# > eex group

Annual Report 2018



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As a global commodity exchange group, EEX Group has once again maintained its position as the number one in power trading. Peter Reitz revisits a very successful year 2018.

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# **Key Data**

		2018	2017	Change %
Profit and loss account			·	
Sales revenue	kEUR	267,654	225,320	+19
Earnings before interest, taxes, depreciation and amortisation (EBITDA)	kEUR	111,612	88,938	+25
Earnings before interest and taxes (EBIT)	kEUR	91,977	73,486	+25
Earnings before taxes (EBT)	kEUR	92,106	74,224	+24
Balance sheet (as of 31 December)				
Non-current assets	kEUR	368,320	347,757	+6
Equity	kEUR	474,135	425,806	+11
Balance sheet total	kEUR	7,117,397	3,561,371	+100
Core business parameters				
Spot market				
Power spot market volume <sup>1</sup>	TWh	577	543	+6
Gas spot market volume <sup>2</sup>	TWh	1,111	828	+34
Emissions spot market volume	mt*	923	908	+2
Derivatives market				
European power derivatives market volume <sup>3</sup>	TWh	3,347	2,822	+19
US power derivatives market volume <sup>4</sup>	TWh	1,039	395	+163
Gas derivatives market volume <sup>2</sup>	TWh	852	1,154	-26
Emissions derivatives market volume	mt*	1,973	472	+318
Agriculturals derivatives market volume	Contracts	60,251	65,453	-8
Freight derivatives market volume—futures and options	kd**	230	473	-51
Company parameters				
Trading participants		635	588	+8
Employees (balance sheet date)		586	542	+8

<sup>\*</sup> Million tonnes

<sup>\*\*</sup> Thousand days

<sup>&</sup>lt;sup>1</sup> EPEX SPOT trade volumes, including SEEPEX and PXE volumes

<sup>&</sup>lt;sup>2</sup> PEGAS trade volumes, including Gaspoint Nordic, PXE and CEGH volumes

<sup>&</sup>lt;sup>3</sup> Trade volumes, including PXE volumes

<sup>4</sup> Nodal trade volumes from May 2017

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"In terms of volumes, we have seen

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significant increases across almost all of our portfolio, with many asset classes recording double and even triple-digit growth."

#### Foreword

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### Dear readors, Dear shanholds, employees and friends,

2018 has been an incredible year for EEX Group on many levels. From a performance perspective, we have increased our revenue by 19% to  $\leqslant$  267.7 million. As a result, our EBT increased by 24% to  $\leqslant$  92.1 million - an absolute record for EEX Group.

In terms of volumes, we have seen significant increases across almost all of our portfolio, with many asset classes recording double and even triple-digit growth.

I am very happy to report that, after a challenging 2017, confidence has returned to the power market once more. In 2018, we generated significant growth in power, both in the spot and derivatives markets – with an overall increase of 32% - maintaining our position as the number one exchange in power trading worldwide for the second year running.

Looking at the gas market, we've seen major growth in the short end of the curve with the spot markets achieving double-digit growth rates (+34%) compared to the previous year.

#### Peter Reitz

has been Chief Executive Officer and chairman of the EEX and ECC Management Board since 1st August 2011. After gaining a degree in mathematics, he started his career as a product manager at Deutsche Börse AG in Frankfurt. In 2004, he became its Managing Director, a position he still holds. From 2000 to 2001, he worked at Dow Jones Indexes in New York and later was a member of the Eurex Management Board until December 2018. Peter Reitz has overseen the development of the EEX and ECC as a member of the respective Supervisory Boards since 2007.

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Our emissions business has also seen tremendous success in 2018. In fact, we more than doubled our overall volume, recording a year-on-year increase of 110%. In addition to increases in revenue and volumes, as a group, we have also achieved many significant milestones in 2018.

"EEX Asia is now recognised as the Asian exchange of EEX Group, offering futures contracts on freight and seaborne commodities."

In March, the Group's clearing house, European Commodity Clearing (ECC), was awarded Recognised Clearing House (RCH) status by the Monetary Authority of Singapore (MAS). This was ECC's first regulatory license outside Europe, representing a key milestone for both ECC and our Global Commodities business.

In June, the European Cross-Border Intraday initiative XBID was launched across 14 countries, connecting the continuous intraday markets from Finland to Austria and from Latvia to Portugal. This has been a great achievement for both EPEX SPOT and ECC, following several years of complex and intensive development and testing. This was certainly a major milestone in the completion of the European Internal Energy Market, especially in the context of a growing share of renewables in the energy system.

In October, EPEX SPOT and ECC also completed their mission to support the Irish SEMOpx power exchange in setting up the Integrated Single Electricity Market in Ireland and Northern Ireland. In 2017, both companies jointly won the tender for the operation of the Day-Ahead and Intraday markets as well as clearing and settlement. This market went live in 2018 and is coupled with the Multi-Regional Coupling.

In November, Nodal Exchange, in conjunction with our partner IncubEx, successfully launched the first suite of North American Environmental contracts. This was another major milestone for the group, as it not only expanded Nodal's product portfolio, but also resulted in Nodal utilising the T7 trading platform developed by Deutsche Börse.

Also in November, we redefined our Asian business with the launch of EEX Asia and Cleartech. The strategic repositioning under two separate brands enabled the business to better serve the needs of its clients through greater focus and specialisation in each business area. EEX Asia is now recognised as the Asian exchange of EEX Group, offering futures contracts on freight and seaborne commodities, such as fuel oil and iron ore, with contracts clearing through ECC.

In addition to the numerous initiatives we undertook in 2018, we also began to implement a series of major technical and organisational enhancements at EEX and ECC to ensure that our customers receive the very best when it comes to safety and security of transactions and to further prepare ourselves for the future and the worldwide competition. This includes the migration of the EEX and ECC IT systems to Deutsche Börse's state-of-the-art infrastructure. The new IT infrastructure is even more robust, fulfilling additional regulatory requirements, ensuring additional protection against cyber-attacks, and increasing confidence for the market participants of EEX Group.

The 2018 results and the work we have undertaken throughout the year have solidified EEX Group's position as a Global Commodity Exchange. As a group, we have been working hard to realise this long-held ambition and it gives me enormous pride to see us move forward in this direction. EEX Group now has an established presence in Europe, Asia and North America. Ensuring that it is ideally placed to promote and grow liquidity in the commodities sector worldwide with an established network of traders and brokers, as well as a technical and regulatory offering which enables organisations across

"The 2018 results and the work we have undertaken throughout the vear have solidified EEX Group's position as a Global Commodity Exchange. As a group, we have been working hard to realise this long-held ambition and it gives me enormous pride to see us move forward in this direction."

all time zones to easily and efficiently access the benefits of the group's trading and clearing services.

On behalf of the entire Management Board, I would like to extend a huge vote of thanks to every employee of EEX Group for their commitment, hard work and unwavering support which has enabled us to grow as a business and to successfully conclude the 2018 financial year.

Finally, I would like to take this opportunity to personally thank you - our customers and partners - for the trust you place in us and I look forward to achieving more in the coming years, together with you.

Leipzig, April 2019 For the Management Board

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f.l.t.r.

Dr Egbert Laege > Executive Director Gas Markets Dr Dr Tobias Paulun > Chief Strategy Officer
Iris Weidinger > Chief Financial Officer Steffen Köhler > Chief Operating Officer
Peter Reitz > Chief Executive Officer Jean-François Conil-Lacoste\* > Executive Director Power Spot Markets
Dr Thomas Siegl\* > Chief Risk Officer

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#### Dr Thomas Book

has been a member of the Executive Board of Deutsche Börse AG since 1st July 2018 and Chief Executive Officer of Eurex Exchange since March 2016. Furthermore he is a member of the Management Board of Eurex Deutschland since May 2007. Thomas Book has more than 20 years experience in the field of electronic trading and clearing. After joining Deutsche Börse Group in 1995 he was part of the project that founded Eurex. Appointed to the Eurex Board in 2007, he shaped Deutsche Börse's clearing business in his function as Head of Clearing until 2016. In 2013, he assumed the role as CEO of Eurex Clearing AG which he held until 2016. Thomas Book is a member of the Supervisory Board of 360 Treasury Systems AG and of China Europe International Exchange AG.

Report of the Supervisory Board

Dear Shareholders

During the reporting year (2018), the Supervisory Board of EEX diligently carried out the tasks with which it was entrusted according to the applicable legislation, the statutes of the company and its rules of procedure. It supported the Management Board in the running of the company in an advisory capacity and continuously monitored the management of the business of the company. The Supervisory Board was directly involved in all the decisions and measures which were of fundamental importance to the company.

The Management Board of EEX regularly, promptly and comprehensively reported to the Supervisory Board regarding corporate planning, including financial, investment and human resources planning, business progress, the ongoing strategic development and the current situation of the Group. Those business transactions that were of significant importance to the company were discussed in detail by the Supervisory Board on the basis of reports provided by the Management Board in writing and verbally. The Supervisory Board approved the draft resolutions of the Management Board following thorough examination and deliberation.

In addition to the meetings of the Supervisory Board, the chairman of the Supervisory Board was in regular contact with the Management Board. Moreover, the Management Board informed him of the latest developments in the business situation and of significant business-related incidents at the earliest opportunity.

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#### **Work of the Committees**

In order to efficiently discharge its tasks, the Supervisory Board has established two committees, which prepare resolutions to be voted on by the Supervisory Board as well as matters to be discussed by the board. In addition, the Supervisory Board has transferred individual tasks and elements of its decision-making competences to these committees. The chairmen of the committees regularly and comprehensively report to the board on the content and the results of the committee meetings.

During the reporting period, the **Executive Committee** held seven meetings. The Executive Committee consists of the chairman and the deputy chairmen of the Supervisory Board and has the task of preparing resolutions to be adopted by the Supervisory Board and other topics to be covered by the Supervisory Board and of issuing of recommendations with regard to these matters.

The **Personnel Committee** prepares decisions to be made by the Supervisory Board regarding the appointment and dismissal of Management Board members, as well as regarding the determination of their compensation, Furthermore, the Personnel Committee submits proposals regarding the conclusion or amendment of Management Board employment contracts including decisions relevant for the setting of compensation and regarding target agreements and attainment. Additionally, instead of the Supervisory Board and on the basis of the competences transferred to it, it adopts resolutions on matters specified in detail in the rules of procedure for the Supervisory Board, in particular, the approval of ancillary activities of members of the Management Board. The Personnel Committee consists of the chairman and the deputy chairmen of the Supervisory Board and met four times during the reporting period. At these meetings, it dealt with the re-appointment of two Management Board members and the regular review of the compensation of one further Management Board member. Furthermore, the Personnel Committee prepared proposals for target agreements and the degrees of target attainment by the Management Board members and issued recommendations for the corresponding resolutions to be voted on by the

Supervisory Board. At its meetings on 28 September and 15 November 2018, it also dealt with the changed composition of the Management Board of EEX and its subsidiary, European Commodity Clearing AG (ECC). In this connection, the Supervisory Board adopted draft resolutions regarding the conclusion of termination agreements for two Management Board members and the creation of a new position on the Management Board with the function of a Chief Information Officer.

### Supervisory Board meetings

In the reporting year 2018, four ordinary meetings of the Supervisory Board were held. At all of these, the major topic was the report of the Management Board regarding the current situation of the company, which the Supervisory Board then discussed with the Management Board in detail. Two further Supervisory Board meetings focusing on strategic matters were held during the reporting year.

The Supervisory Board meetings were characterised by a thorough and open exchange regarding the company's situation, the development of the business and financial situation, as well as fundamental matters of corporate policy and strategy. The Supervisory Board members regularly prepared resolutions regarding matters requiring their approval on the basis of documents made available to them in advance by the Management Board. In addition to this, the Management Board regularly informed the Supervisory Board of the most important commercial parameters and developments in the form of written monthly reports.

At the meeting convened to approve the balance sheet on 10 April 2018, the Supervisory Board looked in detail at the 2017 annual and consolidated financial statement and at the corresponding management reports in the presence of the external auditor of the annual accounts. The annual financial statements prepared were approved and are therefore considered as adopted. Furthermore, the Supervisory Board approved the Management Board's proposal to the Annual General Meeting to use the balance sheet profit to pay a dividend of EUR 0.27 per share certificate entitled to dividends. Additionally, the Supervisory Board discussed the

annual report by the internal audit department and the results of a special audit carried out in 2017 by the Bundesbank and the Federal Financial Supervisory Authority (BaFin) at the group company ECC. Reporting on the processing status of findings from this special audit constituted a regular item on the agenda of the Supervisory Board meetings in the further course of the year. To ensure a more efficient positioning of EEX Group, the Supervisory Board approved the merger of three wholly-owned EEX subsidiaries into the company. The Supervisory Board adopted comprehensive rules and regulations regarding reviewing and safeguarding adequate staffing of the Management Board and Supervisory Board, for the prevention of conflicts of interests and handling of sensitive information with the aim of implementing the new provisions of the Directives on Markets in Financial Instruments (MiFID II) (which took effect in January 2018) along with corresponding amendments in the German exchange act. As recommended by the Personnel Committee, the Supervisory Board also approved the proposed degrees of target achievement for the Management Board members for the financial year 2017, and the related management bonuses.

The strategy meeting on 15 May 2017 focused on the discussion of the strategic framework for preparing the revenue planning from 2019 to 2024. In addition, the Supervisory Board discussed changes to the EEX Group IT strategy.

At the Supervisory Board meeting on 28 June 2018, the Supervisory Board discussed the completed initial assessment of adequate staffing of the Management Board and of the Supervisory Board in line with the guidelines and procedures adopted in April 2018. As a result, a positive decision regarding the suitability, reliability and structure of both boards was adopted by the plenum. In addition, upon recommendation by the Personnel Committee, the Supervisory Board adopted an adjustment of the compensation for a member of the Management Board and minor amendments of the variable compensation system for the Chief Executive Officer

The meeting on 24 October 2018 focused on reporting on the processing of findings from the special Bundesbank and BaFin audit at the group company ECC, as well as the approval of the project expenses expected for this in 2018. In addition, the Supervisory Board discussed restructuring measures regarding the EEX and ECC Management Board with a view to strengthening the ECC management capacities to fulfil the significantly increased regulatory requirements. In this connection, the Supervisory Board adopted the decision to create a new Management Board position with the function of Chief Information Officer at EEX and ECC. Conclusion of a cancellation agreement with Dr Thomas Siegl, member of the Management Board, who will work exclusively for ECC in the future, and a changed allocation of the CEO's resources were also approved. Upon a proposal by the Personnel Committee, the Supervisory Board also adopted the conclusion of a cancellation agreement with Jean-François Conil-Lacoste, also a member of the Management Board, who resigned from the Management Board due to his age, and extended the appointment of CEO Peter Reitz and of CFO Iris Weidinger by another term of five years.

At a second strategy meeting on 15 November 2018, the Supervisory Board discussed the revised EEX Group strategy. In addition, the business fields in the USA were presented in detail by the chairman of the board of the group company Nodal Exchange Holdings, LLC, with the Global Commodities field also being covered. In addition, investment options in the registry business and in the liquified natural gas (LNG) segment were discussed and endorsed by the Board. Specifically, the Supervisory Board approved the acquisition of the Finnish Grexel Systems Oy, the leading provider of registries for Guarantees of Origin and other energy certificates in Europe.

The meeting on 11 December 2018 focused on the approval of the 2019 budget and consideration of the medium-term planning from 2020 to 2024 as well as the discussion of a preliminary dividend proposal for the 2018 financial year, which was acknowledged by the board. Additionally, the Supervisory Board

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approved the execution of a capital increase at the enermarket GmbH joint-venture. In addition, the Board also discussed the candidate proposed by the Personnel Committee for the board position of the Chief Information Officer and, after a debate, adopted the resolution to appoint the candidate as a member of the Management Board with a three-year term of office. Moreover, in the context of the restructuring measure agreed in October 2018, the Supervisory Board also took note of the planned appointment of another member of the board at the ECC group company and approved a changed allocation of the activities of the Management Board members Steffen Köhler and Iris Weidinger, who will exclusively work for EEX in future. Furthermore, the board adopted the target agreements for the Management Board members for 2019 as proposed by the Personnel Committee.

#### Audit of the annual accounts

The Management Board prepared the annual financial statement and the management report as well as the consolidated financial statement and the consolidated management report of EEX. It submitted these to the Supervisory Board at the due time.

KPMG AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, appointed as the auditor of the annual accounts and group auditor for the 2018 financial year by the Annual General Meeting, audited the annual financial statement as of 31 December 2018 prepared according to the rules of the German Commercial Code (HGB) and the management report, as well as the consolidated financial statement as of 31 December 2018 (prepared in accordance with IFRS rules in the form in which these have to be applied within the EU) and the consolidated management report and certified each of these without qualification.

The auditor of the annual accounts submitted to the Supervisory Board its reports on the type and extent as well as the result of the audits. The documents regarding the financial statements referred to, as well as the audit reports provided by the auditors of the annual accounts, were submitted at the due time to all Supervisory Board members. The auditor of the annual accounts attended the Supervisory Board meeting on 17 April 2019 and reported in detail on the key findings of his audit.

The Supervisory Board examined the annual financial statement and the management report, as well as the consolidated financial statement and the consolidated management report. There were no objections and the result of the audit carried out by the auditor of the annual accounts was approved. The Supervisory Board approved the annual financial statement prepared by the Management Board as well as the consolidated financial statement for the 2018 financial year. The annual financial statement of EEX is therefore adopted. The Supervisory Board approved the Management Board's proposal regarding the appropriation of the balance sheet profit.

### Management Board personnel matters

The members of the Management Board Jean-François Conil-Lacoste and Dr Thomas Siegl left the EEX Management Board as of 31 October 2018.

Mr Jens Rick was appointed as a member of the EEX Management Board with the function of the Chief Information Officer as of 1 February 2019.

### Supervisory Board personnel matters

There were no changes in the staffing of the EEX Supervisory Board in 2018.

The Supervisory Board would like to thank the members of the Management Board and all of European Energy Exchange AG's employees for the work performed and their contribution to a very successful financial year.



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### Report on events after the balance sheet date

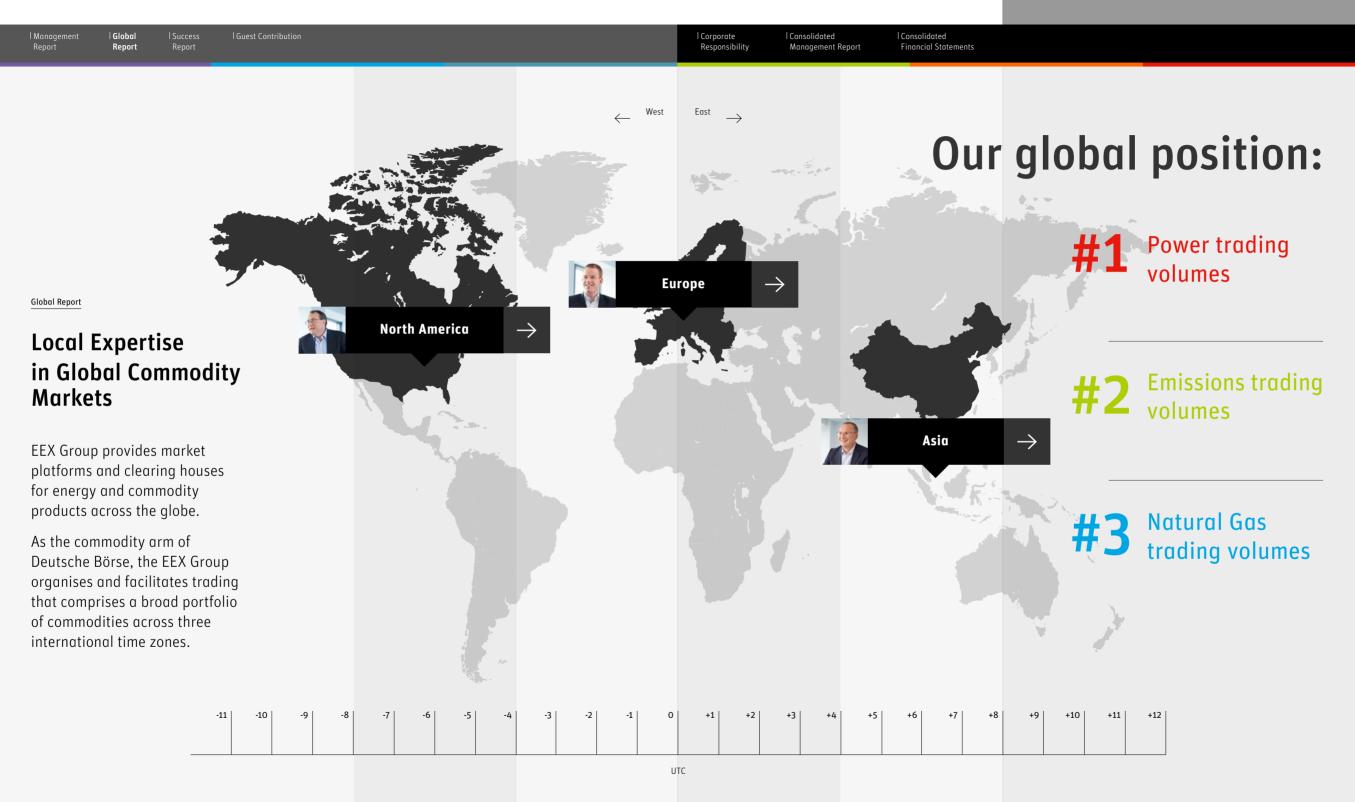
It is with great sadness that the Management Board and Supervisory Board learnt of the sudden and unexpected passing of the long-standing Supervisory Board Chairman, Dr Jürgen Kroneberg, on 9 February 2019. Dr Jürgen Kroneberg was one of the founding fathers of EEX and supported the development of EEX Group from 2000 onwards. With him, our Group loses a great advocate, a true friend and wonderful human being. We extend our sincere sympathy to his family during this difficult time.

With effect as of 19 March 2019, Deutsche Börse AG, as the shareholder entitled to delegate members, delegated Dr Thomas Book to the EEX Supervisory Board. At the meeting on 17 April 2019, Dr Thomas Book was elected as the new chairman of the Supervisory Board.

Leipzig, April 2019 On behalf of the Supervisory Board

Dr Thomas Book

Chairman of the Supervisory Board



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### **North America**



Washington D.C.

"2018 was a record year of power trading for Nodal Exchange with over 1,000 TWh traded."

### Paul Cusenza

Chairman & CEO

Nodal Exchange and Nodal Clear

• Watch the video interview with Paul Cusenza

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### How was the year 2018 for Nodal as part of EEX Group?

Nodal has had an outstanding year as part of EEX Group. 2018 was a record year of power trading for the exchange with over 1,000 TWh traded. In November, we transitioned to the industry-leading matching engine technology used by EEX Group – setting the groundwork for significant growth in the years ahead. Simultaneously, we introduced our first environmental contracts. We are extremely pleased to be a part of the EEX family of companies, as we believe it has and will continue to enable Nodal to better serve its markets and achieve even greater growth as a result.

"We are extremely pleased to be a part of the EEX family of companies as we believe it has and will continue to enable Nodal to better serve its markets and achieve even greater arowth as a result."

### As noted, you recently launched the environmental product suite – how do you envision this commodity set evolving in the coming months?

This year Nodal introduced its first tranche of North American Environmental contracts, including futures and options on: California Carbon Allowances, Regional Greenhouse Gas Initiative Allowances (RGGI), New Jersey Solar Renewable Energy Certificates, PJM Tri-Qualified Renewable Energy Certificates and 11 other emissions and renewable contracts. In cooperation with IncubEx, we expect to continue to expand the environmental product suite in 2019. We believe that these products are complementary to our core business and will allow us to better meet the needs of the markets we serve today, and to further grow into new and evolving markets.

### How do you see the company progressing in 2019?

Nodal has been very successful in the US commodities markets, especially in power futures, where we have achieved over 30% market share of open interest. In 2019, we would like to continue to grow our position in this core offering as well as expand our product portfolio in energy – for example, in natural gas, which is already a significant market for EEX Group in Europe.

We also plan to diversify beyond our core markets in energy starting in 2019. Trucking freight is a very large market in the United States and it is impacted by many of the same factors that affect the price of power such as seasonality, weather, inability to store the commodity and being locational – a map of highways looks much like an electric grid map. In 2019, Nodal will launch the world's first trucking freight futures contracts.

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### Europe



"We are pursuing a strategy of creating a comprehensive product offering covering all relevant market areas and commodities for the European energy markets."

### Dr Dr Tobias Paulun

Chief Strategy Officer and Managing Director Exchange

• Watch the video interview with Tobias Paulun

New



Madrid

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How would you describe your corporate strategy focus in Europe, and what is planned for 2019?

I see three focuses for the successful positioning of EEX Group in Europe: Firstly, rounding off our product offering in existing and new markets, secondly, increasing market share in our existing markets, and thirdly, further developing our innovative strength.

We are pursuing a strategy of creating a comprehensive product offering covering all relevant market areas and commodities for the European energy markets. For example, in recent years, we have gradually expanded our regional reach on the power derivatives market to a total of 17 market areas. In 2019, we will again expand the offering and introduce products for the south-east European markets, for Bulgaria, Serbia and Slovenia in cooperation with local partners. In the natural gas market, we will enter the Spanish market and launch an LNG contract, and we are also planning to expand our offering to new market areas, such as Scandinavia and Poland, with the power spot market.

In order to increase our market shares in the existing markets, cooperation with our local trading participants is of paramount importance. This is ensured by our decentralised structure, through which we have established a presence at 15 different locations in Europe for our customers. Together with our customers, we aim to continuously develop attractive product offerings and reduce entry barriers, hence, increasing the liquidity in our markets.

Finally, our ability to provide innovations and to transfer these into solutions in line with the market are essential to maintain our leading position in the European energy markets also in future.

"The Phelix-DE future has firmly established itself as the benchmark product for European power along the whole curve."

Regulatory changes have had a major influence on the energy markets in 2018 and continue to have a strong impact – how do you evaluate the regulatory impact on the EEX Group business?

In spite of a challenging regulatory environment, we achieved an excellent operating result in 2018. The split of the well-established German-Austrian price zone in October 2018 constituted a major challenge for our business. Against this background, we introduced the Phelix-DE future which has firmly established itself as the benchmark product for European power along the whole curve.

As a market platform operator and clearing house, we want to support our customers as best as possible also with regard to implementing regulatory requirements. Our reporting services according to EMIR, MAR, MiFID II and REMIT are one example of this.

In 2019, we expect further important decisions in the field of energy market design but also in financial market regulation – for example regarding position limits, which is an important topic for a large number of our market participants. We will continue the intensive dialogue with our customers with a view to supporting them in decisions to be made on financial market regulation. In doing so we work together to ensure that new regulations support, rather than hinder, the expansion of liquidity on the EEX Group markets and that no new barriers to market entry are created in particular.

The markets are changing due to the increased decentralisation and digitalisation of the value chain. New players are joining the market, new business models and technologies are emerging how are you going to make sure that the exchanges are keeping pace with these developments?

The increasing decentralisation resulting from the feed-in of renewable energies as well as the growing speed of digitalisation leads to new business models and new players on the energy market - which creates opportunities for us. We are willing to contribute our expertise in the successful development and operation of markets. Examples of this include the cooperation between EPEX SPOT and LO3 Energy in the area of the block chain and the enermarket B2B platform created by the cooperation we have with innogy and süwag. Or think of the ENERA project: In this context, EPEX cooperates with more than 30 partners and is developing market-based solutions with which physical constraints can be overcome at a local level using local order books.

"We are willing to contribute our expertise in the successful development and operation of markets."

"EEX's power products are well suited to hedge against price risk resulting from PPA contracts."

The dialogue with our customers often results in new insights for all parties involved: For example, in 2018, we discussed the use of standardised longterm power derivatives contracts in the context of the increased importance of Power Purchase Agreements (PPAs) in the market. EEX's power products are well suited to hedge against price risk resulting from PPA contracts. We are currently examining the possibility of extending our long-term maturities from six to ten years in order to further increase the attractiveness of the exchange for hedging PPA contracts.

The acquisition of Grexel, a European leader in the operation of registries of Guarantees of Origin, is another example of how we join forces with partners to jointly offer new solutions and products. We use a range of forums for the dialogue with customers, e.g. direct contact with our key account managers, subject-specific customer workshops and events, and the debates on the Exchange Council – the body on which selected representatives of our trading participants directly decide on the rules and regulations and, as a result, on the products offered on the exchange.

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### Asia



"My personal ambition is to establish EEX Asia as the spearhead into the Asian market, thereby creating a commercially viable platform which generates growth for EEX Group in Asia."

Dr Egbert Laege

Chief Executive Officer | EEX Asia

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Singapore

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# 2018 saw EEX Group launch EEX Asia in Singapore – was this always part of the Global Commodities business strategy?

Yes. It was clear from the time of the 100% acquisition of CLTX that the future of the business lay in becoming EEX Group's exchange in Asia and the gateway for clients from the wider region to access the products and services of the Group. Today's trading landscape has changed – our customers no longer trade one asset class per exchange but instead, require a wider range of trading possibilities, so establishing EEX Asia as the Asian exchange of EEX Group was the best way of answering the needs of our customers.

"Establishing EEX Asia as the Asian exchange of EEX Group was the best way of answering the needs of our customers."

Once CLTX became a full member of the Group, all the fundamentals were in place to create a true Asian exchange for EEX. The first step in establishing EEX in Asia was to change our value proposition. Historically, the CLTX offering was essentially a multi-clearing platform which had worked well but was not the right vehicle for where we wanted to take the business in the future. In order to create a credible exchange for EEX in Asia, we had to bring ECC into position as the clearing house for the business.

Whilst CLTX had an exchange license in Singapore, ECC had no legal ability to operate in this region. Therefore, a project was needed to attain Recognised Clearing House (RCH) status with the Monetary Authority of Singapore (MAS) in order to complete a clearing link from CLTX to ECC. The license from MAS, which was awarded in March 2018, took two years and a great deal of work to deliver. However, it also gave ECC its first regulatory license outside Europe, which was another key milestone in the Group's journey to join the 'Champion's League' of commodity exchanges.

The next step was to build a product and service portfolio which incorporated a broad range of value-added services for our customers, thereby ensuring that we could offer a real competitive advantage for EEX Group. This project added a number of services to the Group's platform which, while standard in internationally traded commodities, had not been required in the more regionally focused power markets from which the Group had evolved.

### Could you give an example of one of the key product enhancements that was completed?

One of the first cornerstones was to establish a US-Dollar (USD) clearing service at ECC. International freight contracts are priced in USD, as are the vast majority of international commodities, whereas ECC, by its very nature, has historically always cleared in Euros. Offering a suite of Global Commodities contracts, cleared in Euros, would have been too big a barrier to overcome if we were to credibly compete in this sector so following an intensive 12 months of development, USD clearing went live at ECC in November 2017.

A series of key developments followed, which included the building of our product and services portfolio and ECC being granted the Recognised Clearing House status by the Monetary Authority of Singapore (MAS). These developments sent a very clear signal to the industry that we were becoming serious contenders in the freight industry which led to the London Clearing House (LCH), one of the biggest players in the industry, choosing EEX Group as the logical venue to "novate" their open interest to. The transfer of open interest from LCH to ECC really helped to establish us as a credible exchange within the Global Commodities sector and enabled ECC to hit a 10% market share overnight – a feat that had taken our competitors years to achieve.

The final piece of the puzzle in terms of creating an Asian exchange for EEX Group was to re-brand the business and provide a very clear value proposition to the market. EEX Asia was the obvious choice in terms of brand identity, which we launched on 1st November last year.

"EEX Asia is certainly a fundamental pillar for EEX Group as we enter into the Global Commodity Exchange space."

#### What is your ambition for EEX Asia?

My personal ambition is to establish EEX Asia as the spearhead into the Asian market, thereby creating a commercially viable platform which generates growth for EEX Group in Asia. This ambition is shared by everyone who is working at EEX Asia and who is connected to it.

Right now, the team is very focused on building the Group's business in the freight markets. Success here will naturally position us for further success in related products such as iron ore and fuel oil. The next phase will focus on promoting the European gas offering of LNG to the Asian community. Looking more long term, we want to attract Asian clients for our other European products, such as power, gas, emissions and US products, with the ultimate aim of being present in all time zones with a commercially attractive product portfolio.

EEX Asia is certainly a fundamental pillar for EEX Group as we enter into the Global Commodity Exchange space and I am incredibly proud of what the team has achieved in the last two years. I now look forward to the next set of opportunities and milestones for this exciting business segment.

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Success Report

# Our People, Our Strength, Our Success

Smart thinking, hard work and a firm commitment to deliver is at the heart of what we do. In our Success Report we'll highlight the achievements of the companies that make up EEX Group and celebrate the successes of our greatest asset – our people.









l Corporate

Responsibility

Report Questions to Tim Greenwood Director Sales, EEX

Success

EEX has continuously expanded its offering for the European power market to offer its trading members a large range of power derivatives contracts across Europe, cleared via one clearing house. This pan-European offering is a success story, to be continued in 2019.

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### What do you consider as EEX's success story in 2018?

Our success in 2018 is that our pan-European offering for power derivatives was well received by the market and actively used by our trading participants. Our customers want to trade many different products and market areas on one platform. In 2018, we saw growth on our power derivatives market in spite of many uncertainties, e.g. on account of MiFID II or the price zone split. We turned these uncertainties into opportunities.

We have generated broad growth across many market areas: Trading activities in our core markets of Germany, Italy and France increased again but also the markets for Spain, Belgium, the Netherlands, and in Central and Eastern Europe have grown. Furthermore, we observed increasing trading activities in all segments, from the short end of the curve (day or week futures) to very long-term products (6 years into the future), traded or registered for clearing at EEX. This testifies to the high level of trust in our market and is a true success story.



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4,385.5 TWH

Volume traded on the Power Derivatives Market in 2018

### Looking at the emissions market, what were the key developments?

It has been an exciting year for the emissions market. During 2018, prices in European emissions allowances increased by more than 200%, driven by political reform measures but also due to renewed interest in this market. Companies anticipate scarcity in supply in the coming years and are focusing more and more on the auctions. Here, EEX has been re-awarded the contract as the German auction platform for emissions for another three years. In addition, we hosted our first secondary market auction.

Thanks to the great support of our traders and brokers, as well as our joint efforts with our cooperation partner IncubEx, we managed to double our secondary market share from around 8% to 16%. The strong rise in EUA options trading has contributed to this development, resulting in a 29% market share within one year. Another exciting milestone was the introduction of North American environmental products on our US-based subsidiary Nodal Exchange. This is the first step of EEX Group in emissions markets outside of Europe.

### How do your customers benefit from the EEX Group offering?

As a group, we have the possibility of bundling various market areas in one platform – whether on the power spot market, the power derivatives or the gas market - providing customers with unique benefits. Our customers have even asked us to expand into new regions in order to increase liquidity in new and developing markets and to bring markets, such as the ones in South-Eastern Europe, to the next level of development. The integrated clearing of all European contracts is part of our service, and provides gains in efficiency and security for our participants.

We are observing an increase in regulatory requirements for customers and that, at present, it is sometimes not possible for many customers to concentrate on their core business. Therefore, we invest a lot of time in advising customers, and the feedback we receive is consistently positive. For example, our last customer satisfaction survey in November 2018 confirmed that the EEX offering has become even more competitive.

Emissions markets:

110%

volume increase y-o-y

more than

200

CO<sub>2</sub> Emission Auctions in 2018

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As central counterparty, ECC assumes clearing and settlement for the EEX Group exchanges in Europe and Asia and also for other partner exchanges.

The Irish SEMOpx is the latest power exchange connected to ECC. It launched operations in October 2018, and was supported by ECC and EPEX SPOT in setting up a Day-Ahead and Intraday market in the Irish Republic and Northern Ireland, including clearing and settlement and the integration in the pan-European Market Coupling.

## What does the success of establishing SEMOpx mean to you?

It means a lot to me as I was the responsible ECC Project Manager for this project.

In short, we had the ambitious task to set up a fully-fledged power spot market from scratch. What made this project even more ambitious was the integration into an even bigger program called I-SEM (Integrated Single Electricity Market), with the aim to deliver a fully transformed capacity, balancing and spot market on the same day. This meant a complete and full transformation of the energy markets for the Irish Republic and Northern Ireland.

The project team of ECC, EPEX and SEMOpx alone involved more than 200 people who were located as far afield as Amsterdam, Belfast, Dublin, Frankfurt, Leipzig, London, Munich, Paris, Sydney and even the United States. This meant that we had great intercultural diversity – and all the challenges associated with it. It was great to see so many experts located around the globe moving together over the course of the project, forming one joint team.







**Daniel Fichtner** 

Senior Project Manager, ECC

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### How does the EEX Group benefit from your success?

EEX Group benefits trifold from this success:

Firstly, from a strategic point of view: ECC and EPEX have successfully proven to be a capable and trustworthy partner to manage large and complex projects and to act as a reliable partner providing for exchange, clearing and market coupling services. This will support EEX Group's further journey – be it in Ireland, Europe or in the global context.

Secondly, we not only welcomed SEMOpx, the Irish and Northern Ireland TSOs as new business partners, but also 20 new members. Some of them may join other markets offered by EEX Group in the near future.

Last but not least, the services provided by EPEX and ECC generate a new revenue stream for the Group and further diversifies our portfolio.

In 2018, ECC received the status as a Recognised Clearing House (RCH) in Singapore, regulated by the Monetary Authority of Singapore (MAS) – ECC's first regulatory license outside Europe. 3,923.5 TWH

power volume cleared by ECC in 2018

### How do your customers benefit from the EEX Group offerings?

EPEX and ECC support the SEMOpx Power Spot Market with all relevant market segments, which include Day Ahead auctions, intraday auctions and continuous (intraday) trading.

With the integration of SEMOpx into the pan-European Market Coupling scheme, local orders are matched within the transmission capacities available on the two interconnectors, thus maximising the social welfare for all stakeholders in the Irish Republic and Northern Ireland.

In its role as central counterparty, ECC ensures the safety and integrity of the Irish power market within the framework of the European EMIR regulation. Furthermore, customers benefit from the integrated clearing and settlement services provided by ECC (e.g. cross-margining or 24/7 services).

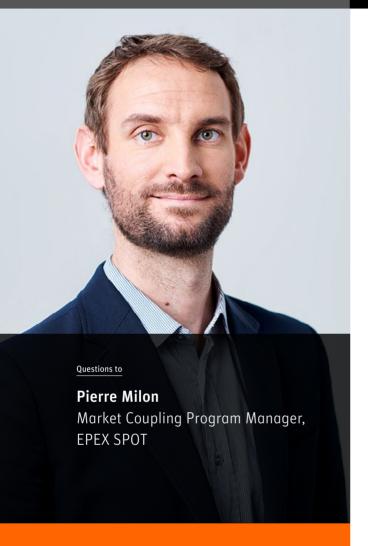
Finally, the membership with ECC allows SEMOpx exchange members to trade not only at their local exchange but to easily expand their trading activities into other regions and commodities. This is also true for current ECC members, who easily can use their membership to start trading at SEMOpx.

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### Facts & Figures

- Belgian market grew by 42.7%
- 15 products & projects were launched in 2018

### > epexspot

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For the European Power Exchange EPEX SPOT, the year 2018 brought the realisation of a project that had been anticipated across the EU: XBID, the European Cross-Border Intraday Market Project went live on 13 June.

The goal of XBID was to create an Intraday Market that is coupled across 14 countries, with more countries expected to join in the coming years. All departments in all locations of EPEX SPOT were involved, and our teams have been working on this since 2012.

### What makes the XBID project special?

Despite it being such a highly technical endeavour, the most exciting thing about XBID was the teamwork behind it. It was a real human adventure to collaborate with over 20 partner organisations for so many years. Teams from EEX Group, EPEX and ECC were involved on a daily basis and eventually made XBID a success: the solution was implemented smoothly, and high operational standards were maintained for our members.

Market Coupling on such a large scale is unprecedented on the Intraday timeframe, it is something that has previously only been done for Day-Ahead trading. The latter functions via daily auctions, while XBID Intraday trading is done continuously, 24 hours a day, seven days a week. This poses additional challenges to systems and processes.

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What was at stake?

A lot. The EPEX SPOT Intraday markets have been coupled for years and have therefore become extremely liquid markets. In 2017, the year prior to the XBID go-live, 71 TWh were traded on the Intraday segment. It was important to integrate these coupled markets into the pan-European Coupling without risking liquidity or reducing the quality of the services we propose to the trading participants. We seem to have succeeded, as volumes remained stable, and we even reached 82 TWh of traded Intraday volumes in 2018. We took the opportunity of the XBID project to enhance our systems and processes in order to offer even higher reliability, performance and scalability to our customers.

## Can you describe a key moment for you when working on XBID?

A key milestone was the start of our webinars and physical workshops with the trading participants, where we explained our internal system evolutions and XBID mechanisms. But the moment of truth is always the go-live. No matter how much you have tested, checked, repeated, it is at go-live that it counts. The market opened on 13 June at 12:00, and we recorded our first trade within seconds. The first successful cross-border XBID trade for EPEX between Germany and France took place at 12:03. Personally, and also collectively, that was a great moment.

2018 – a year of new records:

**82**<sub>TWh</sub>

traded on Intraday markets in 2018

**120** TWh

traded in France

567 TWH

in total of traded volumes at EPEX SPOT in 2018

## What did you learn about the company and your colleagues while working on this project?

This project showed that we are all really hard workers. Although the atmosphere and also the work were intense, XBID is the proof that EPEX SPOT and ECC can cooperate in an agile manner from all locations of the group. We could all count on each other, and this is what allowed us to be successful in the end, knowing that we were still able to continue running many other projects in parallel. A second important point was having our customers on board and to collaborate closely with them. We listened to their needs, prepared them for everything that had to be done, and took decisions based on what the consequences would be for our customers. Our members make our markets, and it is important not to lose sight of this when working on such large-scale projects.

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### > powernext



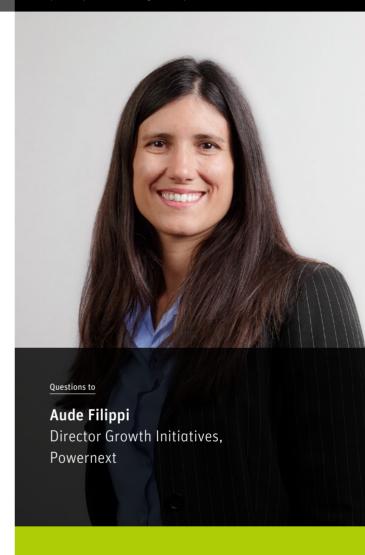
For more than six years Powernext has been developing a registry activity for energy related certificates like Guarantees of Origin (GOs), which are used to track renewable electricity, or energy savings certificates, which provide a market-based incentive scheme for more energy efficiency.

The registry business completes the offering of EEX Group, as it gives our energy exchange market participants the tools needed to comply with their obligations and to actively participate in the energy transition.

## What does success mean to you? Why has 2018 been a key success for the registry activity?

Success in work consists for me above all in satisfying our customers and growing our activities towards a cleaner energy system. I have been involved in the registry activity since its very beginning in 2012, and I am very proud of what we have accomplished since then. For me this shows how well the team has developed and how committed we have been.

The year 2018 has been particularly successful for the registry activity of EEX Group.



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In January 2018, we launched our energy savings certificates registry, since we won the tender organised by the French authorities. This mechanism is a key tool to the French energy transition, as it aims to achieve energy savings by compelling electricity, gas and fuel suppliers to encourage customers to reduce their energy consumption. For each kWh saved, energy suppliers are granted a certificate which is booked on the registry. Powernext managed to launch the platform in a very short timeframe and is now responding to the needs of more than 1,500 energy companies.

We were also successfully re-appointed by the French energy ministry as National Registry for Guarantees of Origin for renewable electricity in France. GOs are the European tool to track electricity: it enables energy suppliers to prove that the amount of energy their clients consume is at least equivalent to the renewable energy that is injected into the grid. Powernext is proud to be actively engaged in the energy transition towards more renewable power consumption. On top of this, Powernext will organise auctions on GOs that will bring more flexibility and transparency to the market. We expect a significant growth of the electricity tracking in France in the coming years, especially as a result of the new auction set-up.

The registry business has now become a key pillar of Powernext's business and we aim to grow it further. We decided to expand our GO registry offering throughout Europe. With that aim in mind, EEX acquired 100% of Grexel Systems, which is a leading European service provider for GO registries. This will enable our clients to directly reach a full European coverage and help us further grow in this sector.

52.7 TWH

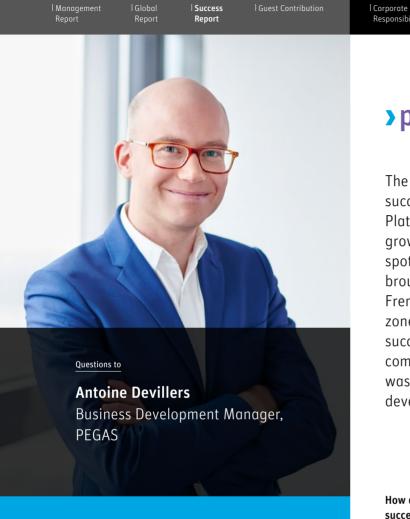
of Guarantees of Origin used to certify renewable electricity have been issued in the year 2018 in France (+17% compared to the previous year).

This represents **more than half** of the renewable production in France.

### How does the EEX Group benefit from your success?

Powernext today offers registry services to our customers in all energy certificate mechanisms. Those tools enable them to actively engage with the energy transition and to help them to meet their regulatory requirements. Guarantees of Origin help foster renewable electricity, energy saving certificates aim to reduce the overall energy consumption and capacity power guarantees aim to help better plan for potential power market unbalances caused by the increasing amount of renewable energy injected into the grid. More generally, this activity shows that EEX Group is a key player in the energy transition and is committed to a more sustainable energy mix.

Responsibility



#### **Facts & Figures**

- Geographical coverage: 9 countries, 11 bidding zones
- · Traded volumes: PEGAS spot market volumes have been exceptional in 2018: a record 1.111.2 TWh vs. 826.2 TWh in 2017 (+34% increase year on year).

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The year 2018 was another year of success for the Pan-European Gas Platform PEGAS. It recorded strong growth again especially in the spot segment. Above all, the year brought new challenges to the French market, where the two former zones TRS and PEG Nord have been successfully merged into one common zone in November PEGAS was an active participant in those developments.

### How do you personally measure the PEGAS success story?

Success for me sounds like a succession of small steps forward. For almost 12 years now, I have been lucky enough to contribute to the growth of the PEGAS initiative. From originally 1 country and 3 bidding zones, it gradually expanded over the years to currently 9 countries and 11 bidding zones. 11 trading participants took part in the first trading session, but PEGAS now gathers a community of more than 1,800 traders from 245 companies throughout Europe. In 2018, PEGAS was further established as the leading Spot Exchange for gas trading in Europe, with another volume record of 1,111.2 TWh. But most importantly, our customers have considered PEGAS as their preferred trading platform for years.

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#### What does success mean to you?

Success has implications in terms of responsibility, as expectations from your customers and partners are also demanding accordingly. A recent example of that was the French zone merger. The year 2018 brought major changes to the French gas market design. On 1st November, the former Nord and TRS balancing zones merged into the TRF (Trading Region France). This was a very positive move in many aspects, but required important adaptations to our screen design and processes. The project's go-live was perfect - another PEGAS success. But the interesting thing is that from the start of the design phase, PEGAS was considered by its TSO partners as well as by regulators as a corner stone of this initiative. They expected us to provide appropriate solutions to manage this sensitive transition. PEGAS was therefore invited to take on an active role in the Concertation Gas design workshops more than 4 years before the actual project was launched and invited to discuss alternatives with all relevant stakeholders.

Trading community

245

participating companies

> 1,800

Traders

#### How does the EEX Group benefit from your success?

This institutional positioning immediately had two very positive outcomes in terms of innovation and competition. The fact that PEGAS was so deeply involved in the early discussions helped market participants and regulators envisage innovative solutions in which the wholesale market could play an active role. PEGAS designed and launched so-called Congestion Management Products. The use of such instruments helped to avoid unnecessary investments in physical transport capacities, since occasional congestions on the grid can be eliminated by a market-based mechanism which relies on the flexibilities that are available in the portfolios of all market participants. Those Congestion Management Products could be usefully replicated in other countries. A second outcome was that from then on, the agreed solution has been adopted by the whole market without discussion (France now accounts for 8 active brokers). They all supported our screen design, so that there was no risk of any mistrades, mismatches or liquidity splits. This further re-enforced our position as the platform of reference.

#### What is the perspective for PEGAS' further success?

PEGAS will shape the European gas market further with a continuous improvement of its product portfolio. On its Futures segment, PEGAS managed to extend its product offer with the launch of options on the TTF in 2018. In the upcoming year PEGAS will expand further its Spot and Futures market segments with contracts on the Spanish PVB hub. PEGAS will also offer an OTC registration service for LNG Futures with financial settlement against the S&P Platts JKM index. The introduction of LNG products completes the picture of PEGAS connecting local markets with the global gas market and constitutes another significant step for EEX Group towards a global commodity exchange.

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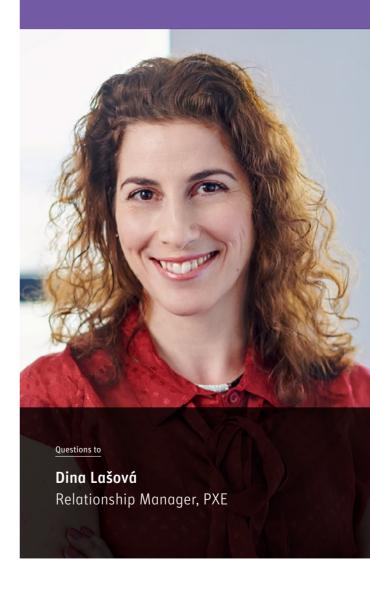
Power Exchange Central Europe, a.s. (PXE) was established by Prague Stock Exchange in 2007. At the beginning, PXE offered Czech power only. However, more market areas in Central and South-eastern Europe were added step by step – Czech Republic; Slovakia; Hungary; Romania; Poland. From a small local exchange, PXE became a regional platform for the CSEE Region.

We did quite well; nevertheless, it seemed there was a magical number of 30 determining certain limits – 30 actively trading participants and an annual volume of 30 TWh. Anyway, these limits were broken when we joined EEX Group.

### Why did PXE join EEX Group?

It was a logical step: PXE needed a strong partner from a long-term perspective. EEX Group operates, beside other markets, the biggest European power market – Germany, with its Phelix products being the benchmark for most of the CSEE market areas. There is a local trading platform in each country. Being part of a Global Commodity Exchange Group gave us a competitive advantage over independent local exchanges. From a small regional shop, we became a global player practically overnight.

Indeed, we believed the trading volumes would increase. We estimated that it would double, which it did within the first few months following the migration in June 2017. In 2018 PXE volumes reached over 100 TWh! This volume is a significant contribution to the EEX Group's overall success and would never have been reached if PXE had not become an integral part of EEX Group.





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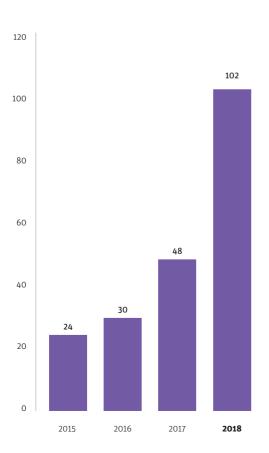
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# What triggered the rocket volume increase and how do customers benefit from the EEX Group offering?

EEX Group offers its customers a complete and unique European portfolio for one fee, accessible with one trading access. We removed the entry barriers by offering financial futures trading which does not require any physical grid access (TSO contract or licence). All 250 EEX members can trade across Europe up and down, from left to right, without having to do anything other than clicking on the screen. And that is exactly what they do.

#### Record-breaking trading volumes on PXE power market in 2018

in TWh



## How does the idea of the Global Commodity Exchange Group help you in the CSEE territory?

The CSEE countries are quite well interconnected, the region provides many market zones with numerous arbitrage (cross-border) opportunities, and location spread trading is popular in this region. Inter-product spread instruments with guaranteed execution are now part of the offering and they were warmly welcomed by the traders. The main value of EEX Group is "more trading, less paperwork and less capital needed". Centralised ECC clearing, reporting and other support services make the life of traders and their back offices much easier. There are many synergies – one technical access, one reporting channel, one regulatory framework and one rulebook.

## What does EEX Group mean to PXE and your personal success story?

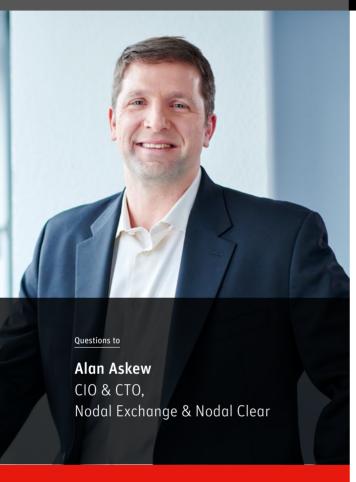
EEX Group could be labelled as "global", "international", "strong". But the main assets it has are the people behind it. Unlike many other big corporations, EEX Group is about people and about respect for people. Management with a vision – they are clear in what they expect from us, from a small team in Prague, and they respect and understand our plans and wishes as well. All the people at EEX are both real business professionals and great colleagues and friends to spend time with after work. I am personally grateful for the new colleagues and extensive knowledge they share. I enjoy working with them, and I am delighted to be trustworthy enough to lead the Central-South-Eastern European sales activities.

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Facts & Figures

- **58** Employees
- •> **50,000** Expiries
- 250 New Environmental Contracts

nodal

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nodalclear

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Nodal Exchange is a derivatives exchange located in the United States. Nodal Clear, its wholly owned subsidiary, is the central clearing house for all its contracts. Together they provide price, credit and liquidity risk management solutions to participants in the North American commodities markets. As part of EEX Group, Nodal Exchange offers the world's largest set of electric power locational (nodal) futures contracts as well as natural gas and environmental contracts.

In November 2018, Nodal introduced a new trading system based on Deutsche Börse's T7 technology.

### What does success mean to you?

For me, the most useful understanding of success is as adaptation. I want to push myself to improve, and I want to support my colleagues in their own journeys to improve. To do that, I focus on the cycle of brainstorming, decision making, executing and assessing. This cycle needs to occur over and over again, infused with critical thinking, collaboration, and humility so that new decisions and approaches incorporate both lessons of experience and new information. Agile software engineering teaches this pattern through defined iterations and retrospectives for small delivery teams, but the concept works on a larger scale as well. At whatever level I work, this is the "success" I am after, not just one milestone but working continuously to ensure Nodal's technology supports our growing business in increasingly effective and efficient ways.

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### What does EEX Group mean to your individual success story?

As a transformational business in the EEX Group, we have been both challenged and supported in new ways since we became part of the group. The expectations for Nodal have grown, as EEX works with us to expand into new markets and to adopt group-wide risk and operational standards. But the resources have also grown, as EEX Group invests new technology, expertise, and staff into Nodal's business. Our new home in the EEX Group has raised the scope and stakes for us, which strongly encourages my pursuit of continued success. Being part of EEX Group demands that Nodal continues the adaptation that has motivated us all along.

32%

Market Share of US Power Futures Open Interest

Traded volumes 2018:

1,038.6<sub>TWh</sub>

## How do your customers benefit from the EEX Group offerings?

Nodal's industry-leading contract coverage, pricing model, and capital efficiency have always provided value to our customers, allowing Nodal to secure a strong foothold in our core products. Our customers now look to us to help them realise this value across a greater share of their trading needs. As part of EEX Group, and through the Nodal T7 project, Nodal has started to remove the final limitations on our customers' choices. They will soon be able to gain the Nodal advantage across their entire Nodal commodities portfolios.

# What are your prospects and expectations for the next year and beyond? Which challenges do you have to face?

Now that the Nodal T7 Trading Platform is live, Nodal can turn 2019 into a string of key product releases, all of which depended on introducing a world class trading system. Trucking, Natural Gas, and Daily Power contracts will be some of the exciting new launches this year powered by T7. In addition, with our initial trading screen, CQG Desktop, now available, other screen vendors continue to approach Nodal to connect to our environment. This will allow Nodal to offer its growing product set through an increasing number of channels. One challenge for Nodal as our footprint expands will be to continue building out a scaleable operations and support model. Nodal has a reputation for responsiveness and customer focus, and we need to maintain it even as we grow our services. We look forward to working with our EEX Group and Deutsche Börse colleagues to leverage their experience in this area.

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Questions to

FFX Asia

Amirah Aidura Shahfudin

Head of Market Operations,

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Launching in November 2018, EEX Asia is the Asian Exchange of EEX Group and the home of the group's Global Commodities business in the region. The Global Commodities portfolio of EEX Group comprises futures and options contracts on Freight and a range of bulk commodities.

#### What was your EEX Asia highlight of 2018?

Working together as a team to rebrand EEX's presence in Asia was truly the highlight of my year. We had a very tight timeline of just a little over a month and a very long "To-Do" list. As you can imagine, a change of this nature required a large amount of coordination across various teams within both EEX Asia and EEX and covered marketing, business development, sales, operations and legal. Everything from websites to office branding, email addresses and business cards to legal documents needed to be changed. Regulators, stakeholders and a number of clients needed to be informed beforehand and a press and branding campaign needed to be designed and executed. Finally, a number of client events and a launch party needed to be organised around the date of the launch to capitalise on its positive impact.

All of this and more was done within the timescale, and on the day of the launch everything progressed without a problem or delay. It was a testament to what a highly motivated team can achieve.

My personal highlight was working with my team to produce from scratch both the EEX Asia and the Cleartech website. The positive feedback we received has made it completely worth it.







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## How does it feel to be part of a Global Commodity Exchange Group and how does it help you achieve the goals for EEX Asia?

Since becoming EEX Asia, it truly feels like we have become a part of EEX Group.

We moved from being a multi-clearing exchange in Singapore to being the home of EEX Group's Global Commodities business and the group's exchange in the region. This has given us a renewed focus and everyone in the team, be it in Singapore, London or Leipzig has been incredibly dedicated in working to achieve this vision.

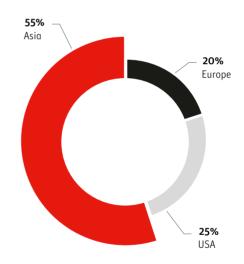
As a business, we are still young and have many steps ahead of us, but I am incredibly proud to be part of the Global Commodities team – we are a relentless group of "cili padis", a local variety of chili that is small, but always packs a punch.

"Every member of the team is committed to continue to build something that we can all be really proud of. We all truly believe that success always demands a greater effort."

Did you know that Asia is responsible for 55% of all commodity futures trading worldwide?

#### Share of global commodity futures trading

Source: FIA 2017



#### What's your ambitions for the business in 2019?

My personal ambitions for this business mirror those of everyone working in and connected to it. This is only the beginning. If we continue to work hard and motivate each other, then, with time, the Global Commodities segment and EEX Asia in particular can expect to see great success in the future.

Every member of the team is committed to continue to build something that we can all be really proud of. We all truly believe that success always demands a greater effort.

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## > eex group

Companies of EEX Group

- > eex
- ecc
- > epexspot
- > powernext
- > pegas
- » pxe
- nodal
- nodalclear
- > eexasia
- > grexel

Europe's leading energy exchange www.eex.com	ď
Europe's clearing house for energy and commodities www.ecc.de	ď
Operates the power spot markets of the group www.epexspot.com	ď
Develops solutions for energy markets www.powernext.com	ď
Central gas trading platform of EEX Group www.powernext.com/pegas-trading	ď
Power market for Central and Eastern Europe www.pxe.cz	ď
Operates commodity markets in North America www.nodalexchange.com	ď
Clearing house of Nodal Exchange www.nodalexchange.com/nodal-clear	ď
Home of EEX Group's global commodities business www.eexasia.com	ď
New: FFX has successfully completed the	

acquisition of the shares in Grexel Systems Oy in February 2019.Grexel is the leading provider of energy certificate registries in Europe.

www.grexel.com

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### **Product Portfolio**

#### **Power**

EEX is the leading exchange platform in the European power market and as EEX Group (in conjunction with Nodal Exchange and EPEX SPOT), recorded the largest power trading volume worldwide in 2018. The power spot market is operated by EPEX SPOT. On the power derivatives market of EEX, power futures can be traded for 17 European power markets across Europe. In the US power market, Nodal Exchange offers over 1,000 contracts across hundreds of unique locations.

#### **Natural Gas**

The natural gas spot and derivatives markets of EEX Group comprise 11 market areas in Europe under the "PEGAS" brand. In addition, trading in location and time spreads is offered. Additionally, Nodal Exchange offers a Henry Hub natural gas contract.

#### **Agricultural Products**

The agriculturals offering comprises financially settled derivatives contracts on dairy products (butter, skimmed milk powder, whey powder and liquid milk) and European processing potatoes.

#### **Global Commodities**

EEX and EEX Asia's offering comprises contracts on freight, fuel oil, iron ore and wood pellets.

#### **Environmental Products**

EEX is the leading auction platform for emission allowances in Europe. Furthermore, EEX, in cooperation with IncubEx, runs a liquid secondary market for continuous trading of EUA, EUAA and CER allowances. North American emissions and renewable contracts are tradable via Nodal Exchange.

#### **Registry Services**

Powernext offers registry solutions for Guarantees of Origin in France, as well as Capacity Guarantees. In 2018, EEX announced the 100 % acquisition of Grexel Systems Oy, the leading energy certificate registry provider in Europe.

#### **Clearing Services**

Secured clearing and settlement of all transactions is provided by EEX Group's clearing houses; European Commodity Clearing (ECC) and Nodal Clear in the US.

#### Market Data Services

EEX Group DataSource services provide access to data for all tradeable commodities of the EEX Group exchanges, as well as transparency data.

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# A "big year" for carbon markets in Europe and worldwide

#### Market Growth, Future Vision

According to Bloomberg, European carbon allowances were the fastest growing commodity market of 2018. Driven by the adoption of a reform package of strengthening measures, the market responded with a tripling of prices and quadrupling of market value. It was a "big year" for Europe's carbon markets.

Was 2018 an anomaly, or was it a sign of bigger things yet to come? Carbon market analysts offer a range of views – but all of them begin with an assessment of the policy drivers and corporate responses. Some see steady market growth – and others see potential policy changes at Member State level that could upset the supply-demand balance. This market now has the world's attention again.

The vision of the Paris Agreement is beginning to drive a major transformation in energy markets. We are at the start of a journey that will last for decades. If Paris is to work, then investors and market practitioners can expect many more "big years" – and it will reach many other markets around the world.

Emissions trading is effective because it is economically efficient, designed to fulfil a specific policy objective and delivers a clear price signal. Policy can set the framework for this. However, for these benefits to materialise, it takes organised markets such as EEX to enable transparent, secure trading setting a clear price signal. This market infrastructure is the basis of the market and essential to making markets work.



#### Dirk Forrister

Dirk Forrister is President and CEO of the International Emissions Trading Association (IETA), a non-profit business association dedicated to market-based climate policies. With 140 membe companies, IETA is known globally as a thought leader in strategies to harness the power of markets to bring climate protection.

Dirk brings a long history of public and private sector engagement in market-based environmental policy. He spent a decade as Managing Director at Natsource LLC, the manager of carbon funds valued at \$1.2 billion. Earlier in his career, Mr. Forrister served as Chairman of the White House Climate Change Task Force in the Clinton Administration, and Assistant U.S. Secretary of Energy for Congressional and Public Affairs.

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#### The International Policy Framework

The main global policy driver behind carbon markets is the Paris Climate Agreement. It sets a framework for national targets that grow stronger over time – and rules for proper market accounting and the review of achievements. The market system appears in Article 6, where rules are still in development. Many business groups see Article 6 as essential, because it can deliver flexibility and cost reduction to speed up the transition.

The World Bank's State and Trends of Carbon Pricing report estimates that market cooperation could bring down costs by 30% by 2030 and by 50% by 2050. This economic reality is driving major economies to use carbon markets as a private sector solution, particularly for heavy emitting sectors (power and heavy industry). And it is driving them to explore how to link their markets over the long term, using Article 6 quidance.

In 2018, several developments occurred on future market linkages:

Europe completed a **draft treaty** to link its Emissions Trading Scheme (ETS) with Switzerland. This provided the first example of what it takes to link to the EU-ETS – and it will be instructive for others seeking to link in the future.

Europe also signed agreements with **China** in July, **California** in September and **New Zealand** in December to work through a new "Florence Process" to align their programmes with a view to future linkages;

The **G7 Carbon Market Platform**, led by Germany and Canada, continued work on exploring forms of preliminary cooperation with an eye towards future linkages; and

Mexico and Canada took leadership of the "Carbon Pricing of the Americas" signatories, who want to explore harmonising pricing systems to form the basis of a common market.

#### The Paris Rulebook - Not Quite!

In early December 2018, international negotiators gathered at COP 24 in Katowice, Poland. They completed work on most of the Paris Rulebook – providing implementation guidelines for a number of important areas. But for markets, they didn't quite pass the finish line!

The Rulebook only contained a basic guideline on reporting of market transfers. The full set of rules for Article 6 was left unfinished, with plans for completing it at COP 25 in Santiago, Chile in December 2019.

In the meantime, countries are free to use international carbon markets with the existing provisions. But for the market to expand to its full potential, a full set of rules would be helpful. The big sticking point seems to be how to ensure that units are properly accounted for so that they cannot be used more than once – making sure that the system is honest, transparent and reliable for investors.

#### **National Markets Continue to Evolve**

In launching plans to meet their Paris targets, governments are using carbon markets, carbon taxes and a variety of hybrid approaches. In Katowice, the International Energy Agency (IEA) reported that 20% of global emissions are covered by carbon pricing – and of those systems, 75% use carbon markets.

In addition to the growth in the EU-ETS, carbon markets saw significant new developments in other places last year:

China continued preparations for the operation of a national ETS for the power sector by focusing on technical aspects of the programme, like registry and exchange systems.

The South Korean carbon market grew more vibrantly, as the country held its first allowance auction in early 2019. Companies in this system can now use certain approved international credits for meeting their obligations in South Korea.

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In North America, the California and Quebec markets stabilised after Ontario's abrupt termination of its ETS, driven by political changes in that province. This set up a legal battle between the province and the Canadian federal government on carbon pricing, which will come to a head this year.

The Regional Greenhouse Gas Initiative in the north-eastern US continued its expansion efforts, working with New Jersey and Virginia on plans to join the market – which could significantly expand the market's coverage. The absence of federal leadership in the US has inspired these and other states to develop their own market programmes.

The International Civil Aviation Organisation released a set of technical documents that provide basic criteria for approving carbon crediting schemes, but it did not complete work on final approval of the unit criteria. So the Carbon Offset and Reduction Scheme for International Aviation is still in a nascent stage, until further decisions are made. A number of international airlines are hard at work on market entry strategies.

The European Commission initiated a policy process to set a long-term vision for Europe to reach "net zero" emissions by 2050. This would imply that the EU-ETS would grow significantly more stringent each year, and eventually it could draw in carbon storage strategies, both underground and in forests and farms. Companies across Europe are beginning to investigate how this could transform their business.

These are just a few examples of progress on policy drivers – and corporate responses. So where is it all leading?

#### **Economic Implications of Linking Carbon Markets**

At our annual Greenhouse Gas Markets Workshop in Paris in October, the University of Maryland presented economic modelling of the current national contributions to the Paris Agreement. It assessed how much economic benefit could be delivered by Article 6 cooperation.

The University of Maryland's model found that by 2100, Article 6 would save over 900 billion US Dollars per year – totalling trillions over the period. The Environmental Defense Fund ran a similar set of scenarios to discover how much more climate ambition could be delivered by Article 6 – finding that it could enable double the ambition for the same amount of investment.

Both angles are important. They demonstrate the power of cooperation – and why it is worth getting Article 6 established with high integrity. It will need to underpin billions in investment to fully deliver. While models are imperfect, they underscore the basic direction of travel needed. They show that Article 6 is vital to the success of Paris – and to the success of business in transforming to a new climate reality.

#### Looking Ahead

This year, the outlook is good for further work on markets and linkages.

Europe's vision for "net zero" by 2050 will start to take shape.

The Florence Process will advance conversations of Europe and other market leaders.

China will advance its preparations for a full carbon market launch next year.

Canada's national carbon pricing scheme will be adopted.

And Article 6 negotiations must be completed to give a positive signal for market growth.

Fundamentally, these markets will only work if businesses see commercial value and environmental integrity. The work of EEX and other service providers in delivering infrastructure around the world is essential to making markets work. The exchange can literally breathe commercial life into the policy drivers – and enable companies and customers to enjoy the benefits of a cleaner world and a vibrant future.

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Sustainable Corporate Governance

## **Corporate Responsibility**

Social Corporate Responsibility is one of our core values which we implement in our daily business. Our employees are the main players in this field. They run for good causes, collect presents and bake for children in need, actively help out at non-profit organisations, and try to minimise the Group's ecological footprint with numerous activities.



Our employees participate in numerous local sports events, such as the company and long distance runs, beach volleyball tournaments and the dragon boat race.



#### Health

We actively promote the health of our employees, with regular activities, such as exercise classes, an in-house massage service, a daily range of fresh fruits and vegetables and an annual Health Day. This year, employees at our Leipzig, London, Paris and Amsterdam locations were given information and check-ups for a healthy mind and body.

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#### Heart Race 2018

The Heart Race is organised to raise public awareness of organ donation. It is a relay between teams of 14 runners each. The distance will be run between Paris and Les Arcs in the French Alps with lots of action in the towns along the route.



Our team's 14 members ran 850 km in 4 days and 4 nights this year!

#### Support for charitable projects

We supported the following projects in 2018 as part of our charitable activities:

#### Leipzig

- Zukunft für Kinder (A Future for Children)
- UNICEF
- · Kinderfestival Leipzig
- THW (Federal Agency for Technical Relief)
- · Momelino e.V.
- · Kinderrestaurant (Children's restaurant)

#### **Paris**

• Face au Monde (Face the world)

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#### **Social Day**

Since 2014, EEX Group has organised a Social Day once a year. In 2018, for the first time, the Social Day was organised by our colleagues in Paris and took place on 14 June. Over 50 colleagues helped out at 2 institutions in Bordeaux. The first project was working in a public garden for the "Terre d'Adèle" association. The second one was painting and building for "Foster Alice Girou", a home for people with physical or learning disabilities.

Iris Weidinger, Chief Financial Officer of EEX

"With the Excellence Award, we support young people in developing creative and well-founded solutions for energy and commodity trading in the future."













#### **Excellence Award**

For the seventh consecutive year, we awarded outstanding academic theses in the field of energy and commodity trading with the "Excellence Award". In 2018, EEX presented the Excellence Award for five scientific theses covering a range of subjects in the fields of agricultural, emissions, power spot and power derivatives markets.

> Getting out of the office for one day to create something with our own hands is something our colleagues value very much.

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Charitable commitment is close to our hearts.

Therefore, we support many campaigns – especially during the Christmas season – to which colleagues can contribute for people in need.

At our cookie sale on 4 December, colleagues donated for street workers in Leipzig. For our campaign "Weihnachten im Schuhkarton", our colleagues packed gift boxes for children in need. What is more, our staff in Leipzig and London bought over 170 Christmas presents for children in care who had hung their wishes on our Christmas tree.

Colleagues in Paris donated new toys for children to support the "Green Santa Squad" project, which provides families with the chance to buy new toys for their children for the symbolic price of € 1.



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## Consolidated Management Report

for the 2018 Financial Year

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Earnings position
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Employees
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the 2018 financial year
Forecast for the 2019 financial year
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Comparison of earnings position with the forecast for

## EEX AG (Notes based on HGB [German Commercial Code]) Business and general framework

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#### 6. Other notes

Rounding differences of  $\pm$  one unit may occur in tables for arithmetical reasons.

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### 1. Basics regarding the Group

Business activities and group structure

#### **Business** model

The European Energy Exchange AG (EEX), with its registered office in Leipzig, Germany, is Europe's leading energy exchange. It was established in 2002 as a result of the merger of the two German power exchanges in Frankfurt/Main and Leipzig. Since then, it has evolved from its origins as a pure power exchange into a leading trading platform for energy and related products with international partnerships.

EEX AG is the parent company of the EEX Group which provides a market platform for energy and commodity products worldwide and a network of more than 600 trading participants. EEX Group companies focus on specific markets in order to ensure a targeted development of markets. They establish a local presence in their core markets and, as a result, meet their customers' demand for tailor-made solutions as well as simple market access. The EEX Group's synergetic and integrated portfolio is complemented by two clearing houses that ensure transactions concluded or registered on the exchange are correctly cleared and settled.

As of 31 December 2018, the EEX Group, which is part of the Deutsche Börse Group, had 16 companies or offices in Amsterdam, Berlin, Bern, Brussels, Copenhagen, Leipzig, London, Luxembourg, Madrid, Milan, Oslo, Paris, Prague, Singapore, Washington and Vienna and employed a total of 586 employees.

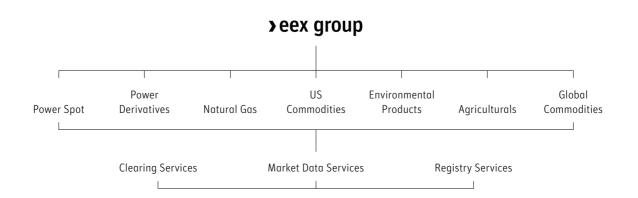
#### Business areas and product portfolio

The EEX Group product portfolio comprises exchange trading and trade registration services for energy, environmental products, freight, metals and agricultural products, as well as further services connected with the commodity business.

Generally, exchange trading is divided into spot and derivatives markets. Trading transactions concluded on the spot market are settled physically, at the latest two days after their conclusion. As a result, the spot market facilitates the short-term optimisation of procurement and production. On the other hand, trades concluded on the derivatives market are settled physically or financially at a later point in time agreed in advance. The derivatives market thus enables medium to long-term portfolio optimisation.

In addition to exchange trading, transactions can also be registered for clearing (trade registration). As a result, trading participants can register transactions concluded over-the counter on the exchange and have these settled via the clearing house. Therefore, the participants benefit from standardised processes and protection against payment and/or delivery default.

The EEX Group's offering is divided into seven commodity-specific business areas and three cross-commodity business areas:



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The most important business areas for the EEX Group are the spot and derivatives markets for power and natural gas. Approximately 80% of the EEX Group's sales revenue is generated through trading and clearing the products offered in these business areas. Moreover, US Commodities make an increasing contribution to the EEX Group sales revenue.

Within the commodity-specific business areas, the following products were offered for trading and clearing during the year under review<sup>1</sup>:

Power Spot	Intra-day and day-ahead products for Germany, France, Austria, Switzerland, Belgium, Luxembourg, the Netherlands and the United Kingdom Day-ahead products for Serbia Capacity certificate products for France Market coupling products and services to Transmission System Operators Market operation services for power exchanges
Power Derivatives	Futures and trade registration services for Germany, Austria, France, Italy, Spain, the Netherlands, Belgium, Switzerland, the United Kingdom, the Nordic countries, Poland, the Czech Republic, the Slovak Republic, Hungary and Romania     Trade registration services for Greece     Options for Germany, Austria, France, Italy and Spain Energiewende (energy transition) products: Intraday Cap/Floor Futures and Wind Power Futures     OTF power derivatives for Germany, Austria and France     Tender services in the Czech Republic
Natural Gas	Spot and derivatives products and trade registration services for Germany (GASPOOL, NCG market areas), France (PEG Nord, TRS), the Netherlands (TTF), Belgium (ZTP, ZEE), the United Kingdom (NBP), Denmark (ETF), Austria (CEGH) and the Czech Republic (CEGH CZ)     Derivatives products and trade registration services for Italy (PSV)     Tender services in the Czech Republic
US Commodities	Local power derivatives products (futures and options) for various sites in a number of power markets in North America (ISO-NE, NYISO, PJM, MISO, ERCOT, SPP, CAISO and Mid-C)     Henry Hub gas contracts     Environmental products for North America
Environmental Products	Spot and derivatives products for secondary trading in emission allowances ( <u>EU Emission Allowances – EUA</u> , EU Aviation Allowances – EUAA, Certified Emission Reductions – CER)

Agriculturals	<ul> <li>Futures on butter, liquid milk, skimmed milk powder and whey powder</li> <li>Futures on European processing potatoes</li> </ul>
Global Commodities	Futures on freight rates and container capacities Futures on fuel oil Futures on ferrous metals (iron ore) Futures on coal (until March 2018) Futures on wood pellets Futures on fertilisers
	<ul><li>Options on freight rates</li><li>Options on iron ore</li></ul>

The cross-commodity business areas primarily offer the following services:

Clearing Services	<ul> <li>Provision of infrastructure and services for executing clearing and settlement of trades in the above-mentioned business areas</li> <li>Risk management services</li> <li>Clearing services for partner exchanges that are not part of EEX Group:         <ul> <li>HUPX (spot market for power in Hungary)</li> <li>HUDEX (derivatives market for power in Hungary)</li> <li>NOREXECO (derivatives market for pulp and wood)</li> <li>SEMOpx (spot market for power in Ireland and Northern Ireland)</li> </ul> </li> </ul>
Market Data Services	Services in connection with EEX Group European trading data Services in connection with generation, storage and consumption data in the area of power and gas in Europe Services in the area of data reporting and regulatory reporting
Registry Services	Registration services for guarantees of origin for power     Registration services for capacity guarantees     Registration services for energy saving certificates

#### **Group structure**

The following companies are part of the EEX Group: European Energy Exchange AG (EEX), EPEX SPOT SE (EPEX), Powernext SAS (Powernext), Cleartrade Exchange Pte Ltd. (CLTX), Power Exchange Central Europe a.s. (PXE), Gaspoint Nordic A/S (Gaspoint Nordic), Nodal Exchange Holdings, LLC (Nodal Exchange) and the clearing houses European Commodity Clearing AG (ECC) and Nodal Clear, LLC (Nodal Clear).

As an exchange, EEX AG operates the power derivatives, environmentals, agriculturals and freight markets. The business fields of EEX Power Derivatives GmbH (EPD), Global Environmental Exchange GmbH (GEEX) and Agricultural Commodity Exchange GmbH (ACEX), which were operated separately as of

· Primary spot market auctions for emission allowances

(EUA, EUAA) for 27 EU member states

 $<sup>^{\</sup>rm 1}$  The top-selling products/national markets of the business segments are underlined.

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the end of the 2017 financial year, were transferred to EEX AG with effect as of 1 January 2018. In addition, EEX provides Market Data Services for itself and other group companies and also provides the technical connection landscape for these companies' customers. It also acts as a central service provider for its subsidiaries under agency agreements.

France-based EPEX, in which EEX holds a direct share of 10.69%, provides trading and Market Data Services for the power spot business field in Europe (with the exception of the Czech Republic). EPEX also provides market coupling services to Transmission System Operators (TSOs) and exchange services to other power exchanges in Serbia, Hungary, Slovakia, Ireland and Northern Ireland. In addition, EPEX holds 25% of the shares in the South Eastern European Power Exchange (SEEPEX), an exchange operating the spot market with delivery in Serbia.

Together with its subsidiaries, the French Powernext provides trading services as well as Market Data Services within the natural gas business area. In addition, Powernext operates the French registry of guarantees of origin for power, capacity guarantees and energy saving certificates and is, therefore, also active in the Registry Services business area. In the 2018 financial year, Powernext held 100% of the shares of the Danish Gaspoint Nordic and 51% of the shares in PEGAS CEGH Gas Exchange Services GmbH (PCG), which is a joint venture with Austrian Central European Gas Hub AG (CEGH) and operates the Austrian gas market.

In the 2017 financial year, EEX became the sole shareholder in Powernext. Since Powernext, in turn, holds 40.31% of the shares in EPEX, EEX holds a direct and indirect share in EPEX of 51%. The remaining 49% of the shares in EPEX are held by the consortium HGRT consisting of several European TSOs.

The power spot market for the Czech Republic is operated by the Czech PXE, in which EEX held two thirds of the shares in the 2018 financial year. PXE provides trading services and also offers Market Data Services for their products.

EEX continues to hold 100% of the shares in EEX Asia, which is the brand name for CLTX introduced in 2018. This derivatives market operator, regulated by the supervisory authority in Singapore, offers a global electronic market platform for commodity derivatives, such as freight, iron ore, fuel oil, metal and container contracts. As a result, EEX Asia essentially operates

the Global Commodities business area – in conjunction with EEX. In the 2018 fiscal year, the business lines of the wholly-owned subsidiary CLTX were restructured and have since been managed under the two brands EEX Asia and Cleartech.

The US Commodities business field is operated by the US-American Nodal Exchange, in which EEX acquired 100% of the shares in the 2017 financial year, hence expanding its global presence to the North American derivatives markets. Nodal Exchange is a regulated derivatives exchange which, at present, offers more than 1,000 power contracts at hundreds of sites in North America and provides market participants with products to hedge against price risks in the United States. Moreover, since November 2018, the Nodal Exchange participants have been able to trade environmental products for North America.

ECC and its subsidiary European Commodity Clearing Luxembourg S.à.r.l. (ECC Luxembourg) form the leading clearing house for energy and commodity products in Europe. Its range of services comprises clearing and settlement for all transactions concluded or registered on the European market platforms of the EEX Group as well as the operation of the Clearing Services business area. All transactions at Nodal Exchange are cleared by the second clearing house of EEX Group, Nodal Clear.

In addition, EEX holds 100% of the shares in EEX Link GmbH (EEX Link), which was established in the 2016 financial year and provided services in order to bundle liquidity between the regulated exchange platforms for power and gas and the so-called "non-MTF markets" operated until 2017. Moreover, EEX holds a 40% share in enermarket GmbH (enermarket), an on-line comparison portal set up in 2018 as a joint venture with innogy SE and Süwag Energie AG.

In December 2018, EEX signed contracts regarding the acquisition of 100% of the shares in Grexel Systems Oy (Grexel), Helsinki, Finland. Grexel offers registration and certification services for renewable energies and was assigned to the Registry Services business field after the conclusion of the transaction in 2019. The acquisition was completed on 31 January 2019.

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#### Shareholder and capital structure

The nominal capital of EEX amounts to EUR 60,075,000 and consists of 40,050,000 registered, voting, no-par shares ("common shares") and 20,025,000 registered, non-voting, no-par value shares ("preferential non-voting shares"), each having a nominal value of EUR 1 per share.

In 2011, Eurex Zurich AG, a company of Deutsche Börse Group, became the majority shareholder in EEX. In 2018, all shares of Eurex Zurich AG were transferred within the group to Deutsche Börse AG. It now holds 75.05% of the shares and it is the only shareholder holding more than 10% of the company's capital.

#### EEX shareholders (as of 31 December 2018):

Shareholder	Country	Voting rights in %	Nominal capital in %
Deutsche Börse AG	DE	62.82	75.05
50Hertz Transmission GmbH	DE	7.73	5.15
LVV Leipziger Versorgungs- und Verkehrsgesellschaft mbH	DE	7.38	4.92
Uniper Global Commodities SE	DE	5.86	3.91
Free State of Saxony	DE	4.51	3.01
EnBW Energie Baden-Württemberg AG	DE	3.46	2.31
Enel Global Trading S.p.A.	IT	2.22	1.48
EWE Aktiengesellschaft	DE	1.00	0.67
MVV Energie AG	DE	1.00	0.67
Edison S.p.A	IT	0.76	0.50
EDF Électricité de France	FR	0.67	0.45
VERBUND Trading GmbH	AT	0.67	0.45
DB Energie GmbH	DE	0.65	0.60
ENERGIEALLIANZ Austria GmbH	AT	0.51	0.34
Iberdrola Generación España, S.A.U.	ES	0.50	0.33
SWU Energie GmbH	DE	0.25	0.17
City of Leipzig	DE	0.01	0.01

#### Corporate management

As a German public limited company, EEX incorporates the following statutory bodies/functions: the annual general meeting, the Supervisory Board and the Management Board, each with their own competencies.

The Annual General Meeting appoints the members of the Supervisory Board, resolves on the formal approval of the actions of the Management Board and Supervisory Board and decides on the appropriation of retained earnings.

The Supervisory Board appoints, monitors and advises the Management Board and is directly involved in decisions which are of fundamental importance to the company. It also adopts the annual financial statements prepared by the Management Board. At present, the Supervisory Board has 18 members, each with a term of office of three years.

The Management Board manages the company and is coordinated by the Chief Executive Officer (CEO). The CEO represents the company publicly and also has a leading role in verbal and written communications with the Supervisory Board.

As of 31 December 2018, the EEX Management Board consisted of five members: in addition to the Chief Executive Officer (CEO), the Chief Financial Officer (CFO), the Chief Operations Officer (COO), the Chief Strategy Officer (CSO) and the Executive Director Gas Markets are in charge of the company's operations. The Chief Risk Management Officer (CRO) concluded his work on 31 October 2018 in order to fully focus his work on his services for the subsidiary ECC. The Executive Director Power Spot Markets resigned from the Management Board as of 31 October 2018 due to his age.

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## Members of the EEX Management Board as of 31 December 2018:

Peter Reitz Chief Executive Officer	Member since 1 August 2011
Steffen Köhler Chief Operating Officer	Member since 1 March 2012
Dr Egbert Laege Executive Director Gas Markets	Member since 1 January 2015
Dr Dr Tobias Paulun Chief Strategy Officer	Member since 1 January 2015
Iris Weidinger Chief Financial Officer	Member since 15 August 2008

At its meeting on 11 December 2018, the Supervisory Board also appointed Jens Rick as a member of the Management Board of EEX in the function of Chief Information Officer (CIO) with effect from 1 February 2019.

As an exchange under the German Exchange Act, EEX has an Exchange Council, a Management Board of the Exchange, a Market Surveillance and a Sanctions Committee. The Exchange Council represents the interests of trading participants and is involved in all fundamental decisions of the exchange. Its tasks include, in particular, adopting the rules and regulations of the exchange. The Exchange Council is also tasked with supervising the Management Board of the exchange and appointing the Head of Market Surveillance. It consists of 24 members, 19 of whom are elected directly by the trading participants. In addition, four trade associations delegate one representative each to the Exchange Council. Furthermore, one representative from the field of energy science is elected by the Exchange Council itself. As of 31 December 2018, the Management Board of the Exchange consisted of EEX's COO, CSO and its Director Sales.

#### Strategy and group management

#### Strategy

The strategy of the EEX Group is mainly determined by the following developments:

- Increasing regulatory requirements on the European energy markets
- Changes in the competitive environment on the global markets – e.g. also as a result of regulatory requirements
- · Substantial organic and inorganic growth of EEX Group

Against this background, the strategy of the EEX Group was accentuated in order to enable the implementation of new regulatory standards while at the same time ensuring competitiveness and growth in the medium to long term. The following priorities were set:

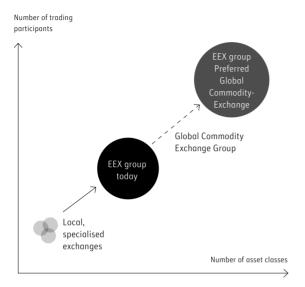
- Expansion of the target model for becoming the preferred Global Commodity Exchange
- Integration of the group companies acquired through inorganic growth
- Focusing on initiatives with the highest short- to medium -term contribution margin while, concurrently ensuring the implementation of regulatory standards

The global commodity markets continue to provide comprehensive growth opportunities for EEX Group. The Group pursues the strategic aim of developing into the global commodities trading platform of choice over the coming years based on its market position as an energy exchange with a global presence.

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In order to achieve this strategic aim, the EEX Group will rely on the simultaneous development of its business areas and continue to focus on the following three strategic directions in the future:

- · Further development in existing markets
- · Expansion of its geographical reach
- Further diversification and growth in new business areas

In recent years, with its "one-stop-shop" business model, the EEX Group has established itself as an integrated energy exchange in Europe and has also successfully continued its diversification strategy beyond Europe through acquisitions, such as the takeover of the US-American Nodal Exchange and the further development of EEX Asia. As a result, EEX Group has expanded its global presence, significantly increased the number of its trading participants and evolved into a globally operating commodity exchange through its regional trading and clearing offers (USA, Europe and Singapore).

The acquisition of Grexel in late 2018 forms yet another step in diversifying and amending the product and market offerings of EEX Group. Grexel offers registration and certification services, e.g., for renewable energies and, as a result, rounds out the existing offering of Powernext in this business field. This transaction enables EEX Group to develop the future market of guarantees of origin and other forms of energy and will be completed in the first guarter of 2019.

The short-term implementation of regulatory requirements will play an essential role in EEX Group. In addition, the continuous expansion of the product and market offering of EEX Group will focus, in particular, on the following activities:

- Operation and further integration of the trading platforms in the USA, Europe and Singapore
- Reduction of access barriers for international trading participants and cross-listing of products across the time zones covered
- Further development of the product offering to complete the range of countries and available maturity dates
- Development and implementation of product innovations and process optimisations
- Shifting of trading volumes from the non-cleared OTC market to the exchange

The specific measures and product innovations implemented in the individual business areas in the 2018 financial year are addressed in more detail in the section "Economic position" under the subsection "Business development".

#### Management control

Essentially, the EEX Group uses the parameters of annual net profit and earnings before interest and tax (EBIT) as well as (net) sales revenue and fixed costs as the main factors for all group companies to indicate corporate success.

Net sales revenue consists of sales revenue (transaction revenue and other sales revenue) as well as other operating income less variable costs. The main factors influencing net sales revenue are transaction fees, variable fees and variable costs dependent on the trading and clearing volumes generated, performance-related reimbursements to certain market participants, such as market makers, brokers or liquidity providers as well as sales- or volume-based components included in certain IT, index and balancing group contracts.

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Fixed costs are those costs that are not directly related to the level of trading volumes. As regards fixed costs, the Group essentially differentiates between staff expenses, depreciation/amortisation and other operating costs. In 2018, approximately 86% of EEX Group total costs were fixed costs (2017: 87%).

Due to the considerable share of non-controlling interests within the generated Group result, the controlling parameter of the "adjusted net income" is used at a Group level in addition to the parameters mentioned above. This refers to the EEX Group result according to the International Financial Reporting Standards (IFRS) adjusted for the following two aspects:

- One-off effects from acquisitions and corporate mergers
- · Profit shares of non-controlling interests

The corresponding values of the parameters for 2018 are explained in the section "Earnings position". Forward-looking statements on the parameters are provided in the "Outlook report" section.

#### Research and development

As a service company, the EEX Group has no research and development activities of the kind found in manufacturing companies. New developments of products and services for 2018 are covered in the "Business development" section, while future developments are described in the "Risk and opportunities report".

## 2. Economic position

Macro-economic, industry-specific and regulatory framework

#### Essential factors influencing EEX Group transaction revenue

The EEX Group's total transaction revenue is influenced by three key factors: In addition to the size of the overall market, the transaction revenue depends on the market share achieved as well as its fee structure. Market share and fee structure are monitored in the context of the implementation of the group strategy and management control by focusing on strengthening the competitive position of the EEX Group and positioning the Group as a global trading platform for energy and commodities products. In contrast, the size of the overall market cannot be influenced by the EEX Group and, essentially, depends on the following factors:

- Physical energy consumption and market maturity (churn rate)
- · Price development and volatility on the energy markets
- · Regulatory framework

#### Physical energy consumption and market maturity

According to a joint analysis of the Agora Energiewende and Sandbag think tanks, physical energy consumption in Europe rose by 0.2% in 2018, the fourth year in a row with a low growth rate compared to the previous year. This trend towards an almost stable development of consumption was still driven by the positive economic development in Europe, which was, however, driven less by industries. Moreover, the transition towards the electrification of heating and transport is also of growing importance. In 2018, the share of power generated from wind, solar power and biomass continued to increase. The energy mix in the European Union consisted of 42% fossil fuels, 32% renewable energies and 26% nuclear energy. In Germany, energy consumption significantly declined by 5% in 2018 compared to the previous year according to calculations by the Working Group on Energy Balances (AGEB). This was due to higher prices, the mild weather and improvements in energy efficiency which more than offset the consumption-increasing effects of the economic development and growth in population.

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The consumption of natural gas throughout Europe declined in the past financial year with this decline being primarily driven by a reduction of consumption in energy-intensive industries as well as the unusually mild weather conditions. According to the quarterly report of the European Commission on European gas markets, gas consumption in the European Union rose by 4% in the first quarter of 2018; however, during the following two quarters, it declined by 8% and 5% respectively compared with the reference quarters in 2017.

Year-on-year, overall energy consumption in the United States increased during the first ten months of the year for the first time in 2 years and was 4.1% higher than the reference value in the previous year. The energy mix in the US consisted of 79% fossil fuels, 9% nuclear energy and 12% renewable energies.

The maturity of the individual energy markets is measured with the help of the so-called churn rate. This parameter indicates how often a mega-watt hour of power or natural gas is traded on the markets before it is actually physically delivered. This means it corresponds to the proportion between the total trading volume and energy consumption. The higher the churn rate the higher the liquidity of the market and, hence, its market maturity.

According to the European Commission's quarterly report on European energy markets, the churn rate of the German power derivatives market increased significantly in the past and reached a value of 13.7 in the third quarter of 2018. As a result, Germany is the most mature market in the power segment. All other European power derivatives markets had a churn rate of 5.0 at most. In addition to Germany, liquidity and market maturity increased, in particular in Belgium, Spain, the Nordic markets and Italy. The churn rates of the Dutch, French and East European markets, on the other hand, declined in the third quarter as against the 2017 reference value. In the segment of the gas markets, the Dutch TTF (Title Transfer Facility) market area has the highest churn rate, followed by the British NBP (National Balancing Point) market area. Until 2016, these two hubs were the only ones with a rate of more than 10.

#### Price development and volatility on the energy market

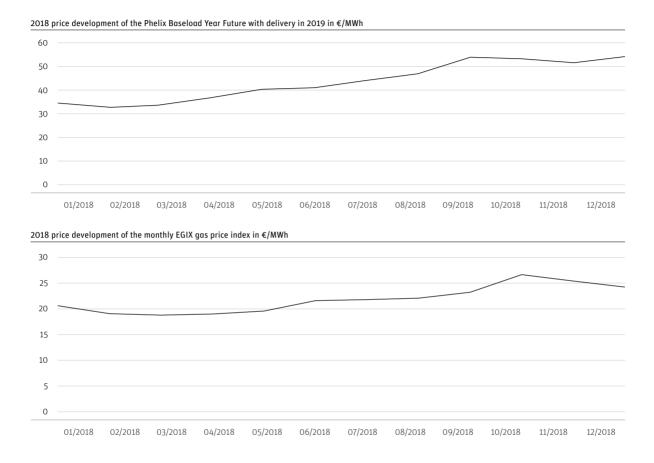
In the 2018 financial year, the increase in prices on the commodity markets observed in the previous year continued. While the European ELIX power price index was EUR 40.00 per MWh in the 2017 financial year, the market price for electricity in the integrated European internal market rose to EUR 43.62 per MWh in 2018. Market participants who bought base-load power on the derivatives market for 2019 in 2018 (Phelix baseload year future) paid, on average, EUR 44.12 per MWh (2017: EUR 32.05 per MWh). During the year under review, the monthly gas price index EGIX had an average price level of EUR 21.98 per MWh and was, therefore, 28% higher than in the previous year (EUR 17.11 per MWh).

In the United States, the average power price is usually around EUR 15 per MWh lower than in the EU.

In general, compared with the previous year, the 2018 financial year was marked by higher volatility, i.e. stronger price fluctuations, in particular on the power derivatives markets. Higher volatility usually has a positive effect on the trading activities, since a broader range of fluctuation in commodity prices leads to an increased demand for the adjustment of hedging positions.

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#### Regulatory framework

Aln 2018, the energy markets were again characterised by adjustments to existing measures and discussions regarding the introduction of new regulatory requirements with effects on the markets of EEX Group. The most important projects for energy and commodity trading were or remain

- the further design and national implementation of the revised EU Markets in Financial Instruments Directive (MiFID II) and the associated EU MiFIR regulation,
- the further development of power market design at a European level in the framework of the "Clean Energy package",
- the further development of the gas market in the framework of the discussion regarding a new regulation package at a European level from 2020,

- the completion of the split of the German-Austrian bidding zone into two market areas as well as the continued discussion regarding possible further splits,
- the political debate regarding the further grid expansion and the start of the social debate on the coal phase-out in Germany,
- the agreement regarding reforms in the European Emissions Trading Scheme (EU-ETS),
- the codification of the role of exchanges in market coupling in the scope of the EU regulation on capacity allocation and congestion management ("CACM"),
- · the change in gas market design at a national level,
- strengthening the role of the euro as a global lead currency as against the US dollar, in particular, in the fields of commodity and energy trading.

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The revised EU Markets in Financial Instruments Directive (MiFID II), which came into effect on 3 January 2018, significantly changed the rules for trading in commodity derivatives. The general exception for commodity derivatives, which had previously applied, was replaced by an "ancillary activity exemption". As a result, only trading participants with relatively low trading activities will be exempt from MiFID II requirements. This could lead to a situation in which a number of energy traders might be forced to reduce their trading activities (relative to their other activities) accordingly. Furthermore, position limits for commodity derivatives traded on the emission markets now apply. This means caps regarding holding of derivatives must not be exceeded cumulatively by individual companies or corporate groups. Furthermore, there are new requirements in the framework of the so-called "pre-trade transparency". As a result, bids for exchange and over-the-counter transactions registered for clearing on an exchange have to be reported to competent regulator.

As planned, at the end of 2018, the member states, the European Parliament and the European Commission agreed on the final version of the so-called "Clean Energy Package". In addition to fundamental questions on market design, such as e.g. safeguarding free and unhindered pricing, this also comprised aspects of border-crossing trading, the promotion and integration of renewable energies, the design of capacity markets as well as the powers of the Agency for the Cooperation of Energy Regulators (ACER).

With the Clean Energy Package about to be completed and the initiation of comprehensive reforms in power market design, gas market reforms at a European level are now also expected. In this process, the political discourse shifted from the debate on micro-optimisation of the European gas market design to a discourse regarding the future role of natural gas as a commodity in the energy mix ("future role of gas"). A fourth energy package for the gas market is expected when the new EU Commission takes office in 2020. In this respect, the EU Commission is of the opinion that the future cannot be based on the full electrification of the energy system and that gas will form an important bridge technology for the energy transition. Moreover, the Commission also explained that - with a view to climate targets to be reached by 2050 – the gas sector also has to become "greener". Therefore, the results of the "Quo vadis" study published in 2018 outlining possible reform scenarios for the regulatory framework (such as reforms of tariff structures,

changes to the structure of the gas market areas and reforms of capacity structures designed to increase flexibility) will only form one of several components of the expected gas package. In particular, the focus should be on a regulatory framework for the feed-in of renewable gasses into the existing gas system and the further design of sector coupling (gas-to-power, power-to-gas). Various funding instruments, such as e.g. feed-intariff structures and market-based instruments, such as system of guarantees of origin for renewable gases, which is already known from the power sector, will be discussed.

Following several years of discussions and two years of preparations, congestion management was introduced at the German-Austrian border on 1 October 2018 and, as a result, the previous German-Austrian power bidding zone was split up. Nonetheless, it can be expected that the debate regarding the right **structure of bidding zones** on the power market will continue over the coming years because of grid congestion and insufficient grid expansion.

Therefore, the increased political focus on **grid expansion**, in particular, in Germany becomes all the more important. Federal Minister of Agriculture Altmaier declared this subject as one of the energy-policy priorities of the current legislative period and presented a corresponding action plan for grid expansion in the summer of 2018. The subject of the **coal phase-out** is yet another priority – even though it is not directly relevant for trading, a number of energy-policy issues are indirectly affected in this context, e.g. regarding the effects on the power price, security of supply and the need for capacity mechanisms.

Moreover, in 2018, the focus was also on the **European Emissions Trading Scheme (EU-ETS)**. As early as in February, a political agreement was reached regarding the reform of European emissions trading. This essentially concerned the design of the market stability reserve in order to reduce excess certificates and the significant lowering of the allowed annual emissions budget (Cap) in the fourth trading period from 2021 to 2030.

The EU Regulation on Capacity Allocation and Congestion Management ("CACM") was designed to facilitate stronger cross-border cooperation between the respective transmission system operators and the spot exchanges in the form of a technology and operations guideline. In 2015, this guideline took effect and has three principal aims:

- to introduce uniform day-ahead and intraday market coupling with the help of harmonised rules regarding capacity calculation, congestion management and power trading
- to promote competition at all levels in the value chain and create the necessary framework
- · to optimise the utilisation of transmission infrastructure

CACM is of great importance for the spot exchange, in particular because it introduced a new concept: the "nominated electricity market operator" (NEMO). This helps to codify the role of exchanges in the context of market coupling – a role which has only been assumed as de-facto so far. In other words, it formulates and validates the roles and tasks in legal terms. The concrete rules themselves will also be submitted to a review and developed further if required. As a result, new rules for cooperation between NEMOs and transmission system operators will be introduced and a system will be created which also permits NEMOs to actively operate in other member states. In particular, exchanges will be regulated in future by national authorities in the context of CACM in the areas of activity it concerns. Since CACM took effect, this has had a lasting influence on EPEX's relationship with regulators.

The changes of the gas market design at a national level

comprise changes in the structure of the national gas market areas. Following the merger of the PEG Nord and TRS market areas in France as of 1 November 2018, the two GASPOOL and NCG market areas in Germany are to be merged, at the latest, by 1 April 2022 in accordance with the amendment of the Gas Network Access Regulation (section 21(1)). The market area managers have announced that the implementation of this legislative amendment is already planned for the beginning of the 2021 gas business year (1 October). The decision by the Federal Ministry for Economic Affairs and Energy (BMWi) regarding the merger of the two German gas market areas aims to promote competition and to strengthen the price signals within the overall German market area. Moreover, an intra-German discrimination as to final customers, in particular, with a view to a possible further border-crossing merger of market areas, e.g. with the Dutch TTF, is to be avoided by standardising the wholesale price. The German gas market is now facing the challenge of coordinating the implementation and concrete design of the joint gas market area between the 16 long-distance gas transmission network operators and the two market area managers. In France, the market area merger will be completed gradually and prepared in detail in the context of a consultation procedure initiated by the Commission de Régulation de l'Énergie (CRE). As a result of the introduction of a hybrid model which constitutes a mix between physical grid expansion and corresponding market mechanisms, a more comprehensive and expensive grid expansion was avoided in France.

At the end of 2018, the European Commission introduced further plans designed to strengthen the **role of the euro** worldwide – and, in particular, in comparison with the US dollar. In this respect, the focus is primarily on energy markets and, in particular, the international markets for oil and natural gas which are largely denominated in US dollars. These plans will be discussed and specified in more detail in 2019. As seen from the perspective of EEX Group, this provides the opportunity to improve regulation, reduce excessive regulation, in particular, in the financial sector, and, as a result, strengthen the eurozone as a whole.

While trading markets are, in principle, subject to political influence, the **uncertainty regarding the stability of the political framework** has recently increased. This includes, for example, the process of the United Kingdom's exit from the European Union, which raises complex regulatory questions. As seen from the perspective of the market it remains to be seen in how far these political developments will also affect the energy markets through changes in the energy and climate policy and in international trade relationships.

#### Business development

#### Overview of business in 2018

Thanks to the successful further development of its business field, EEX Group was able to continue its growth path in the 2018 financial year. As against 2017, significant growth rates were achieved in almost all business fields. This growth was primarily based on growing trading volumes and market shares. Moreover, the fact that the integration of Nodal Exchange (which was acquired in May 2017) had an effect on the full year for the first time also had a positive effect on the development of business.

Revenues for 2018 were allocated to the individual business seaments as follows:

#### Sales by business area

keur	2018	Share	2017	Change
Transaction revenue:				
Power Derivatives	76,647	29%	63,585	+21%
Power Spot	72,585	27%	67,652	+7%
Natural Gas	44,888	17%	38,804	+16%
US Commodities	11,563	4%	5,400	+114%
Environmentals	8,091	3%	3,803	+113%
Clearing Services	941	0.3%	716	+28%
Agriculturals	371	0.1%	380	-2%
Global Commodities	360	0.1%	382	-6%
Other sales revenue:				
Market Data Services	6,600	2%	5,390	+22%
Registry Services	4,928	2%	3,874	+27%
Others	40,707	15%	35,334	+15%
Sales revenue	267,654	100%	225,320	+19%

#### Power Derivatives (kEUR 76,647, +21%)

In the 2018 financial year, the Power Derivatives business field developed very positively. In spite of significantly increased regulatory requirements, the split of the German-Austrian bidding zone and a continued strong competitive environment, EEX was able to considerably increase the trading volume in this business field. The Phelix-DE-Futures introduced in the German main market in 2017 in response to the planned split of the German-Austrian price zone finally became the new benchmark products for German power and have bundled liquidity in this market since the beginning of 2018. Moreover, the Phelix-DE-Future is the reference product in European power derivatives trading. Together with the positive development of liquidity in the corresponding Phelix-AT-Futures, EEX Group again improved its market share following the decline in 2017 and reached an average market share of 31% in an overall market which grew by 3%.

Moreover, in 2018, EEX Group also recorded significant growth in trading volumes and new records in market shares in the market areas in Italy, France, Spain and in Eastern Europe. While significantly higher prices for  $CO_2$  emission allowances as well as the unusually hot and dry weather led to higher volatility in Italy and France, the EEX Group in Spain also benefited from the growing demand for EEX's offer of exchange hedging of long-term power agreements concluded off the exchange (so-called "Power Purchase Agreements" or "PPAs").

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#### Power Derivatives trading volumes

in TWh	2018	2017	Change
Futures	3,155	2,692	+17%
Germany/Austria	2,022	1,883	+7%
Italy	560	394	+42%
France	320	274	+17%
Spain	106	67	+59%
Eastern Europe	87	43	+103%
Others	60	30	+99%
Options	192	131	+46%
Power Derivatives	3,347	2,822	+19%

#### Selected Power Derivatives market shares

in%	2018	2017
Power Derivatives (all)	31	26
of which Futures Germany/Austria	31	29
of which Futures Italy	84	74
of which Futures France	38	28

Since the new version of the EU Markets in Financial Instruments Directive and the associated regulation (MiFID II/MiFIR) took effect at the beginning of 2018, both EEX as the operator of the market platform and its connected trading participants are subject to more stringent transparency and reporting requirements. In order to minimise the operational effort on the part of the customer. EEX has introduced comprehensive technical and operative adjustments in its trading and reporting processes. As a result of this expanded offering, in particular, non-financial market actors can have a significant part of their transparency and reporting requirements under MiFID II/ MiFIR fulfilled by EEX. Against this backdrop, EEX was able to slightly increase the average number of active trading participants per month within the Power Derivatives segment as against the previous year. EEX maintains a constant dialogue with market actors in order to further expand these reporting services in future.

In 2018, EEX again supported the growth in the Power Derivatives segment by launching new products. For example, further short-term products were introduced for the market areas of the Netherlands, the Czech Republic, the Slovak Republic and

Romania. As a result, EEX Group continued its strategy of expanding the product portfolio for all offered market areas and rounding out the offering in European energy trading. Concurrently, this also helps to strengthen liquidity in these market areas.

The EEX Group faces continued strong competition on the power derivatives market in Europe. More than one half of trading is still carried out via over-the-counter broker platforms, whose market share decreased slightly in 2018. The remaining trading volume is distributed among several energy exchanges. Apart from the EEX Group, these essentially consist of the global exchange operators NASDAQ Commodities (NASDAQ) and Intercontinental Exchange (ICE) as well as smaller national energy exchanges. The EEX Group has been successful in competition with these exchanges and has managed to expand its leading position, in particular with regard to its main competitor NASDAQ. Despite new market entrants and aggressive pricing policies in some cases, competing exchanges were not able to fundamentally improve their market positions.

#### Power Spot (kEUR 72,585, +7%)

In the Power Spot business field, EEX Group was able to achieve another volume record in the 2018 business year and, hence, reached growth of 6% as against 2017. In the day-ahead markets in France and the Netherlands as well as in the intraday markets in all important market areas, trading volumes grew significantly.

#### Power Spot trading volumes

in TWh	2018	2017	Change
Day-ahead markets	494	472	+5%
Germany/Austria	235	233	+1%
France	114	106	+8%
United Kingdom	50	50	-1%
Netherlands	37	33	+13%
Others	59	50	+18%
Intraday markets	82	71	+16%
Germany/Austria	53	47	+13%
United Kingdom	19	15	+25%
France	6	4	+42%
Netherlands	2	1	+42%
Others	2	3	-25%
Power Spot	577	543	+6%

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The 2018 financial year was shaped by the implementation of large-scale regulatory projects, such as e.g. the introduction of the border-crossing European XBID platform for intraday trading and the implementation of congestion management at the German-Austrian border. In this respect, EEX Group was able to position itself as a strong market platform and to grow its volume in this business field to a considerable degree as a result.

The introduction of congestion management at the German-Austrian border and the split of the joint price zone into two separate market areas led to fundamental changes in the power markets in Germany and Austria. However, the EEX Group was able to maintain stable trading volumes on the German day-ahead markets in 2018 by introducing separate power spot contracts with corresponding underlying price indices.

Overall, the intraday markets continued to gain in importance within the power spot business field in 2018 and reached 14% of the absolute volumes on the power spot markets. This trend was primarily due to the increasing importance of digitalisation and the effect of fluctuating renewable energies on the power supply, which resulted in an increased demand for flexibility and short-term balancing options on the part of the balancing group managers. In order to enable them to respond to short-term developments in the generation and consumption of power, the lead time in trading and delivering French and Austrian power contracts was reduced from 30 to 5 minutes, while the lead time in Swiss power contracts was reduced from 60 to 30 minutes in the 2018 financial year. Moreover, block contracts for the German 15-minute auction, 15-minute trading of power contracts in Belgium and the Netherlands and two new intraday auctions for the United Kingdom, which are connected to the power market in Ireland, were launched.

The introduction of the border-crossing European XBID platform in 14 European countries in June 2018 constituted an important step for the creation of a pan-European intraday solution for the power spot market. Based on a joint IT system, XBID records the entire continuous European trading in a joint order book and forms the interface between local the power exchanges' local trading systems and the transmission system operators providing the border-crossing transmission capacity. As a result, bids by one market participant in one country can be matched with bids by traders in another country taking part

provided there is sufficient border-crossing transmission capacity between the countries. Hence, the XBID solution supports explicit and implicit continuous trading and is in line with the EU target model for an integrated border-crossing intraday market. There are plans to roll out the XBID solution to further European countries in 2019.

In the field of the system landscape, two system migrations were carried out in the 2018 financial year, finalising the integration of the former APX Group into EEX Group. After the day-ahead markets in the Netherlands and Belgium had already been migrated to the EPEX trading system ETS in the first quarter of 2017, the day-ahead market in the United Kingdom followed suit in April 2018. After the migration of the remaining continuous intraday trading in Great Britain to the M7 trading system in the 4th quarter of the past business year, customers can now trade all power spot markets via one system access.

Within the Power Spot business field, the EEX Group directly competes with other spot exchanges. In the United Kingdom, short-term trading in power is also offered by N2EX, a subsidiary of Europe's second-biggest power spot exchange, the Norwegian Nord Pool Spot, in addition to EPEX. In 2018, N2EX had a market share of 71% in the United Kingdom, while EPEX's market share amounted to 29%. Nord Pool Spot is also active in the German market area where it offers intraday products; however, at 2%, its market share is relatively low. As a result of regulatory changes (CACM), the introduction of a joint order book and the resulting split liquidity between the spot exchanges taking part in this in the XBID solution, overall competition has intensified significantly and is expected to further increase in 2019.

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#### Natural Gas (kEUR 44,888, +16%)

The Natural Gas business field also developed positively in the 2018 financial year and maintained its position as the third important revenue mainstay, in addition to the power spot and derivatives markets. On the gas spot market, growing market shares within a stable overall market led to a significant increase in trading volumes and to new record volumes. On the derivatives markets, however, the effects of the new EU Markets in Financial Instruments Directive (MiFID II) and of the associated shift in volumes from regulated exchange trading to unregulated trading via brokers were felt. For example, EEX Group market shares on the derivatives market in the Netherlands, Germany and France declined, resulting in an overall decreasing trend in volumes on the derivatives market.

#### Natural Gas trading volumes

in TWh	2018	2017	Change
Spot market	1,111	828	+34%
Germany	391	309	+26%
Netherlands	382	229	+67%
France	162	159	+2%
Austria	79	68	+16%
Belgium	67	42	+59%
Others	30	19	+56%
Derivatives market	852	1,154	-26%
Netherlands	686	994	-31%
Germany	58	84	-31%
France	19	22	-12%
Austria	53	20	+160%
Others	35	34	+5%
Natural Gas	1,963	1,982	-1%

#### Selected Natural Gas market shares

in%	2018	2017
Spot market (all)	40	32
of which spot market Germany	52	41
of which spot market Netherlands	39	30
of which spot market France	80	82
Derivatives market (all)	2	3
of which derivatives market Netherlands	3	5
of which derivatives market Germany	3	4
of which derivatives market France	4	6

The range of gas products which can be traded through the PEGAS trading platform was again expanded in 2018 and supplemented with trade registration services for options on the Dutch TTF gas derivatives contracts. Moreover, the calculation and provision of the so-called "Neutral Gas Price" for the Dutch TTF Hub was implemented in the PEGAS trading platform in cooperation with the Dutch transmission system operator Gasunie Transport Services (GTS).

In the Natural Gas business field, regulatory changes again led to the introduction of new products in response to changed framework conditions. Consequently, Powernext introduced new spot contracts taking account of the merger of the French PEG Nord and TRS market areas. Moreover, PEGAS actively supports the implementation of the market area merger by implementing so-called "congestion management products".

The competitive environment on the European natural gas markets is similar to that of the power derivatives markets: The main share of natural gas trading takes place over the counter via brokerage platforms. Remaining trading activities are distributed across the EEX Group, the CME Group and ICE exchanges as well as smaller national energy exchanges. The EEX Group is the exchange with by far the biggest trading volumes. Particular growth potential for the EEX Group has been identified also as a result of the significant growth in the overall market.

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#### US Commodities (kEUR 11,563, +114%)

Since it acquired the US-based derivatives exchange Nodal Exchange in May 2017, the EEX Group has been offering North American products. A large number of local power derivatives contracts and a gas derivatives contract with the Henry Hub underlying are offered. In November 2018, North American environmental products were launched. In this respect, the power derivatives market, which developed positively in the 2018 financial year, accounts for the biggest share in turnover. As a result, the trading volumes on Nodal Exchange increased by 24% in spite of a decline in the overall market. This is primarily due to gains in market share in the PJM region.

#### **Nodal Power Derivatives**

	2018	2017	Change
Power in TWh	1,039	838	+24%
Market share	21%	16%	+5%p

At the end of the financial year, the Nodal Exchange market share in the open interest in power was 32% and, hence, 6 percentage points higher than the 2017 reference value. In the framework of the introduction of the T7 trading system for the North American market, Nodal Exchange expanded its product portfolio with a first tranche of environmental products in the last quarter of the 2018 financial year. The products comprise a broad range of futures and options for trading in emission allowances and certificates for renewable energies. These were developed in cooperation with IncubEx with which EEX Group concluded a cooperation agreement in 2017 and which, with its subsidiaries in North America and Europe, specialises in the development of financial products and services focusing on environmental markets.

In addition to Nodal Exchange, the global exchange operators ICE, NASDAQ and CME are active in the North American energy markets

#### Further business fields (kEUR 61,971, +24%)

#### MARKET DATA SERVICES

The Market Data Services business field is divided into the three segments of Information Services, Transparency Services and Reporting Services.

The essential task of Information Services is to ensure the biggest possible visibility of EEX Group market data and its products, to reduce market entry barriers and to market the data available within the EEX Group. The range of information products are used to market data which is generated in the course of trading activities within the EEX Group and through the trading participants' publication processes at the EEX transparency platform. In 2018, EEX Group increased the revenue from information products to kEUR 3,571 by 34% as against the previous year.

Transparency Services focuses on the publication of insider information by trading participants on power, natural gas and emission allowances on the EEX Transparency Platform in the context of the European Regulation on Wholesale Energy Markets Integrity and Transparency (REMIT), the EU transparency regulation and the Market Abuse Regulation (MAR). This offering enables EEX Group to offer every market participant an option to publish insider information and to make the individual trading platforms transparent. In the 2018 financial year, further market participants opted for publication. As a result, the platform is now used by companies from 15 European countries to fulfil their publication and data provision requirements.

The area of Reporting Services brings together reporting services which are provided on the basis of various legal provisions. On the one hand, Trade Reporting according to the European Market Infrastructure Regulation (EMIR) is provided for various clearing and non-clearing members of ECC; on the other hand, the EEX Group, in its function as a "Registered Reporting Mechanism" reports order and trade data to ACER, the Agency for the Cooperation of Energy Regulators, on behalf of its market participants in the framework of the Regulation on Market Integrity and Transparency (REMIT). In addition, the department has included reporting of positions and transactions under MiFID II/MiFIR since the beginning of the year. After its launch in November 2015, regulatory reporting developed very positively and currently contributes around 19% of the revenues of the Market Data Services business area.

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#### **REGISTRY BUSINESS**

The Registry Business segment comprises the services provided by Powernext which are connected with the operation of the register of guarantees of origin in France, the capacity register for the RTE transmission system operator and the registry for energy savings certificates in France. Moreover, further service offers also contribute to the sales revenue in this business field which Powernext offers to the transmission system operator to support its balancing activities.

In the 2018 financial year, Powernext was re-appointed as the operator of the register for guarantees of origin in France and, moreover, this mandate was expanded with the organisation of auctions for guarantees of origin from 2019 on. Guarantees of origin are certificates confirming that a certain volume of power was generated from renewable resources. Overall, the revenue from the operation of the French register of guarantees of origin rose by 24% compared with the previous year. Furthermore, in 2018, Powernext assumed the operation of the French registry for energy savings certificates, so-called "white certificates", for an initial term of five years. The revenue generated from this additionally contributed to the overall growth of the Registry Business field by 27%.

The acquisition of 100% of the shares in Grexel constitutes an important milestone for this segment. This leading provider of registers for guarantees of origin and other energy certificates in Europe holds a market share of around 42% for new certifications in the framework of the Energy Efficiency Certification Scheme (EECS) and offers comprehensive services for operators of electronic registers for certificates. In combination with the existing register business of Powernext, the acquisition of Grexel enables EEX Group to actively promote the development of the future market for guarantees of origin regarding renewable and other forms of energy and to support the implementation of regulatory requirements in this segment.

#### **ENVIRONMENTAL PRODUCTS**

Within the Environmental Products business area, the EEX Group successfully continued its growth strategy following rising trading volumes in emission allowances on the secondary market and, in particular, because of the positive development in the field of options. While primary market auction volumes are determined by the EU, the EEX Group benefited from an overall expansion on the secondary market combined with constantly growing market shares.

#### **Environmentals trading volumes**

in million t	2018	2017	Change
Emission allowances	1,863	1,379	+35%
Primary auctions (spot)	819	849	-4%
Secondary trading (spot)	104	59	+77%
Secondary trading (derivatives)	939	471	+99%
Options	1,034	1	>500%
Environmentals	2,896	1,380	+110%

On behalf of the European Commission, new emission allowances for all member states are introduced to the market via auctions (primary auctions). Volumes are determined in advance and are auctioned separately for Germany, the United Kingdom and Poland, while auctions for the remaining 25 member states are carried out together. Auctions for the United Kingdom are carried out by ICE, while the EEX Group provides auctions for all other EU member states. The respective underlying contracts were extended for a period of up to five years in 2016.

In respect of secondary trading of emission allowances, the market is dominated by ICE, which, despite a slightly lower market share, still settles 83% of the market. The remaining trading volumes are primarily generated by the EEX Group, which significantly expanded its position in the market in 2018 and, hence, expanded its market share at the expense of the uncleared market. In the options trading segment, EEX Group increased its market share to 29% in the 2018 financial year and, hence, ended the dominant market position of ICE, which continued until 2017. Overall, the positive development on the secondary market and in the options business reflects the successful cooperation between EEX and IncubEx in the development of business and in sales for the environmental markets.

#### **CLEARING SERVICES**

The Clearing Services segment includes clearing for those partner exchanges that are not part of the EEX Group. In the 2018 financial year, this included the Hungarian HUPX/HUDEX and the Norwegian NOREXECO as well as the newly acquired partner exchange SEMOpx. In the period under review, volumes generated from clearing and settlement of trades for HUPX/HUDEX were approximately at the same level as in 2017. Volumes traded at NOREXECO, on the other hand, recorded a significant decline year-on-year.

#### Clearing cooperation volumes

	2018	2017	Change
HUPX/HUDEX TWh	26	25	+4%
SEMOpx TWh	10	0	n/a
NOREXECO kt	54	195	-72%

For the further development of the Clearing Services segment, the focus in the past financial year was primarily on supporting the Irish transmission system operators EirGrid und SONI in setting up the new local power exchange SEMOpx, which has operated a day-ahead and an intraday market in Ireland and Northern Ireland since October 2018. In this context, ECC, in its function as the central counterparty, assumes clearing and settlement of all transactions at SEMOpx. Moreover, in the past financial year, new products were also developed for the other partner exchanges and, e.g., introduced new short-term power contracts for the Hungarian market area together with HUDEX.

#### **GLOBAL COMMODITIES**

Within the Global Commodities area, the EEX Group was not able to repeat the volumes achieved in the previous year. In 2018, the global trade policy led to declining market volumes in freight products (–5%). Overall, the volumes in iron ore products even declined by more than 25% against 2017. Therefore, the difficult global market environment and the changed competitive environment led to declining trade volumes for the freight and iron ore contracts on the EEX Asia platform. Trading in container capacities was not resumed in 2018. Moreover, the volumes of fertiliser futures and other futures on ferrous metals and coal declined.

#### **Global Commodities trading volumes**

		2018	2017	Change
Freight (futures/ options)	k days	230	473	-51%
Iron ore	kt	172,541	282,092	-39%
Fuel oil	kt	397	5,185	-92%
Container	Standard container	0	0	n/a
Fertilisers	kt	311	746	-58%
Others	kt	174	3,422	-95%

In 2018, the recognition of ECC as a "Recognised Clearing House" (RCH) by the Monetary Authority of Singapore (MAS), which enables ECC to provide clearing services in Singapore, constituted an important milestone for the Global Commodities segment. In addition, in November 2018, EEX Asia was launched as a brand which now constitutes the Asian exchange of EEX Group and specialises in commodities transported by sea. The Cleartech brand which was established at the same time operates comprehensive OTC services which include, in particular, the provision of technical and price transparency services in the pre-, intra- and post-trade fields on the OTC and OTC-cleared commodity markets.

The trade volumes of the freight contracts cleared via ECC increased to 35,850 contracts by 6% in the 2018 financial year as against 2017.

#### **AGRICULTURALS**

In the Agriculturals business field, the EEX Group recorded a slight decline in 2018. Trading in futures both on potatoes for processing and dairy products fewer contracts were traded in the past fiscal year than in the previous year. The EEX product portfolio was supplemented with liquid milk futures settled on the basis of the "EEX European Liquid Milk Index", which was also newly established.

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#### Agricultural trading volumes

Contracts	2018	2017	Change
Processing potatoes	34,248	37,889	-10%
Dairy products	26,003	27,564	-6%

#### Trading and clearing participants

The table below shows the trading participants per exchange (without eliminating overlaps) as of 31 December 2018:

#### Trading participants per exchange

	2018	2017	Change
EEX	262	264	-1%
EPEX	288	278	+4%
Powernext (incl. Gaspoint Nordic and PCG)	246	237	+3%
CLTX	82	80	+3%
PXE	16	22	-27%
Nodal	74	59	+25%

As of the reporting date (31 December 2018), 25 clearing members (21 general clearing members and four direct clearing members) were registered – compared with 23 clearing members as of the 2017 reporting date. Moreover, 30 participants were admitted to the Direct Clearing Participant Model (DCPM) (2017: 11). This model, which was introduced in 2016, grants trading participants direct access to trading and clearing on spot markets without having to connect to a clearing member. At the end of the year, there were 535 ECC clearing participants (2017: 516). On the balance sheet date, 13 clearing members were admitted to Nodal Clear.

#### Earnings position

This growth in the EEX Group trading volumes is reflected accordingly in the earnings position. In the past financial year, the EEX Group sales revenue totalled kEUR 267,654 and increased by kEUR 42,334 – or 19%. The increase in revenue was accompanied by a cost increase of approximately 21%, so that the operating result of kEUR 91,977 was, in total, kEUR 18,490 (25%) higher than in 2017. In 2018, the consolidated net profit was kEUR 66,712 and, hence, kEUR 12,845 higher (24%) than in 2017.

For the first time, the profit and loss account for 2018 also includes the values of the subsidiary Nodal Exchange, which was first consolidated in the 2017 financial year, for the full year. The effects on the full year will be addressed separately below.

#### EEX Group statement of profit and loss

in kEUR	2018	2017
Sales revenue	267,654	225,320
Net income from banking transactions	8,872	1,133
Other operating income	1,325	517
Variable costs	-25,243	-19,705
Net revenue	252,607	207,265
Staff costs	-65,513	-56,493
Depreciation, amortisation and impairment		
losses	-19,635	-15,452
Other operating expenses	-75,482	-61,834
Operating result	91,977	73,486
Financial result	356	788
Income from at-equity investments	-227	-50
Result from ordinary business activities	92,106	74,224
Income tax expense	-25,394	-20,358
Consolidated net profit	66,712	53,866

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#### Sales revenue and net revenue

The EEX Group's sales revenue consists of transaction fees from trading, clearing and settlement of transactions and other sales revenue. Changes in the sales revenue reflect the development of the business areas described in the section "Business development". The structure of the sales revenue is also outlined in that section.

Apart from sales revenue, net revenue consists of net income from banking transactions (kEUR 8,872), other operating income (kEUR 1,325) and variable costs (kEUR -25,243). The latter comprise performance-related reimbursements for certain trading participants, such as market makers or brokers, as well as reimbursements in the framework of revenue sharing with IncubEx and increased by kEUR 5,539 in the last financial year, in particular, because of increased sales revenue on the power derivatives market, the gas spot market and in environmental products.

In the last financial year, net revenue amounted to kEUR 252,607, which corresponds to an increase of kEUR 45,342 (22%) as against the previous year. The net revenue of Nodal Exchange, which increased significantly as a result of the full-year effect in 2018 and the positive overall development of the scope of business of the North American derivatives exchange, accounts for a share of kEUR 11,376 thereof.

#### Non-variable expenses

During the reporting period, the total non-variable expenses (staff expenses, depreciations and other operating expenses) which are considered in the operating result rose to kEUR 160,631 by kEUR 26,852 and, hence, by 20%. The total expenses also include the expenses of Nodal Exchange of kEUR 14,653 for the full year. These expenses were kEUR 6,739 higher than in 2017, for example, because of the full-year effect but also because of the generally higher scope of business. If we consider the EEX Group expenses after adjustment for the costs of Nodal Exchange, total non-variable costs rose by kEUR 20,113 (16%).

Because of the planned expansion of staff and the full-year effect of the integration of the Nodal Exchange staff expenses rose to kEUR 65,513 during the reporting period (2017: kEUR 56,493).

At kEUR 19,635, depreciations were kEUR 4,184 higher than in the previous year. On the one hand, this is due to the reduction of the planned term of use of several IT systems against the background of a pending update of the technological base, while, on the other hand, it is also due to a one-off unscheduled depreciation to a lower fair value of the CLTX assets in the 2018 financial year. After adjustment for these special effects, depreciations rose by kEUR 3,142, which is shown by the continued high investments in the IT systems of EEX Group. Moreover, the increase also includes the full-year effect from the depreciation of the assets of approximately kEUR 853 reported in the balance sheet in the framework of the purchase price allocation of Nodal Exchange.

The other operating expenses were kEUR 13,636 higher than in the previous year. These e.g. include expenses for the further development and operation of the IT Infrastructure by external service providers, consulting expenses as well as expenses for other infrastructure and marketing. Furthermore, the other operating expenses also include costs for the EEX Group sites and offices, non-deductible sales tax as well as travel expenses which are mainly incurred in the framework of sales activities. After adjustment for the increase in other operating expenses of Nodal Exchange, which in turn are due to the full-year effect as well as the overall increased expenses, total operating expenses were kEUR 11,452 higher than in 2017. This increase is essentially due to:

- the targeted adjustment of the IT infrastructure and the IT processes against the background of growth and the expansion of the business fields
- the continuous improvement in the robustness and security of the IT system landscape
- measures for compliance with the growing regulatory requirements
- the growth of the entire corporate group and the resulting increasing infrastructure and travelling expenses

#### Further revenue items

In the past financial year, the financial result was kEUR 356, which was kEUR 432 lower than in the previous year.

Income from at-equity investments (kEUR -227) includes income of the shareholders reported in the balance sheet in accordance with the at-equity method within the EEX Group. It includes the result of SEEPEX, a joint venture in which EPEX holds an interest.

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#### **Earnings figures**

At kEUR 91,977, earnings before taxes (EBIT) were kEUR 18,490 or 25% higher than in the previous year. Under consideration of the financial result and the income under the at-equity method and after the deduction of income taxes (kEUR 25,394), consolidated net profit was kEUR 66,712.

The parameter of the "adjusted EBIT", which was introduced in the section "Management control" above, reached a value of kEUR 53,620 and, hence, increased by 16% during the past financial year. This is primarily due to the growth in the contribution margins of the power spot and derivatives, gas and US commodities business fields as well as in other sales revenue.

The EBIT margin as the ratio of the result before taxes and the sales revenue was 34%, which was 1 percentage point higher than in the previous year. At 22%, the equity ratio before taxes also rose compared to the previous year (17%). It is calculated from the result of ordinary business activity in proportion to the equity base of the group at the beginning of the reporting period.<sup>2</sup>

#### Asset position

## Consolidated statement of financial position of the EEX Group as of 31 December 2018

in kEUR	2018	2017
Assets		
Non-current assets	368,320	347,757
Current assets	6,749,078	3,213,614
Total assets	7,177,397	3,561,371
Liabilities		
Equity	474,135	425,806
Long-term liabilities	61,210	50,089
Short-term liabilities	6,582,052	3,085,475
Total equity and liabilities	7,117,397	3,561,371

#### **Development of assets**

As of 31 December 2018, non-current assets of the EEX Group amounted to kEUR 368,320 (2017: kEUR 347,757). They essentially consisted of intangible assets (kEUR 194,559), goodwill (kEUR 129,119), derivative financial instruments (kEUR 29,572) and deferred tax assets (kEUR 8,493) and property, plant and equipment (kEUR 6,299). The development of long-term assets was largely driven by the following aspect:

Increase in derivative financial instruments by kEUR 17,148:
 This concerned the options cleared by ECC with a maturity of more than one year which were recorded at the fair value.
 The fair value is determined using the current open-position exchange price. Since ECC operates as the central counterparty for the different markets of the EEX Group, there is a liability of the same value as this asset.

<sup>&</sup>lt;sup>2</sup> The value for the previous year was calculated under consideration of the capital increase carried out in 2017. Without this adjustment, the return on equity for the previous year is 26%.

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The asset side of the balance sheet is largely characterised by current assets of kEUR 6,749,078 (2017: kEUR 3,213,614).<sup>3</sup> These mainly comprise restricted bank balances (kEUR 5,904,259), trade receivables (kEUR 585,319), cash and cash equivalent (kEUR 176,498), derivative financial instruments (kEUR 73,102) and other assets (kEUR 9,848). Essential changes in current assets were only observed with regard to the following item:

- An increase in restricted bank balances by kEUR 3,221,488:
   On the one hand, this concerns the cash collateral deposited by clearing participants in connection with the ECC and Nodal Clear clearing business. Because of the increased overall scope of business of EEX Group and the increased volatility in the market, these also increased in 2018. This asset is offset by a liability of the same value. In addition, own contributions to the ECC clearing fund as well as Nodal Clear, reported under this item, increased by kEUR 28,994.
- Increase in trade receivables by kEUR 207,433: This position
  essentially comprises the reporting date-specific disclosure
  of accounts receivable from the physical settlement of power
  and gas contracts by ECC Luxembourg, which increased as
  against 2017 in line with the development of business. This
  asset is also offset by a liability of the same value on the
  liabilities side of the balance sheet. This again confirms the
  expansion of the business operations of EEX Group.
- Increase in derivative financial instruments by kEUR 66,296:
   This concerned the options cleared by ECC with a maturity of less than one year which were recorded at the fair value.
   This asset is also offset by a liability of the same value on the liabilities side of the balance sheet.

#### Development of equity and debt

The EEX Group assets were financed by equity of kEUR 474,135 (2017: kEUR 425,806) as well as by debt of kEUR 6,643,262 (2017: kEUR 3,135,565). The debt consisted of long-term liabilities of kEUR 61,210 (2017: kEUR 50,089) as well as short-term liabilities of kEUR 6,582,052 (2017: kEUR 3,085,475).

The growth in equity in the past financial year is shown by the partial retention of the 2017 earnings. As a result, reserves increased by kEUR 40,250. At the same time, the other result

increased by kEUR 8,470, while the generated results declined by kEUR 2,804. The share of non-controlling shareholders also rose by kEUR 2,414.

As of the reporting date, long-term liabilities largely consisted of deferred tax liabilities (kEUR 30,042) and derivative financial instruments (kEUR 29,572). In addition, they included long-term provisions and liabilities. The increase in long-term liabilities essentially reflects the development of options trading on the EEX Group trading platforms, which, in line with the assets side of the balance sheet, is reflected in the derivative financial instruments with an increase of kEUR 17,148. This increase was partly offset by a concurrent decline in deferred tax liabilities of kEUR 5,614.

The short-term liabilities are characterised to a significant degree by the trading participants' cash deposits of kEUR 5,875,265 and trade payables of kEUR 572,182. Furthermore, short-term liabilities include derivative financial instruments, liabilities to affiliated companies, other liabilities and short-term provisions. The development of short-term liabilities is largely influenced by the following:

- Increase in trading participants' cash deposits of kEUR 3,219,205: This is the opposite position to the restricted bank balances on the current assets item.
- An increase in liabilities to affiliated companies by kEUR 207,779: This item offsets the reporting date-specific disclosure of accounts receivable from the physical settlement of power and gas contracts of ECC Luxembourg on the assets side of the balance sheet. The remaining increase in trade liabilities is due to the expansion of the EEX Group business operations.
- Increase in derivative financial instruments by kEUR 66,296:
   This item offsets the options cleared by ECC with a maturity of less than one year.

<sup>&</sup>lt;sup>3</sup> The bolance sheet includes some positions which are shown as identical amounts on the assets and liabilities side because of the position of ECC and Nodal Clear as a central counterparty. The adjusted items are addressed in more detail in the following subsection.

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## Adjustment to the balance sheet total by clearing-specific matters

The balance sheet includes certain items which are identical on the assets and liabilities side because of ECC and Nodal Clear's role as the central counterparty in clearing. A central counterparty steps into the chain between the original counterparties to a transaction and replaces the original transaction between these two counterparties with two individual transactions with the central counterparty. The balance sheet total after adjusting for these positions is explained in the following section, on the basis of valid parameters determined for the evaluation of the EEX Group's capital structure and profitability.

On the one hand, the item of restricted bank balances includes cash collateral of the clearing participants in an amount of kEUR 5,875,265 (2017: kEUR 2,656,060); on the other hand, there is identical short-term debt from the cash deposits of the trading participants. Moreover, reporting date-specific customer balances of settlement transactions of kEUR 521,196 (2017: kEUR 356,631) were included. This concerns the reporting date-specific recognition of receivables and liabilities from the allocation of power and natural gas. Furthermore, the short- and long-term derivative financial instruments recognised at the fair value of the options are included in the assets and liabilities side in an amount of kEUR 102,674 (2017: kEUR 19,230). After the deduction of these positions, the adjusted balance sheet total at the end of the period under review was kEUR 618,262 (2017: kEUR 529,450) and the equity ratio on the reporting date was 77% (2017: 80%). The high equity ratio underlines EEX's high profitability and highlights the fact that its financing strategy, in principle, is aligned towards maximum independence from external creditors.

The debt ratio, which is equal to the proportion of long-term and short-term debt in the adjusted balance sheet total, increased to 23% (2017: 20%). The Group was able to cover all expenses using its own financial resources and current income at all times during the year. The external credit lines taken out in the previous financial year were repaid; however, they will be maintained as potential financing for future strategic projects.

#### Financial position

The Group's liquidity again increased significantly during the reporting year. However, in the case of the clearing house ECC in particular, it is characterised by the high requirements for liable capital resources in accordance with EMIR, which tie up funds.

#### Consolidated cash flow statement of the EEX Group

2018	2017
0	13,803
100,435	44,971
-17,415	-228,204
-33,793	169,604
49,227	174
127,271	127,097
176,498	127,271
	0 100,435 -17,415 -33,793 <b>49,227</b> 127,271

As of the reporting date, the EEX Group's cash and cash equivalents amounted to kEUR 176,498, which corresponds to an increase of kEUR 49,227 compared to the previous year (kEUR 127,271). Cash and cash equivalents comprise cash in hand, cash in bank accounts and financial investments available at short notice reduced by short-term liabilities to banks in the form of loans.

The development in cash and cash equivalents was driven by cash flow from current operations of kEUR 100,435. Cash outflows of funds from financing activities of the EEX Group of kEUR 33,793 and from investing activities of kEUR 17,145 were financed from this source.

The cash flow from current operations comprised the annual net profit (kEUR 66,712) after adjustment for non-cash-effective income and expenses during the reporting period. These amounted to kEUR 33,723 and mainly included depreciation/amortisation and changes in receivables, liabilities and provisions.

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The funds paid for investing activities of the EEX Group during the reporting year include, on the one hand, investments of kEUR 11,727 in intangible assets and, in particular, the IT infrastructure of the EEX Group. On the other hand, they include investments in property, plant and equipment (kEUR –5,181).

The cash flow from financing activities of the EEX Group include the dividend payment to the EEX AG shareholders of kEUR 16,220 and to non-controlling interests of kEUR 10,573 as well as the repayment of loans taken out for short-term financing in the amount of kEUR 7,000.

On account of its sufficient financial resources and sound internal financing power, as in previous years, the EEX Group does not expect any liquidity shortfalls for the 2019 financial year. As a result, it will again be able to carry out the planned investments required to maintain and expand its good competitive position in the future. Moreover, intra-group and external credit lines are available to cover additional liquidity requirements arising at short notice.

#### **Employees**

The EEX Group's competent and dedicated workforce is a significant factor for its commercial success and further growth. The EEX Group has an international team of employees from 35 nations. As of 31 December 2018, the EEX Group employed 586 members of staff at 16 sites – up from 542 employees as on the 2017 reporting date, an increase of 8%. The increase in the workforce is largely due to the development of additional capacities to ensure compliance with the increasing regulatory requirements for the EEX Group and the continuation of its growth strategy. In the context of the merger of EPD, the staff of the former company were transferred to EEX with effect as of 1 January 2018.

#### **Employees of the EEX Group**

	2018	2017	Change
EEX	200	182	+10%
ECC	84	70	+20%
CLTX	10	13	-23%
EPEX	167	160	+4%
Powernext	53	53	+0%
PXE	12	9	+33%
Gaspoint Nordic	2	2	+0%
Nodal	58	53	+9%
Total	586	542	+8%

As of the reporting date, 40% of the company's employees were women (2017: 41%). Overall, women held 21 of the executive positions (24%) within the EEX Group (2017: 25%).

In 2018, the EEX Group further strengthened its offering of further training measures for executives and platforms for the exchange of knowledge and networked learning. In addition, the design of working time models at EPEX and Powernext formed a central subject of the human resources work, which the EEX Group hopes to actively continue in the Group over the coming years in order to fulfil the skilled staff's growing demand for flexibility and to position itself towards a new generation of talents as a modern company in an increasingly digitalised working environment. Moreover, the EEX Group set a further and clear signal confirming its attractiveness as an employer by introducing a new remuneration system at the EEX and ECC sites.

As regards workforce development, a slight increase is planned for the following financial year in order to continue the strategic growth of the EEX Group.

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General statement on the Group's economic position by the Management Board

The Management Board of the EEX Group is very satisfied with the development of business in 2018. The Group was able to significantly exceed its sales and results parameters of the previous year in almost all business fields, which is very positive in view of the challenging market environment and the continuing uncertainties on the market.

The Management Board's assessment of the EEX Group's financial position in 2018 is extremely sound. The company generates significant cash flow from ongoing business activities. The high equity ratio and the good credit standing of the EEX Group are essential preconditions which enable the Group to finance both organic and inorganic growth using its own resources and this is expected to continue in the future.

At the time this Management Report was prepared, the Company's economic position and financial strength remained very good. However, as there are still significant uncertainties and risks, setbacks in the continuation of the growth course cannot be ruled out.

# 3. Risk and opportunities report

Risk management

### Organisational structure

In accordance with the requirements defined in section 91 subsection 2 AktG [German Companies Act], the Management Board of the EEX implemented a monitoring system ensuring that risks jeopardising the survival of the company are recognised and addressed accordingly.

Since the resignation of the CRO from EEX as of 31 October 2018, the CFO of EEX has been responsible for the design of the early-risk warning system of the EEX Group. The individual group companies largely control their risks on their own. With regard to risks that require group coordination, minimum standards are specified by the Management Board of EEX for all group companies. Depending on their size, the individual companies have a risk controlling unit of their own which is responsible for reporting within the respective group company. Based on the risk reports of the individual risk controlling units, the EEX risk control department prepares a risk report for the EEX Group every quarter. Moreover, there is a requirement for the Management Board to submit ad-hoc reports to the Supervisory Board with regard to fundamental changes in the risk position.

### Framework

The EEX Group risk position is determined by its business areas: Specifically, the companies of the EEX Group operate electronic market platforms for derivatives and spot transactions in various commodities. Due to the complex requirements of IT operations (e.g. because of 24/7 trading for power and gas spot transactions), operational risk constitutes a dominant component in risk control, in addition to business risks. For the clearing houses of the EEX Group (ECC and Nodal Clear), in turn, the default risk is of significant importance for risk control on account of their activity as a central counterparty.

Further, the companies of the EEX Group operate within an environment which is increasingly determined by regulatory requirements. This results in operational risks as well as business risks since negative effects on the trading behaviour of market

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participants cannot be excluded. In addition, the environment is being shaped by increasing risks associated with, in particular, low interest rates threatening the stability of European financial institutions.

### Risk strategy and risk control

The EEX Group aligns its risk control to its business and corporate strategy. It aims to ensure that risks are specifically controlled in line with the supervisory legislation framework and do not pose a threat to the existence of the EEX Group. Minimum standards for risk management are established.

The risk management system is integrated into all planning, controlling and reporting systems in the individual EEX Group companies and at the level of the Group. The internal audit department and the respective compliance departments form an essential component of the risk management system. It is based on the systematic identification, assessment, documentation and communication of risks. Corresponding principles, processes and responsibilities are established in the guidelines applicable throughout the group.

### Essential risks

In the year under review, the EEX Group identified the main risks that could have a relevant negative impact on the Group and its net assets, financial position and results of operations in the following risk types.

### Counterparty risk

The counterparty default risk measures the risk that business partners are unable to meet their contractual payment obligations or are unable to do so on time and that this leads to a loss for the EEX Group. Within the EEX Group, the main counterparty risks occur within the clearing houses of the EEX Group (ECC and Nodal Clear). ECC is a central counterparty according to Regulation (EU) No. 648/2012 on OTC derivatives, central counterparties and trade repositories, and is an institute within the meaning of section 1 subsection 1 no. 12 KWG [German Banking Act]. As a derivatives clearing organisation (DCO), Nodal Clear is regulated by the US Commodity Futures Trading Commission (CFTC) and, in the EU, it is recognised by ESMA as a third-country clearing house. In this function, the clearing houses position themselves between the buyer

and the seller and assume the default risk of both sides for all transactions concluded on their markets or registered for clearing. The clearing houses pursue a risk strategy of covering this default risk with a high security level through their margining system, the clearing fund and their own financial resources at all times. The quality of the margining system is reviewed on an on-going basis with the help of regular back testing. By means of daily stress tests, the clearing houses simulate counterparty risk in extreme yet plausible market conditions and adjust the clearing fund and their own financial resources in such a way that counterparty risk is also covered under these conditions and in the event of a simultaneous default of two clearing members.

Moreover, a potential counterparty risk arises with regard to the investment of funds of the companies of the EEX Group. For this reason, funds are exclusively invested in recognised institutes with a low default risk in accordance with the investment guidelines of the EEX Group. For identification purposes, the EEX Group has developed an internal scoring procedure. The clearing houses' margin collateral is invested in reverse-repo transactions in return for securities collateral with a high credit rating and liquidity. Moreover, ECC has access to the central bank and can also deposit EUR collateral there.

Furthermore, low default risks arise in the event of a trading participant not paying its due transaction fees. Therefore, the creditworthiness of trading participants is constantly monitored on the basis of financial parameters and of rating information (provided such is available).

### Country-specific risks

Credit and market risks regarding individual countries which are caused, in particular, by crisis situations are referred to as country-specific risks. As a result, there is the risk of a partial or complete default of contractually agreed interest and principal payments by market service recipients in the country concerned. Furthermore, there are risks regarding the decline in value of derivatives or securities depending on the market parameters of the respective country.

With regard to EEX Group, there are only minor country-specific risks since a large part of the sales revenue is generated by trading participants within the EU or the EFTA free trade area as well as North America. Moreover, the share of economically unstable EU members, such as Greece, in sales is very low.

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Significant risks within the EU result, in particular, with regard to the planned exit of the United Kingdom from the EU, which are described in the section "Brexit".

### Market price risk

Market price risks are defined as unfavourable changes in the value of assets due to changes in market parameters relevant to valuation, such as stock market prices. Market price risks are to be largely avoided under the Investment Directive. The market price risks resulting from other operations (essentially currency risks) are minor and are controlled in accordance with the respective situation. The foreign currency risk resulting from the investment income of Nodal Exchange is monitored and covered based on the respective situation, if required.

### Liquidity risk

Liquidity risk is the risk of the EEX Group failing to meet its payment obligations at a contractually agreed time. Current operations do not lead to any essential incongruities of dates within the EEX Group. The financing need for current expenses and investments is identified and concluded within the context of medium-term planning. Any possible gaps in financing are closed or avoided by providing sources of liquidity in accordance with the investment guideline of the EEX Group. Structural liquidity risk is monitored within the context of medium-term planning, which is prepared every year, and through on-going liquidity management. The aim is to specify the liquidity reserve and credit lines by planning to ensure that sufficient liquidity is available for all eventualities. The investment guideline only permits investments of free liquidity with counterparties with a good credit standing and within approved limits. Further, the maximum term is limited so that sufficient liquidity is available at all times in the event of shortterm demand.

The risk of a clearing member defaulting and its impact on liquidity at ECC are controlled according to the requirements under section 44 of the EMIR implementing law in conjunction with the delegated regulation 153/2013. At Nodal Clear, this risk is controlled in accordance with CFTC rules. This is done by means of the following:

- High requirements regarding the eligibility of collateral received
- · Adequate safety discounts on collateral provided,
- Provision of liquid resources which, at least, provide the liquidity required in the event of the stress test scenario (under the assumption of the concurrent default of the two clearing members generating the highest liquidity demand in extreme yet plausible market conditions).

ECC prepares a daily liquidity report on the available liquid resources as well as on the liquidity requirements in the stress test scenario. Moreover, potential sources of liquidity risks are recorded in the liquidity plan which is updated every quarter and submitted to the entire Management Board.

### Operational risk

Operational risks are defined as potential losses due to disruptions in the IT systems used, inadequate design of internal processes, errors by employees, errors or failures by external service providers and project risks. Due to the high degree of automation in processing business transactions combined with a large number of transactions, malfunctions of the IT systems used constitute essential operational risks for the EEX Group. As essential components of these systems are operated by external service providers, errors and the failure of external service providers are also a significant source of risk.

An important objective of the risk strategy is to minimise operational risks by using recognised methods for system development, testing and operation. The EEX Group either provides core services itself or has them performed by selected specialised, external partners. Individual services are also provided by specialised companies which are part of the Deutsche Börse Group. The quality of the service providers is reviewed in the context of selection processes and continuously on the basis of established service level agreements. Furthermore, back-up processes are implemented for critical business processes. The quality of the internal control system is checked regularly with the help of examinations by internal auditors and the targeted use of external auditors. There are process descriptions and control activities for all fundamental processes. These are documented in checklists in order to reduce the likelihood of human error. Operational risks are identified and assessed throughout the Group in the context of an annual self-assessment.

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In addition, there is a financial loss liability insurance for errors arising from commercial actions (E&O insurance).

A damage incident database is maintained for the on-going monitoring and reporting of malfunctions during operations. All untoward incidents which occur in the course of operations – even those that do not lead to any direct financial loss – are recorded in this database and analysed in cooperation with the relevant members of the Management Board on a monthly basis and, if required, preventative measures are adopted and implemented.

### Compliance risk

The EEX Group is exposed to potential compliance risks primarily in the fields of sales tax fraud, damage to its reputation on account of the unauthorised publication of information as well as abuse through money laundering and/or the financing of terrorism. Furthermore, it must be ensured that no transactions are conducted with natural or legal persons that are listed on relevant sanction lists.

The main payments in the EEX Group are settled by ECC and Nodal Clear via clearing members or settlement banks. As institutions, these are subject to the rules of the German Banking Act (KWG) or other equivalent provisions which require the implementation of measures to combat these risks. Therefore, the clearing houses have a low risk of being abused for the purposes of money laundering, financing of terrorism or fraud. This risk is re-evaluated every year in the context of a risk analysis.

In addition, know-your customer measures are intended to identify suspicious counterparties during the initial stages of the business relationship. In case of doubt in the admission process, a decision by the Management Board is requested. Furthermore, continuous monitoring of markets is undertaken at ECC (essentially for detecting sales tax fraud) and by the Market Surveillance departments. Moreover, all business partners, including important associates of these business partners, are continuously (and on an ad-hoc basis, if necessary) checked against known sanctions lists.

Sensitive data requiring specific protection are required to be treated as confidential and protected against unauthorised access in accordance with internal instructions. In order to

avoid conflicts of interest, rules of conduct have additionally been established for staff.

### Business risk

Business risk is the term used to describe the medium to longterm negative impact on earnings of new competitors entering the market, regulatory or other legal changes, technical changes or changes in the product landscape.

These risks are monitored by analysing information on competitors, customers, products and markets. Furthermore, the effects on earnings of the EEX Group are examined within the framework of scenario calculations.

# Stricter regulation in the financial and energy sector as a risk

# REGULATION ON CAPACITY ALLOCATION AND CONGESTION MANAGEMENT (CACM)

The EU regulation specifying a guideline for capacity allocation and congestion management (CACM) outlined in the section "Regulatory framework" and the introduction of the Nominated Electricity Market Operator (NEMO) contained therein entail risks for the EEX Group. In the future, NEMOs can use the market depth and the development status of EPEX with the aim of implementing uniform day-ahead market coupling and uniform intraday market coupling and, as a result, benefit from existing liquidity without necessarily contributing additional liquidity themselves. For example, the XBID project, which aims to establish a pan-European intraday solution, results in a situation in which EPEX is forced to share liquidity on all its markets with other NEMOs. This can lead to significant losses in intraday trading volumes, even though this trend has not been observed since June 2018. On the other hand, CACM enables the provision of (day-ahead and intraday) trading services with delivery in other member states without the need for a NEMO to be appointed in this member state or to have been previously active in that state. This reciprocity creates uniform conditions for power market operators in Europe, namely a "level playing field". For the EEX Group, this means the possible market entry of competitors into EPEX markets. However, it also provides an opportunity to enter new market areas.

The fact that the reimbursement of costs generated in exercising the market coupling operator function ("MCO function")

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is not guaranteed constitutes another risk: NEMO should be entitled to the coverage of the costs they incur provided these are incurred efficiently and are adequate as well as appropriate. The MCO function is EU regulated; however, the amount of the costs to be reimbursed is ultimately determined at a national level by the respective regulatory authority. Before the CACM regulation took effect, the costs were contractually determined and guaranteed by the respective transmission system operators. Because of the new provision in CACM, EPEX incurs potential losses in the seven-digit range.

Following the first experiences with the MCO function on the one hand and the further development of local products outside the regulated Single Day-Ahead Coupling and Single Intraday Coupling (XBID), there were frequent discussions as to whether there is a contradiction in view of the fact the MCO function which is regulated throughout the EU is operated by competing NEMOs. Moreover, the question of whether a spinoff of the MCO function from the commercial spot exchange business might not be an option to resolve this alleged contradiction is also being discussed. At present, there is the risk that such an "unbundling" of two different but de facto complementary functions might be introduced as an adjustment of CACM to the Clean Energy Package. Officially, the EU Commission does not support this; however, the lobbying efforts of many NEMOs, including Nord Pool Spot and other monopolies associated with these, are very strong and possibly aim to end the NEMO competition in Europe. This would affect not only EPEX but the entire group.

## EU MARKETS IN FINANCIAL INSTRUMENTS DIRECTIVE (MIFID II)

Companies subject to MiFID II because they exceed certain thresholds are considered "financial institutions". As a consequence, these companies have to fulfil a number of additional requirements, such as organisational and capital requirements. As a result, energy traders might be forced to reduce their trading activities (with regard to their other activities) accordingly in order to avoid these requirements. Therefore, it is of great importance how the so-called secondary employment exemption is designed.

The details on the implementation of MiFID II/MiFIR were presented in the context of the so-called "regulatory technical standards" (RTS). These RTS, for example, contain proposals regarding threshold values for determining the ancillary activity exemption. This is positive in so far as the designated "Capital Employed Test" has become a firm element of the regulation and, as a result, invested capital is used in the calculation of the ancillary activity exemption.

The fact that certain physical derivatives on gas and power traded over the counter are not classified as financial instruments has to be evaluated critically. This means that trading in such derivatives is not regulated via MiFID II. These less regulated products can only be traded on platforms referred to as "Organised Trading Facilities" (OTF). Certain trading transactions which are concluded at an OTF are exempt from MiFID II, while similar transactions concluded on a regulated market or on an exchange are covered by the scope of application of MiFID II. As a result, OTFs have a regulatory advantage in respect of physical power and gas derivatives trading and there is the risk of a shift in volumes from exchanges to OTFs. On the part of market participants, this may lead to a general reluctance to trade in products on the EEX Group power and gas derivatives markets. In order to offer customers a possible alternative, EEX and Powernext set up a designated Non-MTF each as a precursor to an OTF in 2016. These were converted into an OTF as of 3 January 2018 following the issue of a corresponding licence.

Moreover, EMIR uses the definition of "financial instruments" in MiFID II. As a result, these over-the-counter physical derivatives are also not subject to EMIR regulation. Consequently, trading in such physical derivatives entails significant regulatory advantages compared to the EEX Group products on the regulated markets (no acquisition of a financial services licence with

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corresponding equity requirements, no position limits, lower reporting requirements and no mandatory clearing according to EMIR, etc.). This means – except for the OTC segment – volumes registered for clearing within the EEX Group by means of trade registration would still be subject to this risk since derivatives traded over the counter would be converted into financial instruments through the trade registration process.

In addition, the pre-trade transparency requirements regarding transactions submitted to the exchange in the framework of the trade registration create significant challenges for the exchanges in addition since the exchanges do not have the desired information on bids which lead to the conclusion of the transaction. Together with the regulators and the trading participants, EEX Group is working to implement corresponding solutions nonetheless.

However, the numerous reporting and transparency requirements also constitute a business model for the exchange under which it provides a services offering for its customers supporting them in fulfilling the requirements. In spite of the high regulatory requirements, there are also trends among the market participants so that trading activities are moved from the OTC to the regulatory exchange market as a result of MiFID II in order to ensure that regulatory requirements are fulfilled.

### FINANCIAL TRANSACTION TAX

The introduction of a common financial transaction tax in individual EU countries – including Germany – is still subject to political negotiations, even though the legislative process was not continued in 2018. Although a proposal by the French government regarding a kind of share tax is supported by the German Federal Ministry of Finance in principle, the further proceedings remain open at present. Moreover, while the inclusion of commodity derivatives is considered as being unlikely at present, it is not entirely excluded until a final political decision. A shift in trading activities to trading platforms in countries not affected by such a tax would constitute the most significant negative effect of a financial transaction tax in the long run – which may represent a significant advantage for competitors.

### **EU BENCHMARK REGULATION**

In response to the manipulation of certain financial market indices, such as the reference interest rates in the interbank seament, LIBOR and EURIBOR, industry standards for financial benchmarks (IOSCO) and, based on IOSCO, the EU regulation regarding indices used as benchmarks have been developed. The far-reaching EU regulation has applied comprehensively since January 2018. It provides for benchmarks to be regulated according to their size and the origin of the data, making the preparation and administration of indices more transparent and eliminating conflicts of interest. Commodity benchmarks are also part of the scope of application of this regulation and, depending on the origin of the underlying data and size of the markets, they have a corresponding impact on the EEX Group's individual indices. Even though, at present, transitional rules still apply to existing benchmarks, EEX Group, as a neutral index provider and user of benchmarks, will promote the group-wide implementation of the statutory provisions in 2019.

### REGULATION FOR CENTRAL COUNTERPARTIES

Essential initiatives which will make significant progress in 2019 include the EMIR Refit, the development of a regulation on CCP recovery and resolution as well as the discussion of the distribution of tasks between national supervisory authorities and the European Securities and Markets Authority (ESMA) in the context of EMIR.

As a financial institution under the German Banking Act, ECC is also affected by revisions to the minimum requirements for risk management (MaRisk), which were published in late 2017. In this connection, the supervisory legislation practice of the German Federal Financial Supervisory Authority was developed further. This is reflected, in particular, in requirements for ongoing reviews. These reinforced requirements regarding processes and procedures as well as the organisation of ECC lead to partly increased expenses.

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### Further development of the energy market design

### **ENERGY TURNAROUND AND POWER MARKET DESIGN**

The Clean Energy Package adopted at the end of 2018 will have a decisive impact on the development of the European energy markets, in particular the power market. This legislative package introduces a large number of new or revised legal provisions in the fields of energy efficiency, renewable energies, the design of the power market as well as security of supply. In principle, this legislative package comprises many provisions with a view to competitive energy markets. Nevertheless, some aspects must be critically assessed from the point of view of the EEX Group or concrete effects cannot yet be conclusively foreseen and could represent a potential risk, depending on the concrete design.

One fundamental point of criticism is that, at a political level, the package focuses too much on the technical details rather than providing a clear overall vision and leaving the route towards the attainment of this target to the market and, hence, to competition. This creates the risk of regulatory micromanagement at the expense of market-based solutions. As a result, the overall importance of the wholesale market might be restricted or it might even reduce dramatically contrary to the actual political intention. Concrete examples of this include the provisions on border-crossing trading and the effects on the design of power bidding zones. EU member states are obliged to provide 70% of the line capacities on the interconnectors for trading in power, at the latest, by the end of 2025. As a result, 30% remain for the transmission system operators' system-service requirements and unplanned load flows. Therefore, a measure which, on the one hand, its intended to promote trading and the integration of the market areas can, on the other hand, also lead to the complete opposite if member states have to split up their existing market areas in order to attain the additional border-crossing electricity flows. This means that the discussion regarding the design of power bidding zones remains heated and, hence, the risk of uncertainty regarding potential future changes continues. The most recent example of the separation of the German-Austrian price zone has shown that a change in the bidding zone configuration has tremendous effects on the trading market - with a significant decline in trading volumes on the EEX power derivatives market, in particular, being observed. The preservation

of the German bidding zone is a declared political aim in Germany – however, in view of the new European provisions, its preservation depends, to a large degree, on the further expansion of the transmission system and the distribution system in Germany in order to reduce congestion situations and reach the targets for border-crossing trading.

### DISCUSSION REGARDING THE COAL PHASE-OUT

At present, there is an intense debate regarding the phase-out of coal-based power generation in Germany. In June 2018, the new federal government set up the "commission for growth, structural change and employment" with regard to this. The essential tasks of this so-called "coal commission" comprise, first of all, the preparation of measures for the attainment of the German 2020 and 2030 climate protection targets, secondly the preparation of a plan for the gradual reduction and termination of coal-based power generation and, thirdly, safeguarding the financial coverage of the required structural change in the regions concerned – all under consideration of energy, climate, regional and structural policy.

The debate so far has also included the energy industry effects of a coal phase-out with a view to power price development security of supply. In this context, there were demands for a compensation mechanism for high power prices and, on the other hand, the introduction of a separate capacity market for secured output. As seen from the perspective of the EEX Group, the introduction of such additional instruments entails the risk of undermining – and, in the long run, even challenging - the reference effect of the power price signal and the operation of the trading market.

### Reform of European emissions trading

In 2018, a political agreement was reached regarding the reform of European emissions trading. This essentially concerned the introduction and design of the market stability reserve to reduce the excess certificates as well as a significant lowering of the annual permitted emissions budget during the 4th trading period from 2021 to 2030. Even if a part of the reforms will only become fully effective from 2021 on, the emissions market anticipated these as early as in 2018 as was shown by the market response, e.g. the increase in the price level and growth in trading activities.

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In spite of these reforms, there are further political demands for stronger  $\text{CO}_2$  pricing beyond the EU-ETS, e.g. in the framework of a  $\text{CO}_2$  tax or a  $\text{CO}_2$  minimum price. As seen from the perspective of EEX Group, however, the EU-ETS forms the central climate protection instrument. Therefore, more ambitious climate protection aims, such as e.g. the inclusion of further sectors, such as heating and transport should be implemented through an expansion of the EU-ETS, if possible. Additional instruments and, in particular, purely national measures, entail the risk of undermining and, in the long run, jeopardising the operation of the EU-ETS.

### Gas market

In the gas sector, the changed regulatory framework or the adjustment of market area design also creates new challenges for the market. The measures announced at a national level could result in fundamental changes to the current gas market design and, in particular, the tariff and capacity structures. In the context of the "Quo vadis" debate, possible scenarios for the establishment of a large central European market area are being discussed. In this case, the EEX Group would be forced to reduce the product range on its PEGAS trading platform, while traders would lose arbitrage opportunities resulting from the current price difference between the different market areas. Therefore, it remains to be seen whether a market area merger would increase liquidity overall offsetting these negative effects. In the French market, a trend towards a decline in trading activities has already been observed since the merger of the PEG Nord and TRS market areas. Even though PEGAS was able to introduce new products with the congestion management products, the market coupling mechanism ("BETSY") previously established between the two French zones had to be discontinued.

In Germany, the envisaged market area merger and the partial lack of information regarding the design and the timeline of such a merger contribute to a high level of uncertainty for the market. This leads to the risk that trading participants might withdraw from the market and that PEGAS might lose trading volumes. Therefore, PEGAS is actively contributing to the discourse in Germany and, as it has in France, is offering to develop market-based instruments for congestion management for the German market.

As a result of the "future role of gas" debate, both risks and opportunities can be expected for the EEX Group. Obstacles for

border-crossing trading should be avoided, in particular, with regard to the feed-in of renewable gasses (e.g. through the harmonisation of corresponding European quality standards). There is the risk that the "lessons learned" from the Clean Energy Package for the power market might not be appropriately transferred to the gas market. However, a Europe-wide introduction of a system of guarantees of origin for renewable gas also provides comprehensive market opportunities for the Registry Services business segment.

### **Brexit**

The United Kingdom's exit from the European Union announced as of 29 March 2019, forms a turning point for the political – and economic - cooperation on Europe: For the first time, a member is leaving the European Union and, as a result, the internal market. Regardless of the specifics of the process of leaving and various uncertainties, provisions regarding the transition of a member state into a future third country have to be adopted for the first time. And it is characterised by numerous uncertainties and is made even more difficult by the political instability in the United Kingdom.

The EEX Group faces a number of Brexit-related risks, e.g. significant differences between the EU and the UK regulation which can lead to regulatory arbitrage with regard to competitors based in the United Kingdom. Furthermore, in the event of a "no-deal Brexit", numerous ECC clearing members based in the United Kingdom as well as trading participants of the EEX Group exchanges need to ensure continuous market access – for example by moving activities to the European Union. The EEX Group accompanies this customer-side process and applies for licenses for the EEX and Powernext exchanges as well as for the ECC clearing house in the United Kingdom in order to guarantee regulatory security for its customers.

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### General political uncertainty

While trading markets are fundamentally subject to the influence of market-specific political framework conditions, uncertainties persist about the fundamental stability of political framework conditions and political ability to act.

This, for example, includes the uncertainty regarding the design and specific consequences of the United Kingdom's withdrawal from the European Union (Brexit). In addition, a strengthening of movements in some European countries which reject established political institutions has been observed. As a consequence, finding clear political majorities as a basis for a stable government is becoming more difficult. This situation was also observed in Germany after the last federal parliamentary election in 2017 and the difficult process for forming a government. Moreover, Federal Chancellor Merkel has resigned as the chair of CDU, which has led to a debate regarding her future as the head of government. In addition, the results of the four state parliamentary elections in Germany in 2019 might also lead to an early end of the term of office of the current government and new elections.

As seen from the perspective of the market, there is the risk that these political developments might also have an impact on the energy and commodity markets as well as the business activities of the EEX Group, e.g. as a result of fundamental political changes and a potential reversal of decisions already taken. Moreover, the interaction and consistency between national and European legislation could also be affected. Finally, there is the risk that international conflicts might lead to changes in international trade relations, e.g. in rules regarding the mutual recognition of trading platforms or clearing houses in other jurisdictions. There is a risk that licences which have already been issued may be withdrawn or newly applied for refused.

### Intensification of competition

The EEX Group's three main competitors (NASDAQ, ICE and CME) are represented in all relevant market areas (Europe, US, Asia) and, hence, are intensively competing with the EEX Group offering. Moreover, in Asia and, in particular, in freight and iron ore contracts, there is competition by SGX in Singapore.

The market actors specified offer power and gas products in the most important European and North American market areas and, for this reason, they are the most important EEX Group competitors.

	US Trading Clearing		Eu	rope	Singapore		
			Trading	Trading Clearing		Clearing	
ice.	•	•	•	•	•	•	
⊕ CME Group	•	•	•	•	•	•	
Nasdaq	•	0	•	•	•	0	
>eex group	•	•	•	•	•	•	

Full exchange or clearing-license

Equivalent recognition as an exchange or clearing house

O No regulatory status, no license

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### Presence of main competitors on the EEX Group's core markets

	NASDAQ	ICE	CME
Power derivatives markets			
Scandinavia	х		
Germany	х	х	х
Italy	х	х	х
France	х	х	
UK		х	
USA	х	х	х
Gas spot markets			
UK		х	
Germany		х	
Netherlands		х	
France			
Gas derivatives markets			
Netherlands	х	х	х
Germany	х	х	
France			
Italy		х	
USA	х х	Х	Х

NASDAQ is the leading provider of power derivatives in Scandinavia. Moreover, NASDAQ also generated significant volumes in the German power derivatives market. Individual market participants regularly use the respective ICE offer on individual trading days. On the North American power market, EEX Group established itself as an important trading platform with its subsidiary Nodal Exchange. ICE is the most important competitor in this market.

On the European gas markets, ICE is also the clear market leader. It can be expected that the positive development of exchange-traded volumes on the European energy markets will lead to an intensification of competition – for example in the form of price wars and further market entries. New regulatory provisions could lead to a further increase in competition between brokerage and exchange trading venues. The entry of competitors in both the existing markets of EEX Group and the EEX Group growth markets entails the risk that opportunities to influence the design of the European energy markets might be lost and that its own commercial targets might not be achieved.

The intensification of the competition for power spot market products in Europe as a result of CACM which enables exchanges to compete on most European power spot markets constitutes a further risk. This bundles the liquidity of the individual exchanges within a market, as a result trading and clearing fees in day-ahead and intraday markets constitute an increasingly important distinguishing feature. This concerns, in particular, the core power spot markets in Germany and France as well as, e.g., markets in Belgium, Austria and the Netherlands. In this respect, EEX Group began competing with the formerly regional competitors, such as Nord Pool and EXAA, in 2018. In addition, NASDAQ announced that it would request admission as a power spot market operator in Sweden and expand its offering to further markets. As a result, competition can be expected to increase.

### Challenging market environment for the EEX Group customers

The great majority of the EEX Group's customers consists of energy and utility companies, transmission system operators, commodity traders and commodity hedge funds.

As a consequence of the energy transition, energy and utility companies are facing far-reaching strategic and financial challenges which could, ultimately, lead to their withdrawal from the EEX Group's markets, as has already happened in individual cases. The decline in revenue associated with the energy transition and a concurrent increase in depreciation/ amortisation and provisions for the decline of conventional power generation both place a significant strain on the profitability of these companies. The current situation is affecting the willingness of energy and utility companies to pay for exchange trading activities as well as the credit assessments of external investors and, as a result, the ability of energy and utility companies to provide collateral for exchange transactions. On the other hand, a decline in the creditworthiness of trading participants leads to the reduction of bilateral credit lines, as is usual in OTC trading. In part, this has led to a shift from over-the-counter trading to the exchange resulting in a positive impact on the EEX Group's business activities.

Risk and opportunities report

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### Essential opportunities

### Organisation of opportunity management

Within the EEX Group, management of opportunities is carried out in the context of strategic management, corporate and product development as well as a continuous improvement process. Based on an analysis of strengths and weaknesses, which is regularly updated, opportunities are identified for entry into new markets or strengthening the Group's market position in existing markets via sophisticated products or processes, an improved cost base as well as new pricing strategies or new partnerships. The projects are then prioritised as part of the annual strategy discussion and planning processes as well as project portfolio management. In this context, value added from the customer's perspective is taken into account, as well as strategic aims and available resources. Essential opportunities are characterised by a significant impact on the assets, financial and earnings position and, as a result, are regularly submitted for profitability assessments during the prioritisation phase. These assessments are recorded in a business plan, along with any major quality assumptions. In this context, the financial analysis (costs, revenue, cash flows and net present value) is conducted for a multi-year period.

### Organic growth potential

In general, there is organic growth potential for the EEX Group, particularly in increasing its market share in existing markets and opening up new markets.

The following measures will make it possible to increase the market share in the existing markets:

- Further increasing the attractiveness of the EEX Group as a trading platform;
- · Further improving and expanding clearing services;
- · Additional product innovations and regional growth.

Various measures can be taken to increase the attractiveness of the EEX Group's markets. On the one hand, the quality of individual order books can be enhanced by improving their liquidity and by reducing the bid-ask spread by acquiring additional market makers or liquidity providers providing additional liquidity in the order books. On the other hand, targeted price measures also provide the opportunity to increase

the attractiveness of the EEX Group's markets. Creating new representative offices also increases the presence of the EEX Group in local markets and thus its awareness.

In addition, the above-mentioned CACM regulation offers the opportunity to expand the existing market offering for power spot market products. As a result, the EEX Group can begin to operate in markets, which have not been part of its offering so far.

The further development and expansion of clearing services will directly improve the competitive position of the two clearing houses belonging to the EEX Group. All measures which reduce barriers to market entry (particularly relevant for smaller trading participants) while cutting the costs of clearing can lead to the addition of further clearing participants. Further, the introduction of new services, the expansion of clearing house licences as well as the admission of clearing members facilitated by this and the connection of new partner exchanges are also relevant in this regard. Against the background of increasingly stringent regulatory requirements and, therefore, the growing importance of clearing worldwide, this constitutes a significant opportunity for improving the positioning of ECC and Nodal Clear in the global clearing business.

Product innovations tailored to customer requirements can provide the EEX Group with significant opportunities for increasing its market share. The EEX Group is able to respond to changing conditions by developing new, customised products or by adjusting its existing product portfolio. Examples include the day and week-ahead futures introduced on the power derivatives markets as a result of a trend towards increased short-term trading because of the energy transition or the introduction of further short-term products in the gas segment.

### Inorganic growth potential

In future, opportunities may again arise for the EEX Group to expand its activities inorganically. This concerns both partnerships or acquisitions with a view to strengthening existing markets and with a focus on the regional expansion and extension of the product range. Inorganic growth underlines the Group's strategic aim of establishing itself as a globally operating exchange for commodity products.

Outlook report

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### General statements on threats and opportunities

In spite of growing uncertainties, in particular due to the financial burdens on the large energy groups (which are important trading participants of the EEX Group) and increasing regulatory developments in both the financial and the energy sector, the risk assessment for the 2018 financial year has not indicated any threat to the Company's continued existence on account of individual risks or aggregated risk positions. However, since there are further noteworthy – and particularly industry-specific – risks, setbacks on the way to permanently implementing planned growth targets cannot be ruled out.

Overall, in view of its innovative and increasingly diversified portfolio of products and services, as well as its earnings power and financial strength, the EEX Group sees itself as being well prepared to achieve its aims and to further strengthen its position with regard to intensified competition. This is due to the competitive value chain within the Group, which is characterised by liquid trading platforms and cost-effective clearing solutions, as well as further services. The EEX Group has set itself the aim of achieving growth rates in the future and increasing its market share in the medium term.

The Management Board is confident that the risk and opportunities management system established within the company will also recognise risks and opportunities early on in future and that, as a result, the current risk position can be successfully managed and potential opportunities can be realised.

### 4. Outlook report

Comparison of earnings position with the forecast for the 2018 financial year

The EEX Group has reached the target range for sales revenue and earnings before taxes forecast for the reporting year. This was primarily due to the very successful development of sales revenue in almost all business fields and the other revenue components.

in kEUR	Forecast 2018	Actual 2018
Net revenue	240,353 - 265,654	252,607
Earnings before taxes	91,909 - 101,584	91,977

### Forecast for the 2019 financial year

The outlook report describes the probable development of the EEX Group in the 2019 financial year. It contains statements and information regarding future processes and is based on current expectations, assumptions and forecasts of the Management Board and on the information available at the time of publication. These forward-looking statements cannot be considered as guarantees regarding the future developments and results referred to therein. Instead, the future developments and results depend on a large number of factors. They involve different risks and uncertainties and are based on assumptions which might turn out to be inaccurate. The Group does not assume any obligation to update the forward-looking statements made in this report.

Outlook report

The forecasts listed below are essentially based on the following assumptions regarding the economic, regulatory and competitive environment in 2019:

- Potential changes within the regulatory environment do not have a detrimental impact on the EEX Group.
- Regulatory changes affecting financial markets (for example higher capital requirements for clearing members, no introduction of a financial transaction tax) do not lead to an impairment.
- There is no negative impact on the liquidity of the core markets as a result of changed power market design and, in particular, a possible division of further price zones or through the introduction of capacity markets.
- There are no price wars with competitors.

Further growth in sales revenue in all business areas is expected for the 2019 financial year with the power and gas markets in Europe and North America expected to continue to be essential drivers of growth. This growth is driven to a significant degree by the increase of the EEX Group market shares in the European and North American power and gas markets. Furthermore, because of the constant growth in liquidity on EEX Group trading platforms as well as an improvement and expansion in the Group's range of products and services and the technical availability for the customer, growth in the number of trading and clearing participants is expected to continue in the future. Overall Net revenue is expected to range between kEUR 248,730 and kEUR 276,367 in 2019.

The attainment of these growth targets requires additional expenses in the form of variable costs as well as additional investments in product development and projects, in IT infrastructure and an increase in staff numbers. Moreover, the EEX Group expects costs to increase in connection with the implementation of regulatory requirements in 2019. As a result, increasing fixed costs in the range between kEUR 170,466 and kEUR 188,409 are expected.

Considering the planned sales revenue and costs for the 2019 financial year, earnings before taxes are expected to be in a range of kEUR 78,265 to kEUR 87,957 are expected. The EEX Group cash flow is estimated to be in a range between kEUR 158,272 and kEUR 183,263.

If, contrary to expectations, conditions do not develop as outlined above, the EEX Group is convinced that it will still be able to operate its business profitably because of its successful business model. Sensitivity analyses have shown that a decline of 10% compared to the budget would correspond to a decline in profits of approximately 29%. In this context, it is assumed that no cost-cutting measures would be taken and that fixed costs would be kept constant. Subject to these assumptions, a decline in Net revenues of approx. 65% could be handled without resulting in negative earnings before taxes.

# Overall statement on the future development of the EEX Group

As a result of its diversified business model, the EEX Group is convinced that it is very well prepared and expects a positive development in its earnings position in the coming year as well as in the medium term. In 2019, the focus will be on the further development of the Group's position in individual markets, the development of new markets as well as the continuing integration of the trading platforms in the USA, Europe and Singapore into the corporate group. The further strengthening and expansion of the good position established within a competitive environment, (particularly on the power spot and derivatives market as well as the gas markets), form the strategic aim for the coming financial year.

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# 5. EEX AG (Notes based on HGB [German Commercial Code])

### Business and general framework

Unlike the consolidated financial statements, the annual financial statements of EEX are not prepared in accordance with International Financial Reporting Standards (IFRS) but according to the provisions of the German Commercial Code (HGB) as well as the supplementary provisions of the German Companies Act (AktG).

EEX is the parent company of the EEX Group. It operates the power derivatives, environmental products, agriculturals and freight business fields. The companies of EEX Power Derivatives GmbH (EPD), Global Environmental Exchange GmbH (GEEX) and Agricultural Commodity Exchange, which were still operated for the individual business fields as of the end of the 2017 financial year, were merged into EEX AG with effect as of 1 January 2018. In addition, EEX operates Market Data Services for all companies based in Germany and provides the technical connection landscape for these companies' customers. Furthermore, it is the central service provider for its subsidiaries in the context of service level agreements.

Statements on the shareholding structure, the shareholder and capital structure as well as the corporate management of EEX are provided under the section "Group overview and basic information" in the "Business activities and group structure" subsection. Information on strategy and research and development is also provided in the corresponding sections on the EEX Group.

Because of the structure of the EEX Group and EEX's position as a parent company within the Group, EEX participates in the development of all business areas within the Group in accordance with the respective shareholdings via profit and loss transfer agreements and dividends. With regard to statements on business development and the general framework, reference is made in the report on the "Economic position" of the EEX Group and the corresponding sections "Macro-economic, industry-specific and regulatory framework" and "Business development".

### Earnings position

EEX was able to significantly improve its earnings position in the past financial year. This growth was based on the positive development in almost all business fields of EEX and its subsidiaries. Furthermore, the profit and loss account of EEX was significantly shaped by the transfer of EPD, GEEX and ACEX into EEX.

In the past financial year, the total revenue of EEX – i.e. the sum of sales revenue, other operating income and investment income - was kEUR 142,843 and, hence, around 40% higher than in the previous year. The annual net profit was kEUR 45,459 compared to kEUR 36,740 in the previous year and, hence, 24% higher.

### Profit and loss account of EEX AG

in kEUR	2018	2017
Sales revenue	74,562	29,761
Other operating income	2,369	784
Staff costs	22,551	15,777
Depreciation on intangible assets of the fixed assets and property, plant and equipment	5,137	4,159
Other operating expenses	53,756	27,026
Investment income	65,911	71,262
Other interest and similar income	1,094	716
Expenses from the assumption of losses	0	3,054
Interest and similar expenses	208	180
Income taxes	16,821	15,587
Other taxes	3	1
Net profit for the period	45,459	36,740

#### Sales revenue

In the 2018 financial year, EEX generated sales revenue of kEUR 74,562, which corresponds to a 151% increase as compared to the previous year (kEUR 29,761). This consists of transaction fee revenue from trades concluded at EEX, other sales revenue and revenue from the provision of services in the context of intragroup service agreements. In addition to the generally positive development of business, the strong increase in the sales revenue was caused by the transfer of the subsidiaries EPD, GEEX and ACEX to EEX, which led to a shift

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in the corresponding revenue from investment income to sales revenue.

During the reporting year, transaction revenue of kEUR 50,880 was generated from trading in power derivatives contracts, environmental products, freight contracts and agricultural products. In the previous year, the transactions revenue was kEUR 152 and only comprised the revenue from trading in freight contracts.

The other sales revenue consisted of revenue from technical connections (kEUR 2,501; 2017: kEUR 2,456), revenue from marketing of information products and transparency data as well as regulatory reporting (kEUR 3,463; 2018: kEUR 2,933), annual fees (kEUR 3,140; 2017: kEUR 93) as well as training fees (kEUR 257; 2017: kEUR 335) and other sales revenue (kEUR 153; 2017: kEUR 16).

In the previous financial year, the revenue from intragroup service agreements of kEUR 14,066 (2017: kEUR 23,722) formed an essential EEX sales component. In its capacity as the parent company of the EEX Group, EEX provides a wide range of services, such as IT services, management services and administrative services, for its subsidiaries. The costs of these services are charged via service level agreements. The decline in sales as against the previous year was essentially due to the transfer of the subsidiaries EPD, GEEX and ACEX to EEX, as a result of which revenue was no longer generated from the provision of services. The sales revenue from the provision of services towards the other subsidiaries, however, increased as against the previous year because of the provision of additional services for the subsidiaries and the increase in costs of EEX by kEUR 2,739.

### Other operating income

In the 2018 financial year, other operating income was kEUR 2,369 (2017: kEUR 784). This income primarily included revenue from exchange rate gains as well as the reversal of provisions.

### Expenses

During the reporting period, EEX **staff costs** increased by 43% from kEUR 15,777 to kEUR 22,551. This was mainly caused by the increase in staff as a result of the transfer of the EPD staff in the context of the merger with EEX but also by the continued staff expansion for the further development of business and compliance with increased regulatory requirements. Moreover, because of the positive development of business higher bonus provisions were created during the reporting period.

Compared to 2017, **depreciations** of intangible assets, including capital assets and property, plant and equipment, increased to kEUR 5,137 by kEUR 977. This increase (23%) was due to the ongoing high investments in IT systems. These are necessary for the:

- optimisation of the IT infrastructure and IT processes,
- implementation of system adjustments for the introduction of new markets and products,
- · fulfilment of regulatory requirements.

In total, **other operating expenses** grew from kEUR 27,026 to kEUR 53,765 during the reporting year. To a large extent, these were determined by variable costs and expenditure on IT systems, consultancy, marketing and infrastructure. This increase in expenses was primarily connected with

- variable fees and costs as well as performance-related reimbursements to certain market participants, such as market makers, brokers or liquidity providers for the markets for power derivatives, environmental and agricultural products taken over by EPD, GEEX and ACEX,
- the growth of the entire corporate group and the resulting higher costs for infrastructure and travelling.
- · the implementation of new strategic projects,
- the constant optimisation of the IT infrastructure and IT processes as well as the general expansion of the business area with effects on IT systems,
- · increasing regulatory requirements,
- · exchange rate fluctuations.

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### Investment income

As a result of the EEX Group structure and the position of EEX as the parent company within the Group, EEX participates in the development of its subsidiaries and, as a result, of all business fields within the group through profit-and-loss transfer agreements and dividends.

EEX's results were primarily driven by investment income and expenses from the assumption of losses, which were kEUR 65,911 in the past financial year compared with kEUR 68,208 in the previous year. These results consist of income from shareholdings in EPEX and Powernext as well as income or expenses from the transfer of results from ECC. However, the investment income from EPD, GEEX and ACEX is no longer included in these positions. After adjustment for the income or expenses from the profit and loss transfer of these companies, the investment income in 2017 was kEUR 52,369 and, as a result, increased by kEUR 13,542.

The increase in investment income in the past financial year was primarily due to the strong growth of the subsidiaries Powernext and ECC. In 2018, the profit transfer from ECC to EEX was kEUR 49,930 (2017: kEUR 41,215). After kEUR 8,709 in the previous year, Powernext paid out a dividend of kEUR 13,755 from the 2017 profits. The EPEX dividend from the 2017 profit was kEUR 2,226 (2017: kEUR 2,444).

As the parent company, EEX depends on the operating results of its subsidiaries because of the effects outlined above. The combined results from the shareholdings account for 46% (2017: 70%) of the total results (consisting of sales revenue, other operating income and investment income).

### Financial result

During the reporting year, the financial result (consisting of interest income and expenses, external and internal loans as well as appreciation and depreciation/amortisation in the value of financial assets) was kEUR 886 (2017: kEUR 537). This reporting year included a one-off effect of the depreciation of the CLTX investment. Moreover, the 2018 financial result included interest income from affiliated companies as well as interest expenses for internal and external loans.

### Asset position

### Balance sheet of EEX Group as of 31 December 2018

in kEUR	2018	2017
Assets		
A. Fixed assets	349,019	342,340
I. Intangible assets	7,110	7,858
II. Property, plant and equipment	2,114	838
III. Financial assets	339,795	333,645
B. Current assets	57,421	25,139
I. Receivables and other assets	53,348	23,686
II. Cash in hand and cash at bank	4,073	1,453
C. Accruals	1,868	1,062
	408,308	368,542
in kEUR	2018	2017
Liabilities		
A. Equity	340,295	311,056
I. Subscribed capital	60,075	60,075
II. Capital reserves	145,458	145,458
III. Retained earnings	106,753	84,023
IV. Profits brought forward/losses brought forward	5,279	3,130
V. Balance sheet profit	22,730	18,370
B. Provisions	16,949	8,496
I. Tax provisions	135	234
II. Other provisions	16,815	8,262
C. Liabilities	51,055	48,985
I. Liabilities to banks	0	7,000
II. Pre-payments received on orders	0	0
III. Trade payables	1,050	1,227
IV. Liabilities to affiliated companies	49,531	40,419
V. Other liabilities	474	339
D. Deferrals	8	4
	408,308	368,542

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### **Development of assets**

During the year under review, the fixed asset value of kEUR 349,019 increased by kEUR 6,679 and was primarily influenced by a rise in value of financial assets by kEUR 6,150 to kEUR 339,795 compared to the previous year. Financial assets reflect the acquisition and sale of shares on the one hand and lending to affiliated companies on the other. Intangible assets and property, plant and equipment increased by kEUR 528 to kEUR 9,224.

As of the reporting date, current assets of kEUR 57,421 (+kEUR 32,282 compared to the previous year) consisted of accounts receivable from affiliated companies of kEUR 46,214 (2017: kEUR 21,323), trade receivables of kEUR 5,830 (2017: kEUR 819), other assets of kEUR 1.304 (2017: kEUR 1,545) as well as cash in hand and cash in bank accounts of kEUR 4,073 (2017: kEUR 1,453). The increase in accounts receivable from affiliated companies is essentially due to cash pooling with DBAG.

As of the reporting date, accruals were kEUR 1,868 (2017: kEUR 1,062).

### Development of equity and debt

EEX's assets were financed through equity of kEUR 340,295 (2017: kEUR 311,056) and debt of kEUR 68,005 (2017: kEUR 57,481). The debt consisted of provisions of kEUR 16,949 and liabilities of kEUR 51,055. Moreover, deferrals of kEUR 8 were formed.

Compared to the previous year, provisions increased by kEUR 8,453 and largely consisted of provisions for outstanding invoices (kEUR 9,209) and provisions for bonuses (kEUR 6,422).

Liabilities were kEUR 2,070 higher than in the previous year. They comprised liabilities to affiliated companies (kEUR 49,531), trade payables (kEUR 1,050) and other liabilities (kEUR 474).

As of the reporting date, the EEX balance sheet total was kEUR 408,308 as against kEUR 368,542 in the previous year. At 83%, the equity ratio at the end of the 2018 financial year was slightly lower than in the previous year. The equity ratio is calculated total equity as a proportion of the balance sheet total as of the reporting date (31 December 2018).

### Financial position

As a result of the positive development of business in 2018, liquidity rose from kEUR 1,453 on the 2017 balance sheet date to kEUR 4,073 on the 2018 balance sheet date. The solvency of EEX was not at risk at any time during the year under review and the company was able to cover the expenses resulting from its business operations at all times. In order to secure EEX's liquidity requirements, there are also intra-group and external credit lines which can cover short-term, additional liquidity requirements as they arise. As a result of the mode of payment under the profit-and-loss transfer agreements with its subsidiaries (quarterly pre-payment instead of annual payment) the liquidity of EEX is additionally protected.

### Employees of EEX AG

On the balance sheet date (31 December 2018), EEX had 200 employees – compared with 162 employees as of the 2017 balance sheet date. This increase was largely due to the transfer of the EPD staff in the course of the merger with EEX, but also to the continued increase in staff for the further expansion of business and compliance with higher regulatory requirements.

As at the reporting date, the age group of the employees was as follows:

	No. of	
Age group	employees	Share
< 30 years	29	15%
30-39 years	98	49%
40-49 years	46	23%
> 50 years	27	13%
Total	200	100%

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As of 31 December 2018, 90% of EEX's workforce had a college or university degree (unchanged compared to the previous year). This share is based on the number of employees who graduated from a university, college or vocational academy.

As of the reporting date, female employees accounted for 46% of staff (50%). As of 31 December 2018, there were 27 executive positions at EEX (2017: 22), of which women held 5 (2017: 6).

### Threats and opportunities report

For the most part, the risks and opportunities for EEX as well as measures and processes to be adopted when dealing with these risks and opportunities correspond to those of the EEX Group which are outlined in the section "Risk and opportunities report". In principle, EEX participates in the risks and opportunities of every shareholding and subsidiary in accordance with its shareholding.

The description of the internal control system (ICS) requested according to section 289 sub-section 5 HGB was provided in the "Group overview and basic information" of the EEX Group within the "Management control" section.

### Outlook report

The probable business development of EEX is essentially subject to the same influences as the EEX Group. Statements on this are contained in the "Outlook report" of the EEX Group.

### Other notes

The annual financial statements of European Energy Exchange AG, Leipzig, as of 31 December 2018, were prepared in accordance with the provisions of the German Commercial Code (HGB) in compliance with the supplementary provisions of the German Companies Act (AktG).

# Statement by the Management Board according to section 312 sub-section 3 AktG

As a subsidiary of Deutsche Börse AG, EEX has prepared a dependency report according to section 312 AktG. The final statement in this report is as follows:

"The Management Board of European Energy Exchange AG, Leipzig, declares in accordance with section 312 AktG that the company has undertaken adequate consideration for every legal transaction listed. The assessment was effected on the basis of the circumstances at the time at which the legal transaction was concluded

During the period under review, there were no further legal transactions in addition to the legal transactions listed and we are not aware of any measures which would have to be reported."

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### 6. Other notes

The 2018 consolidated financial statements of European Energy Exchange AG, Leipzig, and its subsidiaries were prepared in accordance with the International Financial Reporting Standards (IFRS) of the International Accounting Standards Boards (IASB), in the version in which these have to be applied in the European Union.

The consolidated management report was prepared on the basis of section 315 HGB (German Commercial Code). The consolidated management report was prepared based on the German Accounting Standard DRS 20.

EEX AG (as the parent company of the Group) is not publicly listed and does not use any organised markets (within the meaning of section 2 subsection 7 of the German Securities Acquisition and Takeover Act) as regards voting shares issued by it.

Leipzig, 1 March 2019

Peter Reitz

Chief Executive Officer (CEO)

Steffen Köhler

Chief Operating Officer (COO)

Dr Egbert Laege

Executive Director Gas Markets

Dr Dr Tobias Paulun

Chief Strategy Officer (CSO)

Jens Rick

Chief Information Officer (CIO)

Iris Weidinger

Chief Financial Officer (CFO)

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# Consolidated Statement of Profit or Loss and Other Comprehensive Income

k€	Note	01/01/2018 - 31/12/2018	01/01/2017 – 31/12/2017
Sales revenue	[6]	267,654	225,320
Net income from banking business	[7]	8,872	1,133
Other operating income	[8]	1,325	517
Volume-related costs	[9]	-25,243	-19,705
Net revenue		252,607	207,265
Staff costs	[10]	-65,513	-56,493
Depreciation, amortisation and impairment losses	[11]	-19,635	-15,452
Other operating expenses	[12]	-75,482	-61,834
Operating result		91,977	73,486
Financial income	[13]	594	1,016
Financial expense	[13]	-239	-228
Financial result		356	788
Income from at equity investments	[14]	-227	-50
Earnings before tax (EBT)		92,106	74,224
Income tax expense	[15]	-25,394	-20,358
Net profit for the period		66,712	53,866
Of which attributable to			
shareholders of EEX AG		53,620	43,956
non-controlling interests		13,091	9,910
Reconciliation to consolidated comprehensive income			
Net profit for the period		66,712	53,866
Other comprehensive income	[16]	8,474	-18,461
Total comprehensive income		75,186	35,405
Of which attributable to			
shareholders of EEX AG		62,091	25,552
non-controlling interests	[26]	13,094	9,853

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# Consolidated Statement of Financial Position

### **ASSETS**

	Consolidated		
k€	notes	31/12/2018	31/12/2017
Non-current assets		368,320	347,757
Goodwill	[17]	129,119	125,900
Intangible assets	[17]	194,559	196,503
Property, plant and equipment	[18]	6,299	3,384
Investments in associates and joint ventures	[19]	278	60
Other equity investments	[19]	0	24
Derivative financial instruments	[20]	29,572	12,424
Deferred tax assets	[15]	8,493	9,463
Current assets		6,749,078	3,213,614
Derivative financial instruments	[20]	73,102	6,806
Trade receivables	[21]	585,319	377,887
Other assets	[22]	9,848	11,041
Tax refund claims	[22]	26	736
Accounts receivable from associates	[23]	25	101
Restricted bank balances	[24]	5,904,259	2,682,771
Other cash and bank balances	[25]	176,498	134,271
Total assets		7,117,397	3,561,371

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# Consolidated Statement of Financial Position

### LIABILITIES

	Consolidated		
k€	notes	31/12/2018	31/12/2017
Equity		474,135	425,806
Subscribed capital	[26]	60,075	60,075
Capital reserve	[26]	145,458	145,458
Reserves	[26]	126,525	86,276
Retained earnings	[26]	100,676	103,481
Other results	[16]	-10,805	-19,275
Non-controlling interests	[26]	52,205	49,791
Long-term liabilities		61,210	50,089
Non-current provisions	[27]	1,410	1,217
Derivative financial instruments	[20]	29,572	12,424
Non-current liabilities	[28]	186	794
Deferred tax liabilities	[15]	30,042	35,656
Short-term liabilities		6,582,052	3,085,475
Current provisions	[29]	12,960	10,666
Derivative financial instruments	[20]	73,102	6,806
Other bank loans and overdrafts		0	7,000
Trade payables	[30]	572,182	364,403
Payables to affiliated companies	[38]	30,127	30,051
Cash deposits by trading participants	[31]	5,875,265	2,656,060
Other current liabilities	[32]	18,415	10,489
Total equity and liabilities		7,117,397	3,561,371

Consolidated Statement of Changes in Equity

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# Consolidated Statement of Changes in Equity

	Subscribed	Capital	Reserve according to EMIR Article	Results	Equity of EEX	Share of non-con- trolling interests	Consolida-
As of 31/12/2016	capital	10,000	7,500	generated 167,041	shareholders 224,533	59,314	ted equity 283,846
Total result				43,956		9,910	
Capital increase	20,025	135,369		· ·	-		
Consolidation effects				-19,104		-6,963	
Dividends paid				-10,814		-12,412	
Reclassifications of reserves			2,500	-2,500			
Sale of treasury shares	58	89		306			
Net investment hedge				-5,329			
Foreign currency effects				-13,075		-57	
As of 31/12/2017	60,075	145,458	10,000	160,481	376,014	49,792	425,806
Total result				53,620		13,091	
Capital increase							
Consolidation effects							
Dividends paid				-16,220		-10,573	
Reclassifications of reserves			1,500	-1,500			
Sale of treasury shares							
Net investment hedge				1,959			
Actuary gains (losses)				313			
Foreign currency effects				6,199		3	
Others				45		-108	
As of 31/12/2018	60,075	145,458	11,500	204,897	421,930	52,205	474,135

Consolidated Statement of Cash Flows

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# Consolidated Statement of Cash Flows

	Consolidated	2010	
k€	notes	2018	2017
Change in scope of consolidation	[5]	0	13,803
Annual net profit		66,712	53,866
Depreciations on intangible assets and property, plant and equipment	[11]	19,635	15,452
Expenses for/income from deferred taxes	[15]	4,971	3,182
Result of at-equity investments	[14]	-227	-50
(Increase)/Reduction in trade receivables and other assets	[21]-[23]	5,663	-1,188
(Increase)/Reduction in liabilities and provisions	[27]-[30], [32]	3,681	-26,291
Cash flow from operating activities		100,435	44,971
Payments for investments in associated companies	[19]	-507	-125
Payments for investments in intangible assets	[17]	-11,727	-11,307
Payments for investments in property, plant and equipment	[18]	-5,181	-1,089
Payments for the acquisition of shares in fully consolidated subsidiaries	[5]	0	-215,683
Dividends received	[12], [18]	0	0
Cash flow from investing activities		-17,415	-228,204
Dividend payments to shareholders of EEX AG	[26]	-16,220	-10,814
Dividend payments to non-controlling interests	[29]	-10,573	-12,412
Cash inflow from non-controlling interests		0	0
Cash inflow (outflow) from short-term financing		-7,000	36,983
Outflow of funds from the acquisition of own shares		0	453
Cash inflow from capital increase		0	155,394
Cash flow from financing activities		-33,793	169,604
Cash-effective change in cash and cash equivalents		49,227	174
Cash and cash equivalents at the beginning of the accounting period		127,271	127,097
Cash and cash equivalents at the end of the accounting period		176,498	127,271
In the financial year			
Interest received and similar income	[13]	586	960
Interest paid and similar expenses	[13]	-209	-209
Taxes on income paid	[15]	5,105	13,769

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### **Principles and Methods**

### 1. General principles

The European Energy Exchange (EEX) is the leading energy exchange in Europe. It develops, operates and connects secure, liquid and transparent markets for energy and commodity products. Within EEX Group, contracts on Energy, Environmental Products, Freight Rates, Metal and Agricultural Products, are traded or registered for clearing and settled.

EEX is a public limited company registered in the Federal Republic of Germany. It has its registered offices at Augustusplatz 9, 04109 Leipzig, Germany and is registered in the commercial register of the Leipzig Local Court under HR B no. 18409.

EEX Group is fully consolidated in the consolidated financial statements of Deutsche Börse AG.

These consolidated financial statements are submitted to the Supervisory Board at its meeting on 17 April 2019.

### 2. New standards and interpretations

### **INFORMATION ACCORDING TO IAS 8.28**

The standards and interpretations listed below were applied for the first time in the 2018 financial year.

### IFRS 9 Financial Instruments

Revised guidelines for the classification of financial assets; new provisions regarding recording of impairments on the basis of a model of the expected losses; new provisions regarding the representation of hedge accounting. The standard was endorsed by the EU on 22 November 2016 and is applicable for financial years beginning on or after 1 January 2018.

### IFRS 15 Revenue from Contracts with Customers

IFRS 15 contains provisions on the realisation of sales revenues from contracts with customers. According to these rules, sales revenues are recognised when the promised goods or services were transferred to the customer and the customer can benefit from it. Sales revenues are valuated at the amount of the consideration which the entity expects to receive. The new provisions of IFRS 15 will replace the current rules of IAS 11 and IAS 18 together with the corresponding interpretations. The standard is applicable for financial years beginning on or after 1 January 2018 and allows earlier adoption. The standard was endorsed by the EU on 22 September 2016 with the clarification being endorsed on 31 October 2017.

Revenues are mainly generated through fees, which are charged for exchange trading and clearing of Commodity products. Transaction fees are stated in the price list. Rebates are mainly granted as monthly discounts on the provision of a defined volume or liquidity level. Such discounts depend on the total monthly volume or the monthly performance of certain standards for the provision of liquidity.

Revenues are recognised on the matching or registration of a contract, that is when there are no unfulfilled obligations towards the customers because, at this time, the service had already been provided. EEX recognises receivables when the promised service has been provided at a certain point in time and the right of consideration depends on lapse of time only. The majority of the invoiced fees are directly debited via the clearing members; for this reason, there are no financing components.

The application of IFRS 15 did not have any significant impact on the presentation of the assets, earnings and financial position of EEX Group.

### INFORMATION ACCORDING TO IAS 8.30

EEX Group does not plan to apply the following new or amended standards and interpretations, whose application will only become necessary in subsequent financial years, earlier than required.

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### IFRS 16 Leases

IFRS 16 implements new rules for the accounting of leasing contracts. The new standard defines the recognition, measurement and presentation of leases on the balance sheet of the lessee, the right of use as an asset and the payment obligation as financial liability. The standard is applicable for financial years beginning on or after 1 January 2019 and allows earlier adoption in case of earlier adoption of IFRS 15 at the same time. The standard was endorsed by the EU on 31 October 2017.

The new rules of IFRS 16 are adopted for the first time in financial year 2019. The presentation of assets will change so that rights of use are being presented on balance sheet going forward together with the corresponding leasing liabilities. The presentation of earnings will not change significantly except for movements between different p&l positions.

### 3. Fundamental accounting and valuation methods

The fundamental accounting and valuation methods which are used in the preparation of these consolidated financial statements are described below. The methods described are used consistently for the specified accounting periods, unless otherwise stated.

### PRINCIPLES FOR THE PREPARATION OF THE FINANCIAL STATEMENT

The consolidated financial statements as of 31 December 2018 were prepared according to the International Financial Reporting Standards (IFRS) adopted and published by the International Accounting Standards Board (IASB) as adopted for application in the European Union. The consolidated financial statements were prepared by applying the regulations contained in (EC) Regulation no. 1606/2002 of the European Parliament and Council of 19 July 2002 regarding the application of international accounting standards in conjunction with art. 315a paragraph 1 HGB [German Commercial Code] under consideration of the supplementary provisions under commercial law.

The requirements of IFRS are fully fulfilled and ensure that an impression of the assets, earnings and financial position of the

Group is conveyed which is in line with the actual situation of the Group.

With the exception of derivatives, which are measured at fair value, the consolidated financial statements were prepared on the basis of the historical costs of acquisition and production.

The consolidated financial statements are prepared in EUR.
Unless otherwise stated, all amounts are specified in thousand
Euros (kEUR).

### PRINCIPLES OF CONSOLIDATION

### **Subsidiaries**

All companies in which the Group controls rights which are required to conduct the decisive activities of the subsidiary are defined as subsidiaries; as a rule, such control is accompanied by a share of more than 50% of the voting rights. In addition to this, EEX is exposed to fluctuating returns from subsidiaries and is able to influence these returns. In assessing the question of whether such control is ensured, the existence and effect of potential voting rights, which can be currently exercised or converted, is taken into account.

Subsidiaries are included in the consolidated financial statements (full consolidation) as of the time at which control was transferred to the Group. They are deconsolidated at the time at which such control ceases.

Accounting for subsidiaries acquired in a business combination is done according to the purchase method. The acquisition costs correspond to the fair value of the assets given, the equity instruments issued and the debts created and/or taken over at the time of the transaction. Assets, debts and contingent liabilities which can be identified in the context of a corporate merger are measured at fair value on the date of acquisition, regardless of the extent of non-controlling interests. The surplus of the acquisition costs over and above the Group's share in the net assets measured at fair value is shown as goodwill. If the acquisition costs are lower than the net assets of the acquired subsidiary measured at fair value, the amount of such difference is directly recorded in the profit and loss account.

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Intra-group receivables and payables as well as intra-group transactions are eliminated. In so far as necessary, the accounting and valuation methods for subsidiaries are adapted in order to ensure uniform accounting throughout the Group.

Assets held in the context of a fiduciary relationship are not considered as assets of the Group and are not reported in the consolidated financial statements.

### Transactions with non-controlling interests

Transactions with non-controlling interests are treated like transactions with parties external to the Group. Acquisitions and sales of non-controlling interests are recognised directly in equity in the consolidated financial statements.

### **Associates**

Associates are those companies over which the Group exercises significant influence but which it does not control; as a rule, this is accompanied by a share of between 20% and 50% of voting rights. Investments in associates are reported in the balance sheet by using the equity method and, initially, they are measured at their acquisition costs. The investment in associates includes the goodwill created upon the acquisition (after consideration of cumulative impairments).

The Group's share in the profit and loss of associates is recorded in the consolidated statement of profit or loss as at the date of acquisition. The cumulative changes after acquisition are set off against the book value of the investment. If the Group's share in the loss of an associate is equal to the share of the Group in this company, including other unsecured accounts receivable, or exceeds said value, the Group does not record any further losses unless it has entered into obligations for the associate or has made payments for it.

In so far as necessary, the accounting and valuation methods for associates are adapted in order to ensure uniform accounting throughout the Group.

### **Ioint Ventures**

Joint ventures are accounted for using the equity method as per IFRS 11.

### PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment assets are capitalised at the cost of acquisition and/or production and depreciated linearly as scheduled in accordance with the probable useful life.

Subsequent costs of acquisition and production, e.g. on account of expansion or replacement investments, are only recorded as a part of the costs of acquisition and production of the asset or – if appropriate – as a separate asset, provided it is likely that an economic benefit will accrue to the company from it in the future and that the costs of the asset can be reliably estimated.

Expenses for maintenance activities which do not constitute essential replacement investments (day-to-day services) are recognised as expenses in consolidated statement of profit or loss for the financial year during which they were incurred.

All assets are depreciated linearly. Office equipment is depreciated over a period of 13 years, while hardware is essentially depreciated over a period of three years.

Residual book values and useful life are reviewed as of every balance sheet date and adjusted if required. If the book value of an asset exceeds its estimated recoverable amount, it is immediately depreciated to the latter.

Gains and losses from the disposal of property, plant and equipment are determined as the amount of the difference between the sales proceeds and the book value of the property, plant and equipment, and recognised in profit or loss.

### INTANGIBLE ASSETS

Intangible assets are amortised linearly, provided they have a definite useful life.

### Goodwill

Goodwill is defined as the difference between the costs of acquisition of a company over and above the fair value of the share of the Group in the net assets of the company acquired at the time of acquisition. Any goodwill created by the acquisition of the company is reported in the balance sheet under intangible assets. Any goodwill resulting from the acquisition of an associate is contained in the book value of the investment in this associate. The goodwill shown in the balance

sheet is subject to an annual impairment test and carried at its historical cost of acquisition minus cumulated impairments. Reversals of impairment losses are not permissible.

Goodwill is allocated on cash-generating units for the purpose of the impairment test. This allocation is effected into those cash-generating units which were expected to benefit from the business combination during which the goodwill was created.

### Other intangible assets

Purchased software is capitalised at its cost of acquisition and production plus the cost for establishing a state ready for going into operation minus any possible grants. The total costs of acquisition are depreciated over the estimated useful life.

An intangible asset which is created by the company itself and results from development activity (or the development phase of an internal project) is shown, if and only if, all of the following proofs can be presented:

- Technical feasibility of completion of the intangible asset is ensured so that it will be available for use or for sale:
- The completion of the intangible asset as well as its use or sale are intended;
- There is a likelihood of using or selling the intangible asset;
- It has been assessed how the intangible asset will generate its probable future economic benefit;
- The expected future benefit in the form of external sales revenues exceeds the expected costs of the project;
- The availability of adequate technical, financial and other resources for the completion of the development and the use or sale of the intangible asset is ensured;
- There exists the capacity to reliably determine the expenses allocable to the intangible asset in the context of the development.

The value at which an intangible asset created by the company itself is capitalised for the first time corresponds to the total of the expenses incurred as of the day on which said intangible asset fulfils the conditions specified above. In the case where an intangible asset created by the company cannot be capitalised, the development costs are recognised as cost in the accounting period during which they are incurred.

Capitalised costs of acquisition and production for software are amortised linearly over its useful life. A useful life of three

years is assumed for standard software. Individual software, on the other hand, is amortised over five years.

### IMPAIRMENT OF NON-MONETARY ASSETS

Assets which have an indefinite useful life are not depreciated according to schedule; rather, they are subject to an impairment test, at least once a year, as well as upon the emergence of corresponding indicators as a supplement. Assets which are subject to scheduled depreciations are tested for impairment where there are corresponding triggers (events and/or changes in circumstances) signalling that the book value may no longer be realised. An impairment loss is recorded as the amount by which the book value exceeds the recoverable amount. The recoverable amount is the higher of the fair value of the asset less costs of disposal and its value in use.

For the purpose of the impairment test, assets are combined at the lowest level for which the cash flows can be identified separately (so-called cash-generating units). Non-monetary assets for which an impairment has been recorded in the past are reviewed as to whether a reversal of impairment losses needs to be effected as of every reporting date.

### LEASING CONTRACTS

The allocation of beneficial ownership has to be evaluated for every leasing contract. Leasing contracts in which an essential share of the risks and rewards associated with the ownership of the object of the lease remains with the lessor are classified as operating leases. Otherwise, the contract constitutes a finance lease.

Rented or leased assets whose beneficial owner is EEX are, according to IAS 17 (finance lease), shown in the assets at the present value of the rent or leasing instalments or at the fair value of the rental or leasing object, if such is lower, and depreciated linearly according to schedule.

Where ownership is transferred to EEX at the end of the leasing term, the period of depreciation corresponds to the useful life; otherwise, it corresponds to the leasing term of the object of the lease. The present value of the payment obligations from the future rental and leasing instalments is reported as a liability and subsequently reduced by the repayment share contained in the rental and leasing payments.

Rental and leasing contracts in which EEX cannot be allocated beneficial ownership are classified as operating leases. The expenses resulting from these agreements are recorded fairly at the time of the use of the corresponding rental and leasing objects. They are recorded linearly in the profit and loss account throughout the term of the leasing contract.

The classification of a leasing contract is assessed when the total of the leasing payments exceeds kEUR 50.

### FINANCIAL ASSETS

A financial instrument is defined as a contract which simultaneously leads to a financial asset for one company and to a financial liability or equity instrument for the respective other company.

Financial assets comprise the following:

- · Liquid funds;
- An equity instrument of another company held as an asset;
- · A contractual right:
  - a) to obtain liquid funds or other financial assets from another company, or
  - to exchange financial assets or financial liabilities with another company at potentially advantageous conditions; or
- A contract which will or can be fulfilled in own equity instruments of the company and which constitutes the following:
  - a) a non-derivative financial instrument which comprises or can comprise a contractual obligation of the company to receive a variable number of equity instruments of the company, or
  - a derivative financial instrument which will or can be fulfilled in another manner than through the exchange of a fixed amount of available funds or other financial assets in return for a fixed number of equity instruments of the company. In that sense, the equity instruments of a company do not comprise any instruments which themselves constitute contracts regarding the future receipt or the future sale of equity instruments of the company.

Recognition and derecognition of financial instruments are effected as per trading day. Said day is the day of the purchase or sale of a financial asset on which the terms of contract provide for the delivery of the financial asset within the time frame common for the market concerned. Initial recognition is effected at fair value plus transaction costs. Financial assets categorised as "at fair value through profit or loss" are exempt from this. In this case, initial recognition is effected at fair value without consideration of transaction costs.

Financial assets are allocated according to the following categories:

- Debt instruments, derivatives and equity instruments recognised at fair value through profit or loss;
- · Debt instruments at amortised cost;
- Debt instruments at fair value through other comprehensive income,
- Equity instruments at fair value through other comprehensive income.

The allocation to a category depends on the type and intended purpose of the financial assets and is effected upon addition of the asset. The allocation to a category needs to be reviewed as of every reporting date.

Financial assets in EEX group are allocated to the following three categories:

# Debt instruments, derivatives and equity instruments at fair value through profit or loss

These are financial assets classified as "held for trading" or as "assets recognised at fair value through profit or loss" at inception. A financial asset is assigned to this category if it was acquired with the intention of selling it in the short term on principle or where the financial asset was designated accordingly by management. Derivatives are also part of this category unless they are designated as financial instruments in a hedge relationship (hedges). Assets falling under this category are reported as current assets if they are either held for trading or will probably be realised within a period of 12 months after the balance sheet date.

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### Debt instruments at amortised cost

Loans and receivables are non-derivative financial assets with fixed and/or definable payments which are not quoted on an active market. They are part of the current assets if their term does not exceed a period of 12 months after the reporting date. If this is not the case, they are reported as non-current assets.

Loans and receivables are reported under trade receivables or other assets in the balance sheet.

# Equity instruments at fair value through other comprehensive income

According to IFRS 9, financial investments are also allocated to this category. They are generally shown in the balance sheet at fair value as at the reporting date.

### **DERIVATIVES AND HEDGES**

EEX has entered into short-term forward transactions in order to economically hedge the foreign exchange risk associated with forecasted net cash outflows in GBP for 2019. These derivatives have a notional value of 1 million GBP expiring in less than 12 months and are classified as held for trading. The fair values of the forward transactions were determined based on discounted cash flows expected for the future and using market interest rates for the remaining maturities of the financial instruments.

In connection with the acquisition of Nodal Exchange Holdings, LLC a shareholder loan with the principal amount of USD 50 million was designated as a hedge against foreign exchange risk arising from the translation of this item into euros to cover the net investment in Nodal Exchange Holdings, LLC. Effective exchange rate differences from the loan were reported in the balance sheet item "other comprehensive income", as are exchange rate differences from the translation of the functional currency of foreign subsidiaries. For the 2018 financial year the effectiveness of this net investment hedge was confirmed.

### FINANCIAL INSTRUMENTS OF THE CENTRAL COUNTERPARTIES

The European Commodity Clearing (ECC) und Nodal Clear being acquired in the financial year 2017 (see note 5) are the clearing houses of EEX Group and they have the function of a central counterparty.

### Unconditional futures transactions

In the case of certain futures, the physical delivery of the subject of the contract is intended and mandatory from the outset. The parties to the contract can close out their obligations through a matching transaction. Futures which were already traded before the reporting date but whose last trading day occurs after the reporting date, in particular, are relevant in terms of the balance.

Variation margins cover daily profits and losses of open positions which are caused by changes in the market price. Since this is a daily profit and loss settlement in cash, futures are not shown in the consolidated balance sheet according to IAS 39.17(a) and IAS 39.39.

Futures with mandatory cash settlement are treated as being equivalent to forward contracts with physical settlement and, consequently, they are neither shown as assets nor as liabilities in the balance sheet.

### Conditional futures transactions

In the case of options, the buyer of an option has to pay an option premium upon the conclusion of the contract. In the event of price fluctuations which have a negative impact on the seller of the option and lead to losses if the option is exercised, collaterals are called from the seller. The buyer of an option, on the other hand, cannot sustain any further losses beyond the option premium already paid, since the buyer is not obliged to exercise the option. In other words, the value of an option depends on the possible losses which the seller might sustain.

Options need be shown at fair value as at the reporting date. In this context, the option premiums for open positions are used. Assets and liabilities positions of the same amount are created since ECC, in its capacity as the central counterparty, has both an account receivable from the seller of the option and an account payable to the buyer of the option.

Options are classified under the category "financial assets or financial liabilities at fair value through profit or loss".

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### TRADE RECEIVABLES

Initially, trade receivables are recognised at fair value. Afterwards, they are valued at amortised acquisition cost and, in as far as they have a remaining term of more than 12 months, by using the effective interest rate method, as well as by deducting impairments. An impairment of trade receivables is recorded if there are objective indications pointing to the fact that the amounts of trade receivables which have fallen due cannot be collected in their entirety. Considerable financial difficulties of a debtor, an increased likelihood of the debtor becoming insolvent or entering into some other reorganisation measure and a breach of contract such as a default or delay in interest or redemption payments are considered indicators of the presence of an impairment. The amount of such impairment is categorised as other operating expenses in the consolidated statement of profit or loss.

For the measurement and recognition of expected loan losses within the trade receivables the simplified approach according to IFRS 9 was adopted. For this an allowance matrix is used which calculates allowances based on historical default rates on the basis of the ageing of the receivables.

### CASH AND CASH EQUIVALENTS

Cash and cash equivalents comprise cash assets, sight deposits and other highly liquid short-term financial assets with an original term of, at a maximum, three months, and overdraft facilities. These are financial assets available for sale.

Overdraft facilities used are shown as "Other bank loans and overdrafts" under current liabilities in the consolidated statement of financial position.

### **COLLATERALS**

According to the Clearing Conditions, every trading participant needs to provide a certain amount of collateral. This form of collateral can be delivered in securities, bank guarantees (only for the clearing fund) or in the form of cash funds.

Liabilities from cash collaterals are reported under the item "Cash deposits by trading participants" in the consolidated statement of financial position. The corresponding amounts are reported under "Restricted bank balances".

Collaterals delivered in the form of securities are pledged by the Clearing Members. These are not shown in the consolidated statement of financial position.

### FINANCIAL DEBTS

Upon their first recognition, financial debts are measured at fair value and after the deduction of transaction costs. In subsequent accounting periods, they are valued at amortised acquisition costs; every difference between the pay-out amount (after the deduction of transaction costs) and the repayment amount is recorded in the profit and loss account by using the effective interest method throughout the term of lending.

Loan liabilities are classified as current liabilities if the Group does not have the unconditional right to postpone the repayment of the liability to a date at least 12 months after the reporting date.

### **DEFERRED TAXES**

Deferred taxes are recognised for all temporary differences between the tax balance sheet value of the assets/liabilities and their book values according to IFRS. Deferred taxes are measured by using the tax rates (and taxation provisions) which are applicable on the reporting date or which have essentially been adopted legally at the reporting date and which are expected to be valid at the time of the realisation of the deferred tax asset and/or of the settlement of the deferred tax liability.

Deferred tax liabilities which are caused by temporary differences in connection with investments in subsidiaries and associates are stated, unless the time of the reversal of the temporary differences can be determined by the Group and it is likely that the temporary differences will not be reversed in the foreseeable future on account of this influence.

Deferred tax assets on losses carried forward are assessed to the degree to which it is likely that they can be used. The use of deferred tax assets on losses carried forward depends on whether sufficient taxable income is likely to be generated in the future. The earnings situation in the past as well as planning calculations are used to evaluate the likelihood of such a situation.

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### **EMPLOYEE BENEFITS**

Within the Group there are both defined benefit pension plans and defined contribution pension plans.

A defined contribution pension plan is a pension plan under which the Group pays fixed contributions to a company (fund) which is not part of the Group. The Group is not subject to any legal or de facto obligation to provide additional contributions where the fund does not have sufficient assets in order to settle the pension claims of all employees from the current and previous financial years. By contrast, defined benefit pension plans typically specify an amount for the pension benefit which an employee will receive upon retirement and which usually depends on one or more factors, such as age, length of service and salary.

The provision for defined benefit plans recognised in the consolidated statement of financial position corresponds to the present value of the defined benefit obligation (DBO) at the reporting date. The DBO is calculated annually by an independent actuarial expert by using the projected unit credit method. The present value of the DBO is calculated by discounting the expected future outflow of funds at the interest rate for industrial bonds with the highest credit rating. The industrial bonds are specified in the currency of the payment amounts and have terms corresponding to those of the pension obligations.

Current service costs to be settled subsequently are immediately recognised in the statement of profit or loss unless the modifications of the pension plan depend on the continuance of the employee in the company for a fixed term (term until the beginning of non-vesting). In this case, the current service costs to be settled subsequently are recognised in the statement of profit or loss linearly throughout the period until the beginning of non-vesting.

Actuarial profits and losses are immediately recognised in the statement of profit or loss. In so far as there are plan assets, these are deducted from the pension provision.

### **PROVISIONS**

Provisions are carried as liabilities where the Group has a current legal or de facto obligation resulting from a past event if it is more likely than not that the settlement of the obligation will lead to a cash outflow and the amount of the provision can be determined reliably. Provisions for future operating losses are not recorded.

Provisions are recognised at the present value of the expected expenses; in this process, a pre-tax interest rate is used which takes into account current market expectations regarding the interest effect and the risks specific to the obligation. Increases in the provision resulting merely from compounding are recognised as interest expenses in the statement of profit or loss.

### REVENUE RECOGNITION

All trading and clearing fees for derivatives transactions are provided on the trading day, while delivery fees for spot market transactions are provided upon successful nomination.

Sales revenue is recorded during the period in which the services are provided by the Group.

Interest income and interest expenses are recorded if it appears sufficiently likely that an economic benefit from the transaction will accrue to the Company and the amount of the revenue can be determined reliably. Interest expenses are recorded as expenses during the period in which they were incurred.

The statement of profit or loss is structured according to the total cost method.

### TRANSACTIONS IN FOREIGN CURRENCIES

Transactions in foreign currencies are converted into the functional currency (EUR) at the mean foreign exchange rate valid at the time of the transaction. Gains and losses resulting from the fulfilment of such transactions as well as from the conversion of monetary assets and debts recorded in foreign currencies at the exchange rate, valid at the reporting date, are recorded in the statement of profit or loss.

Foreign exchange differences which arise in the context of consolidation as a result of the conversion of financial statements in foreign currencies are recognised in other comprehensive income

### FAIR VALUE MEASUREMENT

The fair values of financial instruments are determined on the basis of corresponding market values or valuation methods. The fair values for liquid funds and other current original financial instruments (in particular trade receivables and trade payables) correspond to the book values shown in the balance sheet as at the respective reporting dates.

The fair value of derivatives traded in an active market is based on the exchange price on the reporting date. Since ECC acts as buyer and seller at the same time, the relevant exchange price of financial assets corresponds to their current bid price.

The fair value of financial liabilities disclosed in the Notes is determined by discounting contractual future cash flows at the currently valid market interest rate which would be granted to the Group for comparable financial instruments.

# 4. Estimates, valuation uncertainties and discretionary decisions

All estimates and assessments are constantly re-evaluated and are based on experience gained in the past and further factors, including expectations with regard to future events, which appear reasonable under the prevailing circumstances.

The Group makes assessments and assumptions regarding the future. The estimates derived from these will obviously only in very rare cases correspond exactly to the actual circumstances arising later.

The corporate planning of EEX Group based on its business segments constitutes the basis for the annual impairment test regarding the respective goodwill. This planning makes assumptions regarding the future development of the expense and income items of the cash-generating units concerned.

Further estimates and assessments have been made, especially, with regard to the evaluation of the likelihood of usage of certain provisions, as well as the realisability of deferred tax assets.

### 5. Changes in the scope of consolidation

The companies EEX Power Derivatives GmbH (EPD), Global Environmental Exchange GmbH (GEEX) and Agricultural Commodity Exchange GmbH (ACEX) which operated for the individual business segments until the end of the financial year 2017, have been merged into EEX AG with the effective date of 1 January 2018.

EEX participated with an equity share of 40% in the foundation enermarket GmbH, an online comparison portal for power and gas. The shares are accounted for using the equity method.

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### Notes on the Consolidated Profit and Loss Account

### 6. Sales revenue

Sales revenue was as follows:

k€	2018	2017
Transaction fees		
Power Derivatives	76,647	63,585
Power Spot	72,585	67,652
Natural Gas	44,888	38,804
US Commodities	11,563	5,400
Environmental Products	8,091	3,803
Clearing Services	914	716
Agriculturals	371	380
Global Commodities	360	382
Other revenues		
Market Data Services	6,600	5,390
Registry-Services	4,928	3,874
Other	40,707	35,334
Total sales revenue	267,654	225,320

Transaction revenue is calculated on the basis of the generated trading volumes by using the prices published in the respective current price list. Reference is made to the management report with regard to further explanations on the development of sales revenue.

### 7. Net income from banking business

This item shows the result generated from the investment and administration of cash collaterals provided by trading participants in the context of clearing.

### 8. Other operating income

This item includes other operating income which is not considered as sales revenue. It includes, among others, gains from foreign currency differences.

### 9. Volume-related costs

This reflects variable costs, such as Market Maker costs or system costs which are incurred based on sales.

### 10. Staff costs

As at 31 December 2018, 586 members of staff were employed in EEX Group (2017: 542). As at the reporting date, female employees accounted for 40% of staff (previous year: 41%).

k€	2018	2017
Wages and salaries	51,090	43,157
Social security contributions	11,052	10,082
Pension costs	3,371	3,254
Total	65,513	56,493

### 11. Depreciation, amortisation and impairment losses

Depreciation, amortisation and impairment losses were structured as follows:

k€	2018	2017
Intangible assets	17,369	13,855
Property, plant and equipment	2,266	1,597
Total	19,635	15,452

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#### 12. Other operating expenses

k€	2018	2017
System costs	33,768	27,897
Consulting	20,523	15,681
Office expenses	7,029	6,507
Marketing, events and travelling expenses	6,013	6,070
Insurances, contributions	1,274	941
Audit costs	1,158	957
Supervisory Board emoluments	741	521
Non-deductible input tax	674	-400
Other expenses	4,302	3,659
Total	75,482	61,834

Other expenses include, for example, costs for temporary employment, training programmes and foreign currency exchange losses. The item non-deductible input tax contains in the prior year column reimbursements from previous years.

#### 13. Financial result

The financial result has the following structure:

k€	2018	2017
Interest and similar income	587	960
Interest expenditure	-209	-209
Dividends from investments	8	56
Compounding of provisions	-30	-19
Financial result	356	788

#### 14. Income from at equity investments

The result from at-equity investments basically contains the result for SEEPEX AD as well as enermarket GmbH accounting for using the equity method.

#### 15. Income tax expense

This item records the current income taxes as well as deferred taxes. Current income taxes are recognised at the time at which they are incurred.

k€	2018	2017
Current income taxes	30,942	23,372
Income taxes for previous periods	-577	168
Deferred income taxes	-4,971	-3,182
Total	25,394	20,358

For the purpose of the calculation of deferred taxes, a countryspecific tax rate is used according to the following overview:

Country	Tax rate in%
Belgium	29.000
Denmark	22.000
Germany	31.925
France	33.330
Great Britain	19.000
Netherlands	25.000
Austria	25.000
Czech Republic	19.000
USA	27.000

In the case of adopted tax rate reductions which partially become effective incrementally in Belgium, Great Britain and France, applicable tax rates are determined as those for which the deferred taxes will be realised.

The tax rate for Germany is unchanged in comparison to the previous year with an assessment rate for the trade tax rate of 460%, a basic rate of tax of 3.5%, a corporation tax rate of 15% and the solidarity surcharge of 5.5% on corporation tax.

The expected income tax expenses which would have resulted from the application of the tax rate of 31.925% for Germany

Notes on the Consolidated Profit and Loss Account

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on the earnings before tax under IFRS are reconciled to the reported income taxes as follows:

k€	2018	2017
Earnings before tax	92,106	74,224
Tax rate	31.925%	31.925%
Expected tax expenditure	29,405	23,696
Tax-free income	-4	-103
Non-deductible operating expenses	568	31
Other permanent balance sheet differences	-330	527
Different tax rates	29	-65
Changes in tax rates	-5,165	-3,319
Amendments/Non-use of loss carry-forwards	829	1,754
Tax expenses/income for previous periods	-582	-2,378
Non-domestic income and different non-domestic taxes	997	-87
Others	-353	302
Effective tax expenditure	25,394	20,358

The following deferred tax assets and deferred tax liabilities arise from temporary differences between the tax balance sheet and the IFRS balance sheet and from tax loss carryforwards:

k€	Deferred tax assets 2018	Deferred tax assets 2017	Deferred tax liabilities 2018	Deferred tax liabilities 2017
Intangible assets	7,401	8,125	30,010	35,654
Property, plant and equipment	35	43	1	2
Other receivables	66	41		0
Loss carry-forwards	0	0		0
Non-current provisions	72	41	31	0
Current provisions	583	744		0
Current liabilities	336	469		0
Outside basis differences	0	0		0
Gross value	8,493	9,463	30,042	35,656
Offset				
Total	8,493	9,463	30,042	35,656

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Deferred tax assets are recognised with regard to tax loss carry-forwards if their realisation appears sufficiently probable, based on corporate planning calculations. Tax loss carry-forwards of kEUR 26,859 (2017: kEUR 25,111) were not recognised. These loss carry-forwards are not restricted as to the date at which they may be used.

There are taxable temporary outside basis differences of kEUR 4,338 (2017: kEUR 4,249), which were not shown as deferred tax liabilities in accordance with IAS 12.39.

The deferred taxes are structured as follows (depending on the term until realisation):

k€	2018	2017
Deferred tax assets		
which will be realised after more than 12 months	7,508	8,209
which will be realised within a period of 12 months	985	1,254
Total	8,493	9,463
Deferred tax liabilities		
which will be realised after more than 12 months	30,042	35,656
which will be realised within a period of 12 months	0	0
Total	30,042	35,656

#### 16. Other comprehensive income

This item includes effects recorded directly in other comprehensive income from the conversion of financial statements of subsidiaries prepared in foreign currencies in the amount of kEUR 6,199 (2017: kEUR -13,946) and from a hedge of a net investment in a foreign operation to the amount of kEUR 1,959. In the 2018 financial year, actuary gains from the revaluation of defined benefit pension plans were also recognised at the amount of kEUR 313 in this position for the first time.

With regard to currency conversion as at 31 December 2018, the following relevant exchange rates to the Euro were used:

	Closing rate on 31/12/2018
CHF	1,126388
GBP	0,897793
SGD	1,557731
USD	1,143250

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# Notes on the Consolidated Statement of Financial Position

#### 17. Goodwill and intangible assets

The goodwill and intangible assets developed as follows:

k€	Other intangible assets	Goodwill	Total
Costs of acquisition as at 31/12/2016	155,427	83,776	239,203
Change in the scope of consolidation	90,572	75,290	165,862
Additions	11,307		11,307
Disposals			
Costs of acquisition as at 31/12/2017	257,306	159,066	416,372
Change in the scope of consolidation			0
Additions	11,727		11,727
Disposals	-2		-2
Costs of acquisition as at 31/12/2018	269,031	159,066	428,097
Depreciation/impairment as at 31/12/2016	39,930	26,519	66,449
Scheduled amortisation	13,855		13,855
Disposal			
Depreciation/impairment as at 31/12/2017	53,785	26,519	80,304
Scheduled amortisation	16,984		16,984
Impairment	385		385
Disposal			0
Depreciation/impairment as at 31/12/2018	71,154	26,519	97,673
Currency difference	-3,318	-3,428	-6,746
Book value as at 31/12/2016	196,503	125,900	322,403
Book value as at 31/12/2017	194,559	129,119	323,678

#### ANNUAL IMPAIRMENT TEST AS AT 30 SEPTEMBER 2018

The impairment test is based on medium-term planning for the cash generating units (CGU). In 2015, the CGU were defined as a business segment for the first time so that the respective trading and clearing portion is allocated to the asset classes. Subsidiaries which are not planned within the business segments and which largely operate independently are exempt from this for the initial period after their acquisition. These cash flows, which are forecast on an annual basis, are discounted

For current planning, a growth rate of -1 to +2% was used. The rate of the weighted average cost of capital (WACC), which reflects the capital market's required rate of return for the provision of borrowed capital and equity for EEX, is used for the purpose of discounting cash flows. The rate used for the weighted average costs of capital for the calculation of the recoverable amount is 5–9% depending on the segment.

In all cases, the calculation resulted in a fair value less costs of disposal which was above the book values of the cash geerating units.

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#### SENSITIVITY OF THE PLANNING ASSUMPTIONS

A sensitivity analysis was carried out for the CGUs which contain goodwill. The need for impairment was analysed for rather pessimistic scenarios. The declines in sales revenue which would give rise to an impairment are far beyond any scenario which can be regarded as being realistic at present.

#### 18. Property, plant and equipment

During the year under review, property, plant and equipment developed as follows:

	Leasehold	Computer hard- ware, fixtures	
k€	improvements	and furnishings	Total
Costs of acquisition as at 31 December 2016	2,260	9,330	11,590
Change in scope of consolidation	28	146	174
Additions	80	1,009	1,089
Disposals	0	0	0
Costs of acquisition as at 31 December 2017	2,368	10,485	12,853
Change in scope of consolidation			0
Additions	1,540	3,641	5,181
Disposals	-240	-129	-369
Costs of acquisition as at 31 December 2018	3,668	13,997	17,665
Depreciation/ impairment as at 31 December 2016	1,768	6,084	7,852
Scheduled depreciation	126	1,471	1,597
Depreciation/impairment as at 31 December 2017	1,894	7,555	9,449
Scheduled depreciation	201	2,065	2,266
Disposals	-237	-25	-262
Depreciation/Impairment as at 31 December 2018	1,858	9,595	11,453
Currency differences	2	85	87
Book value as at 31 December 2017	473	2,911	3,384
Book value as at 31 December 2018	1,812	4,487	6,299

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19. Investment in associates and joint ventures, other equity investments as well as other financial assets

Associates and equity investments, as at the reporting date were as follows:

	Associates	Associates
	SEEPEX AD	enermarket GmbH
Registered office	Serbia Belgrade	Germany Frankfurt/Main
Initial recognition in the balance sheet	2015	2018
Share in capital as at 31 December 2017 in%	12	0
Share in capital as at 31 December 2018 in%	12	40
Nominal capital in k€	500	1,250
Inclusion	At equity	At equity

The book values developed as shown in the table below:

k€	Associates	Other equity investments
Costs of acquisition as at 31/12/2016	29	153
Change in scope of consolidation	0	0
Addition	56	0
Disposal	0	0
Costs of acquisition as at 31/12/2017	85	153
Change in scope of consolidation	380	0
Addition	65	0
Disposal	0	-153
Costs of acquisition as at 31/12/2018	530	0
Revaluation as at 31/12/2016	2	-129
Dividend payment	0	0
Result of at-equity valuation	-27	0
Impairment	0	0
Revaluation as at 31/12/2017	-25	-129
Dividend payment	0	0
Result of at-equity valuation	-227	0
Impairment	0	0
Disposal	0	129
Revaluation as at 31/12/2018	-252	0
Book value as at 31/12/2017	60	24
Book value as at 31/12/2018	278	0

#### 20. Derivative financial instruments

This item comprises the fair value of options, which is determined on the basis of the current exchange price of open positions.

On account of ECC's function as the central counterparty, accounts receivable and accounts payable are recorded on the asset side and on the liabilities side to the same amount of kEUR 102,674 (2017: kEUR 19,230). Options with a total value of kEUR 73,102 included in this will mature within one year.

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#### 21. Trade receivables

k€	31/12/2018	31/12/2017
Accounts receivable	585,517	377,893
Less bad debt allowance	-198	-6
Trade receivables	585,319	377,887

k€	2018	2017
Initial amount of the specific allowance as at 1 January	6	180
Change in scope of consolidation	0	0
Addition	195	6
Utilisation of allowance	0	-173
Reversal	-3	-7
Currency conversion	0	0
Final amount of the specific allowance as at 31 December	198	6

Trade receivables essentially comprise sales on the Power and Gas Spot Market which are high due to the reporting date, in addition to trading and clearing fees.

As in the previous year, there were no accounts receivable for sales and services with a remaining term of more than one year.

In the financial year under review for the first time, allowances for expected loan losses according to the simplified approach were recognised at the amount of kEUR 148.

#### 22. Other assets and tax refund claims

k€	31/12/2018	31/12/2017
Accounts receivable from tax authorities regarding sales tax	0	1,313
Accruals for system changes	3,538	2,990
Accruals and deferrals	2,344	2,766
Tax refund claims	26	736
Other	3,966	3,973
Summe	9,874	11,777

The other assets and tax refund claims are short term.

#### 23. Accounts receivable from associates

There are accounts receivable from SEEPEX AD, which are explained under note 39.

#### 24. Restricted bank balances

The restricted bank balances of kEUR 5,875,265 (2017: kEUR 2,656,060) concern in particular collaterals which have been paid by clearing members for the Spot and Derivatives Market in the form of cash collaterals. These are shown as a liability to the same amount.

This item also contains own contributions to the clearing fund by ECC AG in the amount of EUR 11.5 million and by Nodal Clear in the amount of USD 20 million (EUR 17.5 million).

#### 25. Other cash and bank balances

As at the reporting date, the Group had cash and cash equivalents of kEUR 176,498 (2017: kEUR 134,271).

#### 26. Equity

The changes in the equity items are shown in the consolidated statement of changes in equity.

In the 2018 financial year, kEUR 16,220 were paid out to the shareholders of EEX.

The item of non-controlling interest shows the shares of minority shareholders of EPEX Group, PEGAS CEGH Gas Exchanges Services GmbH (PCG) and Power Exchange Central Europe a.s. (PXE). The change compared with the previous year can be explained by the net profit of the current financial year minus dividend payments to non-controlling shareholders.

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#### 27. Non-current provisions

Non-current provisions comprise provisions for pensions, archiving and the removal of installations with a term of more than one year. These developed as follows during the financial year under review:

k€	Pension provisions	Other non-cur- rent provisions
As at 01/01/2017	-11	1.316
Change in scope of consolidation		
Utilisation	0	-42
Reversal	0	0
Compounding	5	14
Addition	16	650
Transfer	0	-718
Currency conversion	0	4
Change in plan assets	-17	0
As at 31/12/2017	-7	1,224
Change in scope of consolidation		
Utilisation	0	0
Reversal		-359
Compounding	16	16
Addition	255	1,294
Transfer	0	-600
Actuarial gains / losses	-372	0
Currency conversion	0	-1
Change in plan assets	-55	0
As at 31/12/2018	-163	1,574

There are provisions for pensions for a former employee in Germany and, in total, 143 employees in France. As at 31 December 2018, there were actuary reports under IFRS available stating a discount rate of 1.85% (2017: 1.65%).

The amount of the provision for another employee is based on the asset value of the reinsurance contract.

The dominant share of non-current provisions has an estimated pay-out after more than five years.

#### 28. Long-term liabilities

This position contains contingent purchase price obligations measured at fair value. In the financial year under review, the probability for effective payments was reassessed which lead to unrealised valuation gains in the amount of kEUR 701 which are shown under other operating income. These purchase price obligations are measured on the basis of discounted cashflow models where expected future cashflows are discounted to the reporting date by adopting risk-adequate interest rates.

#### 29. Current provisions

Current provisions developed as follows during the financial year under review:

k€	2018	2017
As at 01/01/	10,666	11,966
Change in scope of consolidation	0	281
Utilisation	-9,715	-10,807
Reversal	-358	-563
Addition	11,719	9,088
Transfer	600	731
Currency adjustment	48	-30
As at 31/12/	12,960	10,666

The provisions essentially concern legal risks and bonuses for employees and members of the Management Board.

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#### 30. Trade payables

As at the reporting date, there were trade payables in the amount of kEUR 572,182 (2017: kEUR 394,454). As in the case of the trade receivables, these trade payables primarily include high liabilities from Spot Market sales in power and gas on account of the reporting date.

There were no trade payables with a remaining term of more than one year as at 31 December 2018, as in the previous year.

#### 31. Cash deposits by trading participants

The amount of cash deposits by trading participants corresponds to the restricted bank balances. As at the balance sheet date, these amounted to kEUR 5,875,265 (2017: kEUR 2,656,060).

#### 32. Other current liabilities

Other current liabilities comprise the following items:

k€	2018	2017
Liabilities to staff	10,446	6,284
Tax liabilities	6,496	2,385
Supervisory Board remuneration	344	331
Other liabilities	1,129	1,489
Total	18,415	10,489

All other liabilities are short-term.

Liabilities to staff contain liabilities for vacation days not yet taken.

Notes on the Consolidated Statement of Cash Flows

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### Notes on the consolidated statement of cash flows

#### 33. Notes on the consolidated statement of cash flows

The cash flow statement indicates the balance and the development of the cash and cash equivalents of the Group. The cash flow statement differentiates cash flows from operating activities, investing and financing activities.

Cash and cash equivalents comprise the cash assets and bank deposits with a term of less than three months reduced by short-term liabilities to banks from overdraft facilities.

Restricted bank balances - the cash deposits by market participants - are not part of cash and cash equivalents.

k€	2018	2017
Other cash and bank balances	176,498	134,271
Less liabilities to banks	0	7,000
Cash and cash equivalent	176,498	127,271

#### CASH FLOW FROM OPERATING ACTIVITIES

Cash flow from operating activities is determined using the indirect method. In this process, the annual net profit in an amount of kEUR 66,712 is adjusted for non-cash expenses which amount to kEUR -33,723 in the reporting year.

This results in a cash flow from operating activities of kEUR 100,435 (2017: kEUR 44,971).

#### CASH FLOW FROM INVESTING ACTIVITIES

The cash flow from investing activities shows payments made for investments in fixed assets, less dividends received.

In the financial year 2018, it amounts to kEUR -17,415 (2017: kEUR -228,204) and was shaped in the previous year by payments for the acquisition of shares in consolidated subsidiaries.

#### CASH FLOW FROM FINANCING ACTIVITIES

In addition to distributions of profits to shareholders of EEX AG and non-controlling shareholders, cash flow from financing activities also includes inflow of funds from short-term financings. In 2018, it amounts to kEUR -33,793 (2017: kEUR 169,604) mainly as a result of the capital increase in cash.

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### Other notes

34. Classification of financial instruments as per IFRS 7

#### ASSETS as at 31/12/2017

	Amortised cos	•	Fair value			Total		
Valuation category	Other accoun	Other accounts receivable			ognised at fair or loss (FVTPL)			
			Trading	(HFT)	Fair valu	e option		
Classes of financial instruments	Book value	Fair value	Book value	Fair value	Book value	Fair value	Book value	Fair value
Other equity investments	24	24					24	24
Derivative financial instruments			19,230	19,230			19,230	19,230
Trade receivables	377,887	377,887					377,887	377,887
Other assets	11,041	11,041					11,041	11,041
Tax refund claims	736	736					736	736
Accounts receivable from associates	101	101					101	101
Restricted bank balances	2,682,771	2,682,771					2,682,771	2,682,771
Other cash and bank balances	134,271	134,271					134,271	134,271
Total	3,206,832	3,206,832	19,230	19,230	0	0	3,226,061	3,226,061

#### ASSETS as at 31/12/2018

	Amortised (	•	Fair value		To	tal		
Valuation category	Other accounts receivable		Financial assets recognised at fair value through profit or loss (FVTPL)					
			Trading	(HFT)	Fair valu	e option		
Classes of financial instruments	Book value	Fair value	Book value	Fair value	Book value	Fair value	Book value	Fair value
Other equity investments	0	0					0	0
Derivative financial instruments			102,674	102,674			102,674	102,674
Trade receivables	585,319	585,319					585,319	585,319
Other assets	9,848	9,848					9,848	9,848
Tax refund claims	26	26					26	26
Accounts receivable from associates	25	25					25	25
Restricted bank balances	5,904,259	5,904,259					5,904,259	5,904,259
Other cash and bank balances	176,498	176,498					176,498	176,498
Total	6,675,976	6,675,976	102,674	102,674	0	0	6,778,650	6,778,650

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#### LIABILITIES as at 31/12/2017

	Amortised cos	•	Fair value Total			tal		
Valuation category	Other liabilities			Financial assets recognised at fair value through profit or loss (FVTPL)				
			Trading	(HFT)	Fair valu	e option		
Classes of financial instruments	Book value	Fair value	Book value	Fair value	Book value	Fair value	Book value	Fair value
Non-current provisions	1,217	1,217					1,217	1,217
Derivative financial instruments			19,230	19,230			19,230	19,230
Non-current liabilities	794	794					794	794
Current provisions	10,542	10,542	124	124			10,666	10,666
Other bank loans and overdrafts	7,000	7,000					7,000	7,000
Trade payables	364,403	364,403					364,403	364,403
Liabilities to affiliated companies	30,051	30,051					30,051	30,051
Cash deposits by market participants	2,656,060	2,656,060					2,656,060	2,656,060
Other current liabilities	10,489	10,489					10,489	10,489
Total	3,080,555	3,080,555	19,354	19,354	0	0	3,099,909	3,099,909

#### LIABILITIES as at 31/12/2018

	Amortised cos	•		Fair v	/alue		Tot	tal
Valuation category	Other liabilities		Financial assets recognised at fair value through profit or loss (FVTPL)					
			Trading	(HFT)	Fair valu	e option		
Classes of financial instruments	Book value	Fair value	Book value	Fair value	Book value	Fair value	Book value	Fair value
Non-current provisions	1,410	1,410					1,410	1,410
Derivative financial instruments			102,674	102,674			102,674	102,674
Non-current liabilities	186	186					186	186
Current provisions	12,934	12,934	26	26			12,960	12,960
Other bank loans and overdrafts		0					0	0
Trade payables	572,182	572,182					572,182	572,182
Liabilities to affiliated companies	30,127	30,127					30,127	30,127
Cash deposits by market participants	5,875,265	5,875,265					5,875,265	5,875,265
Other current liabilities	18,415	18,415					18,415	18,415
Total	6,510,520	6,510,520	102,700	102,700	0	0	6,613,220	6,613,220

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Other cash and bank balances as well as trade receivables are short-term. Their book values are approximately equal to the fair value on the reporting date.

Financial assets and liabilities which are recognised at fair value have to be assigned to the following three hierarchy levels:

Financial assets and liabilities have to be assigned to level 1 if there is an exchange price available for identical assets and debts on an active market.

Assets and liabilities are assigned to level 2 if the parameters which are used as the basis for the measurement of the fair value are derived either directly as prices or indirectly from observable prices.

Financial assets and liabilities are assigned to level 3 if the fair value is derived from non-observable parameters.

The balance sheet value of derivative financial instruments is measured at the price on the reporting date and, hence, has to be allocated to level 1 of the fair value hierarchy.

During the past reporting period, the valuation category "Loans and receivables" generated interest income of kEUR 461 (2017: kEUR 330). Furthermore, accounts receivable in the amount of kEUR 50 (2017: kEUR 10) were impaired in the year under review. For receivables in the amount of kEUR 3,313 allowances for expected losses according to the simplified approach under IFRS 9 were recognised.

The following table shows the age structure of the valuation categories:

k€	Daily		Not more than 1 year		More than 1 year, not more than 5 years		
	Consoli- dated note	2018	2017	2018	2017	2018	2017
Trade receivables: from associates, from companies in which participating interests are held and other current assets	[19-21]	498,185	344,123	97,007	44,906	0	0
Restricted bank balances	[22]	5,904,259	2,682,771	0	0	0	0
Other cash and bank balances	[23]	174,930	123,553	1,568	10,718	0	0
Non-derivative financial assets		6,577,374	3,150,447	98,575	55,624	0	0
Non-current liabilities	[30]					186	794
Other bank loans and overdrafts		0	7,000	0	0	0	0
Trade payables: to associates, to companies in which participating interests are held and other current liabilities	[32], [34]	498,185	344,123	122,539	60,820	0	0
Cash deposits by market participants	[33]	5,875,265	2,656,060	0	0	0	0
Non-derivative financial liabilities		6,373,450	3,007,184	122,539	60,820	186	794
Financial assets and derivatives	[18]	0	0	73,102	6,806	29,572	12,424
Financial liabilities and derivatives	[18]	0	0	73,102	6,806	29,572	12,424

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#### 35. Financial risk and capital management

In accordance with the requirements defined in art. 91 paragraph 2 AktG [German Companies Act], EEX Group has a risk early warning system covering all business areas. This is intended to identify and address risks early on.

The Chief Risk Officer (CRO) of ECC AG is in charge of designing EEX Group's risk early warning system. The individual group companies are largely responsible for risk management on their own. With respect to risks requiring group coordination, minimum standards are specified by ECC's Management Board for all group companies. Depending on their size, the individual group companies have their own risk management unit to this end. The group companies report to ECC risk management on a monthly basis.

Counterparty risk, market price risk, liquidity risk, operational risk as well as business and compliance risk constitute potential risk categories.

For a detailed description of risk management within EEX Group, reference is made to the explanations in the management report.

EEX AG sold the treasury shares held by itself in 2017.

# Other financial liabilities and contingent liabilities

Other financial liabilities of the Group comprise future payment obligations under operating leases. These are structured as follows:

#### 31/12/2017

k€

Leased item	Up to 1 year	1 to 5 years	More than 5 years
Systems/maintenance/infrastructure	16,576	16,916	6,555
Rent	3,497	8,089	4,741
Motor vehicles	388	150	0
Others	2,213	1,846	341
Total	22,674	27,000	11,637

#### 31/12/2018

k€

Leased item	Up to 1 year	1 to 5 years	More than 5 years
Systems/maintenance/infrastructure	14,687	16,275	0
Rent	3,888	8,680	5,379
Motor vehicles	434	471	0
Others	1,384	386	0
Total	20,393	25,812	5,379

# 37. Auditor's fees according to Sec. 314 No. 9 HGB [German Commercial Code]

k€	2018	2017
Year-end audit	620	603
Tax advisory services	1	116
Other auditing services	0	5
Others	36	36
Total	656	761

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#### 38. Relations with related parties and companies

According to IAS 24, those persons and companies, who or which control the Group or exercise significant influence over it or who or which are controlled by the Group or over which the Group exercises significant influence, are considered related parties and companies.

Accordingly, members of the Management Board and the Supervisory Board, shareholders holding an interest of more than 20% as well as the subsidiaries, associates and joint ventures are defined as related parties and companies.

Business transactions with related companies and parties are concluded according to the arm's length principle.

#### RELATIONS WITH RELATED PERSONS

#### **Management Board**

<b>Dr Dr Tobias Paulun</b> Leipzig
Iris Weidinger Markkleeberg

#### **Supervisory Board**

Leipzig

<b>Dr Jürgen Kroneberg</b> (Chairman) Lawyer, Kampen (Sylt) († 9 February 2019)	<b>Xavier Lafontaine</b> Head of Strategic Partnerships, Électricité de France SA, Paris/ France
Jürg Spillmann (Vice-Chairman) Member of the Executive Board, Eurex Global Derivatives AG, Zug/Switzerland	Michael Lockett Director of Power Dispatch & Real-Time Trading, Uniper Global Commodities SE, Düsseldorf
Hans E. Schweickardt (Vice-Chairman) Chairman of the Supervisory Board, Polenergia S.à r.l., Warsaw/Poland	<b>Katja Mayer</b> Managing Partner, KM Networks GmbH, Hofheim
Dr Hartmut Mangold (Vice-Chairman) Secretary of State, Saxon State Ministry for Economic Affairs, Labour and Transport, Dresden	Prof Harald R. Pfab Managing Director, HHP Beratung GmbH, Fronreute
<b>Dr Dirk Biermann</b> Managing Director, 50Hertz Transmission GmbH, Berlin	<b>Andreas Preuß</b> Frankfurt/Main
Heike Eckert Member of the Management Board, Eurex Clearing AG, Eschborn	<b>Dr Michael Redanz</b> Managing Director, EWE Trading GmbH, Bremen
Dr Nigel Hawkins Head of Power & Fuel Portfolio Management, Enel Global Trading S.p.A., Rome/Italy	Uwe Schweickert Managing Director Market Operations & Executive Office, Deutsche Börse AG, Eschborn
Peter Heydecker Executive Director Trading, EnBW Energie Baden-Württemberg AG, Karlsruhe	Marco Steeg Managing Director External Findings Management, Deutsche Börse AG, Eschborn
Burkhard Jung Mayor of the City of Leipzig,	Vincent van Lith Executive Director, ABN AMRO

The members of the Supervisory Board of EEX received remunerations of kEUR 344 for their work during the financial year. The payment will be made in 2019.

Bank N.V., Frankfurt/Main

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#### **RELATIONS WITH RELATED COMPANIES**

On 31 December 2018, Deutsche Börse AG, Eschborn, directly holds 75.05% of the shares in EEX after the transfer of the shares held by Eurex Zürich AG in the previous year.

The relations with companies belonging to Deutsche Börse Group are as follows:

k€	2018	2017
Deutsche Börse Group		
EEX Group as the recipient of services		
Provision of trading system & IT infrastructure	8,484	7,772
Provision of services	1,256	2,123
Financial services	76	51
EEX Group as the provider of services		
Provision of market data	-518	-403
Receivable as at 31 December	446	172
Financial receivable as at 31 December	41,050	0
Liability as at 31 December	1,742	4,430
Financial liability as at 31 December	30,127	30,051

## RELATIONS WITH UNCONSOLIDATED COMPANIES, ASSOCIATES AND JOINT VENTURES

k€	2018	2017
SEEPEX AD		
EEX Group as the provider of services		
Provision of services	-323	-186
Receivable as at 31 December	25	101

Representatives of the board of directors of Powernext hold at the same time key positions at the companies GRTgaz, Bois-Colombes, France, parent company of 3GRT, Tarascon, France, and EDV Developpement Environnement SA, Courbevoie, France. In the 2017financial year, Powernext provided services in the context of the development and maintenance of individual software solutions for market coupling and balancing and of an electronic trading platform for 3GRT. In the context of these services, revenue of kEUR 791 was generated in 2018.

39. Overview of shareholdings as at reporting date according to Sec. 313 Para. 2 Nos 1 to 4 HGB [German Commercial Code]

Fully consolidated subsidiaries  Cleartrade Exchange Pte Ltd  EEX Link GmbH  Germany  100%  EPEX SPOT Schweiz AG  EPEX SPOT SE  European Commodity Clearing AG  European Commodity Clearing  Luxembourg S.à r.l.  Gaspoint Nordic A/S  IV Epex-Soops B.V.  Nodal Exchange Holdings, LLC  Nodal Exchange, LLC  Nodal Clear, LLC  PEGAS CEGH Gas Exchange Services  GmbH  Austria  (51%)  Power Exchange Central Europe a.s.  Czech Republic  67%  Powernext SAS  France  100%  Serbia  (12%)	Company	Headquarters	capital directly (indi- rectly) 31/12/2018
EEX Link GmbH Germany 100% EPEX SPOT Schweiz AG Switzerland (51%) EPEX SPOT SE France (51%) European Commodity Clearing AG Germany 100% European Commodity Clearing Luxembourg S.à r.l. Luxembourg 100% Gaspoint Nordic A/S Denmark (100%) JV Epex-Soops B.V. Netherlands (31%) Nodal Exchange Holdings, LLC USA 100% Nodal Exchange, LLC USA (100%) Nodal Clear, LLC USA (100%) PEGAS CEGH Gas Exchange Services GmbH Austria (51%) Power Exchange Central Europe a.s. Czech Republic 67% Powernext SAS France 100% Joint venture and associates accounted at equity SEEPEX AD Serbia (12%)		· · · · · · · · · · · · · · · · · · ·	
EPEX SPOT Schweiz AG  EPEX SPOT SE  European Commodity Clearing AG  European Commodity Clearing AG  European Commodity Clearing Luxembourg S.à r.l.  Gaspoint Nordic A/S  IV Epex-Soops B.V.  Nodal Exchange Holdings, LLC  Nodal Exchange, LLC  Nodal Exchange, LLC  Nodal Clear, LLC  PEGAS CEGH Gas Exchange Services GmbH  Austria  (51%)  Power Exchange Central Europe a.s.  Czech Republic  67%  Powernext SAS  France  100%  Serbia  (12%)	Cleartrade Exchange Pte Ltd	Singapore	100%
EPEX SPOT SE  European Commodity Clearing AG  European Commodity Clearing Luxembourg S.à r.l.  Gaspoint Nordic A/S  IV Epex-Soops B.V.  Nodal Exchange Holdings, LLC  Nodal Exchange, LLC  Nodal Clear, LLC  PEGAS CEGH Gas Exchange Services GmbH  Austria  Composition of the proper a.s.  Czech Republic  France  Joint venture and associates accounted at equity  SEEPEX AD  Serbia  Commodity Clearing AG  European Comm	EEX Link GmbH	Germany	100%
European Commodity Clearing AG  European Commodity Clearing Luxembourg S.à r.l.  Gaspoint Nordic A/S  IV Epex-Soops B.V.  Nodal Exchange Holdings, LLC  Nodal Exchange, LLC  Nodal Clear, LLC  PEGAS CEGH Gas Exchange Services GmbH  Power Exchange Central Europe a.s.  Joint venture and associates accounted at equity  SEEPEX AD  Serbia  Luxembourg  100%  Luxembourg  100%  100%  100%  Value Househourg  100%  Carch Republic  67%  France  100%  Serbia  (12%)	EPEX SPOT Schweiz AG	Switzerland	(51%)
European Commodity Clearing Luxembourg S.à r.l.  Gaspoint Nordic A/S  V Epex-Soops B.V.  Nodal Exchange Holdings, LLC  Nodal Exchange, LLC  Nodal Exchange, LLC  Nodal Clear, LLC  VSA  Metherlands  (100%)  Nodal Clear, LLC  VSA  (100%)  PEGAS CEGH Gas Exchange Services GmbH  Austria  (51%)  Power Exchange Central Europe a.s.  Czech Republic  67%  Powernext SAS  France  100%  Serbia  (12%)	EPEX SPOT SE	France	(51%)
Luxembourg S.à r.l.  Gaspoint Nordic A/S  Denmark  (100%)  IV Epex-Soops B.V.  Netherlands  Nodal Exchange Holdings, LLC  Nodal Exchange, LLC  USA  Nodal Clear, LLC  PEGAS CEGH Gas Exchange Services  GmbH  Austria  (51%)  Power Exchange Central Europe a.s.  Czech Republic  67%  Powernext SAS  France  100%  Serbia  (12%)	European Commodity Clearing AG	Germany	100%
JV Epex-Soops B.V. Netherlands (31%) Nodal Exchange Holdings, LLC USA (100%) Nodal Exchange, LLC USA (100%) Nodal Clear, LLC USA (100%) PEGAS CEGH Gas Exchange Services GmbH Austria (51%) Power Exchange Central Europe a.s. Czech Republic 67% Powernext SAS France 100% Joint venture and associates accounted at equity SEEPEX AD Serbia (12%)	, , ,	Luxembourg	100%
Nodal Exchange Holdings, LLC  Nodal Exchange, LLC  Nodal Exchange, LLC  Nodal Clear, LLC  PEGAS CEGH Gas Exchange Services GmbH  Austria  (51%)  Power Exchange Central Europe a.s.  Czech Republic  67%  Powernext SAS  France  100%  Joint venture and associates accounted at equity  SEEPEX AD  Serbia  (12%)	Gaspoint Nordic A/S	Denmark	(100%)
Nodal Exchange, LLC USA (100%) Nodal Clear, LLC USA (100%) PEGAS CEGH Gas Exchange Services GmbH Austria (51%) Power Exchange Central Europe a.s. Czech Republic 67% Powernext SAS France 100% Joint venture and associates accounted at equity  SEEPEX AD Serbia (12%)	JV Epex-Soops B.V.	Netherlands	(31%)
Nodal Clear, LLC  PEGAS CEGH Gas Exchange Services GmbH  Austria  (51%)  Power Exchange Central Europe a.s.  Czech Republic  67%  Powernext SAS  France  100%  Joint venture and associates accounted at equity  SEEPEX AD  Serbia  (12%)	Nodal Exchange Holdings, LLC	USA	100%
PEGAS CEGH Gas Exchange Services GmbH Austria (51%) Power Exchange Central Europe a.s. Czech Republic 67% Powernext SAS France 100%  Joint venture and associates accounted at equity  SEEPEX AD Serbia (12%)	Nodal Exchange, LLC	USA	(100%)
GmbH     Austria     (51%)       Power Exchange Central Europe a.s.     Czech Republic     67%       Powernext SAS     France     100%       Joint venture and associates accounted at equity     Serbia     (12%)	Nodal Clear, LLC	USA	(100%)
Powernext SAS France 100%  Joint venture and associates accounted at equity  SEEPEX AD Serbia (12%)	9	Austria	(51%)
Joint venture and associates accounted at equity SEEPEX AD Serbia (12 %)	Power Exchange Central Europe a.s.	Czech Republic	67%
accounted at equity SEEPEX AD Serbia (12 %)	Powernext SAS	France	100%
	-		
enermarket GmbH Germany 40 %	SEEPEX AD	Serbia	(12%)
	enermarket GmbH	Germany	40 %

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#### 40. Significant events after the reporting date

In December 2018, EEX signed the contracts on the acquisition of 100% of the shares in Grexel Systems Oy, Helsinki, Finland. Grexel offers registry and certification services for renewable energies and will be allocated to the business segment registry service after the closing of the transaction in 2019. The closing of the acquisition took place on 31 January 2019.

Leipzig, 1 March 2019

Peter Reitz

Chief Executive Officer (CEO)

Steffen Köhler

Chief Operating Officer (COO)

Dr Egbert Laege

Executive Director Gas Markets

Dr Dr Tobias Paulun

Chief Strategy Officer (CSO)

Jens Rick

Chief Information Officer (CIO)

Iris Weidinger

Chief Financial Officer (CFO)

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| Audit Report

### **Audit report**

For European Energy Exchange AG, Leipzig

#### **Audit opinion**

We have audited the annual financial statement of European Energy Exchange AG, Leipzig, and its subsidiaries (the Group) – comprising the consolidated balance sheet as of 31 December 2018, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated cash flow statement for the financial year from 1 January to 31 December 2018 as well as the consolidated notes, including a summary of important accounting methods. In addition, we audited the summary management report for the financial year from 1 January to 31 December 2018.

In our opinion based on the findings obtained during the audit

- the consolidated financial statement attached hereto in all essential matters corresponds to IFRS in the version as adopted by the EU and the additional German statutory provisions to be applied according to section 315 e sub-section 1 HGB [German Commercial Code] and gives a true and fair view of the net assets and financial position of the Group as of 31 December 2018 and its earnings position for the financial year from 1 January to 31 December 2018 and
- the summary group management report, as a whole, provides an accurate view of the Group's position. The summary group management report in all essential matters is consistent with the consolidated financial statements, complies with the German statutory requirements and accurately presents the opportunities and risks of future development.

In accordance with section 322 sub-section 3 sentence 1 HGB, we hereby confirm that our audit has not led to any reservations regarding the correctness of the consolidated financial statement and the summary management report.

#### Basis for the audit opinion

We conducted our audit of the annual financial statements in accordance with section 317 HGB ["Handelsgesetzbuch": "German Commercial Code"] and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibility pursuant to these provisions and principles is outlined in more detail in the section "Auditor's responsibility for the audit of the consolidated financial statement and the summary management report". In compliance with German commercial legislation and professional provisions, we are independent of the group companies and, in compliance with these requirements, we have fulfilled our other German professional obligations. We believe that the audit evidence is sufficient and suitable as the basis for our audit opinion regarding the consolidated financial statement and the summary management report.

#### Other information

The legal representatives are responsible for the other information. The other information includes the notes in the management report, with the exception of the audited consolidated financial statement and the summary management report as well as our auditor's opinion.

Our audit opinions regarding the consolidated financial statement and the summary management report do not extend to the other notes, and, for this reason, we do not provide an audit opinion or any other form of audit conclusion regarding these.

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In connection with our audit, we are responsible for reading the other information and assessing whether such other information

- displays any major discrepancies to the consolidated financial statement, the summary management report or findings established during our audit or
- appears to be significantly misrepresented in any other form.

#### Responsibility of the legal representatives and of the Supervisory Board for the consolidated financial statement and the summary management report

The legal representatives are responsible for the preparation of the consolidated financial statement corresponding, in all essential respects, to the IFRS as adopted in the EU and the additional German legal provisions applicable pursuant to section 315e sub-section 1 HGB and for ensuring that the consolidated financial statement gives a true and fair view of the net assets, financial and earnings position of the Group in line with these provisions. Furthermore, the legal representatives are responsible for the internal controls which they have deemed as being necessary in line with the German principles of proper accounting to facilitate the preparation of a consolidated financial statement which is free of any – intentional or unintentional – misrepresentations.

In preparing the consolidated financial statement, the legal representatives are responsible for assessing the Group's ability to continue the company's activities. Furthermore, they are responsible for specifying matters (if such are relevant) in connection with the company as a going concern. In addition, they are responsible for the preparation of accounting on the basis of the going-concern principle unless there are plans to liquidate the Group or discontinue its business operations or there is no realistic alternative to such.

Moreover, the legal representatives are responsible for preparing the summary management report which, as a whole, gives a true and fair view of the Group's position and, in all essential matters, complies with the consolidated financial statement, the German legal provisions and adequately outlines the opportunities and risks of the future development. Furthermore, the legal representatives are responsible for the precautions and measures (systems) which they considered as being necessary to facilitate the preparation of a summary management report in compliance with the applicable German legal provisions

and be able to provide sufficient and suitable evidence for the statements in the summary management report.

The Supervisory Board is responsible for supervising the Group's accounting process for the preparation of the consolidated financial statement and the summary management report.

## Auditor's responsibility for auditing the consolidated financial statement and the summary management report

Our aim is to establish with sufficient certainty whether the group as a whole is free of any significant – intentional or unintentional – misrepresentations and whether the summary management report as a whole gives a true and fair view of the Group's position and whether it is in line with the findings obtained during the audit, the German legal provisions and appropriately outlines the opportunities and risks of the future development and to issue an auditor's report including our audit opinion on the consolidated financial statement and on the summary management report.

Sufficient certainty is identified as a high level of certainty – but no guarantee – that an audit carried out in compliance with section 317 HGB in accordance with the German principles of proper accounting promulgated by Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW) always results in the identification of significant misrepresentations. Misrepresentations can result from violations or inaccuracies and are considered as being significant if it can reasonably be expected that these, individually or collectively, might influence the commercial decisions taken by addressees on the basis of this consolidated financial statement and summary management report.

During the audit, we apply dutiful discretion and maintain a critical attitude. In addition,

we identify and assess the risks of material – intentional
or unintentional – misrepresentations in the consolidated
financial statement and summary management report, plan
and carry out audit activities in response to these risks and
obtain audit evidence which is sufficient and suitable in
order to form the basis for our audit findings. The risk that
essential misrepresentations might not be detected is higher
in the case of violations than in the case of inaccuracies
since violations can comprise fraudulent conduct, forgeries,
intentional incompletenesses, misleading representations or
the suspension of internal controls.

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- we establish an understanding of the internal control system relevant for the audit of the consolidated financial statement and the precautions and measures relevant for the audit of the summary management report in order to plan audit activities which are adequate given the circumstances; however, this does not pursue the aim of providing an audit opinion on the effectiveness of these systems.
- we assess the adequacy of the accounting methods used by the legal representatives as well as the justifiability of the estimates outlined by the legal representatives and the statements connected with these.
- we draw conclusions regarding the adequacy of the going-concern accounting principle applied by the legal representatives and, on the basis of the audit evidence obtained, regarding whether there is significant uncertainty in connection with events or circumstances which might lead to significant doubts regarding the Group's capacity to operate as a going concern. If we arrive at the conclusion that there is significant uncertainty, we are obliged to refer to the corresponding notes in the consolidated financial statements and in the summary management report in the auditor's opinion or, if such information is inadequate, to modify our respective audit opinion. We draw our conclusions on the basis of the audit evidence obtained as at the date of our auditor's opinion. However, as a result of future events or circumstances, the Group might be unable to continue to operate as a going concern.
- we assess the overall presentation, the structure and content of the consolidated financial statement including the notes and whether the underlying business transactions and events are presented so as to ensure that, in compliance with IFRS in the version adopted by the EU and, in addition, the applicable German provisions pursuant to section 315e sub-section 1 HGB, the consolidated financial statement gives a true and fair view of the net assets, financial and earnings position of the Group.
- we obtain sufficient and suitable audit evidence for the accounting information of the companies or business activities within the group in order to provide an audit opinion on the consolidated financial statement and the summary management report. We are responsible for instructions, supervision and the execution of the audit of the consolidated financial statement. We hold sole responsibility for our audit opinions.
- we assess whether the summary management report is in line with the consolidated financial statement, the applica-

- ble laws and the picture of the Group's position conveyed by it.
- we carry out audit activities regarding the forward-looking statements made by the legal representatives in the summary management report. Based on sufficiently suitable audit evidence, we trace, in particular, the significant assumptions on which the forward-looking statements by the legal representatives are based and evaluate the appropriate establishment of the forward-looking statements from these assumptions. There is a significant and unavoidable risk that future results might significantly deviate from the forward-looking statements.

We discussed the planned scope and the scheduling of the audit and important audit findings, including any possible defects in the internal control system which we might identify during our audit, with the parties responsible for monitoring.

Frankfurt/Main, March 1, 2019

KPMG AG Wirtschaftsprüfungsgesellschaft

**Pfeiffer Hommel** Auditor Auditor

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