,368	–6,389,775
Northern Data ND, LLC	Reston (USA)	100	V	–7,536,413	–7,578,306
Northern Data PA, LLC	Reston (USA)	100	V	–21,546,511	–17,432,327
North Georgia Data, LLC	Reston (USA)	100	V	3,218,582	1,108,901
Northern Data Services Limited	London (Great Britain)	100	V	15,079,252	–9,861
Hydro66 Svenska AB	Boden (Sweden)	100	V	5,198,840	–1,060,220
Hydro66 Services AB	Boden (Sweden)	100	V	885,953	758,152
Decentric Europe B.V.	Amsterdam (Netherlands)	100	V	91,699,363	17,244,959
Bitfield N.V.	Amsterdam (Netherlands)	100	V	42,944,655	–893,491
Taiga Cloud NL B.V.	Amsterdam (Netherlands)	100	V	–21,218	–21,318
1277963 B.C. Ltd.	Montreal (Canada)	100	V	16,598,322	1,340,554
Minondo Ltd.	Gibraltar (Gibraltar)	100	V	–787,204	–267,987
Northern Data Quebec Ltd.	Montreal (Canada)	100	V	–8,460	124,538
Northern Data (CH) AG	Zug (Switzerland)	100	V	–16,388,948	–15,560,335
ND CS (Services) GmbH*	Frankfurt/Main (Germany)	100	V	–31,247,231	–14,811,313
Taiga Cloud Ltd	Dublin (Ireland)	100	V	–4,339,886	–4,439,886
Damoon Ltd	Dundalk (Ireland)	100	V	1,000	–
1102 McKinzie LLC	Reston (USA)	100	V	–122,990	–125,654
Peak Mining LLC (until January 5, 2024: Northern Data Mining Holdco LLC USA)	Reston (USA)	100	V	20,035,401	–311,433
Ardent Data Services, LLC (former: Northern Data NE, LLC)	Reston (USA)	100	V	–13,695	–13,991
Ardent Data Centers LLC USA (former: Northern Data DCI Holdco LLC)	Reston (USA)	100	V	–142,390	–145,473
Northern Data OK LLC***	Delaware (USA)	100	B	–	–
Northern Data Pods, LLC***	Reston (USA)	100	B	–	–
Hydro66 Property Services AB***	Boden (Sweden)	100	B	–	–
Damoon Norway AS***	Asker (Norway)	100	B	–	–
Lancium Technologies Corp.	Houston (USA)	7.01	B	113,746	–37,581

* The companies have made use of the exemption provision pursuant to Section 264 (3) of the German Commercial Code (HGB) for the fiscal year 2023 and have submitted the declarations required for this purpose in the electronic company register for publication. ** No data, as company in formation. *** Immaterial.

5.11 Events after the reporting date

With the conversion of the mandatory convertible bonds in the amount of EUR 87,402,000, Zettahash acquired a further 4,763,051 shares in the Company effective February 2, 2024. Thereby, Tether Holdings Limited whose controlling shareholder is Giancarlo Devasini, has indirectly held more than 50 percent (51.75 percent) of the Company's share capital since this date. Tether therefore also notified the Company in February 2024 that it holds more than 50 percent of the Company's share capital. For further information on the relationship to Tether, please see Note 5.3 "Business transactions with related parties."

Under a preset purchase plan, Aroosh Thillainathan acquired 1,062,490 shares at a total purchase price of EUR 29,999,992.71 via his family office ART Beteiligungs Management GmbH from January 8, 2024, to March 19, 2024. As a result, Mr. Thillainathan's stake in Northern Data Group increased to 3,615,458 shares, currently corresponding to approximately 7.15 percent of the share capital.

On March 1, 2024, Northern Data Group's Peak Mining entered into a new partnership with Penguin Infrastructure Holding for 28MW of mining, powered by 100 percent renewable energy. The site in Paraguay will be equipped with 2,860 units of MicroBT's M63-series liquid-cooled WhatsMiners.

On April 8, 2024, Northern Data Group's Peak Mining acquired 100 percent of the shares in 1242 McKinzie LLC, a 300MW mining data center site in Corpus Christi, Texas, USA, for an aggregate purchase price of USD 16,500 thousand. For not fulfilling the definition of a business, the acquisition of 1242 McKinzie LLC is not considered a business combination within the meaning of IFRS 3. Construction is currently underway, with long lead-time items secured and energization scheduled for early 2025.

By resolution of the Annual General Meeting on May 6, 2024, the Executive Board is authorized, with the approval of the Supervisory Board, to increase the share capital on one or more occasions by up to EUR 26,748,615 (Authorized Capital 2024/I) by May 5, 2029, against cash and/or non-cash contributions, whereby the subscription rights of shareholders may be excluded. By resolution of the Annual General Meeting on May 6, 2024, the share capital is conditionally increased by EUR 21,398,000 (Contingent Capital 2024/I).

The resolution of the Annual General Meeting from September 7, 2023 regarding the Authorised Capital 2023/II as well as the Contingent Capital 2023/I are thereby withdrawn.

On May 22, 2024, Northern Data Group's Taiga Cloud announced its partnership with VAST Data to deliver AI cloud services in Europe that are driven by 100 percent carbon-free energy. Taiga Cloud provides access to over 200,000 NVIDIA GPUs.

On July 1, 2024, Northern Data Group placed a committed order of over 2,000 NVIDIA H200 GPUs for a value of approximately USD 77,000 thousand (approximately EUR 71,213 thousand) through a newly established partnership with Supermicro, a global leader in Application-Optimized Total IT Solutions. Delivery and deployment of this hardware is scheduled for Q4 2024.

5.12 Release date of publication

The Consolidated Financial Statements were approved for publication and forwarded to the Supervisory Board by the Management Board on July 10, 2024. The Supervisory Board approved the Consolidated Financial Statements that same day.

5.13 Assurance of the legal representatives

To the best of our knowledge, and in accordance with the applicable reporting principles, the Consolidated Financial Statements give a true and fair view of the assets, liabilities, financial and earnings position of the Group, and the Group Management Report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Frankfurt/Main, July 10, 2024

Aroosh Thillainathan
Chairman of the Management Board

Independent Auditor's Report

To Northern Data AG, Frankfurt am Main

Audit Opinions

I have audited the consolidated financial statements of Northern Data AG, Frankfurt am Main, and its subsidiaries (the Group), which comprise the Consolidated Statement of Financial Position as at December 31, 2023, the Consolidated Statement of Comprehensive Income, Consolidated Statement of Changes in Equity and Consolidated Statement of Cash Flows for the financial year from January 1 to December 31, 2023, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, I have audited the group management report of Northern Data AG for the financial year from January 1 to December 31, 2023. In accordance with German legal requirements, I have not audited the content of those components of the group management report specified in the "Other Information" section of my auditor's report.

In my opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2023, and of its financial performance for the financial year from January 1 to December 31, 2023, and

- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. My opinion on the group management report does not cover the content of those components of the group management report specified in the "Other Information" section of the auditor's report.

Pursuant to Section 322 (3) sentence 1 HGB, I declare that my audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

I conducted my audit of the consolidated financial statements and of the group management report in accordance with Section 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). My responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of my auditor's report. I am independent of the group entities in accordance with the requirements of German commercial and professional law, and I have fulfilled my other German professional responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinions on the consolidated financial statements and on the group management report.

Other Information

Management and the Supervisory Board are responsible for the other information. The other information comprises the following non-audited parts of the group management report:

- information extraneous to management reports and marked as unaudited.

The other information comprises further the remaining parts of the annual report – excluding cross-references to external information – with the exception of the audited consolidated financial statements, the audited group management report and my auditor's report.

My audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently I do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with my audit, my responsibility is to read the other information mentioned above and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report disclosures audited in terms of content or with my knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

Management are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, Management are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, Management are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, Management are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, Management are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

My objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes my audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by Management and the reasonableness of estimates made by Management and related disclosures.

- Conclude on the appropriateness of Management' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify my respective audit opinions. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinions.

- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by Management in the group management report. On the basis of sufficient appropriate audit evidence I evaluate, in particular, the significant assumptions used by Management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. I do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

Emphasis of Matter – Other Matter

The consolidated financial statements as of December 31, 2022 and the group management report for the financial year from January 1 to December 31, 2022 were audited by another auditor.

An unqualified audit opinion was issued on the consolidated financial statements and the group management report for the previous year dated March 21, 2024.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

Stuttgart, July 10, 2024

Jürgen M. Liebhart
Wirtschaftsprüfer

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Disclaimer

This report contains forward-looking statements that do not describe past or present facts. It includes assumptions and expectations based on current plans, estimates and forecasts as well as information available to Northern Data AG at the time of completion of this report and these are not to be understood as guarantees of the future developments and results contained therein. Rather, they depend on a variety of factors and are subject to various risks and uncertainties (in particular those described in the section "Report on Opportunities, Risks and Forecast Report") and are based on assumptions that may not prove to be accurate. It is possible that actual developments and results may differ from the forward-looking statements made in this report. Northern Data AG does not undertake any obligation to update the forwardlooking statements contained in this report beyond what is required by law. If Northern Data AG updates one or more forward-looking statements, it cannot be concluded that the affected or other forward-looking statements will be updated on an ongoing basis.

In addition to the measures prepared in accordance with IFRS, Northern Data presents alternative performance measures, e. g. EBITDA, adjusted EBITDA, EBIT, adjusted EBIT, which are not part of the financial reporting framework. These measures are intended to supplement, but not replace, the disclosures prepared in accordance with IFRS. Alternative performance measures are not subject to IFRS or other generally accepted accounting principles. Other companies may use different definitions of these terms.

The figures in this report have been rounded in accordance with standard commercial practice. This may mean that individual amounts do not add up exactly to the totals shown.

Gender-neutral language

For reasons of better readability, gender-neutral differentiation is largely dispensed with in this report. In the interests of equal treatment, the corresponding terms apply to all genders. The abbreviated form of language does not imply any judgment.

Translation

The 2023 Annual Report is a publication of Northern Data AG and is also available in German. In case of doubt, the German version takes precedence.

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