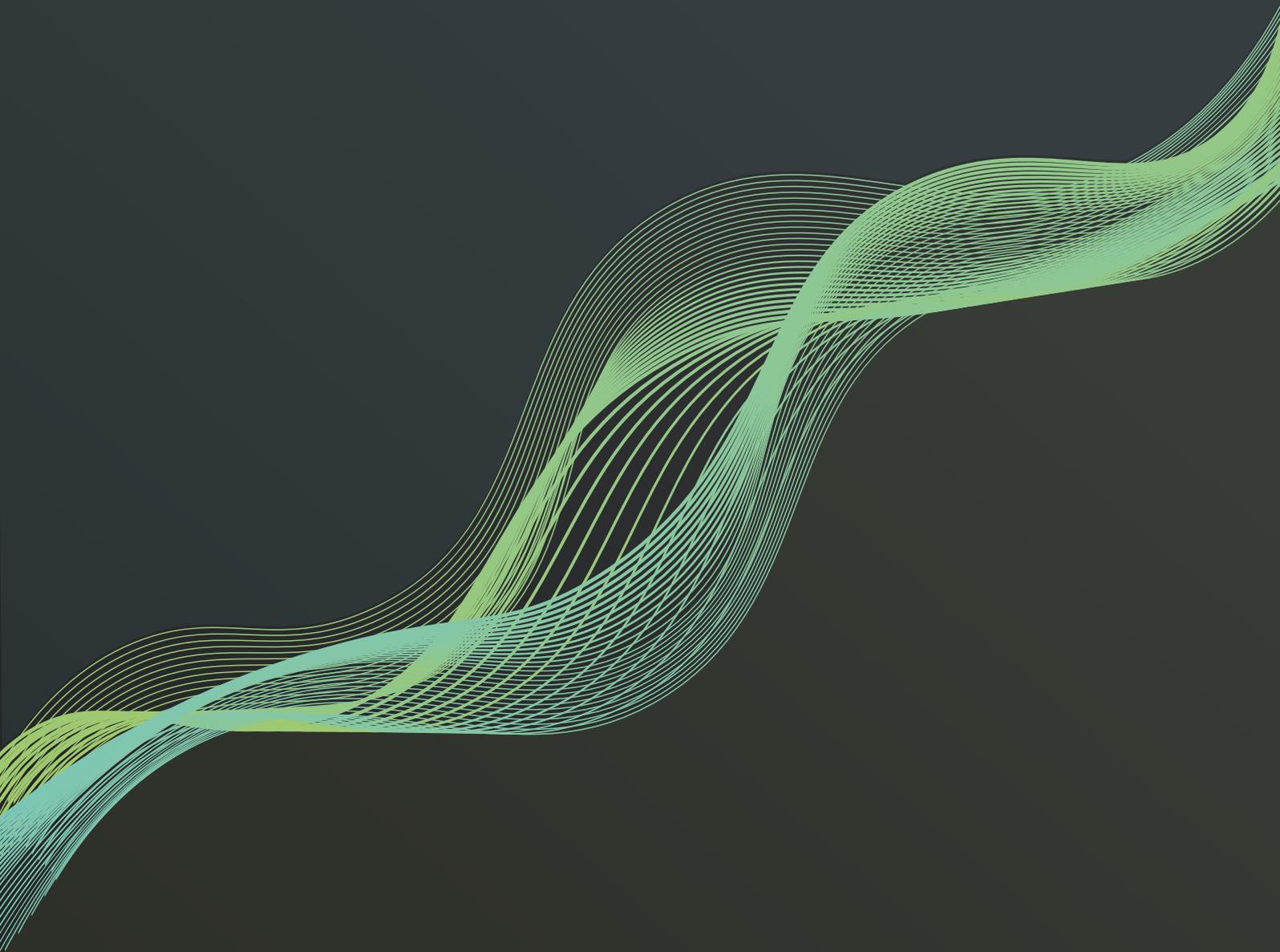
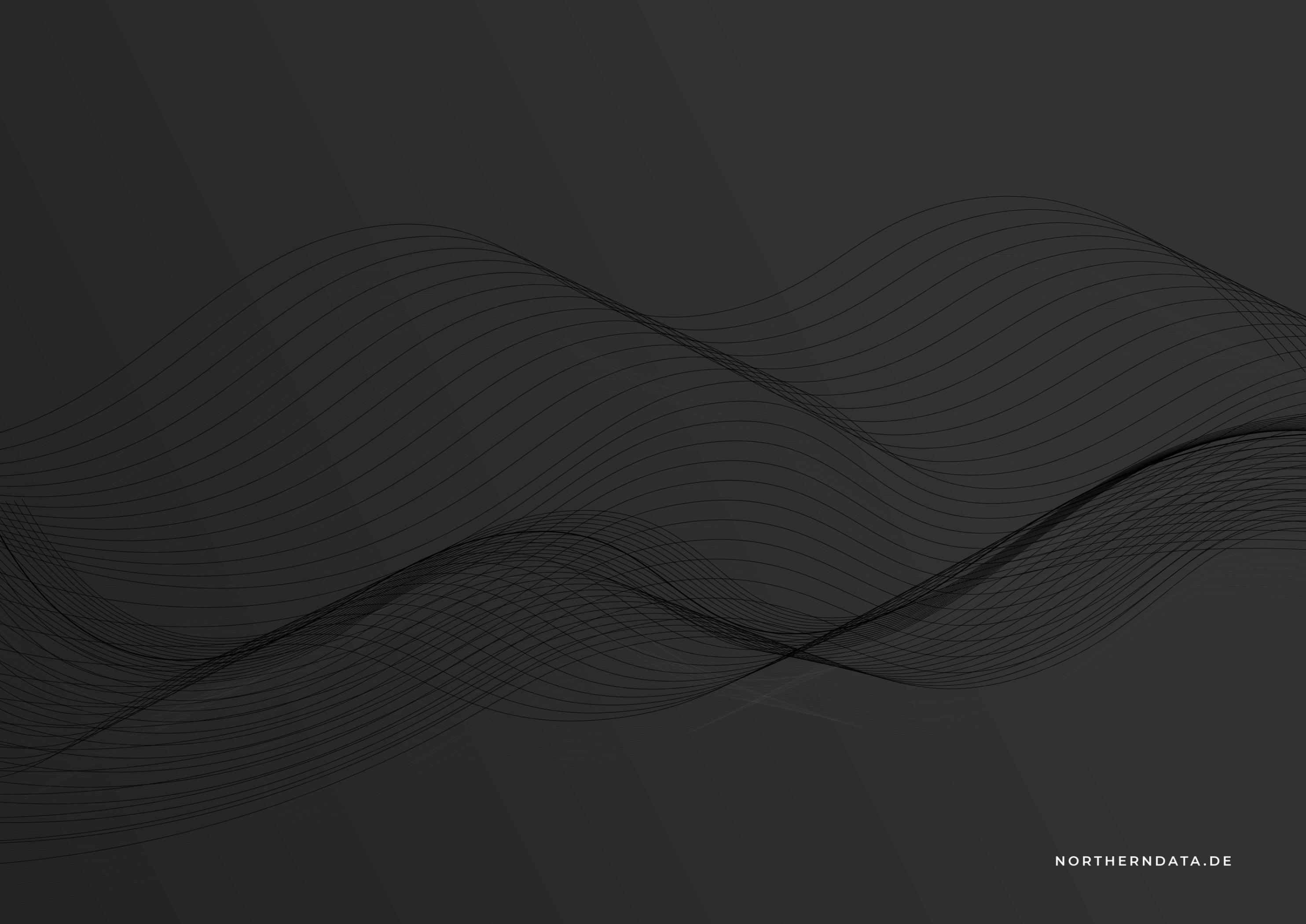




ANNUAL REPORT

2019







57 SOCCER FIELDS

# Everything's bigger in Texas

In Texas, Northern Data has found the ideal location to build a stationary infrastructure for High Performance Computing (HPC). Here in the Lone Star State, where everything is a bit bigger, Northern Data is building the world's largest HPC data center on an area of 40 hectares, the equivalent of 57 soccer fields. By the end of 2020 the facility will already be providing a capacity of one gigawatt. Apart from the endless, wide open spaces, Northern Data can count on one thing first and foremost: a secure and reliable power supply in seemingly unlimited quantities at worldwide rock bottom prices. Texas is the state generating the largest wind power output – in other words, the number one wind power state in the USA. Today, wind power is already supplying around a quarter of Northern Data's electricity in Texas. And the Lone Star State is also in the process of massively ramping up its electricity production, not only from the renewable source wind, but also from solar energy.

A photograph of a data center tunnel. The tunnel is illuminated with green lights, creating a futuristic atmosphere. The ceiling is supported by a complex network of metal beams and ladders. Large, cylindrical pipes run along the ceiling. The floor is a smooth, light-colored concrete. The walls are dark and textured, possibly rock or concrete. The overall scene is a long, narrow corridor that recedes into the distance.

HIGH TECH

## 100 percent green computing in Northern Europe

Northern Data's high-tech mobile data centers are located deep in the mountains of Norway at Lefdal Mine Data Center (LMD), a former olivine mine converted into a data center. Norway covers almost all of its electricity requirements from renewable energy sources, and the LMD is also powered to 100 percent by renewable energy, mainly hydroelectric, at the lowest possible prices. The nearby fjord guarantees LMD a year-round water supply at a temperature of 8° C, with which LMD operates its cooling water circuit via heat exchange. Since the mine is also located directly below sea level, no energy is needed to source the water. This unique cooling solution results in a PUE (Power Use Effectiveness) rating of between 1.08 and 1.15. By way of comparison, values up to 1.2 are generally considered „very efficient“, while the average PUE in Germany currently stands at around 1.8.

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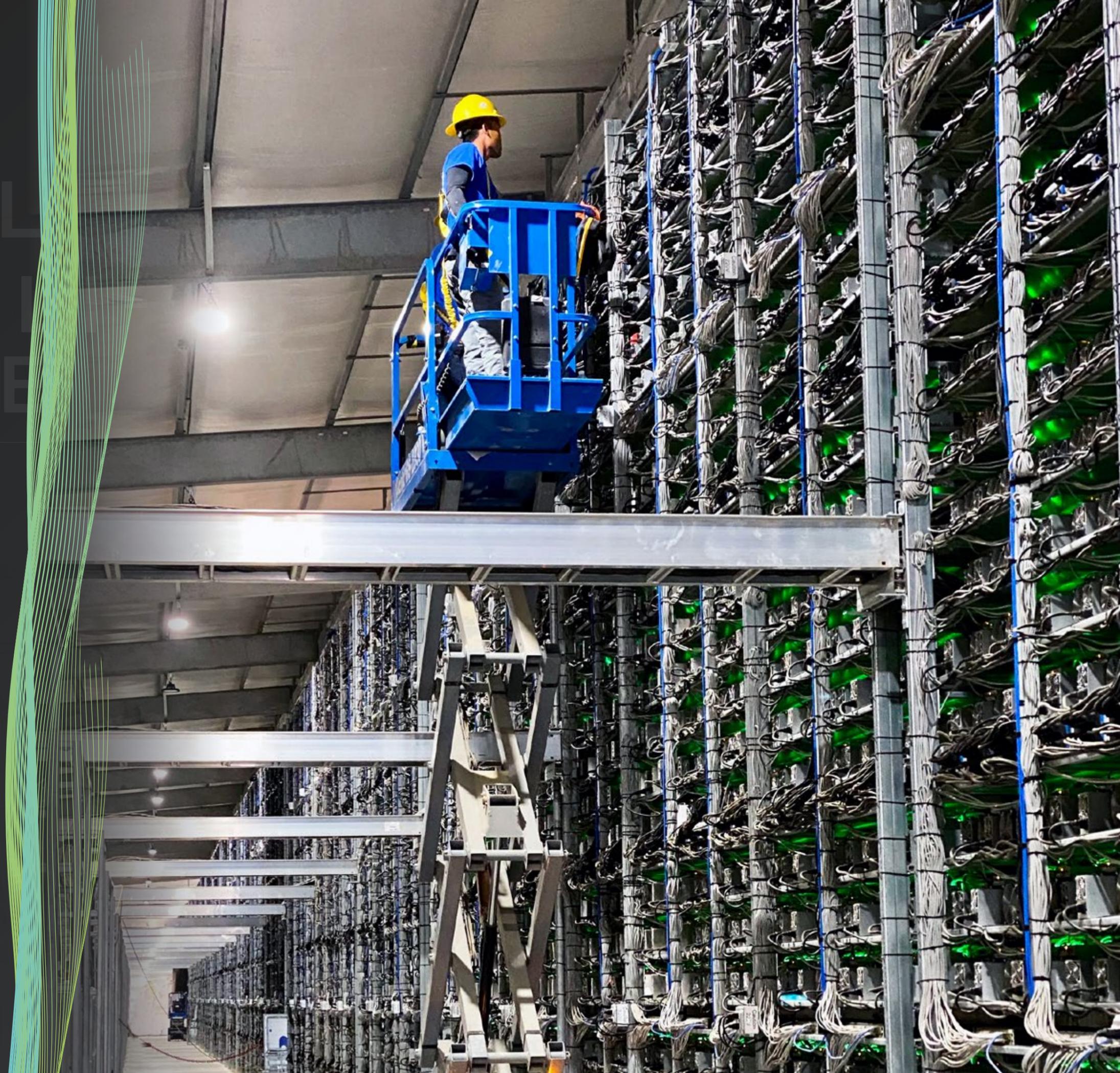
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# ARTIFICIAL INTELLIGENCE

HPC

## The supreme IT discipline

By interconnecting many processors, High Performance Computing (HPC) processes torrents of data at high speed and performs complex calculations in the shortest span of time. This special performance also calls for special input: HPC consumes the energy required by conventional IT processes many times over. At the same time, a great deal more heat is released. This presents many data center operators with insoluble problems and positions HPC as the supreme IT discipline. Northern Data has developed its own heat management system for its HPC data centers. Each individual computer and each processor is continuously monitored by way of proprietary artificial intelligence. By expediently guiding the cold and warm air flows and controlling the computers with pinpoint accuracy, the active cooling of the data centers can be largely dispensed with. This enables Northern Data to achieve the highest energy efficiency levels, while well over 90 percent of the energy supplied is harnessed for computing processes. This positions the Northern Data computing centers among the most efficient worldwide.



# BIG DATA MUST BE PROCESSED

THE AVERAGE INTERNET USER WILL BE GENERATING

**~1,5 GB of traffic per day**

SMART HOSPITALS WILL BE GENERATING OVER

**3,000 GB per day**

EACH SELF DRIVING CARS WILL BE GENERATING OVER

**4,000 GB per day**

A CONNECTED PLANE WILL BE GENERATING OVER

**40,000 GB per day**

A CONNECTED FACTORY WILL BE GENERATING OVER

**1,000,000 GB per day**

Source: CISCO forecast for 2020.

**83%**

OF EXECUTIVES BELIEVE AI IS A STRATEGIC PRIORITY FOR THEIR BUSINESSES TODAY

**75%**

OF EXECUTIVES SAY THAT AI WILL ALLOW THEM TO MOVE INTO NEW BUSINESSES AND VENTURES

**40%**

BY 2035, AI TECHNOLOGIES ARE PROJECTED TO INCREASE BUSINESS PRODUCTIVITY BY UP TO 40%

Source: Reshaping Business With Artificial Intelligence - Closing the Gap Between Ambition and Action, Survey 2017

# FORESIGHT

## Letter to shareholders

Dear Shareholders,

Your Northern Bitcoin is now Northern Data. The name change reflects the massive development leap in which Northern Data AG has taken several steps at once in recent months. On course to accelerate its own growth through a strategic partnership, Northern Data, then Northern Bitcoin, has merged with Whinstone US Inc.

The preceding search was long and intensive, as the list of requirements for a suitable partner to build and run own data centers in order to operate customers' HPC hardware was also long. But our efforts are now paying off. In Whinstone, your company has found nothing less than the ideal partner. The merger of the two companies was decided in late 2019 and completed in 2020. Both companies complement each other ideally, both in technological terms and with regard to their regional focus.

Germany's Northern Bitcoin AG that was mainly active in Norway, engaging in Bitcoin mining based on regenerative energy, fully completed its research and development phase in 2019, presenting two market-ready versions of its high-tech mobile data centers - a water-cooled and an air-cooled version. Whinstone, too, has been working on the blockchain and other applications of so-called „high performance computing“, or HPC for short, for some seven years. This company has amassed its know-how specifically in the development, construction and operation of large-scale, stationary data centers for HPC, particularly for blockchain application. Together with its customers, established corporations, Whinstone has already reached an unprecedented scale in the industry.

In combination, the specific competencies that have been built up will help your Northern Data to achieve a worldwide dominant market position in the growth market of high performance computing that is currently just emerging. This leading market position, however, does not come as a surprise for us. Far more, it is result of a long course we have charted in which we had to overcome many technological and entrepreneurial hurdles.

The roots of today's Northern Data reach back some seven years in Frankfurt, when I started to provide computing capacity for the blockchain, working with my team and some fifty high performance computers we had built ourselves. At the time, we were already confronted with challenges for which we had to develop solutions, because the chips we deployed made extreme demands on power requirements and cooling. Without having been aware of this at that juncture, with our work on the Bitcoin blockchain we were engaging in HPC pioneering work at the same time, given that blockchain applications would very soon emerge as one of the first commercial HPC applications. Our company's journey was to lead us via locations in the Netherlands and Scandinavia on to the United States.

The fact that - besides our Norwegian location - we are now ramping up hundreds of thousands of high performance computers at our Texas site is due to our success in mastering the relevant challenges in high performance computing over the years, resulting in unrivalled levels of competence. Thanks to these outstanding, unmatched strengths, we have been able to acquire multi-billion dollar blue chip corporations as our customers, thereby enabling us now to achieve massive scaling, and, among other activities, implement the construction of the world's largest HPC center worldwide.



**“Northern Data is now entering dimensions that will catapult the company into the premier league of HPC solution providers to businesses worldwide.”**

AROOSH THILLAINATHAN  
CEO

Northern Data is now entering dimensions that will catapult the company into the premier league of HPC solution providers to businesses worldwide. And we are developing and operating these HPC solutions, tailored to our customers' applications - at present, mainly clients active in Bitcoin mining and blockchain solutions - to the highest levels of schedule and cost efficiency. As we work by customer order and specifications, Northern Data has also put the company's strong dependency on Bitcoin prices and indexes behind.

As our shareholders, you can look forward to the new Northern Data claiming a far more mature position in the marketplace than its listed predecessor. This will also be reflected very positively in the figures from 2020 onwards.

In technical terms, our focus on high performance computing now extends far beyond the application of rewriting the blockchain. HPC is the next evolutionary step in the IT field and enables very high computing power to be provided in the shortest possible time. Against the background of the burgeoning flood of data that has to be processed in the course of the advancing digital transformation, not only is high computing power becoming increasingly important, but a large share of data volumes will also have to be processed ever faster. Consequently, more and more such HPC applications

are in demand from industry for areas such as the Internet of Things or artificial intelligence with applications such as autonomous driving, biotech drug research or smart homes, but also video rendering, for example, and many other applications. While HPC is a relatively young field that only took minor significance in the past years, the pace of development is extremely dynamic. In fact, the pace is so tempestuous that it has already developed into a multi-billion market.

Your Northern Data is also active in this market and is even playing a major role in shaping it: In Texas we are currently building nothing less than the world's largest data center for HPC applications. There, we are installing the HPC hardware of our customers, international corporations, commissioning and maintaining these operations and monitoring the computing processes. The data center is being built on an area spreading out over some 40 hectares, the equivalent of around 57 soccer fields. The center came online a few weeks ago. Already in the first expansion stage at the end of 2020, we are planning a capacity of one gigawatt, or 1,000 megawatts. By comparison, the entire city of Frankfurt, itself a hotspot that is home to more than three dozen data centers, requires an average capacity of around 750 megawatts for its power supply - including its entire industrial facilities.

But things are getting even better still, because although size is important, it is by no means everything for us. The special power of processing a flood of data at high speed and performing complex calculations in the shortest possible time requires very special input: HPC consumes many times the energy required by conventional IT processes. At the same time, a great deal more heat is released. This places special demands on how the HPC hardware is arranged, commissioned, controlled and cooled. What puts us head and shoulders above other market participants are the special know-how-based solutions that only we can implement for our customers, based on our many years of experience as a first mover in this field. This innovative edge guarantees long-term success and is also one of the reasons why our solutions are impressing worldwide leading corporations.

Thanks to our proprietary software developments and our proprietary technology managing the configuration and commissioning of the hardware, we achieve exceptionally high schedule and cost efficiency for our customers. We work with our own artificial intelligence, which allows us to install and commission hardware 15 to 20 times faster than competitors. In scenarios involving many thousands of computers, this equals a span of a few months, time which our customers can gain for the period up to market entry, their time-to-market. Fielding our proprietary, artificial intelligence based software solutions, we are also able to control each of the computers individually. On the one hand, this enables us to monitor and control the hardware to high precision and seamlessly during operation. On the other hand, it is a crucial factor in managing the enormous amounts of waste heat that are generated, especially in connection with HPC, and helps us in saving considerable costs in cooling the hardware.

In solving our customers' problems, we are able to draw on both large-scale solutions and mobile high-tech data centers. Consequently, we are able to scale almost infinitely and operate capacities from a few hundred to hundreds of thousands of computers at locations where power is available at our preferred conditions. This enables us to offer virtually any conceivable solution the markets may require. In all our developments, we incorporate the factor of energy supply into our planning right from the very beginning, on the one hand, naturally with a keen eye on cost efficiency, while on the other hand, with a view to climate neutrality and environmental compatibility. Both go hand in hand.

Dear shareholders, as you can see, nothing is more constant than change. And your Northern Data is changing and growing at a rapid pace. Our current growth, however, is not yet reflected in the 2019 business performance figures, as these are retrospective figures relating only to the activities of Northern Bitcoin AG prior to the merger with Whinstone US and do not reflect Whinstone performance figures. These new developments, however, will already be reflected in the balance sheet in the half-year figures for 2020.

In the course of the merger there was also a change in the Management Board. My name is Aroosh Thillainathan, I am the founder and Managing Director of Whinstone US and have been active as CEO of Northern Data AG since January 1, 2020. My colleague on the Management Board is Mathis Schultz, who, as CFO, focuses primarily on the financial aspects of the company.

Against this outlined background, all signs at Northern Data are pointing to expansion. We have started 2020 with powerful dynamics, determination and efficient solutions. We look forward to working with the team at Northern Data in charting the course ahead and remain committed to building and expanding the most efficient infrastructure for the rapid pace of digitalization. We would like to thank the team for their dedication and enthusiasm, and we thank you, our shareholders, for your loyalty and for being part of our journey and sharing in our success.

Most cordially,



Aroosh Thillainathan

# LARGEST DATA CENTER

ROCKDALE, TEXAS

## The world's largest Data Center for HPC solutions

In Texas, the company is building and operating the world's largest data center, specifically for HPC applications. The data center is being constructed on an area of some 40 hectares – the equivalent to 57 soccer fields. By the end of the year, we aim to ramp up capacity to a total of one gigawatt. In combination with our mobile data centers, we are able to offer our customers scalable HPC solutions of practically any size within the shortest possible time and at extremely cost-efficient conditions.





FIRST STAGE IN TEXAS, ROCKDALE

**Ramp-up / Q2 2020**

PARTNERSHIPS WITH

**Blue chip customers**

CAPACITY BY THE END OF 2020

**1,000 megawatts**

## Main Management Report

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## Main Management Report

### Company overview

By resolution of the Extraordinary General Meeting on December 30, 2019, Northern Bitcoin AG (in the following Northern Bitcoin) was renamed Northern Data prior to the merger of Northern Data with Whinstone US, Inc (Whinstone US in the following). Whinstone US is a wholly owned subsidiary of Northern Data AG. The merger was resolved towards the end of the reporting year, in November 2019, and was then completed in the first quarter of 2020, in other words, after the financial year.

The company develops and builds global infrastructure solutions in the field of high-performance computing (HPC) and is ranking today as an acknowledged market leader in the field of HPC solutions worldwide. The internationally active company is offering solutions in areas such as blockchain applications, machine learning and artificial intelligence, big data analytics, game streaming and others. Northern Data provides its HPC solutions in both large-scale, state-of-the-art data centers and high-tech mobile data centers that can be set up at any location worldwide. The company combines proprietary software and hardware with intelligent concepts for a sustainable energy supply.

In year 2019, Northern Data AG was still trading under the name of Northern Bitcoin AG. The company's in-depth expertise in blockchain calculations in an environmentally friendly, climate-neutral and at the same time highly efficient manner in self-developed mobile high-tech data centers flowed into Northern Data AG as part of the merger with Whinstone US. The mobile high-tech data centers developed by Northern Bitcoin AG together with its suppliers can be deployed on a modular basis and their computing power can be scaled up as required thanks to a modular principle. They are available as water-cooled or air-cooled versions. The company's water-cooled mobile data centers are located in the Lefdal Mine Datacenter (LMD), a former olivine mine in Norway that has been converted into a data center and is fully designed for operation with renewable energy. The processors are cooled with cold water from the nearby fjord. The mobile high-tech data center in its air-cooled version, on the other hand, was specially developed for outdoor operation. For cooling purposes, cold outside air is sucked in through fins in the outer wall, filtered and guided past the processors.

Using the authorized capital 2019/I resolved by the Annual General Meeting on August 30, 2019 and entered in the commercial register on September 30, 2019 in accordance with section 6 (1) of the Articles of Association, the Management Board decided by resolution of November 18, 2019 to increase the Company's share capital by EUR 3,720,750.00 against contributions in kind by issuing 3,720,750 no-par value bearer shares, each with a notional value of EUR 1.00. The shareholders' statutory subscription rights were excluded. The shareholders of Whinstone US Inc, Louisiana, were admitted to subscribe in return for their respective Whinstone shares. The capital increase was carried out in the full amount of EUR 3,720,750.00 against contribution in kind. The contributions in kind were made in full to the company by transferring all Whinstone shares (hereinafter referred to as the Merger) upon registration in the commercial register on March 9, 2020. Following the „Merger“, the share capital of the Company now amounts to EUR 11,162,250.00, which was accompanied by corresponding amendments to the Articles of Association.

### Company overview

After the merger, the business shifted towards offering solutions in the field of High Performance Computing (HPC) for international corporations, initially in the blockchain sector. This has opened up tremendous growth potential for Northern Data AG. The two merged companies complement each other ideally, as they have amassed expertise in different areas. On the one hand, Northern Data has the mobile high-tech data centers that can be operated at any suitable location worldwide. On the other hand, the company commands the expertise to develop and build large data centers and to operate high-performance computing on a large scale under very time- and cost-efficient conditions. Consequently, in combination, Northern Data covers the entire HPC market. In Texas, Northern Data is building the world's largest data center for HPC applications on an area of over 40 hectares, the size of 57 soccer fields. The facility was commissioned at the end of May, serving the first customers in the blockchain sector and plans envisage gradually expanding capacity by the end of 2020.

As a first mover in the blockchain area, and consequently active in HPC, Northern Data AG has gained a decisive innovative edge. The Whinstone Group has been working intensively on this topic since 2013. This experience enables Northern Data to operate its HPC data centers to maximum time and cost efficiency levels. An important basis for this is its proprietary artificial intelligence in the form of innovative software developed in-house. Drawing on these strengths, the company is capable of installing hundreds of thousands of HPC computers

and putting them into operation 15 to 20 times faster than competitors. During operation itself, the artificial intelligence can be used to control every single computer and every chip. This enables the extremely efficient, seamless and precise control and monitoring of the hardware in connection with low personnel costs.

Moreover, the company also operates a highly advanced heat management system, which includes a self-developed technology for the passive cooling of its data centers. In combination with its own artificial intelligence, it thereby achieves extremely good values for energy efficiency and occupies a leading position by global comparison.

HPC represents the central foundation of digital transformation. Applications in the rapidly growing field of blockchain technology, artificial intelligence (AI), or the Internet of Things (IoT), which are becoming increasingly common in our everyday lives, are based on the rapid processing of large amounts of data. These tasks are being managed with the help of HPC. Consequently, the global HPC market is highly dynamic and growing at a rapid pace. HPC is by no means limited to blockchain, AI or IoT. Other areas whose computing requirements are also growing just as steeply comprise film streaming, gaming, video rendering or, due to the COVID-19 pandemic, drug development and digital applications in the home office, such as video conferencing. Only HPC, leveraging its high-performance hardware in very high volumes, delivers the computing power enabling this data and computing intensity on a permanent basis.

## Company overview

The change of name to Northern Data AG as part of the merger of Northern Bitcoin AG with Whinstone US, Inc. was approved by shareholders at an extraordinary general meeting on December 30, 2019. Since January 1, 2020, Aroosh Thillainathan, the founder and former managing director of Whinstone US, Inc., has been active as CEO of the new company. He is supported on the board of directors by Mathis Schultz as CFO.

Northern Data AG works by customer order and specifications and installs and operates their HPC hardware, with a current focus on blockchain hardware. The company draws on proprietary solutions in optimizing the construction, installation, maintenance and operation of the hardware in a time- and cost-efficient manner. At present, Northern Data AG is operating the hardware both at its own large-scale data center in Texas and in mobile high-tech data centers in Scandinavia.

Headquartered in Frankfurt am Main, the fast-growing technology company Northern Data commands in-depth expertise in the planning, construction and operation of HPC data centers as well as in-depth IT know-how in the field of HPC and blockchain. The former Northern Bitcoin AG had 8 employees and one member of the Management Board on the reporting date. After the reporting period, the merger increased the number of employees Number of employees to 115 in June 2020. Northern Data AG is registered in the Commercial Register under HRB 106465, Frankfurt am Main Local Court, with the subject „Direct and indirect activities in the field of development, production and distribution of products and the provision of services in the area of information technology“. The company has existed with this business purpose since January 2018.

## Business model

Northern Data AG was originally launched as a blockchain company operating the blockchain on a sustainable basis harnessing renewable energy. To this end, the first location was selected in Norway. Together with development partners, the company has developed, tested and built special mobile high-tech data centers for this purpose that can be deployed at any location worldwide and whose computing power can be quickly scaled as required as a modular system. The rewriting of the blockchain is an application in the field of High Performance Computing (HPC). Northern Data AG's business model was adopted shortly after the reporting period as part of the merger of Northern Bitcoin AG with Whinstone US, Inc.

Northern Data AG develops solutions for customers who aim to implement specific applications in the HPC field, like blockchain-applications, on a large scale. Northern Data provides individual, tailor-made solutions. The company's service offerings are comprehensive: starting with in-depth consulting, through the installation of hardware in its own data centers, to its configuration, ongoing operation and maintenance. The customer hardware can be operated at different locations worldwide while capacities are highly scalable.

For this purpose, the company is operating its own leading-edge, large-scale computer center in Texas as well as having mobile high-tech data centers at its disposal. The data center in Texas is being built on more than 40 hectares, an area the size of around 57 soccer fields. Currently, the HPC hardware of multinational corporations engaged in blockchain applications is already being operated there.

Northern Data is offering its services to very high schedule and cost efficiency levels. This is due to the fact that the company has developed its proprietary techniques as well as software and hardware tools that ensure that the power use effectiveness (PUE) of its data centers is particularly efficient. Moreover, the company is able to keep the time-to-market for hardware extremely short by being able to install and commission hardware in large quantities within a very short time. In the past, it has managed to reduce the time from installation to commissioning per device from an average of 15 minutes to one minute with the help of an artificial intelligence (AI) developed in-house. This means that in certain cases customers were able to go online weeks earlier than previously possible. Last but not least, Northern Data also offers its customers new models in terms of remuneration. These relate – as is the case in conventional data centers – less to the space they occupy than to their actual energy consumption. As a partner and customer of large international corporations, the company has leased part of the computing capacity on a long-term basis since the construction of the data center in Texas commenced. Northern Data was able to reduce its capital requirements and its own risk through a model in which customers participate in the advance financing of the data center.

## Research and development

Our own research and development plays a central role as the basis for Northern Data AG's outstanding position in its market. Activities in this field have endowed the company with an innovative edge and, above all, have produced the outstanding artificial intelligence that the company is able to leverage. Thanks to these strengths, Northern Data is capable of bringing hundreds of thousands of HPC computers online 15 to 20 times faster than competitors. It also enables access to each of the HPC computers. This results in highly efficient parallel control and monitoring of the hardware during operation. The basis of the company's AI is a proprietary software as well as a proprietary portable hardware tool.

The company's research and development have also resulted in the special configuration of the hardware in the data center and the associated conduction of the warm exhaust air, both of which, in conjunction with the precise control of the hardware, are decisive for the optimum air conditioning of the data center. Excellent values for Power Use Effectiveness (PUE) are achieved in both mobile and stationary data centers, with values of 1.1 and below. PUE is the quotient of the energy that flows into the entire data center and the energy that flows from it into the actual computing power. The closer the PUE value is to 1, the more efficient the energy use of the data center. Northern Data achieves peak values by global comparison; on average, the PUE for data centers worldwide is recorded around 1.6 to 1.8.

The company is constantly in the process of further technical optimization at all levels and, with the help of its own software programs and hardware tools, is developing exceptional and unique solutions to problems in its field.

## Macroeconomic and industry-related conditions

According to the IMF, global economic growth last year was recorded at only 2.9 percent, compared with 3.6 percent in 2018. The reasons cited are the trade dispute between the USA and China, increasing trade barriers and rising uncertainty as a result of geopolitical risks. Ever new special tariffs have dampened the willingness of many companies to invest. In addition, the threat of the United Kingdom leaving the European Union without an agreement, as well as climate change issues clouded the picture.

In 2019, growth of the German economy also slowed down considerably. According to the German Federal Statistical Office, it was recorded at only 0.6 percent, compared with 2.5 and 1.5 percent in 2017 and 2018. Private consumption as well as construction and corporate investments proved the main growth drivers, while government spending also contributed. At 1.9 percent, imports rose more strongly than exports (0.9 percent), although the latter did not increase as strongly as in the past. This was due not least to the various trade conflicts and problems in the automotive industry.

At 45.3 million, the number of people in employment has reached a new high. Compared with the average of the past ten years of plus 1.3 percent, the German economy grew at a slower pace in 2019. Germany last posted a deficit in 2011.

### SECTOR-SPECIFIC CONDITIONS

With the further evolution of the business model from a sustainable Bitcoin mining company to a provider of solutions for customers in the High Performance Computing (HPC) market, the Bitcoin price is only of subordinate relevance for Northern Data. Instead, the market for High Performance Computing is now essential for Northern Data.

In the early 1960s, the application of HPC was still restricted to academic research and governmental tasks and featured as a niche application up until a few years ago. In the meantime, HPC has become a decisive factor in accelerating innovation, product design and complex business processes. This is partly because HPC has evolved from a costly endeavor to a technology that is now available for virtually any budget.

According to forecasts by market research company Market Research Future, the global HPC market (servers, storage, software, support) is set to expand from \$31 billion in 2017 to \$50 billion in 2023. Strong drivers include the rising volume of data and the increasing need for efficient data processing and improved scalability.

The reason for the rising torrent of HPC data, apart from the blockchain, is for example the increasingly commercial application the Internet of Things (IoT). In autonomous driving or smart homes, for example, the data from the sensors that give eyes and ears to cars, refrigerators and living rooms must be continuously recorded and processed - in some cases in a highly time-critical manner. The laser scanners, radars and cameras in a single autonomous vehicle alone collect several gigabytes

MACROECONOMIC AND INDUSTRY-RELATED CONDITIONS

of data every minute. Moreover, growing HPC challenges can be found on the other hand in Artificial Intelligence (AI) – this includes areas such as machine learning, big-data analysis or deep learning. But also in real-time video streaming, online gaming, and many other digital applications, the demand for HPC computing power is on the rise. HPC computers drive systems with astonishing storage capacities, processing and communication rates to deliver the results in the required time frame, due to the fact that especially real-time calculations are indispensable in many areas in the meantime.

Consequently, the value of HPC for academic users, public authorities and companies will continue to grow and in the future will also become tremendously important for small companies and end customers. Many companies and industries are already striving to outperform their competitors by harnessing HPC. The development of HPC technologies calls for a team with specific industry knowledge and an excellent network within the industry. Therefore, it can be expected that newcomers will find it difficult to establish a closely-knit professional network to develop their business.

The range of HPC applications is extremely broad. There is practically no industry or sector that cannot benefit from HPC. The rewriting of the Bitcoin blockchain, or Bitcoin Mining, as it is operated by customers of Northern Data, has also long become an important application of high-performance computing. Bitcoin is the oldest and currently most established block chain application. As Bitcoin rapidly attracted more and more attention, its adaptation and the number of computers involved in mining worldwide increased. In connection with the rising number of computers becoming involved, algorithms became more complex and demanding, thereby entailing increasing computing power to mine Bitcoins. As a result, an ever-increasing amount of computing power quickly became necessary to mine bitcoins. Very soon, desktop PCs were no longer sufficient to master the complexity and the volume of calculations. In the meantime, Bitcoin is being mined on an industrial scale by highly specialized computers featuring massive computing power and has consequently developed into an important HPC application.

Financial institutions as well as insurance companies, banks and capital markets in the BFSI sector (Banking, Financial Services and Insurance) need innovative HPC solutions to manage operational risks, achieve sustainable growth and develop new competencies. In addition, the growth in radio frequency trading has led to a comprehensive improvement in connectivity, data access and computing power for companies. Regulatory requirements for the financial industry have also further elevated the need for powerful HPC solutions to meet compliance requirements. As a result, companies in the BFSI industry increasingly require robust, reliable and secure HPC systems that are capable of delivering high-end computing solutions. In this context, HPC can also help financial organizations detect attacks on their systems and prevent financial fraud.

Ever advancing computing power has paved the way for the implementation of high-end research projects in education and research that were previously hardly conceivable. HPC solutions are deployed in research areas such as structural analysis, biology, chemistry, genetics, medicine, electromagnetism, astrophysics and nuclear physics, climate change or meteorology. Moreover, HPC enables researchers to effectively carry out research activities related to modelling and mapping the human genome, creating deep neural networks and developing artificial intelligence.

MACROECONOMIC AND INDUSTRY-RELATED CONDITIONS

Among other things, HPC is at work in personalized medicine in simulations determining the possible effects of drugs on a patient profile and thereby ascertaining the most effective treatment option for the individual. The COVID-19 pandemic in particular is currently generating enormous demand for HPC computing power in the medical sector. Huge amounts of COVID19 data are used around the world to simulate biological and chemical processes enabled by massive HPC computing power. This is leading to a better understanding of the coronavirus in order to develop a vaccine and effective treatment methods. In addition, the pandemic has also stimulated the demand for computing power in general, partly due to the rising use of digital communication and entertainment media such as video conferencing or video-on-demand platforms.

The government sector is also experiencing the rapid adoption of state-of-the-art IT infrastructure solutions to improve computer efficiency and further stimulate economic growth.

In addition, the increasing introduction of HPC solutions in the defense sector is anticipated. HPC solutions can help meet a wide range of defense-related requirements, including real-time data acquisition and analysis, emergency preparedness, disaster modeling and analysis, simulation, monitoring and encryption/decryption of sensitive information.

HPC requirements such as large-scale calculations for structural analysis, fluid dynamics and computer-aided design and engineering are driving the demand for HPC solutions in the aerospace industry.

The manufacturing industry is regularly confronted with challenges in implementing innovative technology solutions, solving operational challenges and managing the supply chain. At the same time, manufacturing companies must reduce development costs and time to market to compete effectively. Right from the very outset, HPC has been involved in the modeling and simulation of complex systems. For example, product development harnessing Computer Aided Design (CAD) and testing and simulation via Computer Aided Engineering (CAE) enable companies to better understand a particular project or product without actually having to test it in real life scenarios. These design and simulation systems also require tremendous computing power.

### Development of the company

In the 2019 financial year, Northern Data AG was still operating under the Northern Bitcoin AG name and continued its expansion in 2019 with a focus on research and development. At the same time, preparations were made to expand the company's field of activity on the basis of its own business model in order to accelerate its own growth at world market level.

To this end, the Company expanded capacity at its first site in Lefdal Mine Datacenter (LMD), Norway. In June 2018, Northern Bitcoin commissioned a further six water-cooled high-tech data centers in addition to the fifteen existing ones.

In July, Northern Bitcoin also signed a purchase agreement for the acquisition of 4,475 ASIC miners, thereby doubling its mining capacity from 57 PH/s to approximately 112 PH/s thanks to the additional capacity.

Within the context of the research and development work, the further development of the mobile high-tech data centers represented a central step in 2019. In addition to the water-cooled version, the company now also has an air-cooled version of the mobile high-tech data center at its disposal, which was brought to market maturity in fiscal 2018. Both variants are ideally suited to be set up and operated anywhere in the world close to a suitable power source. This is above all an option for areas characterized by a high supply of renewable energy and no corresponding customers.

A further step in the research and development work and the planning of related service offerings also consisted of the activities geared to developing proprietary software to manage crypto currencies ourselves. The wallet Northern Bitcoin developed was to be available as an app for smartphones and enable users to securely access their own Bitcoins. The software allows users to securely receive, manage and send Bitcoins.

Last year's increase in mining capacity also formed the foundation for the development into new, related business areas, especially with international partners. To this end, appropriate exploratory talks and numerous discussions took place in the period under review.

Particularly against the background of the dependency on the strongly fluctuating Bitcoin price, the option of operating mining hardware for customers in a separate data center infrastructure, as well as renting hardware or operating facilities was always available. The realized model was then based on construction, purchase, rental and energy costs.

Consequently, towards the end of the year under review the company was already moving in the direction of High Performance Computing (HPC) by preparing the merger with a partner. This partner, Whinstone US Inc. is also a company with its roots in blockchain and other HPC applications. Complementing and thereby ideally augmenting the mobile high-tech data centers, Whinstone specializes in the operation of large, stationary data centers.

The merger of Northern Bitcoin AG with Whinstone US Inc. resulted in the change of name to Northern Data. The name change was approved by shareholders at an extraordinary general meeting on December 30, 2019. Since January 1, 2020, Aroosh Thillainathan, founder and former managing director of Whinstone US, Inc. has been active as the CEO of the new company. Mathis Schultz supports him at Northern Data as CFO.

The change of name to Northern Data underlines the fact that the company has built a leading global infrastructure for High Performance Computing (HPC) far beyond blockchain applications. Together, the companies cover the entire HPC market.

Due to the adjustment of the business model in the course of the merger with Whinstone US after the period under review and the associated shift in strategic focus, it was decided not to press ahead with the development of the wallet app for the time being.

After the end of the fiscal year, Northern Data AG commissioned the world's largest data center for high-performance computing in Texas, which is being developed and built there under the lead management of Whinstone US and is set to reach a capacity of one gigawatt in its first expansion phase. The first customers in this area are companies that rely on the Northern Data infrastructure for blockchain calculations.

Northern Data achieves maximum energy and cost efficiency levels in both its fixed and mobile data centers thanks to special solutions developed in-house. Northern Data takes energy supply into account in terms of sustainability and cost efficiency at an early stage of development and prioritizes renewable energies. After all, the priority of a sustainable energy supply remains an important part of the company's identity. The company's future development plans include the expansion of its data center in Texas and the opening of additional locations. The company intends to continue its growth both with an expanding customer base and with existing customers.

## Earnings, assets and financial situation

The earnings, assets and financial position of this report deal exclusively with the results of Northern Bitcoin AG in 2019. Figures for Whinstone US have not been included as the merger was only resolved at the end of 2019 and was completed after the end of the financial year.

After the first full financial year 2018, the development of the earnings, assets and financial position of Northern Data AG, which was still trading as Northern Bitcoin AG in the reporting period, was still, also in 2019, largely determined by research and development activities for the mobile high-tech data centers for sustainable Bitcoin mining, their construction and optimization, and the development of software for blockchain applications. Over and beyond this, Northern Data adjusted its business model after the period under review in the current financial year, which is expected to have a positive impact on its earnings and balance sheet.

### EARNINGS PERFORMANCE

The 2019 financial year, largely due to the company's start-up phase, was primarily characterized by investments. Northern Bitcoin AG invested above all in the expansion of the technical infrastructure in the Bitcoin Mining division. The partner network was also further strengthened. In addition, part of Northern Bitcoin AG's strategy in the past fiscal year focused on the creation and development of proprietary software products enabling the safekeeping and trading of crypto currencies for itself and third parties.

As expected, the course of business in the year under review was significantly influenced by the Company's growth in the field of Bitcoin mining. In the financial year 2019, revenues from the sale of own Bitcoins amounted to € 2,926 thousand (previous year: € 2,549 thousand) and from the execution of trading transactions in connection with the development of proprietary software for the safekeeping of Bitcoins amounted to € 7,193 thousand. Total revenues were recorded at € 10,132 thousand compared to the previous year (€ 2,549 thousand).

This was offset, however, by a sharp increase in the cost of materials of € -15,174 thousand (previous year € -5,763 thousand), consisting of mining-specific costs and costs of associated trading transactions. In particular, the cost of raw materials, consumables and supplies and of purchased goods in the year under review (€ -6,733 thousand) was up sharply by comparison with the previous year (€ -62 thousand).

In contrast, personnel expenses (€ -928 thousand) (previous year € -747 thousand) and other operating expenses (€ -1,693 thousand) (previous year € -1,123 thousand) were up only slightly.

Overall, Northern Data AG, then trading as Northern Bitcoin AG, therefore reported a result of € -8,760 thousand for the 2019 financial year.

## Earnings, assets and financial situation

### ASSET SITUATION

The balance sheet total has risen significantly in the 2019 financial year from € 8,919 thousand as of December 31, 2018 to € 18,009 thousand. The subscribed capital did not increase in the 2019 financial year and continued to amount to € 7,442 thousand.

As is customary for young technology companies in the research and development phase, Northern Data AG also reported a deficit of € 9,479 thousand (31.12.2018: € 719 thousand) for 2019 as Northern Bitcoin AG, which is not covered by equity.

In order to secure liquidity, the company issued a convertible bond with a term of five years in the 2019 financial year, which was subscribed for in the amount of € 10,450 thousand as of the balance sheet date.

In order to unburden the balance sheet over-indebtedness, there is, among other things, a subordination agreement with the largest creditor on the one hand and a continuation and investment loan on the other. This framework loan of € 8,000 thousand has not yet been used by the company. The financing option, which has a term until December 31, 2025, can be used flexibly and extends the Company's financial options.

There were no significant changes within the fixed assets. In addition, receivables and other assets of € 169 thousand remained at the previous year's level (€ 171 thousand).

Trade payables amounted to € 980 thousand (previous year: € 2,601 thousand) and result mainly from ongoing costs in connection with the operation of the Bitcoin Miner in Norway. Liabilities to companies in which participations are held of € 6,147 thousand (previous year: affiliated companies € 6,008 thousand) relate to loans from shareholders (previous year: major shareholder) who continue to cover the company's cash requirements. Other liabilities in the financial year were recorded at € 381 thousand (previous year € 192 thousand). The other provisions of € 50 thousand (previous year € 38 thousand) relate to legal risks, among other things.

### FINANCIAL POSITION

The number of no-par value shares in fiscal year 2019 remained unchanged at 7,441,500 shares. The company's solvency was secured and remains secured for the future.

## Report on opportunities, risks and prospects

The Management Board believes Northern Data is well positioned to successfully implement its business strategy in the coming years. With regard to Northern Data's business model, the Management Board perceives the following opportunities and risks:

### OPPORTUNITIES

Northern Data operates in a young and extremely rapidly growing market. As an early mover, Northern Data has built up unique expertise to successfully meet the specific requirements of operating HPC data centers. These are, on the one hand, the very high energy requirements and, on the other, the associated high heat generation of the processors.

Thanks to the proprietary air conditioning systems at the Texas data center, the machines can be maintained at operating temperature without relevant additional energy input required for cooling. This is of crucial importance for their optimal operation. As a result, Northern Data is one of the few companies capable of operating a data center to very high energy efficiency levels in warm climatic conditions such as Texas.

In addition, Northern Data commands a further competitive advantage due to the fact that the company is able to build its customers' HPC hardware 15 to 20 times faster than competitors thanks to its proprietary artificial intelligence solutions (AI). By operating several hundred thousand computers at its data center, this lead entails considerable speed and cost benefits for customers. With the help of its own AI solutions, the hardware is also automatically controlled and monitored very precisely, which in turn represents an innovative advantage.

Northern Data's Texas facility benefits from very low energy prices by worldwide comparison, thanks to a mix of market deregulation, an abundance of natural gas and significant investments in renewables. Northern Data has secured these prices through long-term contracts. Another opportunity is that the company has access in Texas to energy volumes that are not often found anywhere else in the world. In order to drive expansion in Canada and throughout North America forward, Northern Data is in the process of acquiring the Canadian data center specialist Kelvin Emtech Group. The KE Group is a specialist drawing on over 25 years of expertise and extensive know-how, as well as comprehensive intellectual property in the design, construction and operation of innovative data centers, in addition to long-standing relationships with key business partners.

The mobile high-tech data centers are very flexible as a complement to the Texas location and can be used anywhere in the world, especially where renewable energy is economically available. All these unique achievements enable the company to offer a wide range of HPC solutions that are highly scalable and extremely schedule and cost efficient, making the company extremely competitive. At the same time, the company expects that the development and growth of the HPC market will be even further accelerated by the COVID19 pandemic and the associated side effects.

## Report on opportunities, risks and prospects

In addition, the company's financial situation is very solid, also thanks to upfront payments from its customers for its services. Northern Data's management therefore believes that all the factors are in place to enable the company to grow rapidly and further strengthen its dominant market position. The company also benefits from the fact that it maintains excellent contacts with the financial markets and investors.

### RISKS

Northern Data has implemented a Corporate Risk Management (CRM) system to identify, analyze and evaluate the company's risks. The CRM is linked to the internal project planning and is adapted to the development of the company. The results of the CRM are discussed at regular intervals within the management. With regard to Northern Data's business model, the Management Board sees the following risks:

The company operates high-performance computers both as stationary installations in Texas and in its own mobile high-tech data centers. The potential risks in the HPC and data center sector may also indirectly impact on Northern Data AG. A secure and cost-effective power supply around the clock is of particular importance for Northern Data's business. The company is therefore affected by price fluctuations on the global energy markets.

Any interruption of the power supply has a direct impact on computing power. This applies both to the location of the stationary data center in the USA and to the mobile data centers in Scandinavia. Technical failures at the energy suppliers in the generation and transmission of energy can lead to an impairment of the energy supply and consequently of the computing processes. Administrative decisions, such as stricter environmental regulations in connection with energy supply, can also have a negative impact.

Severe weather conditions can damage data centers, causing downtime and outages. The company depends on customers running their hardware in Northern Data's data centers to conduct and maintain its business. There is a risk that one or more major customers may not be able to meet their payment obligations.

Market developments, technological trends or new scientific findings could be anticipated too late. This could lead to a negative development of competition. New technical developments on the part of competitors could lead to the company reducing or losing its technological lead.

The success of Northern Data AG also depends to a lesser extent on the price development of crypto currencies such as Bitcoin. Northern Data AG is indirectly dependent on blockchain and crypto-currencies through customers of Northern Data who are active in the blockchain and crypto-currencies areas and are therefore dependent on their exchange rate developments. This could incur a long-term negative impact on the company's development.

## Report on opportunities, risks and prospects

In the event that the Company does not generate sufficient income of its own, it would be dependent on further equity and/or debt financing to cover its financing requirements. Should it not be possible to cover the further financing requirements at economically acceptable conditions, this could have considerable negative effects on the net assets, financial position and results of operations of the Company.

In the context of financing through the issue of convertible bonds, new loan agreements and capital increases, the Company is also exposed to the valuation of the capital market with the listing of its shares on the Munich Stock Exchange in the open market and may be restricted in its business model in this respect by the share price with regard to the financing to be obtained via the capital market.

Together with its advisors and the supervisory authority, the Company is currently investigating whether certain mandatory publications of the predecessor company were sent out on time in 2017. It is not yet finally foreseeable whether conformity with the relevant EU regulation has been maintained. However, the Company does not consider the situation to be critical. As it is largely probable and provable that the predecessor company has fulfilled its obligations in accordance with the regulations, no provisions have been made in this regard in the balance sheet.

Northern Data's business activities are rooted in expertise and know-how developed by a small number of key people within the company. The departure of employees with these key roles may incur significant negative impact. If such an employee leaves, the company loses valuable expertise or may be unable to recruit further suitable specialists and managers on a permanent basis, thereby jeopardizing the company's business operations.

Through its activities abroad, the company is also exposed to possible political risks and legal uncertainties in these countries.

## Report on opportunities, risks and prospects

### FORECASTS AND FUTURE DEVELOPMENT

Marshalling its high level of expertise and its focus on high performance computing, Northern Data AG embodies a new generation of technology companies. This is based on its massive and flexible HPC infrastructure harnessing the world's largest HPC data center in Texas on the one hand, and on scalable mobile high-tech data centers that can be installed anywhere in the world on the other. Together with the company's innovative edge, drawing on in-depth expertise in both the installation and handling of HPC hardware in large quantities and the highly energy-efficient management of waste heat in its data centers, Northern Data AG is currently ideally positioned to lead the still young market of high-performance computing.

The company is now in the process of leveraging its innovative edge to grow rapidly. In the further course of the year, it is planned to expand the data center in Texas to a capacity of one gigawatt by the end of 2020. The company is developing the location in parallel with customer acquisition so that their special needs can be taken into account during the expansion as required. In addition, customers can continue to participate in the costs of constructing and expanding the data center via sophisticated financing models in order to minimize its own financial risk.

In the current financial year, the combined business areas of Northern Data and Whinstone US will become relevant for the first time, as the successful merger has resulted in the consolidation of Whinstone US. On the basis of current expectations and the contracts already concluded, the Management Board expects a strong increase in sales from the Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and sales of HPC units for large customers. Accordingly, the Management Board anticipates a strong improvement in earnings.

# Main Management Report

## Declaration on the dependence report

Northern Data AG (formerly Northern Bitcoin AG) is, according to the irrefutable presumption of Section 17 of the German Stock Corporation Act (AktG), a dependent company which is not based on a control agreement pursuant to Section 291 of the German Stock Corporation Act (AktG) or an integration pursuant to Section 319 et seq. AktG. The controlling company held an interest in the Company throughout the 2019 financial year. In accordance with section 20 (1) and (2) of the AktG in conjunction with § Section 16 (4) AktG, the controlling company notified Northern Data AG that it holds an interest in the company of less than 50% but more than 25% due to directly held and attributable shares. In accordance with section 312 of the German Stock Corporation Act, the Management Board prepared a report on relations with affiliated companies for the period under review, which was audited by our auditors. The dependency report concludes with the following declaration: „In the case of the legal transactions and measures listed in the report on relations with the controlling company and its affiliated companies, our company received appropriate consideration for each legal transaction according to the circumstances known to us at the time when the legal transactions were carried out or the measures were taken or omitted, and has not been disadvantaged by the fact that measures were taken or omitted.

Frankfurt am Main, June 30, 2020



Aroosh Thillainathan  
CEO



Mathis Schultz  
CFO

# POWERED USAGE EFFEC TIVE- NESS

EFFICIENT, FLEXIBLE, FAST

## Our data centers

Northern Data combines the know-how for planning, building and operating huge HPC computer farms for HPC with the completely climate-neutral operation of mobile high-tech data centers. The company works to the highest scheduling and cost efficiency levels. Its mobile high-tech data centers can be deployed around the globe, while the huge stationary data center capacities in Texas are seemingly unlimited. Northern Data is operating its data centers at a Power Usage Effectiveness (PUE) rating that is typically less than 1.1. This value indicates the total power consumption of the data center in relation to the power consumption for the core task of computing. This value is rarely recorded below 1.3 and reflects the highly energy-efficient operation of Northern Data capacities. The company also installs its customers' hardware some 15 to 20 times faster than competitors - and has developed its own artificial intelligence solutions for this purpose. And Northern Data's solutions are in strong demand, as the company is able to respond very specifically to all customer wishes and requirements.



# DATA OVER- LOAD

CALCULATIONS

## Hyper speed

An autonomous vehicle is driving through the city. All of a sudden, the car slams on the brakes as a ball rolls out onto the street: this apparently self-evident maneuver is only possible thanks to the split-second processing of a tsunami of data. Something similar happens when in medical drug research hundreds of thousands of three-dimensional molecules and structures are virtually combined with each other to find out whether and how they interact: achieving such feats under time pressure calls for enormous computing power. And this kind of massive computing power is also behind the weather forecast for the next few days, which we view on the evening TV news. These are three examples of typical applications harnessing High Performance Computing (HPC), a particularly powerful form of computer-based calculations. With a look to the coming years, high growth rates are predicted for HPC. This is due to skyrocketing demand for HPC driven by the Internet of Things, artificial intelligence, video rendering, gaming and many other applications. Today, Northern Data is already ranking as one of the world's largest providers of these HPC solutions.



## BALANCE SHEET

ASSETS	31.12.2019	31.12.2018
	EUR	EUR
<b>A. FIXED ASSETS</b>		
I. Intangible assets		
Concessions, industrial property rights and similar rights and assets acquired for a consideration and licenses to such rights and assets	7,850.00	13,903.00
II. Property, plant and equipment		
Other equipment, operating and office equipment	5,017,085.00	4,837,429.00
III. Financial assets		
Shares in affiliated companies	3,500.00	0.00
	<u>5,028,435.00</u>	<u>4,851,332.00</u>
<b>B. WORKING CAPITAL</b>		
I. Inventories		
Finished goods	62,186.17	120,485.25
II. Receivables and other assets		
1. Trade receivables	50.00	0.00
2. Other assets	168,894.77	171,217.39
	<u>168,944.77</u>	<u>171,217.39</u>
III. Cash on hand and bank balances	3,247,693.99	2,999,274.39
	<u>3,478,824.93</u>	<u>3,290,977.03</u>
<b>C. PREPAID EXPENSES AND DEFERRED CHARGES</b>	22,763.22	58,092.02
<b>D. DEFICIT NOT COVERED BY EQUITY</b>	9,478,588.77	718,935.66
	<u>18,008,611.92</u>	<u>8,919,336.71</u>

LIABILITIES	31.12.2019	31.12.2018
	EUR	EUR
<b>A. EQUITY</b>		
I. Subscribed capital	7,441,500.00	7,441,500.00
Conditional capital: € 3,720,750.00 (previous year: € 2,284,455.00)		
II. Capital reserve	739,985.00	739,985.00
Amount allocated during the financial year: € 0.00 (previous year: € 343,030.00)		
III. Loss carried forward	-8,900,420.66	-3,304,297.60
IV. Net loss for the year	-8,759,653.11	-5,596,123.06
Deficit not covered by equity	9,478,588.77	718,935.66
	<u>0.00</u>	<u>0.00</u>
<b>B. PROVISIONS</b>		
Other accrued liabilities	50,380.00	38,000.00
<b>C. LIABILITIES</b>		
1. Bonds	10,450,000.00	0.00
of which convertible: € 10,450,000.00 (previous year: € 0.00)		
2. Liabilities to banks	33.47	0.00
3. Liabilities from deliveries and services	979,941.39	2,601,148.60
4. Liabilities to affiliated companies	0.00	6,088,229.24
5. Liabilities to companies in which participations are held	6,147,341.78	0.00
6. Other liabilities	380,915.28	191,958.87
thereof from taxes: € 40,499.45 (previous year: € 19,908.01)		
of which social security contributions: € 1,580.48 (previous year: € 837.83)		
	<u>17,958,231.92</u>	<u>8,881,336.71</u>
	<u>18,008,611.92</u>	<u>8,919,336.71</u>

FOR THE 2019 FINANCIAL YEAR

## PROFIT AND LOSS ACCOUNT

	2019	2018
	EUR	EUR
1. Revenue	10,131,889.44	2,548,892.08
2. Decrease/increase in finished goods	-58,299.08	120,485.25
3. Other operating income	29,260.75	18,447.95
thereof from currency translation: € 564.14 (previous year: € 0.00)		
4. Cost of materials		
a) Cost of raw materials , supplies and purchased merchandise	-6,732,661.86	-62,414.21
b) Cost of purchased services	-8,441,063.81	-5,700,300.12
	-15,173,725.67	-5,762,714.33
<b>5. Gross profit</b>	<b>- 5,070,874.56</b>	<b>-3,074,889.05</b>
6. Personnel expenses		
a) Wages and salaries	-817,099.65	-669,484.33
b) Social security contributions and expenses for pensi- ons and other benefits	-111,234.83	-77,566.02
	-928,334.48	-747,050.35
7. Depreciation and Amortization		
of intangible and tangible fixed assets	-934,732.57	-624,691.9
8. Other operating expenses	-1,693,356.74	-1,122,558.80
thereof from currency translation: € 5,529.69 (previous year: € 8,701.32)		
<b>9. Operating result</b>	<b>-8,627,298.35</b>	<b>-5,569,190.10</b>
10. Interest and similar expenses	-132,354.76	-26,932.96
thereof to affiliated companies: € 0.00 (previous year: € 23,482.96)		
11. Profit after tax	-8,759,65.11	-5,596,123.06
<b>12. Net loss for the year</b>	<b>-8,759,653.11</b>	<b>-5,596,123.06</b>
13. Loss carried forward from the previous year	-8,900,420.66	-3,304,297.60
<b>14. Accumulated deficit</b>	<b>-17,660,073.77</b>	<b>-8,900,420.66</b>

## DEVELOPMENT OF FIXED ASSETS

		ACQUISITION AND PRODUCTION COSTS				DEPRECIATIONS				BOOK VALUES	
		01.01.2019	Additions	Disposals	31.12.2019	01.01.2019	Additions	Disposals	31.12.2019	31.12.2019	31.12.2018
		EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
<b>I.</b>	<b>Intangible Assets</b>										
	Paid concessions, industrial property rights and similar rights and assets acquired for a consideration and licenses to such rights and assets	30,624.12	0.00	0.00	30,624.12	16,721.12	6,053.00	0.00	22,774.12	7,850.00	13,903.00
<b>II.</b>	<b>Property And Equipment</b>										
	Other equipment, operating and office equipment	5,460,702.07	1,108,335.57	0.00	6,569,037.64	623,273.07	928,679.57	0.00	1,551,952.64	5,017,085.00	4,837,429.00
<b>III.</b>	<b>Financial Investments</b>										
	Shares in affiliated companies	0.00	8,259.58	4,759.58	3,500.00	0.00	0.00	0.00	0.00	3,500.00	0.00
		5,491,326.19	1,116,595.15	4,759.58	6,603,161.76	639,994.19	934,732.57	0.00	1,574,726.76	5,028,435.00	4,851,332.00

# Notes for the 2019 financial year

## I. GENERAL INFORMATION ON THE COMPANY AND THE ANNUAL FINANCIAL STATEMENTS

The company's name, registered office and registration court were as follows in the year under review and thereafter:

- Northern Bitcoin AG, registered office Frankfurt am Main, Frankfurt am Main Local Court HRB 106465 (since 5 January 2018);
- Northern Data AG, registered office Frankfurt am Main, Local Court Frankfurt am Main HRB 106465 (since 30 December 2019).

The annual financial statements of Northern Data AG for the year ended December 31, 2019 were prepared on the basis of the accounting provisions of the German Commercial Code (HGB) as amended by the German Accounting Directive Implementation Act (BilRUG). In addition to these regulations, the provisions of the German Stock Corporation Act (AktG) were to be observed.

In accordance with the size categories specified in Section 267 (1) HGB, the company is a small corporation. With regard to the profit and loss account, the total cost method was chosen in accordance with § 275 (2) HGB.

The balance sheet date of the company is December 31 of each calendar year.

Insofar as options can be exercised for disclosures in the balance sheet or in the notes, the indication in the notes was chosen.

The accounting and valuation principles applied are generally based on the tax regulations, insofar as they do not conflict with the provisions of commercial law. Tax option rights are exercised in accordance with the commercial balance sheet.

## II. NOTES ON THE ACCOUNTING AND VALUATION PRINCIPLES

The accounting and valuation was carried out on the assumption of the continuation of business operations (§ 252 (1) No. 2 HGB) despite the deficit of € 9,479 thousand not covered by equity, as it can be assumed that business operations will continue.

Acquired intangible assets, property, plant and equipment and financial assets were carried at cost and, where subject to wear and tear, reduced by scheduled depreciation. Depreciation was calculated on a straight-line basis over the expected useful life of the assets.

Finished goods are carried at the lower of cost or market value.

Receivables and other assets were valued at their nominal value. Value adjustments were made where necessary.

The subscribed capital shows the nominal amount.

Provisions were recognised for all uncertain liabilities at the necessary settlement amount in accordance with sound business judgement. They take all discernible risks and uncertain liabilities into account appropriately. In the case of a remaining term of more than one year, they are discounted in accordance with § 253 (2) HGB at the discount rate corresponding to their remaining term as determined by the Deutsche Bundesbank, insofar as the resulting discount contributions are material.

Liabilities were carried at their settlement amount.

Assets and liabilities denominated in foreign currencies with a remaining term of one year or less are recorded at the average spot exchange rate on the balance sheet date, without taking into account the acquisition cost and realisation principle, in accordance with Section 256a sentence 2 HGB. In the case of a remaining term of more than one year, the average spot exchange rate on the balance sheet date is only used as a basis in accordance with Section 256a sentence 1 of the HGB if it is lower for assets and higher for liabilities than the respective daily rate on the date of recording the transaction.

## III. NOTES TO THE INDIVIDUAL ITEMS OF THE BALANCE SHEET AND INCOME STATEMENT

The development of fixed assets and depreciation are shown in the fixed assets movement schedule attached as an annex.

All receivables and other assets have a remaining term of less than one year.

The share capital is divided into 7,441,500 (previous year 7,441,500) no-par value bearer shares (shares without nominal value).

There are liabilities totaling T€ 17,958 (previous year T€ 8,881). Of this amount, liabilities of € 1,439 thousand (prior year: € 3,475 thousand) have a remaining term of up to one year and € 16,519 thousand (prior year: € 5,406 thousand) have a remaining term of more than one year. Liabilities amounting to € 5,998 thousand (prior year € 5,406 thousand) have a remaining term of more than five years. The usual retention of title applies to the supply of raw materials, consumables and supplies and other materials. No liens or similar securities were granted for loans granted.

#### IV. OTHER MANDATORY INFORMATION

Information on the members of the company's bodies:

Management Board during the fiscal year:

Mr. Mathis Schultz, Eppstein, businessman

Supervisory Board members during the fiscal year:

- Dr. Stefan Elßer, businessman (Chairman; until February 28, 2019)
- Dr. Simon Nebel, businessman (Deputy Chairman; until March 8, 2019)
- Dr. Bernd Hartmann, businessman (as from April 24, 2019 as Deputy Chairman)
- Mr. Erik Budarz, businessman (as from April 17, 2019; Chairman as from April 24, 2019)
- Mr. Marc Schönberger, attorney at law (as from April 17, 2019).

During the financial year the company employed an average of ten members of staff.

The total amount of other financial obligations not included in the balance sheet stands at €5,700 thousand.

Frankfurt am Main, June 30, 2020



Aroosh Thillainathan  
CEO



Mathis Schultz  
CFO

# Independent Auditor's Report

## AUDIT OPINIONS

We have audited the annual financial statements of Northern Data AG (formerly Northern Bitcoin AG), Frankfurt am Main, comprising the balance sheet as at December 31, 2019 and the income statement for the financial year from January 1 to December 31, 2019 and the notes to the financial statements, including the presentation of the accounting policies. We have also audited the management report of Northern Data AG (formerly Northern Bitcoin AG), Frankfurt am Main, for the financial year from January 1 to December 31, 2019.

In our opinion, based on the findings of our audit

- The attached annual financial statements comply in all material respects with German commercial law applicable to corporations and give a true and fair view of the net assets and financial position of the Company as at December 31, 2019 and of its results of operations for the financial year from January 1 to December 31, 2019 in accordance with German principles of proper accounting, and
- All in all, the attached management report provides a suitable view of the Company's position. In all material respects, this management report is consistent with the annual financial statements, complies with German legal requirements and suitably presents the opportunities and risks of future development.

In accordance with Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any objections to the correctness of the annual financial statements and the management report.

## BASIS FOR THE AUDIT OPINIONS

We conducted our audit of the annual financial statements and the management report in accordance with Section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW). Our responsibility under these rules and principles is described in more detail in the section „Responsibility of the auditor for the audit of the annual financial statements and the management report“ in our audit opinion. We are independent of the Company in accordance with German commercial and professional law and have fulfilled our other German professional duties in accordance with these requirements. We are of the opinion that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the annual financial statements and the management report.

## MATERIAL UNCERTAINTIES IN CONNECTION WITH THE CONTINUATION OF THE COMPANY'S OPERATIONS

We refer to the comments in the management report under the „Risks“ section. It is stated there, among other things, that if the Company does not generate sufficient income of its own, it would be dependent on additional equity and/or debt financing to cover its financing requirements. In the event that it should be possible to cover further financing requirements at economically justifiable conditions in the medium term, this could exert a considerable impact on the Company's development or threaten its existence. In this respect, compliance with corporate planning is of fundamental importance for the continued existence and further development of the Company. Our audit opinions have not been modified with respect to this matter.

## RESPONSIBILITY OF THE LEGAL REPRESENTATIVES AND THE SUPERVISORY BOARD FOR THE FINANCIAL STATEMENTS AND THE MANAGEMENT REPORT

The legal representatives are responsible for the preparation of the annual financial statements, which comply in all material respects with the German commercial law provisions applicable to corporations, and for ensuring that the annual financial statements give a true and fair view of the net assets, financial position and results of operations of the Company in accordance with German principles of proper accounting. Furthermore, the legal representatives are responsible for the internal controls which they have determined, in accordance with German generally accepted accounting principles, to be necessary to enable the preparation of annual financial statements which are free from material misstatements, whether due to fraud or error.

In preparing the financial statements, the legal representatives are responsible for assessing the Company's ability to continue as a going concern. They are also responsible for disclosing any matters relating to the Company's ability to continue as a going concern, where appropriate. Moreover, they are responsible for preparing the financial statements in accordance with the going concern principle, except where this is precluded by matters of fact or law.

In addition, the legal representatives are responsible for the preparation of the management report, which as a whole provides a suitable view of the Company's position and suitably presents the opportunities and risks of future developments. Furthermore, the legal representatives are responsible for the precautions and measures (systems) which they have deemed necessary to enable the preparation of a management report in accordance with the applicable German legal regulations and to provide sufficient suitable evidence for the statements made in the management report.

The Supervisory Board is responsible for monitoring the company's accounting process for preparing the annual financial statements and the management report.

## AUDITOR'S RESPONSIBILITY FOR THE AUDIT OF THE ANNUAL FINANCIAL STATEMENTS AND THE MANAGEMENT REPORT

Our objective is to obtain reasonable assurance as to whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, whether the management report as a whole provides a suitable understanding of the Company's position and suitably presents the opportunities and risks of future development in all material respects in accordance with the annual financial statements and the findings of our audit, as well as to issue an audit opinion which includes our audit opinions on the annual financial statements and the management report.

Adequate assurance is a high degree of certainty, however, it does not guarantee that an audit conducted in accordance with § 317 HGB and the generally accepted German standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect material misstatements. Misrepresentations may result from violations or inaccuracies and are considered material if it could reasonably be expected that they could individually or collectively influence the economic decisions of addressees made on the basis of these financial statements and management report.

During the audit we exercise due discretion and maintain a critical attitude. Over and beyond that:

- We identify and assess the risks of material misstatement of the financial statements and management report, whether due to fraud or error, plan and perform the audit procedures in response to such risks and obtain audit evidence sufficient and appropriate to provide a basis for our audit opinion. The risk that material misstatements will not be detected is greater for violations than for inaccuracies, as violations may involve fraudulent collusion, falsification, intentional omissions, misrepresentations, or the invalidation of internal controls.
- We obtain an understanding of the internal control system relevant to the audit of the annual financial statements and of the procedures and measures relevant to the audit of the management report in order to plan audit procedures that are appropriate in the circumstances, but with the objective of expressing an opinion on the effectiveness of the Company's internal control system.
- We evaluate the appropriateness of the accounting policies used and the reasonableness of accounting estimates and related disclosures made by the legal representatives of the Company.
- We draw conclusions on the appropriateness of the accounting policies used by the legal representatives of the Company's continuing operations as well as, based on the audit evidence obtained, on the reasonableness of the accounting policies used, whether a material uncertainty exists in connection with events or circumstances that could raise significant doubts upon the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are obliged to draw attention in our audit opinion to the related disclosures in the financial statements and management report or, if these disclosures are inappropriate, to modify our respective audit opinion. We draw our conclusions on the basis of the audit evidence obtained up to the date of our audit opinion. Future events or circumstances, however, may result in the Company being unable to continue its business operations.
- We assess the overall presentation, structure and content of the annual financial statements, including the disclosures and whether the annual financial statements present the underlying transactions and events in such a way that the annual financial statements provide a true and fair view of the net assets, financial position and results of operations of the Company in accordance with German principles of proper accounting.
- We assess the consistency of the management report with the annual financial statements, its compliance with the law and the picture of the company's situation conveyed by it.
- We perform audit procedures on the future-oriented statements in the management report presented by the legal representatives. On the basis of sufficient and appropriate audit evidence, we verify in particular the significant assumptions underlying the forward-looking statements made by the legal representatives and assess the appropriate derivation of the forward-looking statements from these assumptions. We do not express an independent audit opinion on the future-oriented statements and the underlying assumptions. There is a significant unavoidable risk that future events could differ materially from the forward-looking statements.

We discuss with the persons responsible for monitoring, among other things, the planned scope and timing of the audit as well as significant audit findings, including any deficiencies in the internal control system that we determine during our audit.

Berlin, June 30, 2020

AIOS Ltd

Wirtschaftsprüfungsgesellschaft

Steuerberatungsgesellschaft

Marco Schneider

Sebastian Motzkus

Auditors

Auditors

## Report of the Supervisory Board

Dear Shareholders,

the Supervisory Board encourages and supports the development of the company. It regularly advised the Management Board on the management of the Company and continuously monitored its conduct of business in accordance with the duties and responsibilities incumbent on it by law and the Articles of Association.

This included in particular the course of business, the earnings and financial situation as well as the company's investment plans. The benchmark for this monitoring was, in particular, the legality, regularity, expediency and economic efficiency of the management, of which the Supervisory Board continuously satisfied itself. As part of the regular reporting in accordance with Section 90 of the German Stock Corporation Act (AktG), the Supervisory Board was also informed in writing and verbally about important business transactions outside of Supervisory Board meetings. In compliance with the duties imposed on it by law and the Articles of Association, the Supervisory Board adopted the necessary resolutions and documented them in minutes.

### PERSONNEL CHANGES IN THE SUPERVISORY BOARD

In accordance with the provisions of Northern Data AG's Articles of Association, the Supervisory Board comprises three members. At the beginning of the 2019 financial year, the members of the Supervisory Board were Dr. Stefan Elßer (Chairman), Dr. Simon Nebel (Deputy Chairman) and Dr. Bernd Hartmann. There was a change in the Supervisory Board in fiscal year 2019. Dr. Stefan Elßer resigned from his office as of February 28, 2019, Dr. Simon Nebel as of March 8, 2019, and Eerik Budarz and Marc Schönberger were appointed as new members of the Supervisory Board. Mr. Eerik Budarz was subsequently elected as Chairman of the Supervisory Board and Dr. Bernd Hartmann as Deputy Chairman of the Supervisory Board.

### SIGNIFICANT EVENTS OF THE SUPERVISORY BOARD MEETINGS

In the reporting period, the Supervisory Board held a total of 21 meetings on the following dates: January 30, February 12, April 24, May 29, May 31, June 6, June 28, July 1, July 2, July 17, July 23, August 16, August 30, September 19, November 15, November 18, November 19, December 3, December 16, December 22, and December 31. All Supervisory Board members attended all meetings. With the exception of the meetings on January 30, February 12 and July 17, all meetings were held by telephone.

The first meeting of the Supervisory Board in 2019 on January 30 focused in particular on the annual planning for 2019, and the Chairman and Deputy Chairman of the Supervisory Board were newly elected at the meeting on April 24. Eerik Budarz replaced Stefan Elßer as Chairman of the Supervisory Board. During the meeting on May 29, the Management Board addressed a personnel issue with the Management Board.

In the course of its meeting on May 31, the Supervisory Board approved the completion of a capacity expansion.

## Report of the Supervisory Board

At the meeting on June 6, the establishment of a subsidiary was approved. Moreover, a framework loan agreement for a loan in the amount of EUR 5.4 million was approved on June 6. In the subsequent meeting on June 28, a further framework loan agreement for a loan totaling EUR 8 million was approved. In the course of the meeting on July 1, 2019, the purchase of 4,475 ASIC miners was approved.

On July 2, the Supervisory Board approved the acquisition of a subsidiary in Sweden. At the meeting on July 17, 2019, the Supervisory Board discussed and approved the annual financial statements of Northern Bitcoin AG as of December 31, 2018. The subject of the meeting on July 23, 2019 was the approval of the agenda for the Company's Annual General Meeting.

On August 16, the Supervisory Board approved the acquisition of a subsidiary in Iceland. At the meeting on August 30, subsequent to the Annual General Meeting, the election of the Chairman of the Supervisory Board, Mr. Eerik Budarz, and the election of the Deputy Chairman, Dr. Bernd Hartmann, was confirmed.

On September 19, the Supervisory Board approved the conclusion of a contract for work and services with a law firm and notary's office.

In the course of the meeting on November 15, a resolution was passed to issue a convertible bond with shareholders' subscription rights. At the meeting on November 18, a resolution was passed to increase capital against contribution in kind from authorized capital, excluding subscription rights, by issuing 3,720,750 shares in order to contribute Whinstone US to Northern Bitcoin AG. At the meeting on November 19, the Management Board approved the agenda for an extraordinary general meeting on December 30.

The approval to carry out an in-depth market test to check the real liquidity of a crypto trading center was the subject of the meeting on December 3, 2019. On December 16, the decision was made to acquire a data center container and new mining hardware for testing purposes, followed on December 22 by the decision to sell the Swedish subsidiary. At the meeting on December 31, 2019, the expansion of the Board of Management was resolved. In this context, Mr. Aroosh Thillainathan was appointed Chairman of the Board of Management.

**AUDIT AND APPROVAL OF THE ANNUAL FINANCIAL STATEMENTS**

The present annual financial statements of Northern Data AG (then Northern Bitcoin) for the 2019 financial year and the management report were audited by AIOS GmbH Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft, Berlin, the auditors appointed by the Annual General Meeting, who issued an unqualified audit opinion. The Supervisory Board examined both the annual financial statements as of December 31, 2019, and the management report of Northern Bitcoin AG, particularly with regard to legality, regularity, 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 attended the Supervisory Board meeting of July 7, 2020, at which the results of the audit in general and the individual focal points of the audit were reported. The auditor was available to answer any questions raised by 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, which included questions on the nature and scope of the audit and the audit results. The Supervisory Board was able to satisfy itself of the correctness of the audits and the audit reports. The Supervisory Board subjected the annual financial statements to its own detailed examination. The Supervisory Board conclusively examined the annual financial statements as at December 31, 2019 and the management report of Northern Data AG, taking the auditor's reports into account, and raised no objections following its examination. The Supervisory Board approved and thereby adopted the annual financial statements prepared by the Management Board by way of a Supervisory Board resolution dated July 7, 2020.

**DEPENDENCE REPORT**

The auditor AIOS GmbH Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft, Berlin, also audited the report on relations with affiliated companies („Dependent Company Report“) prepared by the Management Board in accordance with Section 312 of the German Stock Corporation Act. The auditor issued the following audit certificate on the results:

„Having duly examined and assessed this report, we confirm that

1. the factual statements in the report are correct,
2. the consideration paid by the company for the legal transactions listed in the report was not inappropriately high or disadvantages were compensated,
3. with regard to the measures listed in the report, there are no circumstances that would indicate an assessment significantly different from that of the Management Board.

For its part, the Supervisory Board examined the report of the Management Board on relations with affiliated companies and the auditor's report. In particular, the Supervisory Board came to the conclusion that both the audit report and the audit conducted by the auditors themselves comply with the legal requirements.

The Supervisory Board examined the dependency report in particular in terms of completeness and accuracy and also satisfied itself that the group of affiliated companies was determined with due diligence and that the necessary precautions were taken to record the reportable legal transactions and measures. No indications of objections to the dependent company report were found during this audit. The Supervisory Board has no objections to the final declaration of the Management Board contained in the report or to the results of the audit by the auditor.

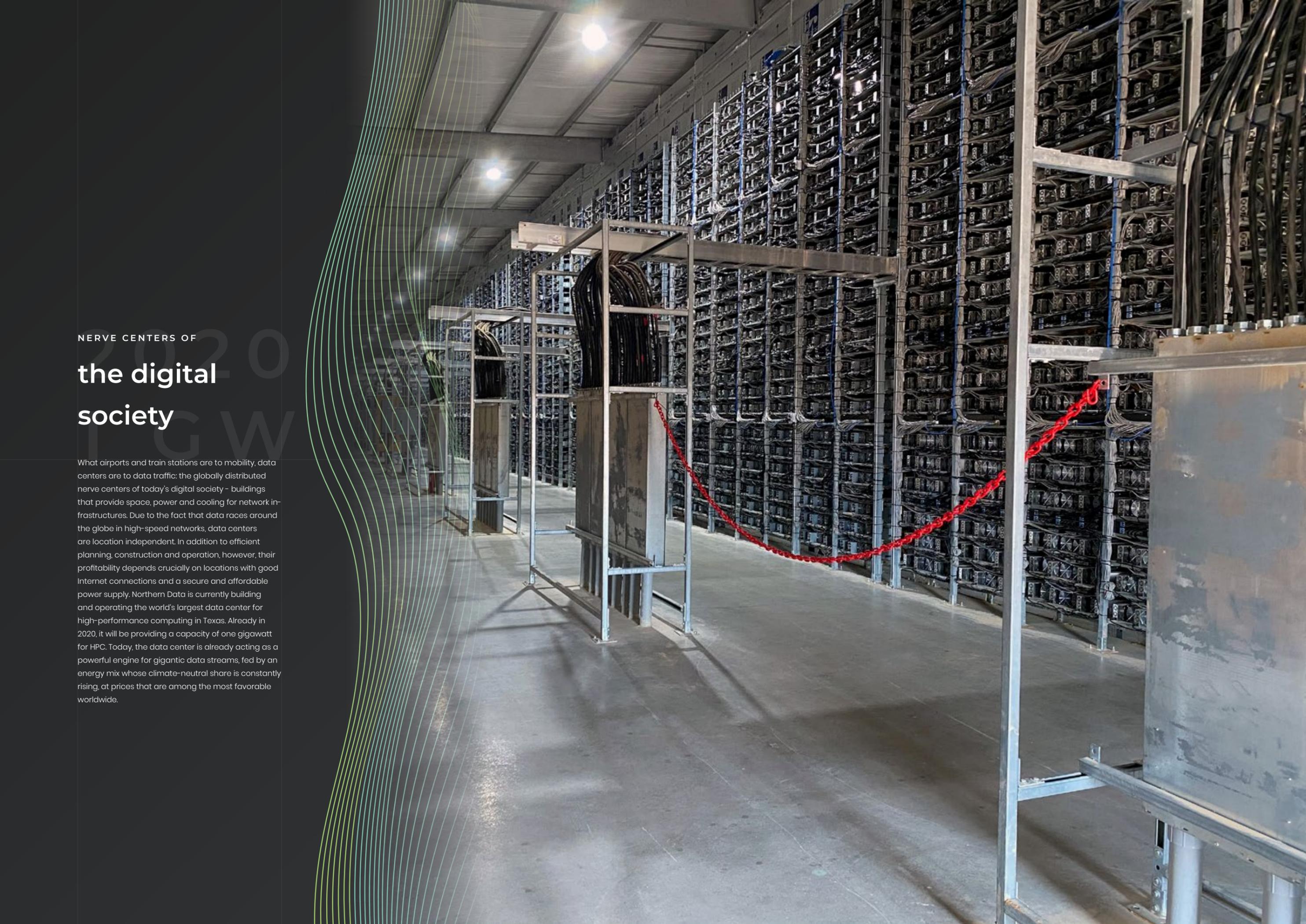
The Supervisory Board would like to express its thanks and recognition for the commitment and achievements of the Management Board and the company's employees in the financial year elapsed.

For the Supervisory Board

Frankfurt am Main, 07.07.2020



Erik Budarz



NERVE CENTERS OF  
**the digital  
society**

What airports and train stations are to mobility, data centers are to data traffic: the globally distributed nerve centers of today's digital society - buildings that provide space, power and cooling for network infrastructures. Due to the fact that data races around the globe in high-speed networks, data centers are location independent. In addition to efficient planning, construction and operation, however, their profitability depends crucially on locations with good Internet connections and a secure and affordable power supply. Northern Data is currently building and operating the world's largest data center for high-performance computing in Texas. Already in 2020, it will be providing a capacity of one gigawatt for HPC. Today, the data center is already acting as a powerful engine for gigantic data streams, fed by an energy mix whose climate-neutral share is constantly rising, at prices that are among the most favorable worldwide.



BLOCKCHAIN, RENDERING OR AI  
**The largest Data Center  
in the World for HPC  
applications**

In Texas, the company is building and operating the largest data center in the world developed for HPC applications like blockchain, video rendering and artificial intelligence.

## On The Capital Market

The renaming to Northern Data in Q1/2010 underscores the fact that the merger of German Northern Bitcoin AG with its US competitor Whinstone US, Inc. agreed in November 2019 will create a global infrastructure for High Performance Computing (HPC) extending far beyond Bitcoin and block chain applications. With the merger to form Northern Data AG, the new, globally active company is covering the entire market for HPC solutions under the priority of renewable energies. In the period under review, Northern Data AG was still trading as Northern Bitcoin AG.

### Share Price Development 2019

Despite a disappointing economic climate, the international stock markets recorded extremely positive developments in 2019 with sharply rising prices. Unimpressed by the economic and political risks of a global recession or protectionist trade activities by the USA and China, quotations on the international capital markets worldwide benefited from a continued accommodative monetary policy.

On January 2, 2019, the German share index DAX embarked on the stock market year at 10,478 points and reached its lowest point in the reporting period at 10,417 points the very next day. In the further course of the year, the DAX rose to its high for the reporting period of 13,426 points on December 16, 2019, closing at 13,249 points at the end of 2019, representing an increase of 25.5 percent over the year.

## On The Capital Market

### Overview

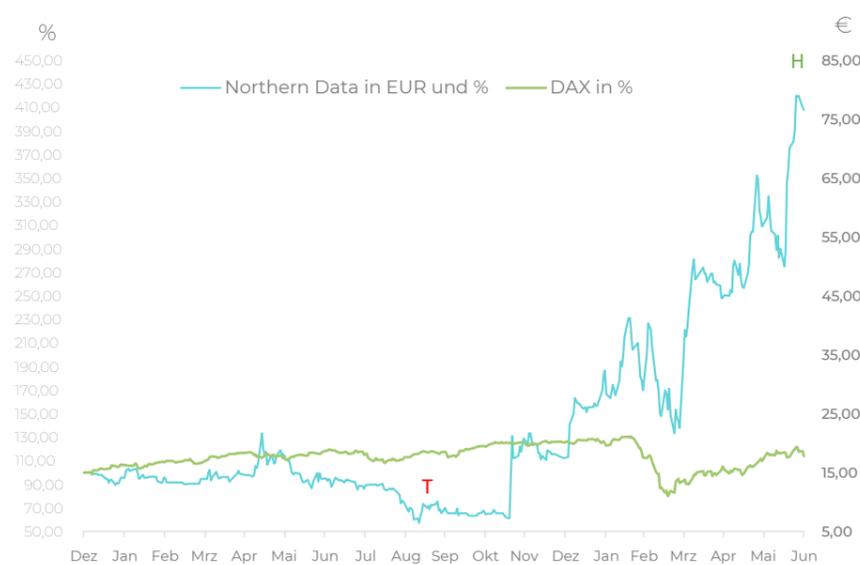
#### PRICE DEVELOPMENT NORTHERN BITCOIN 2019 (FROM Q1/2020 NORTHERN DATA)

Opening price	January 02, 2019	EUR 18,50
Lowest closing price	September 03, 2019	EUR 10,30
Highest closing price	May 13, 2019	EUR 24,00
Year-end share price	December 30, 2019	EUR 20,20
Market capitalization	December 30, 2019	EUR 150,3 million
Price development (Xetra prices)	DE000A0SMU87/ A0SMU8	12,2 percent

The Northern Bitcoin share started trading on January 2, 2019 at a price of EUR 18.50. On May 13, 2019, the share price reached a high for the entire year 2019 with a closing price of EUR 24.00. Starting from a low for the reporting period of EUR 10.30 on September 10, 2019, trading in the shares of Northern Bitcoin AG closed on December 30, 2019 at a price of EUR 20.20.

As a result, the price of Northern Bitcoin shares rose by 12.2 percent in the course of the 2019 reporting year, but despite this successful performance in the past fiscal year, they still lagged behind the performance of the German share index DAX.

**DEVELOPMENT (DECEMBER 2019 – JUNE 30, 2020) OF NORTHERN BITCOIN SHARE (2019, FROM 2020 NORTHERN DATA) COMPARED TO THE DAX**



The average trading volume of Northern Bitcoin shares on all German stock exchanges in 2019 stood at 2,250 shares per day. In the fourth quarter of 2018 – with the start of the listing on XETRA – an average trading volume of 2,083 shares per day was still recorded.

As of December 30, 2019, market capitalization amounted to EUR 150.3 million based on 7,441,500 shares. As of December 28, 2018, market capitalization totaled EUR 133.9 million based on 7,441,500 shares (all figures based on Xetra prices).

**OVERVIEW - PRICE DEVELOPMENT NORTHERN DATA JANUARY - JUNE 2020**

Opening price	January 2, 2020	EUR 20,40
Lowest closing price	January 2, 2020	EUR 20,40
Highest closing price	June 24, 2020	EUR 75,60
Closing price	June 30, 2020	EUR 73,40
Market capitalization	June 30, 2020	EUR 869,6 million
Price development (Xetra prices)	DE000A0SMU87/ A0SMU8	274,25 percent

Status as at June 30, 2020

With the focus on the „high-performance computing“ business model as a result of the merger of Northern Bitcoin and Whinstone, the share price of Northern Data AG more than tripled in the period from January to June of the current 2020 financial year, putting in an increase of over 274 percent compared with the closing price of Northern Bitcoin AG on December 30, 2019. In the same period, the German share index DAX merely reduced its loss triggered by the COVID 19 pandemic to around -13 percent.

The Northern Data share was off to the year on January 2, 2020 at a price of EUR 20.40, which also marked the low for the period January to May. In the further course of the year, the Northern Data AG share rose to a high of EUR 75.60 on June, 24 2020. At the end of the first half of the year on June 30, 2020, the market capitalization of Northern Data AG stood at EUR 869.6 million with a closing price of EUR 73.40 and 11,847,250 shares.

## PRICE DEVELOPMENT

### NORTHERN DATA

#### JANUARY - JUNE 2020

The average trading volume of Northern Data shares on all German stock exchanges in 2020 reflects the extraordinary price development. While 17,672 shares (Northern Bitcoin AG) were traded in the first half of 2019, the average daily trading volume in the first half of 2020 amounted to 42,189 shares.

Northern Data's share price benefited from rapid progress of the expansion of the Texas data center in the period from January to June 2020. This includes cooperation in applied block chain technology with the crypto-mining subsidiary SBI Crypto of the listed SBI Group, a leading international financial services group based in Tokyo, Japan. Further cooperation activities include collaboration with the Nasdaq company Canaan, which specializes in block chain solutions. Ongoing success stories about the expansion of the customer base further strengthened the confidence of capital market participants. For example, Innoplexus, one of the leading AI companies, selected Northern Data HPC solutions to accelerate the development of COVID-19 drugs, while the first US customer announced investments of initially USD 30 million in infrastructure for the 100 MW requirement.

In April 2020, the acquisition of Kelvin Emtech Group (KE Group), based in Montreal (Quebec, Canada), a specialist in the design, construction and operation of innovative data centers, underscored Northern Data's expansion strategy

in Canada and North America to accelerate the parallel development of new sites, partly due to the extreme increase in demand for computing capacities caused by the COVID-19 pandemic.

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## Overview Research Coverage

Research	Date	Target price	Recommendation
Hauck & Aufhäuser	June 17, 2020	EUR 135.00	Buy
Baader Bank	June 17, 2020	EUR 184.00	Buy
SMC Research	June 18, 2020	EUR 100.00	Speculative buy

### RESEARCH COVERAGE

Northern Data shares have been analyzed and valued by the investment bank Hauck & Aufhäuser, Baader Bank and SMC Research since the 2020 financial year. In all studies, the analysts recommend buying Northern Data shares with a price target of up to EUR 184.00. This corresponds to a potential of around 150 percent of the closing price on June 30, 2020.

The analysts particularly emphasize the competitive advantages of Northern Data AG as experts for execution speed and performance in high-performance data centers. These include the scalability of the world's largest HPC data center with a capacity of 1 GW, in connection with unrivaled energy efficiency, geographical advantages thanks to the access to low-cost energy supply in Texas, as well as the unique know-how in terms of execution speed advantages in building high-performance computing infrastructures and managing heat dissipation for computationally intensive applications.

## Share Information

Commencement of listing	April 1, 2015
Stock Exchange	Xetra, Frankfurt, Munich, Berlin, Düsseldorf, Tradegate
Market segment	Open market
Transparency level	m:access
Symbol	NB2
ISIN/WKN	DE000A0SMU87/ A0SMU8
Index Membership	MSCI Germany Index
Total number of shares	7,441,500
Type of shares	Bearer shares without nominal value
Amount of the share capital	EUR 7,441,500
Designated Sponsor	mwb fairtrade Wertpapierhandelsbank AG

Status as at December 30, 2019

## Admission To Index

In November 2019, the shares of Northern Data AG were admitted to the acknowledged MSCI Global Micro Cap Index „MSCI Germany Index“ of the US financial services provider MSCI Inc. The MSCI Germany Index measures the performance of the German stock market.

The admission to the index was followed by livelier trading of Northern Data shares, which made the shares more attractive, particularly for institutional investors.

## Investor Relations

In 2019, Northern Data AG continued to communicate continuously with institutional and private investors and analysts over and beyond its statutory and stock market obligations, not only outlining current business developments but also other events of significance for the development of the company's share price. The company also presented itself at the Baader Investment Conference in Munich in September 2019.

In the current 2020 financial year, the company will continue to intensify communication with capital market participants and present the Northern Data AG share as an attractive investment to a wide range of investors.

## Extraordinary General Meeting

At the Extraordinary General Meeting on December 30, 2019, the shareholders resolved to change the name of Northern Bitcoin AG as part of the merger with Whinstone US, Inc.

## Capital Increase In Kind After The End Of The Reporting Period

With the contribution of Whinstone US in the context of a capital increase against contribution in kind from the authorized capital under exclusion of subscription rights by issuing 3,720,750 shares to Northern Bitcoin AG, the Company's share capital increased from EUR 7,441,500.00 to EUR 11,847,250.00 in January 2020. The shareholders of Whinstone US undertook not to sell (lock-up) the shares from the capital increase against contribution in kind without the approval of the Supervisory Board (which may be granted in particular for off-exchange transactions) for a period of 36 months, after which 25 percent of the shares per quarter will be released from the lock-up.

## Shareholder Structure

The company is not aware of any individual shareholders holding a share of Northern Data AG exceeding 25 percent. The founders of Whinstone US Inc. hold a share of the company of around 19 percent. As a strategic investor, Cryptology Asset Group PLC holds an approximate 16 percent share. With his investment company Krypto Ventures GmbH, Dirk Ströer, entrepreneur and investor, holds a share of Northern Data AG of around 6 percent. Company management holds around 14 percent of the average shares outstanding, while free float shares amount to some 22 percent.

## The Share Of Northern Data AG

In addition to Xetra, Germany's most important stock exchange, and the m:access segment for small and medium-sized enterprises at the Munich Stock Exchange, Northern Data AG shares are also traded at the company's headquarters, at the stock exchange in Frankfurt am Main, on the Berlin and Düsseldorf stock exchanges and via the Tradegate Exchange.

As a designated sponsor, mwb fairtrade Wertpapierhandelsbank AG provides binding bid and offer prices, thereby ensuring that Northern Data shares can be traded appropriately. Additional information is available to interested investors in the Investor Relations section of the company's homepage at [www.northerndata.de](http://www.northerndata.de).

## Contact

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## Disclaimer

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ANNUAL REPORT

2019