

# 2018 REGISTRATION DOCUMENT

including the Annual Financial Report



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# 2018 REGISTRATION DOCUMENT

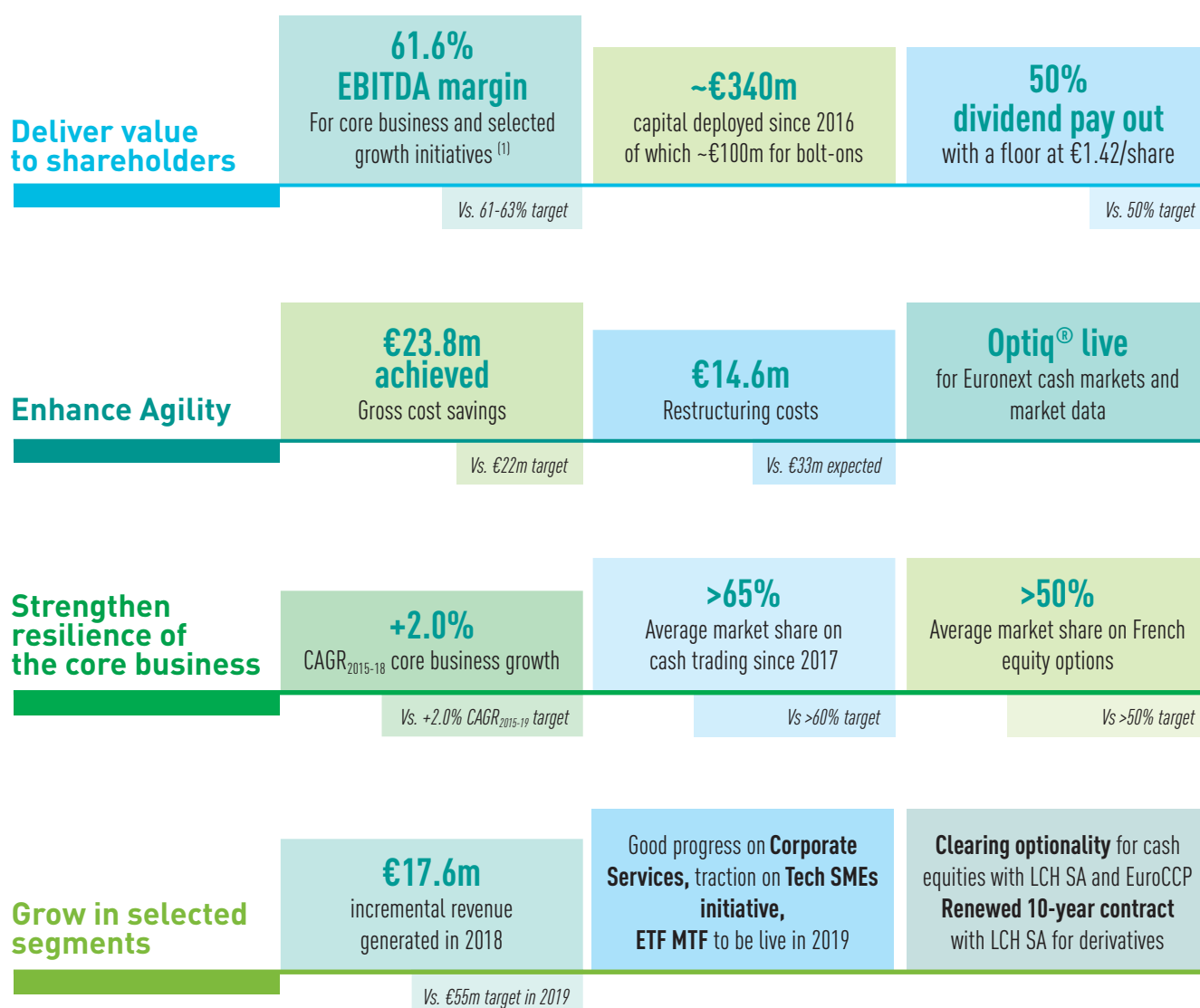
## including the Annual Financial Report

Euronext N.V. (the “Company” or “Euronext” and together with its subsidiaries, the “Group”) is a Dutch public company with limited liability (naamloze vennootschap), whose ordinary shares are admitted to listing and trading on regulated markets in the Netherlands, France, Belgium and Portugal. The applicable regulations with respect to public information and protection of investors, as well as the commitments made by the Company to securities and market authorities, are described in this Registration Document (the “Registration Document”).

In addition to historical information, this Registration Document includes forward-looking statements. The forward-looking statements are generally identified by the use of forward-looking words, such as “anticipate”, “believe”, “estimate”, “expect”, “intend”, “plan”, “project”, “predict”, “will”, “should”, “may” or other variations of such terms, or by discussion of strategy. These statements relate to Euronext’s future prospects, developments and business strategies and are based on analyses or forecasts of future results and estimates of amounts not yet determinable. These forward-looking statements represent the view of Euronext only as of the dates they are made, and Euronext disclaims any obligation to update forward-looking statements, except as may be otherwise required by law. The forward-looking statements in this Registration Document involve known and unknown risks, uncertainties and other factors that could cause Euronext’s actual future results, performance and achievements to differ materially from those forecasted or suggested herein. These include changes in general economic and business conditions, as well as the factors described under “Risk Factors” below.

This Registration Document was prepared in accordance with Annex 1 of EC Regulation 809/2004, filed in English with, and approved by, the Stichting Autoriteit Financiële Markten (the “AFM”) on 3 April 2019 in its capacity as competent authority under the Wet op het financieel toezicht (as amended) pursuant to Directive 2003/71/EC (as amended, including by Directive 2010/73/EU). This Registration Document may be used in support of an offering to the public, or an admission to trading, of securities of the Company as a document forming part of a prospectus in accordance with Directive 2003/71/EC (as amended, including by Directive 2010/73/EU) only if it is supplemented by a securities note and a summary approved by the AFM.

# ACHIEVEMENT ONE YEAR IN ADVANCE OF MOST OF THE 2019 TARGETS



In 2018, Euronext has extended its scope of activity both organically and through acquisitions. Furthermore, most of the core business 2019 targets of the Agility for Growth plan have been achieved one year in advance. To simplify and improve the tracking of its performance, Euronext will now report only group performance (including selected growth initiatives and new perimeter).

<sup>(1)</sup> Scope used for the 61-63% EBITDA margin 2019 target of Agility for Growth strategic plan (see press release published on 13 May 2016 available on [www.euronext.com](http://www.euronext.com)). Including IFRS 15 impact

# INTRODUCING OPTIQ®, THE NEW GENERATION TRADING PLATFORM

Euronext has launched **Optiq®**, its new state-of-the-art, proprietary trading platform, already powering market data and all Euronext cash markets, and to be deployed for Euronext derivatives market in 2019.



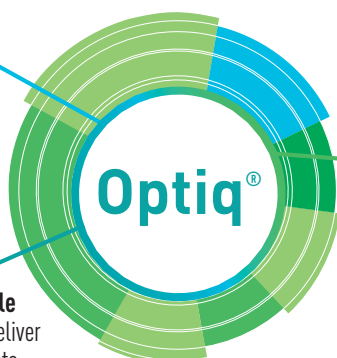
## PREMIUM LEVEL PERFORMANCE

Leverage **state-of-the-art** technology to ensure **reliability, enhanced throughput and predictable latency**.



## FLEXIBILITY

Provide customers with a **simplified and flexible system** allowing **shorter time-to-market** to deliver new initiatives and implement customers' requests.



## INCREASED STABILITY

Enhanced **efficiency and performance** through improved connectivity and protocols, and **optimised messaging model**.



## WHO BENEFITS FROM OPTIQ® ?

### Trading Members on Euronext Cash and Derivatives markets

Optimised order entry protocols, higher throughput through new connectivity models and more transparency.

### Technology providers offering software and access to Euronext markets

One single way to access Euronext markets, flexibility in developments for new Euronext services depending on customers' needs.

### Data vendors consuming Euronext Market data

Harmonised and faster market data across Cash and Derivatives markets.

## OPTIQ® IN NUMBERS

Migration of **Cash markets** to Optiq® in **June 2018**. Optiq® live in **Dublin** in **February 2019**.



# EURONEXT FEDERAL MODEL

■ Euronext historical presence  
■ Euronext recent Tech hub expansion

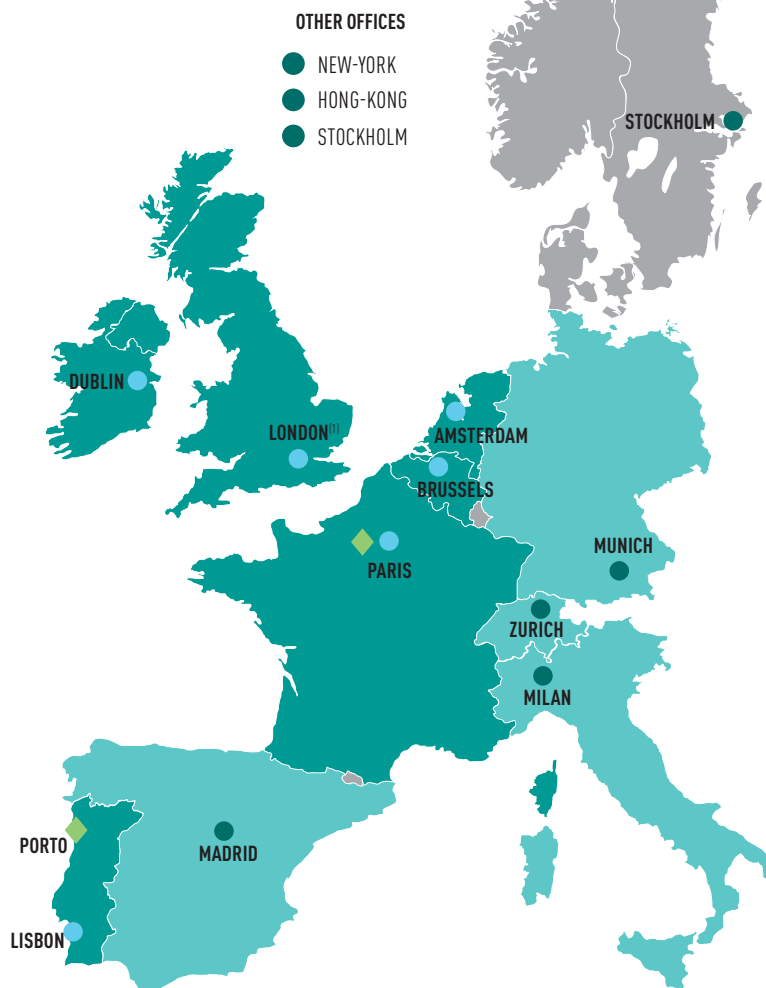
- 6 Regulated markets
- ◆ Technology centers
- Sales offices

<sup>(1)</sup> Euronext London is recognised as a Recognised Investment Exchange (RIE) by the Financial Conduct Authority (FCA).

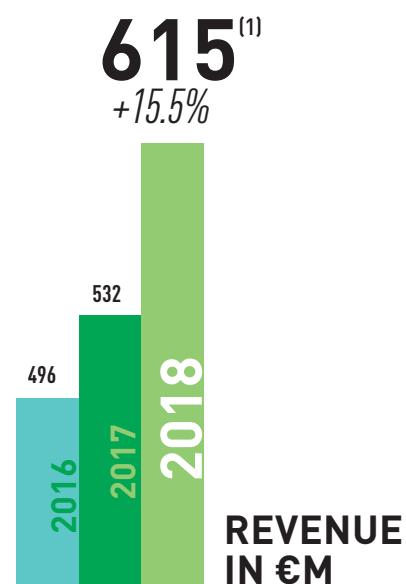
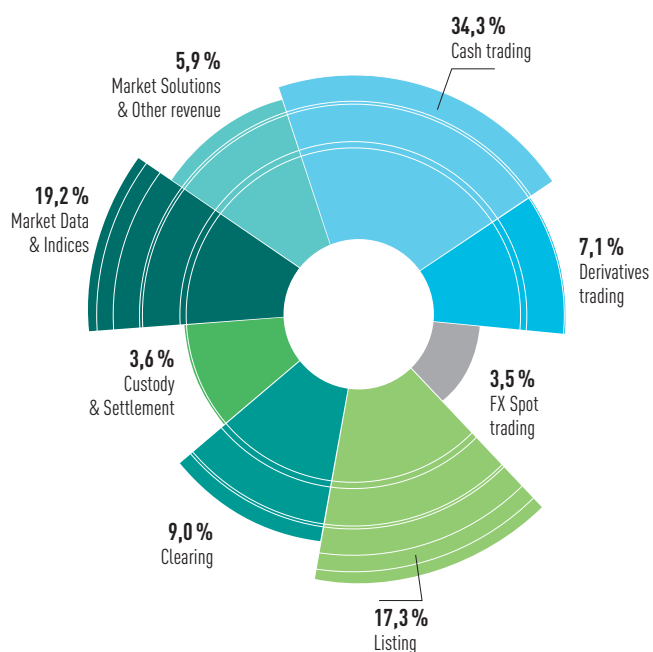
**Euronext is the first pan-European exchange, spanning Belgium, France, Ireland, the Netherlands, Portugal and the UK.**

This unique model unites marketplaces that date back as far as the start of the 17th century, and is designed to incorporate the individual strengths and assets of each market, combining heritage and forward-looking modernity.

We operate five national regulated securities and derivatives markets in Amsterdam, Brussels, Dublin, Lisbon and Paris, and the UK-based regulated securities market, Euronext London.



## SOURCE OF 2018 REVENUE



# A STRONG PERFORMANCE IN 2018

€354.3m

57.6%

EBITDA MARGIN



63%

EBITDA TO CASH FLOW



€3.44

+11.2%<sup>(1)</sup>

ADJUSTED EPS



€1.54<sup>(2)</sup>

DIVIDEND PER SHARE



IN 2019, EURONEXT  
EXPECTS TO LIMIT  
THE GROWTH RATE OF  
ITS OPERATING COSTS  
TO A **LOW SINGLE  
DIGIT**, DESPITE  
THE CONSOLIDATION  
OF EURONEXT DUBLIN  
FOR THE FULL YEAR  
OF 2019



€3.4trn

MARKET CAPITALISATION  
ON EURONEXT MARKETS

1,300

ISSUERS

33

NEW EQUITY LISTINGS

66.1%

MARKET SHARE  
ON CASH TRADING

€8.1bn

CASH AVERAGE  
DAILY VALUE

0.51bps

CASH YIELD

14

COUNTRIES

848

EMPLOYEES

€340m

CAPITAL DEPLOYED SINCE 2016

<sup>(1)</sup> Percentages compare 2018 data to 2017 data.

<sup>(2)</sup> To be proposed at the AGM on 16 May 2019.







# RISKS

The format of Euronext's Registration Document and the presentation of its Table of Content respect the requirements of Annex 1 of the Prospectus Directive EC 809/2004 as applicable in the Netherlands. Euronext as a leading financing centre in continental Europe is subject to risks and uncertainties that may affect its financial performance. Key risks specific to a pan-European exchange operator relate to the general economic development globally and especially in Europe, as well as increased regulation, oversight and taxation, all of which depend on policy decisions by governments and regulators and which are not controlled by the Company. As for any company, the business, results of operation or financial condition of the Company could be materially adversely affected by the risks described below. These are not the only risks the Company faces. Additional risks and uncertainties not presently known to the Company or that it currently considers immaterial may also impair its business and operations. A description of the risk management system, including risk appetite, is provided in Section "Risk management" (paragraph 2.2.1.1.).

<b>2018 Risk Focus</b>	<b>8</b>
<b>Strategic Risks</b>	<b>8</b>
<b>Financial Risks</b>	<b>10</b>
<b>Operational Risks</b>	<b>10</b>

## 2018 Risk Focus

Current risks on which Euronext focused on over the course of 2018 and will continue to focus on in 2019 include:

- regulatory Compliance and Change: Regulatory change affects the operations of the Group and of our stakeholders. Embedding MiFID II, GDPR amongst other local policies requires monitoring of the compliance risk as well as the evolution of the environment;
- competition: the evolution of the competitive landscape, especially in a Brexit context, may alter Euronext's market share;
- transformation: the strategy to acquire and continue our acquisitions increases opportunities as well as transformation risk;
- security: security of information is a key risk of the industry and in the global landscape;
- technology: resilience and stability of systems given the transformation to Optiq is closely monitored.

## Strategic Risks

### GLOBAL AND REGIONAL ECONOMY

The Company's operations and performance depend on market and economic conditions globally and locally. Trends towards the liberalisation and globalisation of world capital markets have resulted in greater mobility of capital, greater international participation in local markets and more competition among markets in different geographical areas. As a result, global competition among trading markets and other execution venues has become more intense. Given the global economy's health and growth in highly correlated to Euronext's revenue growth and related opportunities, a weak economy and negative economic developments may impact growth targets and could limit the Group's future prospects.

In addition, Euronext's operations are highly concentrated in Belgium, France, Ireland, the Netherlands, Portugal and the United Kingdom. Euronext success is also highly correlated to general economic developments in those countries and in Europe generally. The relatively low growth prospect of the Euro area compared to other areas may be a competitive disadvantage for Euronext versus its non-European peers, impacting revenue and growth opportunities.

Euronext considers international institutions' economic outlooks to assess the level of this risk. With a consensus of about 3.6% global real GDP growth, and +1.8% in the Euro area for 2019 at the date of publication of this document, the risk of an adverse impact of global and regional economy trends is very low but not insignificant. 2019 growth projections have been reviewed downward by both the IMF and the OECD during Q4 2018 as they consider that risks threatening global economy are becoming more pronounced or have partially materialized in 2018. Amongst those, the ongoing trade tension between the United States and China, the expected tightening of monetary policies in developed countries and, more locally, the doubts regarding political agenda in Europe (UK, Italy, Turkey) could have an impact on global or regional economy and ultimately impact Euronext, through reduced volumes or reduced listing activity as well as opportunities for growth.

Economic conditions affect financial and securities markets in a number of ways, from determining availability of capital to influencing investor confidence. Accordingly, generally adverse market conditions may have a disproportionate and adverse effect on the Company's business and impact its financial results

### COMPETITION

Euronext's industry is highly and increasingly competitive.

In the listing segment, Euronext is facing competition from other exchanges developing initiatives to capture primary listing of issuers based on Euronext's home markets – and reciprocally Euronext competes with peers on their home markets – in particular in respect of global companies and SMEs in the technology sector as well as in the corporate services market, where Euronext provides support to newly listed and existing companies. In addition to these incumbent competitors, existing, such as private equity, and emerging, such as Initial Coin Offerings (ICO), alternative funding solutions may increase competitive pressure on Euronext listing activity in the future.

Concerning the trading activity, fragmentation of markets and increased competition have been driven by regulatory evolutions and globalization. The pressure on market share and pricing that was triggered by MiFID I has been absorbed and stabilized, but MiFID II opened the way for new form of competition, specific examples being systematic internalisers and trading models. The Company's current and prospective competitors are numerous and include both traditional and non-traditional trading venues: multilateral trading facilities ("MTFs") and a wide range of over-the-counter ("OTC") services provided by market makers, banks, brokers and other financial market participants amongst whom some are allowed to offer better pricing than exchanges. Some of these competitors are among Euronext's largest customers or are owned by its customers. Furthermore, Brexit outcome may act as a catalyst if UK based venue decide to develop activities in the European Union.

In addition, Articles 35 to 37 of MiFIR introduced open access clauses which, according to ESMA, may promote greater competition among market infrastructures. In particular, Article 37 on Open Access to benchmarks may be a threat on Euronext's index derivative products, while Article 35 and 36 are contributing to reshape the clearing landscape and require Euronext to adapt its post-trade strategy and offer accordingly.

The success of the Group's business depends on its ability to attract and maintain order flow, both in absolute terms and relative to other market centres. If Euronext fails to compete successfully, the loss of order flow would deteriorate liquidity and market quality, and may endanger Euronext's attractiveness and impact its financial results.

## TRANSFORMATION

The Company is exposed to transformation risks (risk of loss or failure resulting from change/transformation) given the current levels of change and alignment activity taking place across the Company. The Company has embarked on a new enhanced multi-market trading platform, Optiq®, bringing leading technology to ensure high reliability and improved latency. This technology has change impacts to Euronext Market Services and Technology teams given the innovation undertaken. Optiq Market Data Gateway was launched in 2017, and the core trading technology for the regulated markets was launched in 2018 for the cash trading segment. The implementation of the derivatives segment is planned for 2019. Euronext is undergoing some companywide transforming programs in addition to its technological transformation, such as the integration of new acquisitions, including Euronext Dublin. If these programs are not completed, or do not operate as intended, identified synergies may not be delivered and the marketplace may be questioned.

The Company has entered and may continue to enter into business combination transactions. The market for acquisition targets and strategic alliances is highly competitive. Pursuing strategic transactions requires substantial time and attention of the management team, which could prevent them from successfully overseeing other initiatives. Similarly, if acquisitions ambitions are publicly disclosed, such as of the Oslo Børs VPS, but not closed, this may impact our reputation and our strategic growth plan. Completing and recognising benefits of potential transactions takes time and can impact the Company's business, and financial results.

Euronext continues to explore and pursue opportunities to strengthen its business and grow the Company. In relation to the expansion of the Group's business, Euronext plans to invest time in developing new products, improving current product offerings or increase its presence in other markets. If these product offerings are not successful, a potential market opportunity may be missed and Euronext may not be able to offset the cost of such initiatives, which may have a material impact on the Company's financial results.

## REGULATORY COMPLIANCE AND CHANGE

Euronext's business in Europe is subject to extensive regulation at the European level and by national regulators in the relevant European jurisdictions where the Group has operations, including, Belgium, France, Ireland, the Netherlands, Portugal and the United Kingdom.

In addition, the Company has a presence in the United States, including FastMatch and an ATS. As the Group seeks to expand its product base or the jurisdictions in which it operates, it could become subject to oversight by additional regulatory bodies. Competitors, such as alternative trading venues that are not regulated markets or MTFs are subject to less stringent regulation than an exchange.

Calls for enhanced regulatory scrutiny following the financial crisis continues to generate risks and opportunities. This may lead to the following impacts:

- decision by any of Euronext's regulators to impose measures which may impact the competitive situation and possible strategy of the Group;
- potential increase of the fees required to pay towards the national and European regulators within the European Union and compliance costs, as well as of the costs of firms undertaking business in the European securities markets generally;
- delay or denials of regulatory approval requested by Euronext to further its strategy for initiatives, leverage business opportunities, change its governance, impacting Euronext's competitive position;
- potential fines if, despite all its efforts, Euronext breaches the regulation, impacting results as well as Euronext's reputation;
- reduction of Euronext's bandwidth and agility due to operational implementation.

The regulatory regime within Europe has been amended and extended. The revised European Union Markets in Financial Instruments Directive (MiFID II / MiFIR) has been effective since 3 January 2018. Compliance with this new regime by all market actors is slowly changing the competitive landscape and may, therefore, have an adverse effect on the Company's business. The main sources of risk and their possible consequences are closely monitored and may impact Euronext's market share or directly its revenue:

- the impact of the tick size regime, favoring the growth of trading via systematic internalisers to the detriment of exchanges by creating an unlevel playing field;
- the open access provisions, as mentioned in the competition section, increases competition by allowing competitors to improve their value offer or to create derivatives on benchmarks historically used exclusively by Euronext;
- the pricing of market data on a reasonable commercial basis which has yet to be clarified in detail. As uncertainty remains on ESMA's requirements, there is a risk that the outcome will impact a significant stream of revenue for Euronext.

The outcome, given the implementation date of 3 January 2018, is still taking shape. While certain legislative elements of the framework are already being amended, notably the applicable framework to systematic internalisers, ESMA and the European Commission will continue early stage evaluations into parts of the framework, notably in respect of market data and market structure in the course of 2019.

Recent regulations, including the General Data Protection Regulation (GDPR), the Benchmark Regulation (BMR) and the Prospectus Directive (application in July 2019), require significant effort to implement, impacting operational capacity as well as increasing risk of non-compliance. Additional regulatory evolutions may affect

Euronext activity and/or revenue if designed adversely. Discussions about an EU Financial Transaction Tax were relaunched in the end of 2018 and could affect Euronext's results.

The decision of the United Kingdom to withdraw from the European Union (Brexit) should have, at a regulatory level, wide-ranging implications for European financial markets whose full impact will only become clear once the negotiations between the European Union and the United Kingdom regarding withdrawal have clarified the general nature of the post-Brexit relationship (including the extent to which UK-based firms have access to

the single market in financial services). As a "no deal" scenario remains a possible outcome, some emergency equivalences will be needed and are expected to secure an orderly transition and to preserve the activity of the industry. However, at the date of writing of this document, the level of uncertainty is too high to positively affirm that the Brexit will not affect ease of access to trading between the UK and the EU, consequently impacting Euronext's business, or will not endanger the sustainability of the location of the Company's datacenter in the UK.

## Financial Risks

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### CAPITAL MANAGEMENT

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern, to comply with regulatory requirements and to maintain an optimal capital structure to reduce the cost of capital and provide return to shareholders.

Euronext N.V. is a holding Company and its ability to generate income and pay dividends is dependent on the ability of its subsidiaries to

declare and pay dividends or lend its funds. The actual payment of future dividends by the Company and the payment of dividends to the Company by its subsidiaries, if any, will depend on a number of factors including distributable profits and reserves and minimum capital requirements mandated by regulatory authorities.

Due to factors mentioned above regarding results, mandated capital requirements by regulatory authorities and other agreements, the Company may be constrained with its use of capital.

## Operational Risks

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### EMPLOYEES

The Company is dependent on the experience and industry knowledge of management and other key staff to operate its business operations and execute its strategies. Euronext recognises there is a shortage in the employment market for true specialists in a number of areas, such as in the information technology field and the field of operation of markets and particular product niches. In these areas, the Company competes for staff with a large number of other enterprises.

The Company's success will depend in part upon its ability to continue to attract, develop and retain key staff members in a number of disciplines. A loss of, or an inability to attract senior management or other key staff could have a material adverse effect on the business, results of operations, financial condition and cash flows.

### THIRD-PARTY PROVIDERS

The Group relies on third parties for post-trade services including clearing and settlement and other services. In particular, under its clearing service agreements with LCH S.A., the Paris based clearing house of LCH group Ltd, which is majority owned by LSEG, one of its competitors, Euronext relies on LCH S.A. to provide Central Counter

Party (CCP) services for trades executed on the Company's cash and derivatives markets and to manage related CCP functions, such as risk, novation and multilateral netting. In addition, Euronext relies on EuroCCP to provide CCP services for trades executed on the Company's cash markets and to manage related CCP functions.

MiFID II has brought into force the open access and interoperability rules in relation to clearinghouses. While there are transitional arrangements (Art. 54 of EU Regulation No 600/2014) that have been granted for Euronext, as well as other trading and clearing venues for a period of 30 months, it is uncertain how this can impact Euronext in the future also because it is not the ultimate owner of its clearing solution.

The Group also relies on the services of Euroclear group ("Euroclear") for the settlement of cash market trades other than in Portugal and on the services of InterContinental Exchange, ("ICE") for the provision of network and colocation and data centre services.

To the extent that any of the third parties on which Euronext relies experiences difficulties, materially changes its business relationship with the Company or is unable for any reason to perform its obligations, any such event could have a material adverse effect on the business, reputation, results of operations, financial condition and cash flows of Euronext.

## CHANGE MANAGEMENT AND INTEGRATION

The Group's change agenda is driven by internally determined programs, acquisitions and external factors. Internal programs include transforming Euronext technology and business operations through Optiq®, the new enhanced multi-market trading platform, evolving its data governance processes and executing its Agility for Growth strategy including launching of new services and acquisitions. Acquisitions include Company Webcast, iBabs, FastMatch, InsiderLog, Euronext Dublin and Commcise. External factors include the changing business and regulatory landscape, resulting from global economic factors, as well as MiFID II implementation and Brexit impacts.

The Company has actively arbitrated in favor of transformation and steady growth and as a result has taken on operational debt that is being addressed. As a result, there is a risk that the incoming flow of acquisitions & integration, project developments, and regulatory obligations require available resource and thus the level of debt does not decrease as quickly as expected, which may put growth opportunities at risk.

The number of significant programs and recent acquisitions, including the acquisition of Commcise, in progress simultaneously, with related impacts, that, if not delivered or delivered as originally designed or with delays, may have an adverse impact on the business, culture, reputation and financial condition of the Company, including an increased cost base without a proportionate increase in revenues. The status of the potential acquisition of Oslo Børs VPS is currently ongoing.

## TECHNOLOGY

Technology is a key component of Euronext's business strategy, and is crucial to the Company's success. Euronext's business depends on the performance and stability of complex computer and communications systems. Heavy use of Euronext's platforms and order routing systems during peak trading times or at times of unusual market volatility could cause its systems to operate slowly or even to fail for periods of time. These events or other events could cause unanticipated disruptions in service to exchange members and clients, slower response times or delays in trade executions and related impacts.

Euronext operates in a business environment that continues to experience significant and rapid technological change. To remain competitive, the Company must continue to enhance and improve the functionality, capacity, accessibility and reliability of its technology.

The Group continues the transformation of its Technology organisation through its launch of Optiq® cash segment, to be followed by derivatives, bringing leading technology to ensure high reliability. Euronext's success will depend, in part, on this continued innovation and investment in its trading systems and related ability to respond to customer demands, understand and react to emerging industry standards and practices on a cost-effective and timely basis, as well as in other technologies including leveraging cloud hosting for support and future services.

Exploiting technology and the ability to expand system capacity and performance to handle increased demand or any increased regulatory requirements is critical to Euronext's success. If the Group's technology is not properly managed or the resources supporting the changes are not properly allocated, Euronext may lose market share or volumes, which could have an effect on business and financial results.

## SECURITY

The secure transmission of confidential information over public and other networks is a critical element of Euronext's operations. As a result, the Group accumulates, stores and uses business data which is protected by business contracts and regulated by various law, including data protection, in the countries in which it operates.

The Group networks may be vulnerable to exfiltration, unauthorised access and other security incidents including:

- third parties, including cloud computing services, to whom Euronext provides information may not take proper care with this information and may not be diligent in safeguarding it;
- the Group systems may experience security incidents as the volume of cyber-attacks are increasing in general and in particular within the financial sector. Advanced persistent threats are within the most effective and disruptive cyber-attacks;
- open source software are used by Euronext within its software solutions. As the source code of such open source components is available to the public, hackers may take advantage from such disclosure to find vulnerabilities;
- persons who circumvent security measures could wrongfully access the Group's or its customers information, or cause interruptions or malfunctions in the Company's operations;
- the Group may be a direct or indirect target of attacks by terrorist or other extremist organisations that employ threatening or harassing means to achieve their social or political objectives. They can include cyber-attacks and threats to physical security and infrastructure.

In the event of an attack or threat of an attack as well as natural disasters or public health emergencies, the Group may experience a significant delay in resuming normal business operations.

Security breaches or leakage of sensitive data, also impacting data protection laws, and other events could cause Euronext to incur reputational damage, regulatory sanctions, litigation and/or have an impact on its financial results.

## OWNERSHIP AND INTELLECTUAL PROPERTY

Euronext owns or licenses rights to a number of trademarks, service marks, trade names, copyrights, free or open source software and databases that are used in its business. To protect its intellectual property rights or any other property rights, Euronext relies on a combination of trademark laws, copyright laws, trade secret protection, database laws, confidentiality agreements and other contractual arrangements with its affiliates, customers, strategic investors and others. In the event the protective steps taken are inadequate to deter misappropriation of Euronext's intellectual property, Euronext's reputation could be harmed, affecting its ability to compete effectively. Further, in defending its ownership or intellectual property rights may require significant financial and managerial resources. Any of the foregoing could have a material adverse effect on the business, results of operations, financial condition and cash flows.

Finally, Euronext takes best efforts to prevent infringement of any third party intellectual property rights, including its use of free or open source software. However, in the event that Euronext is accused of alleged intellectual property right infringement, Euronext may require significant financial and managerial resources for its legal defense.

Many aspects of Euronext's business involve litigation risks. Some other liability risks arise under the laws and regulations relating to the insurance, tax, anti-money laundering, foreign asset controls, data privacy and foreign corrupt practices areas. These risks include potential liability from disputes over terms of a securities trade or from claims that a system or operational failure or delay caused monetary losses to a customer, as well as potential liability from claims that the Group facilitated an unauthorised transaction or that it provided materially false or misleading statements in connection with a transaction. These risks include as well potential liability from disputes as regard non-compliance of the Group to its data privacy obligations as controller or processor.

Dissatisfied customers may make claims against their service providers regarding quality of trade execution, improperly settled trades, mismanagement or even fraud or non-compliance with data privacy obligations. In this specific case (*i.e.* non-compliance with data privacy regulation), claims may also arise from a data subject as defined by data privacy regulation or data privacy authorities. Although aspects of the Group's business may be protected by regulatory immunity and/or contractual arrangements providing for limited or no liability clauses, Euronext could nevertheless be exposed to substantial liability under the laws and regulations and court decisions in the countries in which it operates, as well as regulations promulgated by European and other regulators.

The Group could incur significant expenses defending claims, even those without merit. In addition, an adverse resolution of any lawsuit or claim against the Group may require it to pay substantial damages or impose restrictions on how it conducts its business, any of which could have an effect on both the business and financial results, and the reputation of the Group.



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# 1

## PRESENTATION OF THE GROUP

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<b>1.1 Company Profile</b>	<b>16</b>
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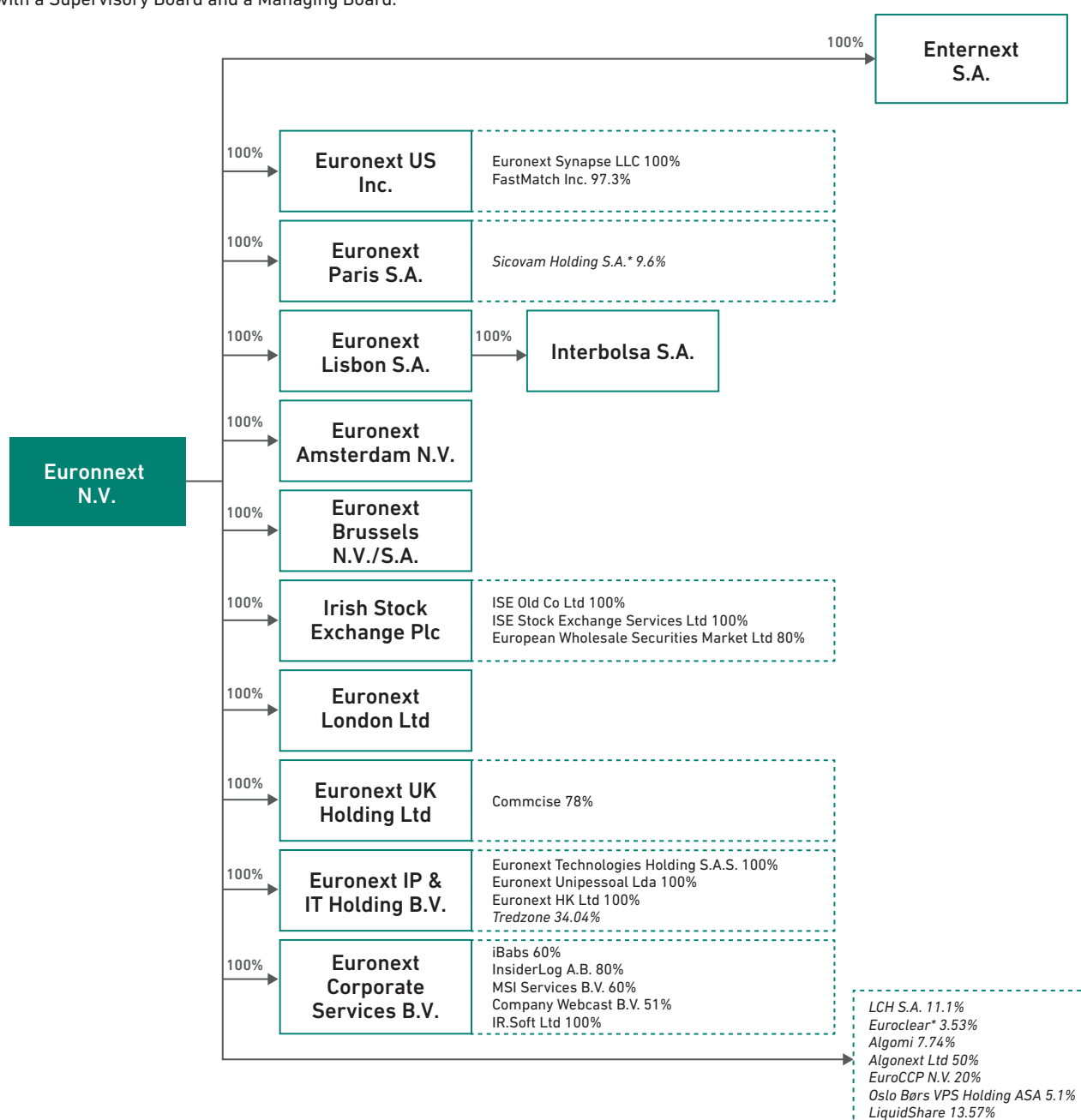
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## 1.1 Company Profile

Euronext N.V. is a Dutch public company with limited liability (*naamloze Vennootschap*) which has its registered office in Amsterdam. Euronext N.V. is registered with the trade register of the Chamber of Commerce for Amsterdam, the Netherlands, under number 60234520. Euronext N.V. has its main subsidiaries in Belgium, France, Ireland, the Netherlands, Portugal and the United Kingdom. Euronext N.V. has expanded its European federal model, with the acquisition of 100% of the Irish Stock Exchange on 27 March 2018. Euronext N.V. has a two-tier governance structure with a Supervisory Board and a Managing Board.

Euronext was incorporated under the name Euronext Group N.V. on 15 March 2014 in the context of a demerger of Euronext N.V., which was a company owned by ICE. Euronext Group N.V. changed its name to Euronext N.V. on 2 May 2014.

The following chart provides with an overview of Euronext N.V. entities. Percentage refer to both share of capital and voting rights.



\* Sicovam owns a 15.89% stake in Euroclear.

### 1.1.1 HISTORY

Today, Euronext is a pan-European exchange group, offering a diverse range of products and services and combining transparent and efficient equity, fixed income securities and derivatives markets in Amsterdam, Brussels, Dublin (since March 2018), Lisbon, London and Paris. Euronext's businesses comprise: equity, debts, funds and ETFs listing, corporate and investors services, cash trading, foreign exchange trading, derivatives trading advanced data services, post-trade services as well as technology.

Euronext in its original form was created in 2000 and takes its roots from the European construction. It was first the result of a three-way merger of the Paris, Amsterdam and Brussels exchanges, soon completed by the acquisition of the London-based derivatives market, LIFFE, and the merger with the Portuguese exchange. The continental exchanges were combined into a unique federal model with unified rules and a Single Order Book (except for Portugal), operating on the same electronic trading platform and cleared by LCH S.A. CCP, creating the first genuinely cross-border exchange in Europe and pre-dating all initiatives by policy makers to allow for the creation of pan-European market places.

In May 2006, Euronext entered into an agreement with NYSE group for the combination of their respective businesses. The new holding company of these combined businesses, NYSE Euronext, was subsequently listed on the New York Stock Exchange and on Euronext Paris.

In 2010, NYSE Euronext launched Euronext London, a London-based securities market aiming at attracting international issuers looking to list in London and benefiting from Euronext's value proposition.

In November 2013, ICE, an operator of global markets and clearing houses, acquired NYSE Euronext. A key element of the overall transaction was the separation and IPO of NYSE Euronext's continental European exchanges as a stand-alone entity. In order to do this, ICE carved the continental European operations of NYSE Euronext and Euronext London into a newly formed entity, which was subsequently renamed Euronext N.V. Since its successful IPO on 20 June 2014, Euronext N.V. has been an independent listed company.

In May 2016, Euronext N.V. launched its strategic plan named "Agility for Growth" which defines the growth ambitions for 2019, both through organic growth and bolt-on acquisitions. In 2017, Euronext N.V. has diversified its top line, through the acquisition of 90% of the shares of the forex platform FastMatch, and by investing in corporates services companies (see 1.2.5).

### 1.1.2 AMBITION

Euronext is the leading continental pan-European marketplace for the real economy. Its core mission and the driver of its strategy is to power pan-European capital markets to finance the real economy, while delivering value to shareholders.

As a pan-European group with a profile 'united in diversity', Euronext's ambition is to play a constructive role in the local ecosystems and act as an industry problem solver while contributing to making Europe an attractive block in a multipolar

world. The Group's model is best suited to contribute to the construction of a true pan-European market. It operates regulated markets in Belgium, France, Ireland, the Netherlands, Portugal and the United Kingdom, all of which are connected via a unique, single trading platform with a harmonised regulatory framework. Euronext can easily connect other independent exchanges to its single trading platform, as demonstrated with Euronext Dublin on 4 February 2019. Euronext's unique Single Order Book allows investors to get the benefit of being able to trade, clear and settle in a uniform way throughout various jurisdictions while also accessing a broad and deep pool of liquidity. Euronext is also ready to welcome other independent Eurozone market platforms within the Euronext model, which is demanding in terms of commercial and financial performance, ambitious in terms of innovation, and fundamentally federal in its governance, as demonstrated by the closing on 27 March 2018 of the acquisition of Euronext Dublin, formerly the Irish Stock Exchange.

The Group offers a wide range of products and services to the community of issuers and gives them access to a broad and diversified investor base for the listing activity. As part of its Agility for Growth strategic plan, Euronext is developing a complete suite of products offering to help private and public companies make the most effective use of financial markets by providing them with innovative solutions and tailor-made advisory services.

As an operator of regulated markets, Euronext's mission is to bring together buyers and sellers in venues that are transparent, efficient and reliable. The Group combines cash, fixed income securities and derivatives markets in its six locations together with a global foreign exchange trading venue. Euronext's broad portfolio of products, services and platforms covers the full range of market services, including the provision of market information, the development and operation of information technology systems, and the ease of access to settlement and clearing facilities.

### 1.1.3 BUSINESS ENVIRONMENT

As an exchange operator, Euronext's operations and performance depend significantly on market and economic conditions in Europe, but also the United States, Asia and the rest of the world. Euronext is operating in a business environment that is best described as a complex non-linear system with dependencies on decisions of policy makers and regulators worldwide, with subsequent developments in the legal, regulatory and tax environment as well as the macroeconomic environment both in Europe and abroad.

#### Competition

On the corporate listing side, competition between exchanges for domestic issuers is rare. When a domestic issuer lists on another exchange, it tends to be on a sector specific market rather than on another European stock exchange, in particular in respect of global companies and SMEs in the technology sector. As part of its Agility for Growth strategy, Euronext strives to attract issuers from new markets: Germany, Switzerland, Italy and Spain and therefore will face the competition of local market operators. Euronext has offices in four European cities outside its core markets – in Munich (Germany), in Milan (Italy), in Madrid (Spain) and in Zurich (Switzerland) – to assist Tech companies

in developing their business on a greater scale through capital markets. Euronext has welcomed 6 companies from those countries in 2018 on its markets, additionally 135 companies participated in the TechShare program.

While competition in the cash trading market is relatively mature, in recent years Euronext has faced increased pressure on pricing and market share in equity options trading, in particular from new entrants to the market that have fee structures that are significantly lower than the Company's fee structure and a reduced cost structure aligned with their narrower service offering. However, Euronext remained the largest liquidity pool in Europe, with a market share on its cash equity markets above 60%.

The competition for proprietary real-time market data is still limited as trading participants prefer to receive and use market data from the home exchange rather than using substitute pricing. However, Euronext is experiencing an increasing pressure, both from a regulatory (MiFID II) and competitive perspective (alternative trading platforms, including MTFs such as CBOE who focus on the most liquid blue chip stocks). Nevertheless, Euronext believes that diversity in a wide range of stocks is Euronext's strength in this increasingly competitive environment and will help Euronext retain its position as preferred data source.

In less time critical areas such as reference data – and particularly corporate actions and historical data – participants want a consolidated European feed from a single source. Euronext is not the only source of corporate actions or historical data so there is more competition in these areas.

As for market operator technology, the market for financial information technology is intensely competitive and characterised by rapidly changing technology and new entrants. Euronext has built the next generation trading platform, Optiq®, and is well positioned to benefit from its state-of-the-art stability and latency.

## Regulated Markets

Regulated markets are markets constituted in an EEA Member State's territory that fulfilled the criteria of the MiFID. Regulated markets have higher disclosure and transparency requirements than multi-lateral trading facilities ("MTF"). Trading on regulated markets is subject to stricter rules than on other types of trading venues.

A regulated market cannot operate without securing prior authorisation from its regulator(s). Authorisation is subject to compliance with organisational requirements pertaining to conflicts of interest, identification and management of operational risks, systems resilience, the existence of transparent and non-discriminatory trading rules, as well as sufficient financial resources.

## Multilateral Trading Facilities

Multilateral trading facilities ("MTFs") are primarily institutional investor-focused marketplaces offering trading in pan-European securities on low latency, low cost platforms and are usually operated by financial institutions (e.g. banks, brokerages) or operators of regulated markets. MTFs are also subject to less stringent disclosure, transparency and trading rules than regulated markets and have more discretion to operate and organise themselves.

Euronext operates a number of MTFs, including its SME and midcap-dedicated marketplace Euronext Growth (formerly Alternext) (Belgium, France, Portugal), Enterprise Securities Market in Ireland, Euronext Access (formerly the *Marché Libre*) in Belgium and in France. Euronext also operates BondMatch for institutional bond trading in France, and several in Ireland: Global Exchange Market, for listing debt securities aimed at professional investors and investment funds, Atlantic Securities Market, for US listed companies seeking to access euro pools of capital. Finally, Euronext operates Euronext Block, a pan-European equity block pool from the United Kingdom).

## Systematic Internaliser

The systematic internaliser ("SI") regime was introduced by MiFID in 2007 which defines a SI as an investment firm which, on an organised, frequent systematic and substantial basis, deals on own account when executing client orders outside a regulated market, an MTF or an OTF without operating a multilateral system. SIs are bilateral trading platforms usually operated by banks or brokers and offering them the possibility to match client orders against their own capital, as an alternative to sending their orders to multilateral trading venues such as regulated markets or MTFs. SIs are subject to much lighter organisational, disclosure, and transparency requirements than regulated markets and MTFs while some elements of the framework could be amended (see Risk chapter).

## Over-the-counter ("OTC")

In all asset classes, Euronext is faced with competition from unlicensed marketplaces operating over-the-counter ("OTC").



## 1.2 Strategy: "Agility for Growth" Strategic Plan

1

Since the IPO, through optimal resource allocation and cost control, as well as stronger development of underexploited businesses, Euronext has strived to deliver its solutions for the real economy.

Following the delivery of its IPO objectives a year in advance, in May 2016 Euronext published its strategic plan, Agility for Growth, outlining its growth ambitions to 2019. Under this plan, Euronext announced that it would enhance its agility in order to strengthen the resilience of its core business, to capture strategic opportunities and to grow in selected segments. The driver of this plan is to fulfil Euronext's core mission: power pan-European capital markets to finance the real economy while delivering value to shareholders.

The strategic plan relies on capturing opportunities arising from the environment.

In details, the 2016-2019 strategic plan relies on:

- enhanced agility through:
  - a disciplined innovation strategy,
  - intensified client centricity,
  - continued efforts to reduce cost,
  - a strengthened information technology and infrastructure platform,
  - the attracting and development of best talent and entrepreneurs, and
  - the deployment of a disciplined M&A programme to accelerate its growth strategy in selected segments;
- strengthened core business; and
- selected growth initiatives.

This plan would translate into a set of new financial targets for the 2015-2019 period and Group EBITDA margin excluding clearing operations, would reach 61 to 63% in 2019. This plan would deliver enhanced shareholder value, through a disciplined capital allocation policy. In 2018, Euronext has achieved most of its 2019 targets one year in advance and will announce a new strategic plan along with mid-term targets in the course of the second half of 2019.

### 1.2.1 ENHANCING AGILITY

Innovation in capital markets should offer Euronext opportunities to develop new services with clients. The ongoing regulatory changes would increasingly drive value towards transparent, neutral, centrally cleared, open and regulated markets.

Client centricity plays a key role in business development. Euronext launched the third edition of its annual client satisfaction survey in 2018. Last year's feedback allowed to identify and drive improvements in client interactions, product development and service offerings. In parallel to the client survey, Euronext is conducting an internal online survey to measure employee appreciation and understanding of Client Centricity and the initiatives that have been implemented over the last year.

In terms of proposing innovating services to the financial community, Euronext continue to actively support the development of Liquidshare, the European blockchain fintech venture for SME post-trade, to improve SME's access to capital markets, increasing the transparency and security of post-trading operations using blockchain. LiquidShare announced the opening of the pilot phase on 17 December 2018 on Euronext's markets. Euronext announced in December 2018 an exclusive commercial partnership with the Fintech PrimaryBid to deploy its innovative platform in Euronext countries, allowing retail investors across Europe access to discounted share issuances for any European public company.

In line with its announced Agility for Growth strategy, the ongoing cost management discipline has continued all over 2018, and Euronext announced in November 2018, and confirmed in February 2019 it has achieved its 2019 €22m cost reduction target one year in advance, with €23.8m of cumulated costs savings, compared to 1 April 2016.

In order to upgrade its information technology, Euronext continue to deliver improved customer experience through the migration from its previous technology platform Universal Trading Platform ("UTP") to its new leading edge platform: Optiq®. Optiq® deliver a simplified harmonised messaging model with maximum flexibility, within a single trading platform for cash and derivatives, providing clients with high performance and stability. In April and June 2018, Optiq® trading engine went live for fixed income and cash markets, with impressive stability and performance. Optiq® for derivatives trading is expected to be delivered during the course of 2019.

Euronext has undertaken an opportunistic approach of mergers and acquisitions, translating into a first set of deals to complement its business mix (see section 1.2.4).

### 1.2.2 STRENGTHENING CORE BUSINESS

Euronext is further strengthening its core business, creating value for clients and shareholders alike.

The main levers to achieve these objectives are to:

- expand Euronext's listing business to further finance the real economy in Europe;
- maintain the Company's successful strategy of optimising its core cash equity business to remain the market of reference for trading in Euronext listed companies;
- migrate Euronext Block on Optiq® in 2019 to allow participants to trade blocks proactively in a safe environment and benefit from Optiq® performance and client reach;
- extend the product mix of the derivatives franchise to deliver risk management tools for clients and provide OTC trade capture services;
- leverage Euronext's index platform and market data franchise to enrich the value proposition for customers; and
- increase technology value proposition and competitiveness with the launch of the Optiq® platform.

### 1.2.3 GROWING IN SELECTED SEGMENTS

Euronext focuses on several growth initiatives in selected segments to:

- add value to issuers, with two ambitions: become the exchange for European Tech SMEs and provide modular corporate services. In 2017, Euronext decided to expand outside its core markets and opened local offices in four European countries identified as high-potential ecosystems to assist tech companies in scaling up their business through capital markets, in addition, as part of its ambition to help companies and organisations to be more efficient, Euronext launched Euronext Corporate Services. *More information on these initiatives are disclosed in section 1.3.3.2;*
- add value to investors, with ambitions to provide a one-stop-shop pan-European ETF platform and deliver user choice in clearing for the equity markets, and diversify the post trade franchise. *More information are disclosed in section 1.3.4.1. and section 1.3.6.*

### 1.2.4 ACCELERATING PROFITABLE GROWTH THROUGH TARGETED MERGERS AND ACQUISITIONS

In order to accelerate Euronext's standalone strategy, its growth ambitions will be achieved both organically, leveraging on its existing assets and talents, and inorganically, through disciplined and selected bolt-on acquisitions.

In an evolving industry landscape, Euronext is carefully assessing potential opportunities resulting in transformational transactions that will create value for clients and shareholders.

In 2018, Euronext made the following acquisitions and concluded partnerships in accordance with the Agility for Growth strategy:

- **adding value to issuers – provide modular corporate services:** In January 2018, Euronext acquired 80% of the capital of InsiderLog, a Stockholm-based leading player in the field of insider list management, for a cash consideration of €5.8 million. InsiderLog automates the management of insider lists in a way that both saves time and ensures compliance with the requirements of the Market Abuse Regulation. This transaction further strengthens Euronext's value proposition for listed companies by addressing a strong need from issuers. The InsiderLog solutions will be distributed across the six core Euronext markets, in Belgium, France, Ireland, the Netherlands, Portugal and the United Kingdom, and in financial centres where Euronext has established European Tech Hub teams such as Madrid, Milan, Zurich and Munich;
- **expanding Euronext's federal model:** In March 2018, Euronext completed the acquisition of 100% of the shares and voting rights of the Irish Stock Exchange ("ISE"), after receiving regulatory approvals. Headquartered in Dublin, ISE is Ireland's incumbent stock exchange operator and a global leader in the listing of debt and funds securities. ISE is the first pool of liquidity for Irish equities, the first debt listing venue globally and the first fund listing venue globally. The transaction brings together two highly complementary businesses with significant growth

opportunities and expands Euronext's federal model to a new attractive European country. It creates a leading global player in debt and fund listings, combining the listing expertise of ISE with the traded markets expertise of Euronext. Euronext benefits from ISE's leading global positions in debt and fund listings as well as its unique product and listing expertise. The acquisition also enhances Euronext's growth outlook thanks to ISE's embedded core businesses' growth, complemented by the additional strategic growth plans for ISE, which is reinforced with the full support of Euronext. The acquisition of ISE by Euronext, combined with Ireland's very competitive economic environment, further strengthens Ireland's position as a strong European anchor to take advantage of Brexit opportunities. This transaction also develops the Irish capital markets ecosystem within a European context and as part of Euronext's core mission to power the real economy. ISE has been renamed Euronext Dublin on 27 March 2018. Euronext Dublin contributed €24.6 million to Group revenue, for 9 months of consolidation, and successful integration process with merged cross-border teams and administration systems. €2.7 million synergies were extracted in 2018 and Euronext Dublin markets migrated to Optiq® trading platform in February 2019;

- **capturing opportunities arising from the environment:** In December 2018, Euronext acquired a 78% stake in Commcise, a Software as a Service ("SaaS") provider of award-winning research evaluation and commission management solutions for financial services firms, from its founders for an initial cash consideration of £27 million. Founded in 2013 and headquartered in London, Commcise offers a unique cloud-based research commission management, evaluation and accounting solution built to meet the needs of asset managers, brokers and independent research providers. Commcise is the only vendor which combines research funding, consumption and accounting into a single fully integrated platform;
- **contemplated acquisition of Oslo Børs VPS:** On 24 December 2018, Euronext announced it had approached the Board of Directors of Oslo Børs VPS Holding ASA ("Oslo Børs VPS") to seek its support for a €625m cash tender offer for all the outstanding shares of Oslo Børs VPS, the Norwegian Stock Exchange and national CSD operator, headquartered in Oslo. On 14 January 2019, Euronext published the offer document for its previously announced all-cash tender offer to acquire all issued and outstanding shares of Oslo Børs VPS for NOK 6.24 billion (€625m <sup>(1)</sup>). The offer document is available on Euronext's website, [www.euronext.com](http://www.euronext.com) <sup>(2)</sup>. Following an invitation to consider an acquisition of shares in Oslo Børs VPS organized by a group of its shareholders, Euronext has already secured support for the offer from Oslo Børs VPS shareholders representing the majority of the total number of outstanding shares through irrevocable binding pre-commitments to tender shares in the context of the offer, and share purchases. These irrevocable undertakings remain valid regardless of any competing offer that has been or may be made in the context of this transaction until 31 August 2019. In addition, 22 shareholders decided on 11 February 2019 to strengthen their commitment to support Euronext's Offer by extending the

(1) Based on an exchange rate of EUR 1.00 = NOK 9.97 as of 23 December 2018.

(2) <https://www.euronext.com/listview/investor-financial-events/862111>

deadline for their irrevocable pre-commitments to the end of December 2019. As of 1 April 2019, Euronext has secured 53.1% of the share capital of Oslo Børs VPS through a combination of 8.1% of shares owned directly and 45.0% of shares committed to Euronext in the form of irrevocable pre-commitments and tendered shares. The original offer price of NOK145 per share, ie NOK6.24 billion (€625m<sup>(1)</sup>) for all outstanding shares of Oslo Børs VPS, has been amended to NOK158 per share, ie. NOK6.79 billion (€695 million<sup>(2)</sup>) on 11 February 2019, in order to demonstrate its willingness to share the benefits of this transaction with Oslo Børs VPS shareholders, the majority of whom supports Euronext's offer and to continue the dialogue with the minority of Oslo Børs VPS' shareholders who have not yet committed their shares for Euronext. The acceptance period of the tender offer commenced on 14 January 2019, and has been amended on 11 March 2019 and on 1 April 2019 so that Euronext will continue to receive and accept acceptances of the Offer up to 6 May 2019 at 18:00 Central European Time. Euronext has announced on 1 April 2019 that Tom Vidar Rygh, Senior Advisor at international private equity fund Nordic Capital and previous Chair and Member of the Board of Oslo Børs, has accepted to join the board of Oslo Børs VPS as an independent board member when the contemplated transaction is completed, subject to the usual regulatory approval. His strong profile and connection with the Norwegian ecosystem will support Euronext's growth ambitions in the Nordics. On 4 March 2019, Euronext noted that the Oslo Børs VPS Board of Directors has considered Euronext's increased offer announced on 11 February 2019 as equal to the updated Nasdaq offer from a purely financial point of view. Euronext also noted that, following Nasdaq's announced decision to match Euronext's offer, the Board of Directors has upheld its recommendation of Nasdaq as the preferred bidder in line with its commitment to do so under any circumstances. Euronext reiterated it will complete the transaction once regulatory clearance has been obtained, after the meeting of the other conditions previously stated. The offer is subject to fulfilment or waiver of certain conditions, including but not limited to minimum acceptance level of at least 50.01% of Oslo Børs VPS outstanding shares (including shares already held by Euronext), condition which is already met, regulatory approvals, short confirmatory due diligence, a favourable vote from a majority of Euronext shareholders and completion of the transaction before 31 December 2019. On 1 April 2019, Euronext announced it has received the declaration of non objection from its College of Regulators for the contemplated acquisition of up to 100% of the capital of Oslo Børs VPS, meeting one of the condition precedents of its offer. Euronext submitted its suitability application to Finanstilsynet concurrently to the launch of its Offer and has regular dialogue with all relevant parties. Euronext is authorised to operate regulated markets in Belgium, France, Ireland, the Netherlands, Portugal and the United Kingdom, and believes that its strategic ambition would preserve and strengthen the Norwegian financial market ecosystem. Euronext is confident that the transaction can be completed during the course of Q2 2019 within the customary regulatory approval period in Norway according to applicable laws and regulations. Euronext is

determined to acquire Oslo Børs VPS and remains committed to a constructive and continuous dialogue with Oslo Børs VPS shareholders, board and management as well as the wider Norwegian ecosystem. Euronext's Reference shareholders have also confirmed their joint support to Euronext for this transaction.

## 1.2.5 SETTING AMBITIOUS FINANCIAL OBJECTIVES

Euronext's Agility for Growth strategy aimed to translate into a set of financial objectives for 2019. In February 2019, Euronext announced that most of this objectives have been achieved one year in advance in 2018, and will only focus on a cost guidance in 2019 (see section 1.2.7).

The initial 2019 targets were the following:

- in May 2016, based on the current trading environment and competitive landscape, Euronext has set a growth objective of 2% CAGR over the 2015-2019 period for its core business revenue. The revenue expected from the identified growth initiatives would bring additional revenue of €70 million. As a result, Group revenue was expected to reach €575 million, vs. €467 million in 2015, excluding clearing revenue. These expectations relied both on factors that Euronext management can influence such as product and service launches and on factors that are outside its influence (global volume environment, macro trends, political uncertainty, Brexit, competition, ...);
- cost management remains a key pillar of Euronext's strategy to 2019. A target of €22 million of gross efficiencies has been identified, representing about €15 million net, taking into account an annual inflation rate of 1% over the period. The restructuring costs requested to deliver the additional cost efficiencies were estimated at 1.5 times the gross efficiencies, or €33 million;
- the completion of the strategic plan and the growth initiatives would induce about €35 million of additional operational expenses. On a net basis, the Company's cost base would then increase by about 1% CAGR over the period (excluding clearing operations). Therefore factoring in these revenue and cost assumptions, Euronext's EBITDA margin was expected to range between 61% and 63% by 2019 on this perimeter, excluding clearing and new perimeter.

## Update in 2018

In 2018, Euronext has extended its scope of activity both organically and through acquisitions. Furthermore, most of the core business 2019 targets of the Agility for Growth plan have been achieved one year in advance.

### ■ "Deliver value to shareholders":

- **2018 core business and selected growth initiatives** (excluding clearing) **EBITDA margin at 61.6%**, reaching one year in advance the 61-63% 2019 EBITDA margin target;
- **~€340 million of capital deployed** in revenue diversification and expansion of Euronext decentralised model;

(1) Based on an exchange rate of EUR 1.00 = NOK 9.97 as of 23 December 2018.

(2) EUR 9.77/NOK FX rate as of 8 February 2019; before additional interest payment.

- **~€100 million of capital deployed in bolt-on deals, in the initial €100-150 million envelope;**
- *Euronext rated A (outlook stable) by S&P, in line with expected investment grade profile.*
- **“Enhance agility”:**
  - **2019 cost reduction target achieved one year in advance with €23.8 million of cumulated core business gross savings achieved since Q2 2016 (vs. €22 million targeted) thanks to continued cost discipline, with less than half of expected restructuring costs incurred (€14.6 million vs. €33 million targeted);**
  - **Optiq® trading platform delivered in 2017 for Market Data, 2018 for Cash markets, February 2019 for Euronext Dublin and planned by the end of 2019 for Derivatives markets.**
- **“Strengthen resilience of the core business”:**
  - *continued core business revenue growth: +2.0% CAGR<sub>2015-2018</sub> vs. 2.0% CAGR<sub>2015-2019</sub> targeted;*
  - *increased market share on cash trading to 65% on average since 2017 (vs. >60% targeted) and >50% on French equity options (vs >50% targeted), and sustained yield on cash trading.*
- **“Grow in selected segments”:** *€17.6 million incremental revenue in 2018 vs. €55 million targeted in 2019. Corporate Services recorded strong performance and the Tech SMEs initiative achieved good traction. ETF MTF is expected to be live in 2019. Other initiatives are not expected to provide further revenue in 2019. Euronext will continue the development of innovative projects and organic initiatives.*
- **“Create optionality in clearing”** with investment in EuroCCP in 2016 and the renewed 10-year agreement with LCH S.A. along with a 11.1% equity stake and a strong pre-emption right in 2017. Preferred user choice model for equity clearing is now live.

The 2019 only remaining target is presented in section 1.2.7.

## 1.2.6 ENHANCING SHAREHOLDER VALUE

Euronext intends to pursue a very disciplined capital allocation policy. The dividend policy of 50% of reported net earnings was confirmed, providing shareholders with consistent capital return and enabling the Company to deploy its strategy. In addition, Euronext has set in 2017 a floor at €1.42 dividend per share for every fiscal year until 2019.

This also includes the possibility to execute its value accretive bolt-on acquisition strategy while maintaining sufficient financial flexibility for potential transformational transactions.

Euronext considers its capital management policy as a core priority and a key part of its value proposition to shareholders, and will return any excess of capital on its balance sheet in the absence of transformational deals during the period.

## 1.2.7 STRATEGIC TARGETS AND PROSPECTS IN 2019

To simplify and improve the tracking of its performance, Euronext announced in February 2019 it will now report only group performance (including selected growth initiatives and new perimeter). New mid-term targets will be presented in H2 2019 as a part of the new strategic plan. In 2019, Euronext expects to limit the growth rate of its operating costs to a low single digit <sup>(1)</sup>, despite the consolidation of Euronext Dublin for the full year of 2019 <sup>(2)</sup>.

In addition, Euronext will continue the development of Optiq®, with the trading platform for derivatives planned to be live in 2019.

Euronext will pursue the process related to the contemplated acquisition of Oslo Børs VPS.

# 1.3 Description of the Business

## 1.3.1 BUSINESS OVERVIEW

Euronext is a pan-European exchange group offering a diverse range of products and services and combining transparent and efficient equity, fixed income securities and derivatives markets in Amsterdam, Brussels, Dublin, Lisbon, London and Paris. Euronext's businesses comprise listing, cash trading, derivatives trading, spot FX trading, advanced data services, post-trade and technologies & other.

Euronext's markets provide the leading listing venues in continental Europe based on the number of companies listed as of 31 December 2018. Nearly 1,300 issuers representing a combined market capitalisation of approximately €3.4 trillion were admitted to trading

on Euronext's markets as at 31 December 2018. In addition, the Company has 1,150 exchange traded funds (“ETFs”) and over 77,000 structured products. As of 31 December 2018, Euronext ranked first in Europe in terms of market capitalisation of listed companies and second in terms of number of companies listed among the largest exchange groups in Europe, excluding Bolsas y Mercados Españoles (on which a large proportion of listed issuers are open-ended investment companies, limiting comparability).

Euronext ranked second in terms of monthly order book trading volume in cash products for the last twelve months ended 31 December 2018 among the incumbent stock exchanges in Europe (excluding BATS-Chi-X).

(1) Compared to Group operating costs excluding D&A for 2018 of €260.8m

(2) For 2018, Euronext Dublin costs were only consolidated for 3 quarters. As a reminder, the operating costs for Euronext Dublin for Q1 2018 were €5.8m



Euronext's pan-European cash equities trading venue is the market leader in cash equity trading in its five home continental European markets of Belgium, France, Ireland, the Netherlands and Portugal, based on domestic market capitalisation as of 31 December 2018. Euronext market share reached 66.1% on cash trading market over 2018. Euronext provides multiple marketplaces including its MTFs, for investors, broker-dealers and other market participants to meet directly to buy and sell cash equities, fixed income securities and exchange traded products ("ETPs").

Euronext's derivatives trading business has a strong market position on benchmark index futures and options such as the CAC 40®, AEX®, BEL 20® and PSI 20®, single stock options and futures and commodity derivatives. It ranks third among European exchange groups in terms of open interests of derivatives traded as at 31 December 2018. With the CAC 40® being the second most traded national index in Europe for example, Euronext offers options contracts based on all of the blue-chip equities listed on Euronext, thereby reinforcing liquidity with respect to those equities. The commodity derivatives offered by the derivatives trading business include the milling wheat futures contract which is a world class contract for the European Union agriculture market.

Euronext's advanced data services business distributes and sells real-time, historic and reference data to global data vendors, such as Reuters and Bloomberg, as well as to financial institutions and individual investors. With a portfolio of over 1,100 benchmark indices and iNAVS, including CAC 40® in France and AEX® in the Netherlands, the Company is a leading provider of indices.

Post-trade services are an important part of the services Euronext provides to its clients. In 2013, the Company entered into a clearing agreement with LCH S.A., the Paris-based clearing house of LCH Group Limited ("LCH.group"), in respect of the clearing of Euronext's cash products. In 2017, Euronext renewed the separate derivatives clearing agreement with LCH S.A. that provides for a revenue sharing arrangement in respect of the clearing of Euronext listed derivatives, and became minority shareholder with strong pre-emption rights, with 11.1% of LCH S.A. capital. In addition, Euronext owns and operates Interbolsa, the Portuguese national Central Securities Depository ("CSD").

Since 2016, Euronext owns a 20% equity stake in EuroCCP. EuroCCP is the leading CCP for pan-European equity markets providing clearing and settlement services. Following this acquisition, Euronext is an equal shareholder in the Company alongside ABN Amro Clearing Bank, CBOE, The Depository Trust & Clearing Corporation (DTCC) and Nasdaq. This deal enabled Euronext to offer user choice in clearing for the equity markets within the Eurozone, through the implementation of a preferred CCP model followed by a fully interoperable service, which will be open to other CCPs in due course.

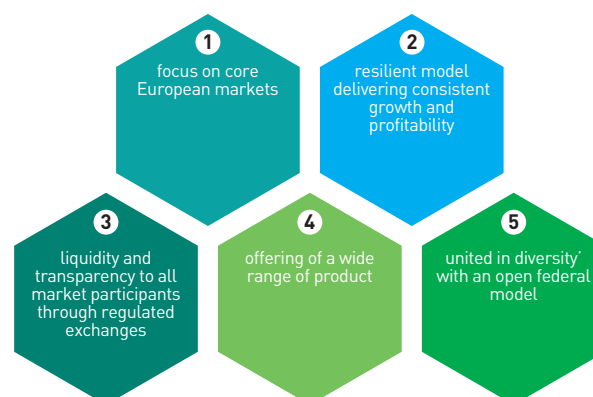
Euronext Technology Solutions & other business offers technology solutions and services to exchanges and venue operators. These solutions and services use Optiq® and other applications developed by Euronext or licensed from third-parties. Optiq® has already been licensed to five international exchanges. This rapid take-up by the exchange industry demonstrates the attractiveness of the reliability, flexibility and cost of ownership benefits that Optiq® offers. To drive further sales, Euronext has appointed a global systems integrator as its sales and delivery partner for Optiq®. The global sales capabilities of this partner will enable Euronext to promote and deliver Optiq® cost effectively to exchanges and venue operators around the world.

Euronext continues to provide software support and maintenance services for the legacy trading platforms, Euronext UTP and *Nouveau Système de Cotation* ("NSC™"). Euronext has a perpetual, royalty-free license from ICE to use, modify and sub-license these platforms (see section 5.2 "Material contracts and related party transactions").

In addition to software licensing, Euronext offers access to its trading software in the form of managed services. Exchanges and venue operators can take advantage of fully-hosted trading and clearing platforms without investing in data center or network infrastructure. With banks and financial intermediaries increasingly seeing migration to cloud and software-as-a-service as solutions to the competing pressures of cost-reduction and regulatory complexity, Euronext's experience as a service provider is receiving renewed interest. Euronext's MiFID II compliant MTF and SI services build on Euronext's own software, processes and infrastructure and offer clients an effective way to reduce costs without increasing regulatory risk.

The Technologies and other business also receives revenue for network connectivity and server colocation under a revenue sharing agreement with ICE. This agreement enables Euronext to benefit from service sales to clients who connect to its markets via the ICE SFTI® network or who take colocation space in the ICE data centers that house Euronext's trading platforms.

### 1.3.2 STRENGTHS



#### Focus on Core European Markets

Euronext benefits from a diverse client base, both in terms of geographic distribution and type of trading flow. The Company has an established continental European and United Kingdom client base, representing 50% of cash equities trading average daily volume and 72% of derivatives trading average daily volume for the year ended 31 December 2018. A substantial portion of the flow from the United Kingdom is from global clients with headquarters based in the United States. While United States and Asian clients accounted for 45% and 4% respectively of Euronext's cash equities trading average daily volume and 28% and 0% respectively of its derivatives trading average daily volume for the year ended 31 December 2018, the Group believes these geographic client segments are currently underexploited and offer potential for growth.

### Resilient Model Delivering Consistent Growth and Profitability

Euronext's sources of revenues are diversified across the businesses, markets and client segments. For the year ended 31 December 2018, approximately 44% of the Company's revenues were generated by

the non-volume related businesses. Non-volume related businesses include advanced data services, listings excluding IPOs, custody and settlement, and Euronext Technology Solutions & other. This helps to limit Euronext's exposure to cyclical demand for particular products or services or in individual markets.

The following table sets out information relating to the sources of total revenue for the year ended 31 December 2018 and for the year ended 31 December 2017:

	Year ended 31 December 2018		Year ended 31 December 2017	
	Revenue	% of total revenues	Revenue	% of total revenues
<i>In thousands of euros</i>				
Listing	106,490	17.3%	84,247	15.8%
Trading revenue	276,572	45.0%	237,854	44.7%
of which:				
■ Cash trading	210,947	34.3%	190,276	35.7%
■ Derivatives trading	43,910	7.1%	40,339	7.6%
■ Spot FX trading	21,715	3.5%	7,239	1.4%
Advanced data services	118,298	19.2%	104,673	19.7%
Post-trade	77,381	12.6%	71,698	13.5%
of which:				
■ Clearing	55,331	9.0%	51,132	9.6%
■ Custody and Settlement	22,050	3.6%	20,566	3.9%
Euronext Technology Solutions & other	36,063	5.9%	33,465	6.3%
Other income	229	0.0%	357	0.1%
<b>TOTAL REVENUE</b>	<b>615,033</b>		<b>532,294</b>	

Euronext's businesses are characterised by recurring revenue streams which generate resilient and robust free cash flow and allow Euronext to operate and invest in its business with flexibility. The Group's market expertise and proven, multi-asset class technology infrastructure allow Euronext to launch new products without substantial additional capital expenditure. Further, the Company's trading businesses do not expose it to credit risk or counterparty risk, which is borne by the counterparties to the trade and not by the markets. Euronext believes that its capital-light business and resilient free cash flow generation provide a potential for attractive return for shareholders while observing its regulatory capital requirements.

### Liquidity and transparency to all market participants through regulated exchanges

Euronext's cash equities markets have a diverse member base by geography and trading profile, making for a particularly rich and diversified order book.

Euronext offers superior market quality to competitors: in December 2018, Euronext provided for blue-chips on average 83% presence at EBB0 (European Best Bid and Offer), of which 63% was the first to set the EBB0. This ability to make the EBB0 demonstrates the leading role of Euronext in the price forming of its listed securities and in ensuring the best execution for its investors. In addition the average displayed market depth at the Euronext best limit is equivalent to five times – or €45,430 – the average trade size, thus demonstrating the ability to absorb large orders in full transparency and at minimal cost, as Euronext's average spread was 4.65 basis points.

The combination of Euronext's position as a leading pan-European trading venue, the quality of its markets and the expertise of the Company's teams have enabled Euronext to maintain a relatively stable market share in cash equities above 60% in the trading of the securities listed on its markets since June 2011.

The relative share of trading on competing platforms has been relatively stable over the past five years. The primary tool for supporting market share is the flagship Supplemental Liquidity Provision programme, which rewards liquidity providers for ensuring Euronext's market quality remains high, whilst balancing against yield management considerations.

### Offering of a Wide Range Of Product Services and Platforms

Euronext's issuer base is diverse, comprising about 1,300 companies from within its home markets as well as elsewhere in Europe, internationally and span ten sectors by industry classification benchmark. Euronext's corporate issuers differ in size and represent a combined market capitalisation of €3.4 trillion.

The Company is the third-largest exchange traded funds ("ETF") market in continental Europe by number of ETF trades, with 1,150 listed ETFs and an average daily trading value of approximately €323 million from January to December 2018. Euronext is the second-largest warrants and certificates market in Europe, with over 77,000 instruments at 31 December 2018, and in total nearly 200,000 products have been listed in 2018. More than 6.7 million trades took place on those instruments in the twelve months ended 31 December 2018.



Euronext is also a leading pan-European derivatives trading venue, with derivatives trading activities across financial and commodity derivative products. The Group has established the CAC 40 futures contract as the second most traded national index in Europe, with an equivalent of €6.2 billion in nominal value on an average daily basis. The milling wheat contracts which are the leading wheat derivatives in continental Europe as well as rapeseed commodity contracts continue to be included in recognised commodity benchmarks such as the S&P World Commodity Index and Rogers International Commodity indices.

Euronext operates an important bond market in Europe with approximately 40,000 corporate, financial institutions and government bonds listed on its markets and an internationally recognised derivatives platform.

### Optiq®

Euronext is currently upgrading its core trading platform with Optiq, a new enhanced, multi-market trading platform, providing customers with maximum flexibility, simplified and harmonized messaging as well as high performance and stability. Optiq combines latest technologies with in-house expertise.

Optiq is being rolled out across the Euronext markets to replace the Euronext Universal Trading Platform ("UTP") in a phased implementation process. Market data have been managed through Optiq for both cash and derivatives since July 2017, already delivering massive benefits to the clients' community. In April and June 2018, Optiq® trading engine went live for fixed income and cash markets, with impressive stability and performance. Optiq® for derivatives trading is expected to be delivered during the course of 2019.

Some of the third party exchange using UTP or former Euronext solutions have already started projects to migrate to Optiq. Other exchanges and market operators have also shown interest in this best of breed solution.

### "United in Diversity" with an Open Federal Model

Euronext is the only pan-European exchange operating across multiple jurisdictions with a harmonised regulatory framework, a Single Order Book for its exchanges in Amsterdam, Brussels, London and Paris and a single trading platform offering access to all markets through a single connection. The Single Order Book consolidates liquidity in each multi-listed security to tighten spreads and increase market depth and achieves optimal price formation. Issuers listing on more than one of the Group's markets benefit from enhanced visibility, qualification for inclusion in more local indices and greater exposure for their volumes and prices.

The Group has generated sustainable and diversified cash flows across institutional, high frequency and algorithmic trading, own account, agency brokerage and retail client classes. The Single Order Book model and pan-European technology are key to Euronext's unique federal market structure. This structure enables the Company to integrate its constituent markets while they remain subject to regulation by national regulators. As a reminder, Euronext is also regulated by a college of regulators at Group level (see section 1.4.2).

## 1.3.3 LISTING

### 1.3.3.1 Listing – Products and Services

The Group's issuer base is diverse, comprised of nearly 1,300 companies from within its home markets as well as elsewhere in Europe, and internationally, spanning ten sectors by industry classification benchmark. Euronext's corporate issuers differ in size and represent a combined market capitalisation of €3.4 trillion. Euronext's listing franchise includes around 300 large cap companies (companies with a market capitalisation above €1 billion) and 1,000 small & mid capitalisation companies as at 31 December 2018.

Euronext's listed issuers account for 52% of EURO STOXX 50 component securities, and 24% of EURO STOXX 600 component securities at the end of December 2018. In addition, since the acquisition of the Irish Stock Exchange in March 2018 (operating as Euronext Dublin), Euronext is now the number one venue of choice for the listing of bonds globally, with approximately 40,000 corporate, financial institutions and government bonds and money market instruments, representing almost 4,000 issuers from over 90 jurisdictions listed on Euronext's markets.

Euronext issuers are also eligible to a family of leading index products in each of its national markets including the AEX® in the Netherlands, BEL 20® in Belgium, CAC 40® in France, ISEQ® in Ireland and PSI 20® in Portugal. Euronext's family of index products provides investors and issuers with benchmarks enabling them to measure and trade the performance of key segments and strategies. The Group also offers extensive trading opportunities to investors, including in particular single stock derivatives on the underlying securities listed on its markets.

Euronext offers issuers an established and credible financial marketplace for their capital market needs. In order to attract issuers to Euronext's marketplace and maintain relationships with clients (existing issuers, prospects and other stakeholders) the Company undertakes outreach initiatives through direct prospecting and continuous client interaction. In addition, Euronext organises dedicated events for prospects, issuers and investors aimed at improving and facilitating access to capital and promoting its markets on an international and national level.

A market for each step of a company growth



Euronext operates different kinds of markets according to the needs and stages of growth of each company. They enable corporate clients in different stages of their development, whether early stage growth companies or more established businesses, to access a broad range of investors and provide access to capital.

### Main markets: Euronext and MSM

Euronext in Amsterdam, Brussels, Lisbon, London and Paris and Main Securities Market (MSM) in Dublin are European regulated markets under MiFID suited to large companies with substantial financing requirements. These main markets give access to a large range of international investors and the possibility of inclusion in well-known European indices. Euronext and MSM list a wide variety of securities, including domestic and international equity securities, convertible bonds, debt securities (including corporate and government bonds), structured products (including warrants and certificates and structured notes), ETFs, open-ended and closed-ended investment funds.

Euronext is segmented according to market capitalization:

- compartment A: companies with a market capitalization of more than €1 billion;
- compartment B: companies valued between €150 million and €1 billion;
- compartment C: companies with a market capitalization of less than €150 million.

In 2019, MSM will become Euronext Dublin and form part of the Euronext harmonized rulebook.

### Junior markets: Euronext Growth, ESM and Euronext Access

Euronext Growth and Euronext Access, both operating in Brussels, Lisbon and Paris as well as Enterprise Securities Market (ESM) in Dublin are MTFs within the meaning of MiFID.

Euronext Growth and ESM are dedicated to fast-growing small and mid-caps willing to raise funds to finance their growth. They offer lighter requirements than Euronext's regulated markets while giving access to a significant number of European investors focused on SMEs. Listed companies have greater flexibility in their choice of accounting standards and are subject to less extensive post-listing reporting requirements than companies listed on regulated markets. Euronext Growth lists a wide variety of securities, including domestic and international equity securities, convertible bonds and corporate bonds. In 2019, ESM will become Euronext Growth Dublin and form part of the harmonized rulebook.

Euronext Access markets are designed especially for start-ups and SMEs that wish to join a stock exchange to finance growth and gain the reputational advantages of listing but do not meet the criteria for admission to Euronext's regulated markets, Euronext Growth and ESM. This market is open to any company, regardless of size, performance, maturity or industry. Corporate bonds and structured products are also traded on Euronext Access. Euronext Access+ is a special compartment of Euronext Access tailored to the needs of start-ups and SMEs. Opened in 2017, Euronext Access+ helps them make a smooth transition and acclimatization to other Euronext markets, notably in terms of investor communications and transparency. This new compartment, which is part of Euronext Access, is a springboard to other Euronext markets.

### Other Markets

Euronext also offers alternative markets such as: 1) Trading Facility, a MTF in Belgium, 2) Euronext Expert Market, based in Brussels, which enables negotiation of prices for unlisted products – such as shares, real estate certificates notes and bonds – once a week, 3) Global Exchange Market (GEM), a multilateral trading facility based in Dublin, for listing debt securities aimed at professional investors and investment funds, which is the largest MTF listing venue in Europe, with over 17,000 bonds and 1,200 investment funds classes listed and 4) Atlantic Securities Market (ASM), a MTF in Dublin suited to US listed companies seeking to access euro pools of capital.

### Added-Value Services for Issuers

Euronext provides to its issuers a range of services including:

#### Advocacy Role

Euronext provides advocacy to represent the interests of corporate client companies at the level of Euronext as well as at national and European levels for specific issues related to financial markets. As part of this, Euronext regularly communicates with its issuers and investor relations organisations, organises issuer committees and participates in consultations with regulatory bodies on a wide range of topics.

#### ExpertLine

ExpertLine is a team of market professionals who provide issuers with feedback on real-time events that may affect their share price. ExpertLine also acts as a first port of call for issuers listed on all Euronext's markets, listing sponsors and other intermediaries, and the team develops and provides issuers with a suite of services such as the Connect web portal that Euronext constantly enriches.

#### Connect

Companies listed on Euronext markets have access to Connect, a secure web portal that provides issuers with market intelligence. Connect is also a publication tool, allowing issuers to upload and publish press releases, maintain their financial calendar and update their company's profile on Euronext's website. In 2018, Euronext has been developing a new version of Connect with upgraded content which has been made available in January 2019.

### Education and Networking

Euronext informs and educates issuers on various topics including recent developments in its markets, new regulatory and legal developments, compliance, governance, social responsibility investments as well as new products and services through workshops and conferences organised during the year.

In particular Euronext has developed three pre IPO programmes to help companies familiarize themselves with capital markets:

- TechShare, a free educational and mentoring programme to help Tech SMEs to grow their business;

- FamilyShare, a free training programme dedicated to enlightening family businesses on the financing solutions offered by the stock exchange;
- #IPOready, a programme designed to provide Irish high-growth companies with a deep understanding of capital markets, fund raising options and the IPO process.

### Listing Venue of Choice for SMEs

With markets tailored to the needs of medium-sized companies and a presence in ten countries, Euronext is the listing venue of choice for small and mid-caps in Europe. Since 2014, around 150 SMEs have listed on Euronext markets. As of 31 December 2018, 737 SMEs are listed on Euronext markets representing a total market capitalization of €115 billion.

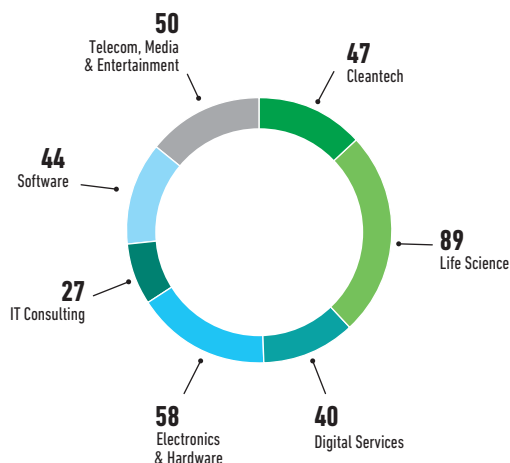
Over the past few years, Euronext been offering small and medium companies financing solutions according to their profile and Euronext has also developed initiatives primarily on the Tech sector and family businesses.

### Boosting the Financing of the Tech Sector



Euronext is the leading European platform for fast-growing technology companies. Since 2014, close to 115 tech companies have gone public on Euronext markets, choosing Euronext to facilitate and support their strategic growth ambitions. Euronext's pan-European platform spans a vast range of subsectors with 425 listed tech companies in Digital Services, Cleantech, Biotech, Medtech, TMT, Software, IT Consulting and Technology Hardware. These companies represent a total market capitalization close to €445 billion.

## ALL TECH SECTORS ARE REPRESENTED ON Euronext MARKETS (NUMBER OF ISSUERS BY SECTOR)



In September 2015, Euronext launched TechShare to help companies reach the next stage of development. TechShare is a 10-month educational and mentoring programme aimed at familiarizing CEOs of Tech companies with the financial markets. From 2015 to 2017, the programme has been run in France, Belgium, the Netherlands and Portugal with 145 participants of which already 4 alumni listed on Euronext: Osmozis, Balyo, Theranexus and Oxatis.

In September 2018, the programme opened in 4 new countries, welcoming Tech companies from Germany, Switzerland, Italy and Spain. In 2018, 135 companies from 8 European countries joined the programme, compared to 30 in 2015. The participants are Tech companies from a wide variety of sectors, including Biotech, software, Medtech, electronics, hardware, Cleantech, e-commerce and fintech.

#### Supporting Family-Owned Companies

Euronext has attracted an important community of family-owned companies, composed of 244 issuers representing a total market capitalization close to €944 billion, including 162 SMEs.

In 2017, Euronext launched FamilyShare, a dedicated programme offering support and coaching to unlisted family businesses. The programme has been set up across the four Euronext domestic markets and tailored to the specific needs of each country. This unique pan-European initiative is designed to familiarise family-owned businesses with capital markets, both equity and bonds, giving them the information they need to bring their companies to the market. In June 2018, Cogelec was the first IPO from the FamilyShare programme raising €39 million on Euronext Paris.

Family-owned companies also benefit from increased assistance in several areas. This includes European roadshows to meet investors, improved financial analysis coverage through the Morningstar programme and Euronext Family Business index®, a new European index with ninety component companies in the four countries covered by Euronext.

### 1.3.3.2 Listing – Recent Developments

#### Market Activity in 2018

Euronext's markets in 2018 provided financing to the real economy with nearly €1,000 billion raised on its markets in equity and debt financing through securities admitted to trading as of 31 December 2018, despite challenging market conditions across Europe. In particular, a large amount of new listings were postponed or cancelled in Europe, around 6 times more than in 2017. In total in 2018, Euronext welcomed 33 new listings – of which 27 were SMEs – raising a total of €3.6 billion across all markets with a combined market capitalization of €15.1 billion. The Tech sector was once again the top sector on Euronext markets representing more than 70% of new listings. Adyen joined Euronext as the largest tech unicorn-IPO in Europe in the last five years, based on market capitalization at opening, and the largest tech IPO on Euronext's markets. Euronext also welcomed the largest cleantech IPO in Europe in 2018 with the listing of Neoen in Paris. The Company which is the first French unicorn specialized in renewable energies reached a market cap of €1.4 billion on the day of listing.

In addition, €61 billion was raised in follow-on equity and €936 billion was raised on Euronext in bonds including an addition of over 12,000 bond listings in 2018 coming from Euronext Dublin. Notable listings highlight the Company's strength in key jurisdictions such as Scandinavia, the Mediterranean and the Middle East and include AB Svensk Exportkredit, Bankia and Abu Dhabi Investment Bank, along with global financial institutions including Morgan Stanley, HSBC and Santander. There are over 5,100 funds classes listed on Euronext Dublin and work is currently underway on integrating funds listings on the Euronext Fund Services Amsterdam and Paris offerings. 2018 also marked a good year for corporate green bond issues with a total of €8.7 billion raised.

#### Euronext – Total money raised (€bn)

2016	585
2017	789
2018	1,000

#### Significant Contribution of Euronext Dublin to the Listing Activity

Following the acquisition of the Irish Stock Exchange (now Euronext Dublin) in March 2018, Euronext is positioned to significantly expand its debt and funds offerings. It enables the Company to combine a world leading primary listing venue with market leading secondary trading technology to deliver a full service on-exchange solution to debt issuers and investment funds. At the end of December 2018, over 34,000 debt securities and 5,100 investment funds classes were listed on Euronext Dublin.

In addition, the acquisition has added 51 Dublin-listed equities to the Euronext markets and expanded the active base of member firms. Euronext Dublin's position as an English-speaking, common law jurisdiction also provides the Company with an enhanced foothold within the US and UK capital markets.

### European Tech SMEs initiative

Euronext decided in 2017 to expand outside its core markets and opened local offices in four European countries identified as high-potential ecosystems – in Germany, Switzerland, Italy and Spain – to assist tech companies in scaling up their business through capital markets. Euronext had identified the four target countries to set up and roll-out dedicated offers to attract tech companies on Euronext markets with the aim to become the leading exchange for European tech SMEs in continental Europe.

With 355 listed tech SMEs and mid-cap firms representing a total market capitalization close to €56 billion, Euronext is already the leading listing venue in continental Europe for technology stocks. With the expertise of operating markets in five European countries – in Belgium, France, Ireland, the Netherlands and Portugal, Euronext believes that it can propose its services to new innovative SMEs in the four target countries. In order to build networks of partners and attract the best tech companies in Germany, Switzerland, Italy and Spain, Euronext has set up a salesforce of five experienced FTEs on the ground to sell its unique value proposition for the tech sector. Since the opening of the offices, Euronext welcomed on its markets 7 new companies from these countries.

In 2018, Euronext deployed three new initiatives dedicated to European tech SMEs to support its commercial effort:

- **Post-listing Advisory:** following their listing, companies can benefit from in-house market intelligence services for six months to help them develop a better understanding of their investor base;
- **Trade & Leverage:** newly listed companies based in the new countries will benefit from investor access, including equity research, investor events and investor relations solutions provided by 10 selected European market providers;
- **TechShare:** private tech SMEs can join the pre-IPO programme of Euronext launched in 2015 which has been expanded in the four new countries, with the recruitment of 56 tech companies and 35 partners from the financial industry (see above).

In 2018, 6 companies coming from the Tech SMEs initiative countries listed on Euronext.

### Corporate Services

Euronext Corporate Services was launched in 2016 as part of the “Agility for Growth” plan, with the ambition to help companies and organisations to be more efficient. Euronext Corporate Services provides a suite of technology and advisory solutions in relation to investor relations, communication, governance and compliance. Euronext Corporate Services serves more than 1,800 clients of which 450 are listed companies, 900 private groups and 450 public organisations. When it comes to listed companies, Euronext Corporate Services help them make the most effective use of capital markets, from blue-chip large caps to SMEs, located across all Euronext markets and beyond (Sweden, UK, Germany, Italy, etc.).

Euronext Corporate Services offers a unique and comprehensive value proposition articulated around four main pillars:

- i. **Investor Relations:**
  - tailor-made advisory, market intelligence and decision making analytics for listed companies,
  - complete and intuitive investor relationship management and targeting platform,

- flexible and customized market data components for investor relations websites of listed companies;
- ii. **Communication:** Comprehensive range of webcast, webinar and conference call services for all types corporate events (investor relations, internal communication, marketing, training, etc.);
- iii. **Governance:** Digital board portal solution help organisations secure their board meetings and streamline their decision-making processes;
- iv. **Compliance:** Innovative solution to automate the management of insider lists in a way that both saves time and ensures compliance with the requirements of the Market Abuse Regulation.

This offering has been built through a combination of organic developments and acquisitions. To achieve its ambition, Euronext has acquired four companies providing innovative solutions for corporates:

- **Company Webcast** (51% stake acquisition), a Dutch leading company specialized in professional webcast and webinar services;
- **IR.Manager** (100% stake acquisition), a London-based provider of investor relations workflow and targeting tools;
- **iBabs** (now renamed Skope) (60% stake acquisition), a Dutch leading provider of dematerialized and secured board portal solutions for corporate and public organizations;
- **InsiderLog** (80% stake acquisition), a Swedish leading provider of an insider list management solution, in compliance with the Market Abuse Regulation.

### 1.3.4 CASH, DERIVATIVES AND SPOT FX MARKETS

#### 1.3.4.1 Cash, Derivatives and Spot FX Markets – Products and Services

Euronext provides multiple marketplaces for investors, broker-dealers and other market participants to meet directly to buy and sell cash equities, fixed income securities and ETPs. One of the primary functions of the Group’s markets is to ensure that orders to purchase and sell securities are executed in a reliable, orderly, liquid and efficient manner. Order execution occurs through a variety of means and Euronext seeks to continue to develop additional and more efficient trading processes.

#### Cash Trading

##### Equities

The Company is the market leader in cash equity trading in its five home markets of Belgium, France, Ireland, the Netherlands and Portugal. Over 2018, Euronext market share on cash equity trading averaged 66.1% and the Company had a strong blue chip issuer presence, with twenty six issuers included in the EURO STOXX 50 stock index and 144 issuers listed on the EURO STOXX 600 benchmark index. Euronext is ranked first in Europe as measured by domestic market capitalisation and second by average monthly equity trading value, excluding BATS-Chi-X. In addition, the Group has a solid ETF



trading franchise based on the listing of 1,150 ETFs in its markets. In 2018, total Euronext transaction value on equity was €1,969 billion, up +8.3% from €1,819 billion in 2017 and compared to €1,643 billion in 2016. In Equities, Euronext outperforms peer exchanges in yield extraction while maintaining high market share. This is achieved through a combination of superior execution quality, sophisticated liquidity schemes and advanced pricing segmentation. Euronext offers a compelling value proposition across the transaction chain, from blue chips to small companies, with tailored market models to maximise the depth and quality of liquidity available for trading those companies in the secondary market.

Since the introduction of new European Union legislation in 2007, via MiFID, competition for share trading has been intense. Yet Euronext has been successful in maintaining market share above 60% throughout the past decade demonstrating the resilience in its core business. Euronext's product, pricing and client strategy and the execution thereof are vital to maintain the high quality of execution and broad diversity of clients active on Euronext's markets.

Euronext operates equity markets of which the main financial instruments are shares. Shares are any share of capital stock or any other equity securities issued by a corporation or other incorporated business enterprise.

Since 2017, in Equities, Euronext's competitive position has been enhanced due to evolution in the blue chip liquidity scheme, a new fee scheme for non-member proprietary flow, a new best execution service for retail investors (Best of Book) and new incentives embedded in the agency tariff to attract incremental flow from trading members. Euronext has re-positioned both the equity and warrants business to ensure its offering to local members in Euronext's home markets is attractive and that flow from the local client community is either retained or repatriated. These initiatives enable Euronext to continue enhancing execution quality available on Euronext's markets which is key to add value to clients and to compete effectively.

#### Best of Book Service for Retail Best Execution

In 2017, Euronext kept improving its new best execution service for retail orders. In partnership with dedicated liquidity providers, Best of Book offers price improvement in the central order book for retail brokers. This helps ensure best execution for brokers executing

orders on behalf of retail clients, in a way that ensures compliance and that the end investor achieves an optimum result. The service promotes and strengthens the diversity of Euronext's order book to the benefit of the whole market.

#### Omega Fee Scheme for Non-Member Proprietary Flow

In 2016, Euronext launched a new pilot fee scheme for non-member proprietary trading flow. Non-member proprietary firms wishing to participate in the Omega pilot scheme enter into a tripartite arrangement with Euronext and the member intermediary. This scheme provides non-member firms with improved value when trading on Euronext markets while promoting and strengthening the diversity of Euronext's order book to the benefit of the whole market.

#### Fixed Income

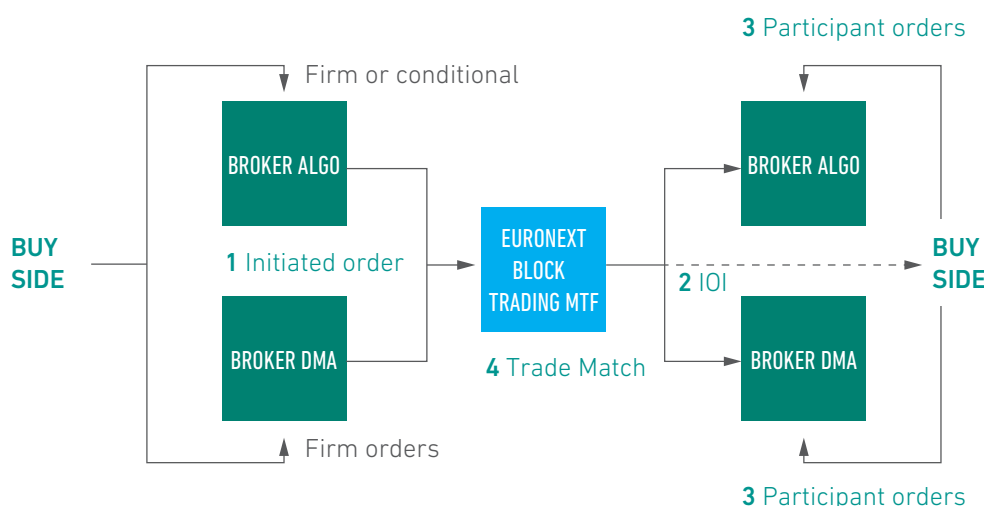
Euronext operates bond trading on its regulated market with a particular focus on the retail market. Over 100 members trade 5,600 corporate, financial institutions and government listed bonds, representing a monthly turnover of approximately €0.5 billion.

#### Euronext Block

Euronext Block is a new trading venue designed to be compliant with MiFID II regulations. It is designed to facilitate the execution of algorithmically generated block trades on over 3,000 pan-European stocks. The platform has connected its first wave of brokers and is becoming a significant centre of liquidity in Europe in terms of volumes, market quality and in sourcing unique liquidity. Euronext Block is an MTF regulated by the FCA and cleared by the European Central Counterparty 'EuroCCP'.

Euronext developed a new pan-European service to upgrade the Smartpool product, and capture large institutional trading interests in which Euronext rarely participated. Euronext launched an innovative platform, Euronext Block, for block trading that empowers clients to seek liquidity while controlling the level of information disclosed to the market which could otherwise negatively impact their own performance. Growth in electronic block trading is emerging as a sustainable trend and Euronext's main competitors are also focused on the space. Euronext's approach however is unique and garnering significant support among market participants.

#### EURONEXT BLOCK





### Exchange Traded Funds

Euronext offers the ETF community a comprehensive solution for multi-national listing and trading in ETFs and investments, within Euronext's Single Order Book. Euronext's ETF markets are supported by robust market infrastructure where product supply and demand meet within a framework of deep liquidity and advanced price formation. Euronext develops relations not only with issuers, but also with liquidity providers, intermediaries, investors, regulators and others in the ETF community to understand their challenges and needs, providing strong alignment with Euronext's business goals and a strong foundation to co-create new products to accelerate growth in the ETF industry with the support of its major participants.

Euronext's client alignment is demonstrated by Euronext winning ETF Express award during 2018, and in early 2019 - the fourth time in a row, being consistently recognised as the Best European Exchange for Listing ETFs. This award is voted for by Euronext's clients.



### Agility for Growth, Pan-European ETF MTF

Euronext intends to become the one-stop-shop pan-European ETF platform with an ambition to be the #1 trading venue for ETFs in Europe. Launching an MTF for ETF trading is one of Euronext's selected growth initiatives within Euronext's Agility for Growth strategy. The European ETF market is fragmented and opaque with approximately 70% of trading volume in the region taking place off-exchange. Yet ETFs are increasingly popular among both retail and institutional investors, as the trend for passive investing grows and there is ever increasing focus on investing and managing risk efficiently. Euronext is building a dedicated pan-European platform for ETF trading, with unique features seeking to attract volume into an exchange environment promoting transparency, improving efficiency and deepening liquidity. Euronext's mission is to accelerate the growth of the ETF industry in Europe to the benefit of end investors and intermediaries, Euronext has strong support from a diverse set of stakeholders within the ETF community. It is going to be live in 2019.

### Open Ended Investment Funds

Euronext's Fund Services offer asset managers ways to achieve better operational efficiency and enhance asset gathering opportunities. By engaging in active discussions with key stakeholders, the Company believes its offering is a relevant choice for any issuer considering fund distribution in Europe.

The services include:

- Euronext Fund Service Amsterdam, first launched in 2007, which enables Fund Managers to further extend the geographic reach of their funds across Europe and will include a broader choice of trading solutions;
- Euronext Fund Service Paris, launched in May 2017, which is a complementary cutting-edge offer providing a global access to the funds universe, in order to meet the requirements for modern and automated solutions. This service is available for both UCITS funds and AIF (Alternative Investment Funds), and orders will be placed at Net Asset Value (NAV) in euros.

EFS enables both local and global asset managers to list their funds (whether large or small) on Euronext's regulated platform, enhancing the profile of the funds and helping to attract higher levels of investment into those funds. The service has been designed in close co-operation with the industry and there is strong demand from many French issuers as well as interest from outside France. As of 31 December, there were already 101 funds admitted to trading. This is an important initiative to help service the distribution needs of asset managers and match those with investor appetite.

### Warrants and Certificates

Euronext operates a retail Structured Products business across its continental European franchise, servicing the needs of retail investors *via* intermediary service provision, namely listing warrants, certificates and structured notes, developing Euronext's market model for high quality liquidity provision and ensuring execution by retail brokers is cost efficient. Euronext develops relationships with its issuers not only to expand their usage of existing tailored services but also to create new and innovative services for operational efficiency and business expansion.

### Cash Market Structure and Functionality

Cash trading on Euronext's markets has successfully migrated to the new proprietary strategic architecture Optiq® in June 2018. The Group's trading rules provide for an order-driven market using an open electronic central order book for each traded security, various order types and automatic order matching and a guarantee of full anonymity both for orders and trades. While the core trading system is built on this order-driven principle, the flexibility of Euronext's technology enables Euronext to develop different types of matching algorithms and functionalities to suit the different price formation mechanisms that exist amongst the different cash asset classes and to cater for different market participant needs. For example, Euronext continued to develop its best execution service for retail investors, Best of Book, which brings retail brokers an additional layer of liquidity specifically aimed at offering price improvement for retail order flow. This service is integrated into Euronext's central order book enabling members to interact with this liquidity through the same connection as for the core market. As at year end, all of Euronext's retail brokers had signed up for the service.

The Company also operates a sophisticated liquidity provider program for blue chips and liquid mid cap equities which aims at ensuring Euronext offers superior market quality. Euronext's equity markets continue to yield the best market quality metrics amongst its competitors. These metrics include, amongst others, spread, market depth, best price setting and presence time at the best bid and offer spread. The program encompasses both a presence time obligation at the best bid and offer spread and a minimum passive volume obligation. This volume obligation is of particular interest as, in combination with the presence time obligation, it creates order persistence and therefore increases probability of execution. In a fragmented trading environment, market quality metrics are actively used by trading firms as decision making parameters embedded in their order routing systems and therefore contribute to maintaining Euronext's market share.

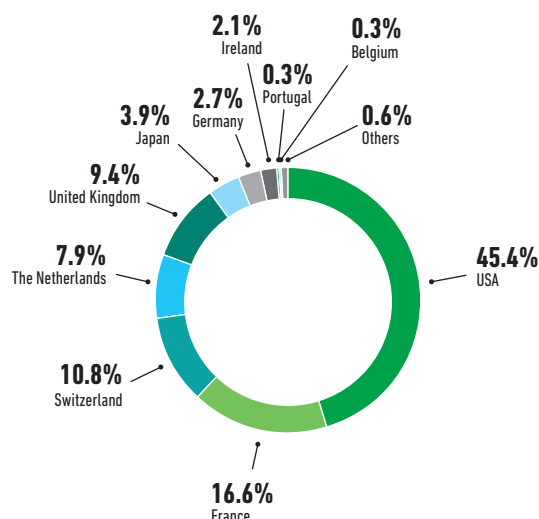
### Cash Market Trading Members

As at 31 December 2018, Euronext had 168 direct trading members on its cash business, compared to 147 members as at 31 December 2017, 205 members as at 31 December 2016 and 213 members as at 31 December 2015, up in 2018 due to member preparing for Brexit and open new membership in the continent as well as the arrival of 6 new members in Dublin. The Group has a diverse member base, with a deep presence in its four domestic markets and a strong international client base in London, which accounts for approximately two-third of equity trading volumes. A continued environment of increased regulation, tighter margins and capital constraints will require cost reduction and sustainable reform from most of Euronext's client base, therefore driving consolidation of continental tier three banks and brokers.

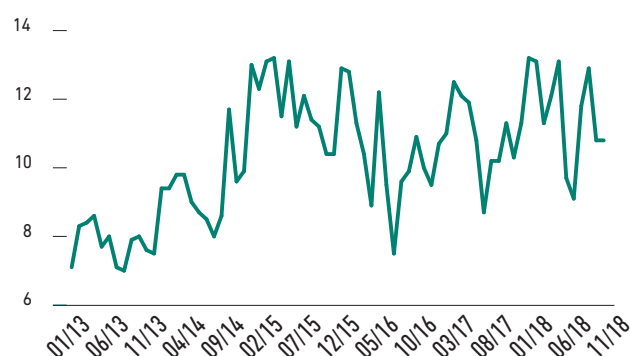
### Cash Trading Average Daily Volume by Geographic Origin of Customers

The average daily volume on Euronext's cash trading markets for the last twelve months ended 31 December 2018 amounted to €8.1 billion (single counted).

The table below shows the proportion of Euronext's customer base by geographic origin (location of worldwide headquarters) using the Company's cash markets for the last twelve months ended 31 December 2018.

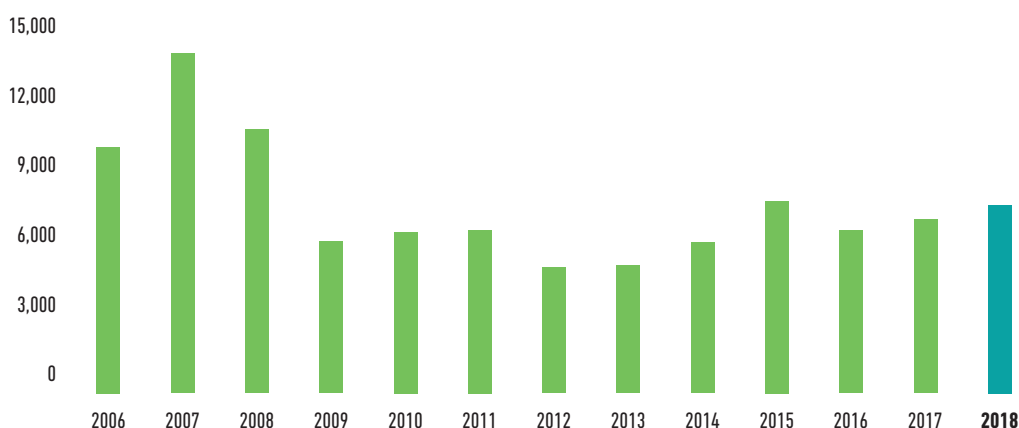


### DAILY TRANSACTION VALUE ON EURONEXT STOCKS <sup>(1)</sup> (€ BILLION/DAY)



(1) Including MTFs and excluding OTC, single counted.

### HISTORICAL AVERAGE DAILY VOLUMES <sup>(1)</sup> (€ MILLION).



(1) All Euronext securities.

## Derivatives Trading

Euronext is a leading pan-European derivatives trading venue with trading activities across financial and commodity derivatives products.

Euronext offers financial derivatives trading in its markets in Amsterdam, Brussels, Lisbon and Paris, and, as of 31 December 2018, was the second largest market in equity index futures and the second largest in equity index options in Europe in number of contracts. Euronext offers local markets access to the trading of futures and options based on global equities, dividends, local market indices including the AEX®, BEL20®, CAC 40®, PSI20® and established pan-European equity indices such as FTSEurofirst and FTSE EPRA/NAREIT real estate indices. Euronext is also innovating in the derivatives space notably with the launch in Q4 2018 of the first Total Return Future (TRF) on a national benchmark, the CAC 40® Index.

Euronext offers commodity derivatives trading with futures and options based on milling wheat, corn and rapeseed, and futures on dairy products, wood pellets, and UAN 30 fertiliser. The Group is the leading agricultural commodity franchise in Europe and its core commodity contracts have long been relied upon as trusted global and European benchmarks.

In 2018, the notional value of the derivatives traded on Euronext's derivatives markets was €3.8 trillion, equivalent to an average of €15.7 billion per day.

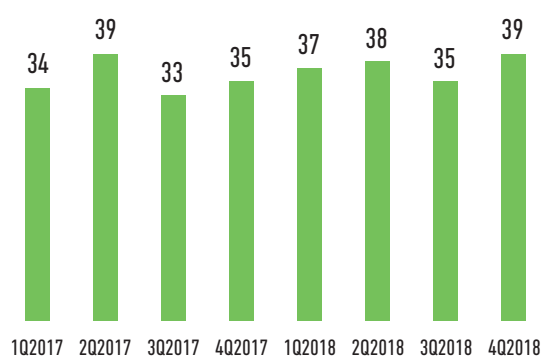
Euronext's mission: innovation, agility, strengthening Euronext's core.

Euronext's derivatives team has a mission to bring innovation and agility to the derivatives markets. Since Euronext's IPO in June 2014, Euronext focused on researching and developing new derivatives products together with its client community. These are now beginning to come to market and Euronext is excited about expanding its capabilities and making its business work better for Euronext's customers.

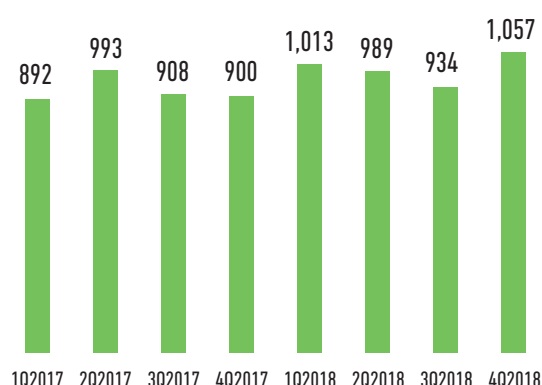
Euronext is pursuing the expansion of its commodity derivatives strategy along three axes:

1. focus on the core for European agricultural markets with EIM, new delivery points in corn and New Market Participants programme;
2. innovation and diversification with cash settled and Paris real estate;
3. enhanced client centric approach.

## NUMBER OF CONTRACTS TRADED (LOTS IN MILLION)



## NOTIONAL VALUE (€ BILLION)



## Financial Derivatives

### Equity Products: Versatility And Leverage

Equity options and futures enable holders to hedge against, or take position on, changes in the underlying share. More than 241 equity options and over 375 equity futures can be traded on Euronext, making the Company one of the leading markets for equity derivatives trading. Equity options trading has historically been particularly active in Amsterdam due to high retail participation.

### Equity Index Products: Hedge Against Fluctuations in The European Equity Market

Equity index derivatives allow holders to hedge against, or take position on, changes in the future level of a particular index, the investor paying or receiving a cash sum representing its loss or gain on the future or option. Euronext's equity index derivatives allow customers to hedge against fluctuations in a range of European stock market indices and the European equity market as a whole, and many are available as weekly or daily contracts as well as the more usual monthly contracts.

Euronext's flagship equity index products include the CAC 40® index futures contract, which is the second most traded national index future in Europe, in terms of number of contracts traded, and the AEX® Index options contract, which is one of the most on-exchange traded national index options in Europe. Euronext's mini index derivatives ('minis') allow investors to follow the same investment strategies but with less initial margin or a smaller trading amount.

### Dividend Products: A New and Rapidly Growing Asset Class

Dividend index futures and stock dividend futures allow holders to hedge against, or take position on, changes in the dividend of a particular index or underlying share. Euronext's flagship dividend products include the CAC 40® dividend index futures, which is one of the most traded dividend index futures in Europe and more than 290 Single Stock Dividend Futures (including 56 contracts on US names), making up the broadest offering in Europe.

### Total Return Product: A New Sophisticated Future

The Total Return Future (TRF) on the CAC 40® Index launched in October 2018 has been developed by Euronext in order to meet clients' need for a listed solution to trade total return swaps. With increased capital requirements being imposed by Basel III and EMIR, the new total return future contract offers strong netting advantages

while providing a transparent and secure trading environment to access the implied equity repo rate on the constituents of the CAC 40 Index. Euronext is the first Exchange to launch a TRF on a national benchmark.

### Commodity Derivatives

Euronext is a leading provider of agricultural commodity derivatives with several of the Company's contracts established as global price benchmarks for the international commercial and financial community. Volumes have grown strongly in recent years as commercials and investors alike increasingly seek to hedge their risks or use commodities to help diversify their portfolios.

The average daily volume of the flagship milling wheat futures contract remained stable and reached a level of more than 42,000 lots traded on a daily basis, representing the equivalent of 2.1 million tons of wheat or 3.3 times the milling wheat quality EU production traded over the course of one year. The Rapeseed futures contract volume suffered from adverse physical market conditions with a significant 16% drop in volumes year on, as the industry suffers from uncertainties regarding biofuels. The corn contract gained some renewed traction on the back of the announcement of the new Dunkirk and Ghent delivery silos, which should capture import flows besides French bay export volumes. These futures contracts have obtained international recognition status, both of which have been included in the main global commodity indices (S&P World Commodity Index, Rogers International Commodity index), making them the first non-U.S. grains contracts to be included in these global indices.

The commodity team has rolled out its new strategy in 2018 which is articulated around:

- focus on building our existing core contracts to their full potential and, in particular, leveraging on the MATIF brand for grains and oilseeds. EIM with trade finance and repos along with location swaps will become a core element of the agricultural franchise and generate growing revenue streams over the next 3-5 years. It will protect our physically delivered contracts, which have been suffering over the last few years from being exposed as the only major player without a digital contract delivery system;
- Cash Settled platform will allow the franchise to extend from the current 2 ½ product offering and enable listing and trading of a number of desired price reference contracts, as simpler cash settled products when appropriate (e.g. when physical delivery is not a key or desired pricing mechanism);
- monitor and capture opportunity to build traction and liquidity in our new contracts launched since 2014;
- monitoring of opportunities for non-organic growth, blockchain applications linked to EIM, etc.

### Derivatives Trading Members

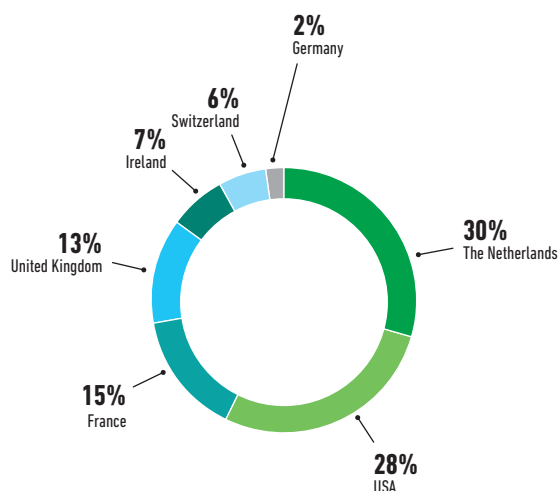
Trading members in Euronext's derivative markets are either dealers, brokers or both. Their activities range from retail broking, investment banking, dealing, algorithmic and high frequency trading to international physical trading. The Group's

client base comprises 158 direct trading members (of which 72 are both cash and derivatives and 79 are commodities trading members) as of 31 December 2018 and is significantly diversified both in terms of types of clients and geographic coverage. Trading members can also become market makers or liquidity providers, which is crucial to the good functioning of the price formation mechanism for derivative instruments. In such cases, the parties enter into an agreement with Euronext, specifying their obligations in terms of displayed liquidity and spreads. Market makers and liquidity providers are able to place several orders at the same time through the use of mass quotes, allowing these trading members to send buy and sell orders for many contract months using only one message, leading to optimal efficiency in updating Euronext's full range of derivatives prices in a timely manner.

### Derivatives Average Daily Volume by Geographic Origin

The average daily volume on Euronext's derivatives markets for the last twelve months ended 31 December 2018 reached 585,310 contracts representing a total open interest exceeding 14.6 million contracts at the end of December 2018.

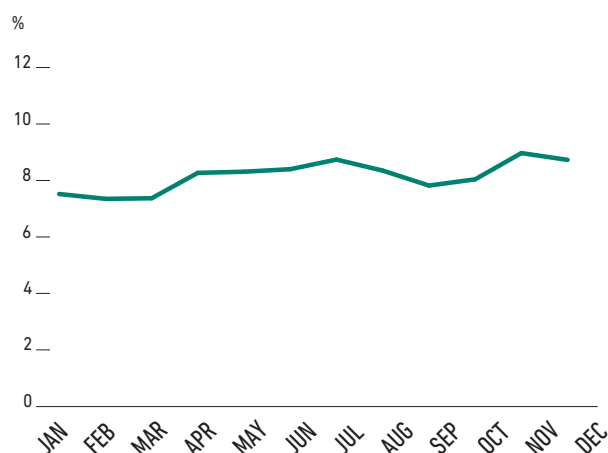
The table below shows the proportion of Euronext's customer base by geographic origin (location of worldwide headquarters) using derivatives listed on its markets for the last twelve months ended 31 December 2018.



### Spot FX Trading

Building on the successful acquisition of FastMatch in August 2017 – an Electronic Communication Network (“ECN”) in the spot Foreign Exchange (“FX”) market with leading-edge technology, access to a large, transparent and diversified pool of liquidity at unrivalled speed and capacity, Euronext continued to and expand the business successfully, stabilizing and increasing market share in Spot FX whilst launching new and innovative products such as FastMatch's FX Tape a centralized streaming service that provides real-time last trade data to all subscribing market participants. <sup>(1)</sup>

(1) Market share is measured against CBOE FX; EBS; FXALL.

FASTMATCH MARKET SHARE OVER 2018 <sup>(1)</sup>

### 1.3.4.2 Cash, Derivatives and Spot FX Markets – Recent Developments

#### Cash Trading

##### Optiq®

In 2018, Euronext rolled out its new Optiq trading platform. Optiq is a new enhanced, multi-market trading platform, providing customers with maximum flexibility, simplified and harmonized messaging as well as high performance and stability. This new platform leverage on the latest technology to provide our members with high reliability as well as enhanced throughput and more predictable latency.

##### Advanced Pricing Strategy

During 2018, Euronext continued to optimize its pricing strategy to respond to the financial markets environment in post-MiFID II world. Specific fees were introduced for retail liquidity provisions, adjustments and alignments made to the flagship liquidity programme on Euronext Central Order Book.

##### New Functionality

The User choice model introduces the ability for customers to elect EuroCCP as their “User Choice CCP” with the objective to offer cost reduction to customers. Clients will be able to reduce their clearing costs through higher degree of netting efficiencies, hence with a positive influence on the Euronext Cash Market share. Under this “User Choice” model, Guaranteed trades where both sides of the transaction are undertaken by trading members having both elected EuroCCP as their CCP of choice will be sent for clearing to EuroCCP. In all other cases, the trades will continue to be sent to LCH S.A.

#### Euronext Block: New Pan-European Block Trading Service

The first brokers connected in the course of the fourth quarter of 2017 and the first trades have taken place on the platform, delivering superior execution quality in sizes significantly above the minimum thresholds defined by regulation. Member connectivity will accelerate throughout 2019 and new functionalities will be rolled out specifically for small and mid-cap trading.

#### Fixed Income Trading

In 2018, a new pilot scheme (Liquidity Distributor) has been designed for specific members to publish marked up/aggregated liquidity of Euronext order book on their trading systems and distribution networks in order to increase matching opportunities on Euronext markets; this scheme was green-lighted by Euronext’s College of regulators in 18 December and will be implemented with a pilot member in Q1’19. Another initiative kicked-off in 2018 is the inclusion of selected Dublin-listed bonds in Euronext order book with a target implementation in 2019. In the post-MiFID II environment, Fixed Income Regulated Markets remain active despite the low interest rate environment and the impact of the end of the ECB QE in 18 December will be closely monitored.

#### Derivatives Trading

On the financial derivatives markets, Euronext continued to reposition and expand its franchise. New products launched in 2018 included:

- eleven new Individual Equity Options, of which nine Spotlight Options <sup>(2)</sup>;
- two Single Stock Futures;
- three Single Stock Dividend Futures.

In the first half of 2018, Euronext delivered a number of enhancements to its Request for Cross (RFC) trading facility for equity and equity index options. The RFC is an innovative crossing mechanism that aims to improve the efficiency of the price discovery process by allowing members to cross against a client through an open auction mechanism. Enhancements released in 2018 included MiFID II transparency, and updates to the uncrossing algorithm to guarantee full execution of the client side of the trade. The RFC has thereby become a true best execution trading facility for equity and equity index options.

In October 2018, Euronext launched the Total Return Future (TRF) on the CAC 40® Index. The TRF has been developed by Euronext in order to meet clients’ need for a listed solution to trade total return swaps. With increased capital requirements being imposed by Basel III and EMIR, the new total return future contract offers strong netting advantages while providing a transparent and secure trading environment to access the implied equity repo rate on the constituents of the CAC 40 Index. Euronext is the first Exchange to launch a TRF on a national benchmark.

(1) Market share is measured against CBOE FX; EBS; FXALL.

(2) By 31 December 2018, Euronext offered a total of 42 options within the innovative ‘Spotlight’ segment. Two spotlight options have been promoted to the regular segment.



On commodity derivatives, Euronext continued to expand its offering with:

- Euronext Inventory Management (EIM)- mandatory for the creation of storage certificates since May 2018;
- Extension of Corn delivery point to Eurosilo silo in Ghent signed in June 2018 for 1<sup>st</sup> delivery from November 2019;
- new pricing programmes to continue to attract new users to the Euronext Commodity markets. The NMP (New Market Participant) programme has been replaced with a progressive, three tiered programme that will contribute to accelerate client diversification and international growth.

### 1.3.5 ADVANCED DATA SERVICES <sup>(1)</sup>

#### 1.3.5.1 Market Data – Products and Services

Euronext's market data portfolio provides a wide range of data products to the global investment community, including pre- and post-trade market prices, indices, and reference data spanning its Cash and Derivatives markets in Amsterdam, Brussels, Dublin, Lisbon, London and Paris. The data is used by traders and investors to make buy or sell decisions with confidence, and by issuers to create new tradable products such as ETF's. Euronext's market data clients range from the largest investment banks in the world to individual investors trading from their front room.

Euronext's market data business consists of two product and service categories:

##### Real-Time Market Data

Euronext's main data offering involves the distribution of real-time market data. This data includes price, trade and order book data on all instruments traded on the Company's cash and derivatives markets, as well as information about Euronext's indices and trade and transaction reports submitted via the APA and ARM services. The data is marketed through different information products which are packaged according to the type of instrument, the depth of the information, and the type of customer. The data is disseminated primarily via data vendors but also directly to financial institutions and other service providers in the financial sector.

Almost 500 vendors currently disseminate Euronext market data to approximately 126,500 screens in over 125 countries. During 2018, Euronext continued to see an increase in the use of Euronext's data in automated trading applications, and a corresponding decrease in the number of users viewing data on traditional trading screens.

Retail clients have access to data from Euronext's markets through the Euronext Market Data app, which now has over 48,000 registered users. A chargeable premium version containing enhanced content and functionality such as research, analytics and real-time data was launched in the third quarter of 2018 and further enhancements will follow in 2019.

In 2018, Euronext introduced MiFID II compliant disaggregated data packages and all clients have signed the new market data agreement

which incorporated changes required to ensure compliant usage of the new data.

Euronext is also working with a number of innovative fintech and data companies to create new analytic data packages and services aimed at both retail and professional users.

##### Historical and Reference Data

In addition to real-time market data, Euronext also provides daily summary, historical and analytical data services, as well as reference and corporate action data services.

In 2018 Euronext launched an e commerce platform that allows retail investors to buy data on-line directly from Euronext and will launch further products via the platform in 2019 aimed at both professional and retail investors.

#### 1.3.5.2 Indices – Products and Services

Euronext owns and operates a leading benchmark and strategy index franchise that measures different segments of the Euronext and other global markets, including AEX®, BEL 20®, CAC 40® and PSI 20®. The Company also creates new proprietary indices generating added value for its market participants or to provide measurement tools for all types of investment categories regardless of listing venue. Euronext offers a fully customisable index service which includes index calculation across equities, commodities and currencies twenty three hours a day, five days a week, with two end-of-day runs reflecting market close in Europe and the Americas. Many of Euronext's indices are licensed as the basis for ETPs (including ETFs) and structured products.

In order to increase the revenue pool by penetrating the promising structured products (SP) market, several initiatives have been implemented over the last three years in order:

- to extend Index Solutions Offering, especially based on ESG content;
- to improve Time to Market for index creation;
- to extend Clients Coverage.

As a result, Euronext index business:

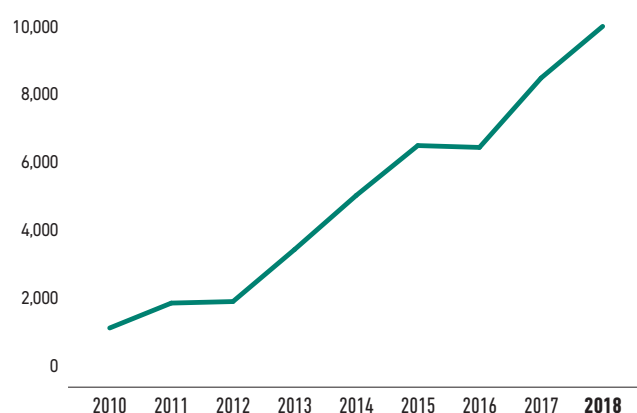
- maintained a strong growth in 2018 while diversifying its business model and source of revenues;
- built global commercial relationship and is now used by the majority of the world's top financial institutions;
- licensed the first CAC 40 ETF in China by signing an agreement with Hua An one of the biggest Fund Managers in China .

As a stock exchange committed to sustainability, Euronext is now well positioned to benefit from the increased integration of factor and ESG criteria into the investment process and will continue to extend over 2019 its ESG index offering thanks to its partners expertise: Vigeo Eiris, CDP, Carbone 4 and Mirova/ISS-Oekom.

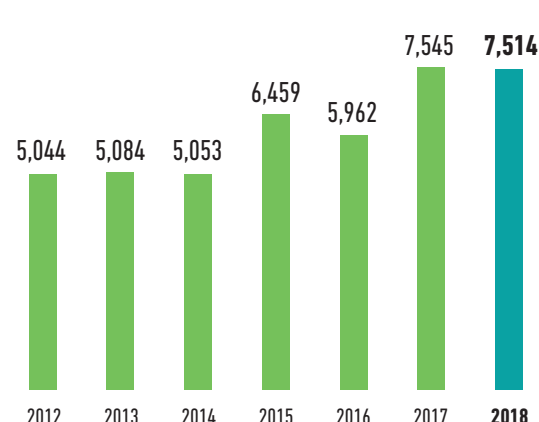
As of 31 December 2018, there were over 10,500 Euronext Traded Products (ETPs) linked to Euronext indices listed on the Company's market. This is an all-time record and 16.5% above 2017.

(1) Previously reported as Market Data & Indices.

ETP PRODUCTS ON EURONEXT INDICES LISTED ON EURONEXT



ETF AUM (IN MILLIONS) ON EURONEXT INDICES



Exchange traded funds (ETFs) linked to Euronext indices remained stable at €7.5 billion in Assets Under Management (AUM) at the end of 2018. Most ETFs had a net AUM inflow offsetting the 2018 decline of the index levels.

Other ETP and ETF highlights include:

- accelerating growth of AUM in the ETF tracking the Low Carbon 100 Europe®, with a net inflow of €281 million in 2018 bringing the total AUM to €434 million;
- end of year record for Euronext Listed ETPs on the CAC 40® to 8,070 (up 34.2% compared to 2017);

CONTINUOUS GROWTH OF ETPs LINKED TO CAC 40 LISTED ON EURONEXT

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Nr. of Products	1,058	1,486	1,593	2,908	4,073	4,648	5,016	6,014	8,070

- end of year record for ETPs on the AEX® to 2,907 (up 3.2%);

ETPs LINKED TO AEX LISTED ON EURONEXT

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Nr. of Products	579	884	823	977	1,369	2,158	1,748	2,816	2,907

### 1.3.6 POST TRADE

Euronext's post-trade business offers or facilitates clearing, settlement, risk management and custody services. The Group owns 20% of EuroCCP, the cash equities CCP and 11.1% of LCH S.A., the multi asset CCP for derivatives, cash equities, Repo and CDS clearing. In addition Euronext owns 100% of Interbolsa, the Portuguese national Central Securities Depository (CSD), national Securities Settlement System (SSS) and national numbering agency. Other pan European settlement services are provided by Euroclear, of which the Group owns 3.53% directly and 1.53% indirectly through its stake in Sicovam.

#### 1.3.6.1 Post Trade – Products and Services

##### Clearing

Clearing of Regulated Market and Multilateral Trading Facilities trades executed on Euronext are currently cleared by LCH S.A. as the default central counterparty (CCP) and with EuroCCP as

an alternative option. Trades on London Recognised Investment Exchange and Euronext Dublin are cleared by EuroCCP.

##### LCH S.A.

LCH S.A. provides clearing services for the full scope of Euronext listed cash and derivative products under two separate agreements for Cash markets and Derivatives markets. Euronext signed in 2017 a renewed 10-year agreement for derivatives clearing with LCH S.A., whilst at the same time converting its 2.3% shareholding of LCH Group into 11.1% in LCH S.A. The agreement not only provides for a direct investment in a leading multi-asset Eurozone based CCP but also provides an improved value proposition for customers, including reduced clearing fees. The continuity of service, especially with the backdrop of Brexit, is also extremely important for customers.

Under the terms of the Derivatives Clearing Agreement, Euronext continues to benefit from a revenue share deal with LCH S.A. at approximately the same level of EBITDA as the previous agreement. Euronext therefore receives clearing fee revenues based on the number of financial and commodities derivatives trades cleared

through LCH S.A. The Derivatives Clearing Agreement features solid governance rights as well as pre-emption rights for Euronext, in the case of a sale of LCH S.A. Euronext retains its LCH S.A. board seat and gains additional representation on the Audit Committee.

### EuroCCP

Euronext owns 20% of EuroCCP and completed technical connectivity of Euronext Regulated Markets in Q1 2017. EuroCCP is the leading CCP for pan-European cash equity markets. This deal delivers on Euronext's commitment to ensure optionality and fits with the EU wide mandate to deliver competition in clearing services, as enshrined in MiFIR. In addition, it enables Euronext to offer user choice in clearing for the equity markets, currently achieved through the preferred CCP model but to be followed by a fully interoperable service with other CCPs in due course.

### Custody & Settlement

Settlement of transactions in the Portuguese market are managed through Interbolsa while trades in all other Euronext markets are settled through Euroclear group.

Interbolsa is the national Central Securities Depository ("CSD") and the national Securities Settlement System for Portugal. As national Securities Settlement System, Interbolsa provides settlement services for regulated markets and MTFs, securities lending transactions, OTC transactions, free-of-payment and delivery-versus-payment transfers. It also processes corporate actions with respect to securities registered or deposited in the CSD as well as the calculation of corresponding financial settlement and sending of payment instructions to the TARGET2-Securities (T2S) platform for payments in central bank money (Euro) and to Caixa Geral de Depósitos for payments in commercial bank money (in respect of currencies other than Euro). Interbolsa is also the national numbering agency in charge of the assignment of ISIN,

CFI and FISN codes according to the ISIN, CFI and FISN codification rules in force (namely to all Portuguese-issued equities and for debt instruments registered or deposited in Interbolsa's systems), nationwide disclosure of assigned ISIN, CFI and FISN codes and intermediating between national entities, other national numbering agencies and ANNA Service Bureau. The use of Interbolsa is currently required by local rules and regulations.

Interbolsa is one of Euronext's wholly owned subsidiaries, while Euroclear is an independent entity that provide services to the Company.

In March 2016, Interbolsa has successfully migrated to the new pan-European settlement platform – TARGET2-Securities (T2S), as originally scheduled, integrated in the second T2S migration wave.

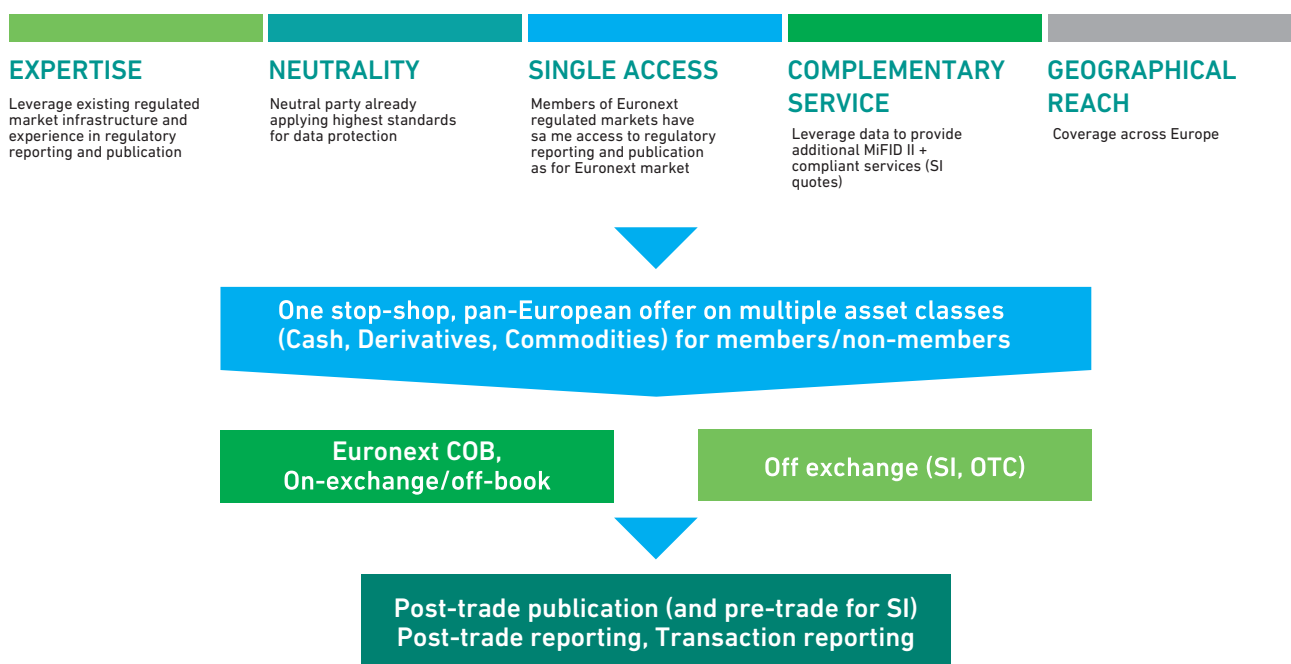
In July 2018, Interbolsa obtained a CSDR license to operate according to the new European CSD Regulation becoming one of the first CSDs in the European Union to be re-authorised under CSDR.

### 1.3.6.2 Post Trade – Recent Developments

#### Clearing

Euronext has deployed the first major phases and features of the Euronext RiskGuard pre-trade risk management solution. These are currently available for Euronext's derivatives markets, either via API or GUI. RiskGuard will be extended for additional advanced features in the future.

In addition, Euronext Paris is authorized by the AMF for the provision of trade reporting and transaction reporting ("APA/ARM") services under MiFID II. This service was launched into pre-production in December 2017, providing a single interface for MiFID II trade publication and Transactions Reporting. It commenced live operation on the 3 January and already has a strong client base.



## Custody & Settlement

### TARGET2-Securities

After its smooth and successful migration to the pan-European settlement platform (T2S) <sup>(1)</sup> in March 2016 (integrated in the second migration wave), Interbolsa has been actively involved in the 4<sup>th</sup> and final migration waves, on February 2017 and September 2017, respectively, as well as working to improve operational processes and implement new software releases, which has allowed to increase the efficiency of the day-to-day operations with T2S.

### Direct CSD Links

In order to take further advantage of the easier and more efficient way to settle cross-border transactions using the T2S platform, Interbolsa is working in setting up direct investor links and relayed investor links with some of the major domestic CSDs in Europe, which will be operational throughout 2018 and 2019.

These are the CSDs in scope:



### Central Securities Depositories Regulation (CSD Regulation)

The Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories (CSDR) is now fully in force. The main purpose of the CSDR is to harmonize the settlement of financial instruments in Europe and to provide a set of common organisational and conduct requirements for CSDs.

On 10 March 2017 the Regulatory Technical Standards (RTS) issued by ESMA and EBA were published in the Official Journal. The RTS entered into force 20 days after their publication (i.e., 30 March 2017) and Interbolsa had 6 months (until 30 September 2017) to submit to its competent authority the authorisation process in order to be recognised as a CSD under CSD Regulation. The authorisation process was submitted by Interbolsa to its competent authority on 29 September 2017.

By establishing the above-mentioned direct and relayed CSD links, Euronext wishes to be able to attract foreign securities currently held by domestic financial intermediaries *via* international custodians and/or other domestic and international Central Securities Depositories, hence enabling Interbolsa to be their sole access point to the main European markets.

In February 2018, Interbolsa became a participant of the Central Securities Depositories (CSDs) Euroclear France and Euroclear Nederland, as investor-CSD, establishing links with these CSDs, allowing its participants to hold in their securities accounts debt instruments originally registered in these CSDs (Issuer-CSD).

Since 6 August 2018, INTERBOLSA allows its participants to hold in their securities accounts debt instruments originally registered at NBB-SSS (Issuer-CSD), through the link with Euroclear France.

These links allows the transfer of securities between Interbolsa's participants and the participants of the mentioned CSDs, in real time, through the pan-European platform TARGET2-Securities (T2S), as well as the corporate actions processing over the debt securities registered in the securities accounts of Interbolsa's participants.

In September 2017, Interbolsa submitted its CSDR application which was considered complete in January 2018. The approval process was conducted in close cooperation with the CMVM, as well as the Banco de Portugal (the Portuguese Central Bank) and the European Central Bank.

In July 2018, Interbolsa has been informed by the CMVM – Comissão do Mercado de Valores Mobiliários that, with effect from 12 July 2018, Interbolsa has been granted a license to operate according to the new European CSD Regulation.

Interbolsa is among the very first CSDs in the EU to be re-authorised under CSDR.

(1) T2S provides integrated and harmonised cross-border settlement of transactions in central bank money.

### Securities Lending Management System

Interbolsa has its Securities Lending Management System fully adapted to the specificities of T2S, therefore readily available to be used.

This functionality enables its users to: (a) diffuse information regarding demand and offer of securities to all participants; (b) confirm the characteristics of the lending operations between counterparties; and (c) carry out the settlements inherent to the opening and closing of lending operations.

### Fund Management Platform

Interbolsa's Fund Management Platform and Order Routing system is now fully adapted to the specificities of T2S, therefore readily available to be used by any fund management company, for investment funds.

The main objective is to leverage the use of the mentioned platform and its order routing capabilities and enable Interbolsa to attract investment funds from independent and bank owned Fund Managers.

Since this announcement, Euronext already integrated twelve open-end funds and Euronext expects the number of clients and volumes to raise in the months to come.

### Pricing

After Interbolsa's migration to T2S, Euronext's CSD has worked on a new pricing. The readjustments in its price list – for both Issuers and Financial Intermediaries – was implemented on 1 April 2017 having in mind to reinforce the attractiveness of the Portuguese market while also striving to balance this goal with the need to protect both Euronext's competitiveness and profitability.

### Commercial Intensity

Started in 2017 and throughout 2018, Interbolsa has intensified one-to-one meetings with existing and prospective clients (Issuers, FIs and Fund Managers), in order to ensure that (a) Euronext keeps them abreast of recent, on-going and planned developments in Euronext's service portfolio, while (b) aiming to attract more debt securities, commercial paper and equities, as well as investment funds, with the objective of increasing the volumes of (i) assets under custody and (ii) settlement of transactions, with a direct and positive impact on Interbolsa revenues.

## 1.3.7 Euronext Technology Solutions<sup>(1)</sup> & Other

### 1.3.7.1 Euronext Technology Solutions & Other – Products and Services

Euronext Technology Solutions & other comprises Euronext's commercial technology solutions and services businesses. Euronext offers custom solutions and cost-effective managed services to exchanges and venue operators who require complex functional capabilities and low latency processing across multiple-asset classes.

The technologies & other business benefits from the technology developments made by Euronext for its own markets and, in return,

contributes recurring revenue that is non-cyclic and not trading related. Operating as a technology vendor also gives Euronext an opportunity to compare its technology against other vendors and ensure that it maintains its position at the forefront of the industry.

The solutions and services offered use Optiq® and other applications developed by Euronext or licensed from third-parties. Optiq® entered production with Euronext in mid-2018 and has already been licensed to seven other venue operators, either as a deployed solution or under an Optiq® as a Service arrangement. This rapid take-up by the industry demonstrates the attractiveness of the reliability, flexibility and cost of ownership benefits that Optiq® provides and reflects the insights that Euronext, as a leading market operator itself, can apply in the design of new trading technology.

Euronext continues to provide software support and maintenance services for the legacy trading platforms, Euronext UTP and NSC®. Euronext has a perpetual, royalty-free license from ICE to use, modify and sub-license Euronext UTP and NSC® (see section 5.2 "Material contracts and related party transactions").

At the end of 2018, two Exchanges clients remained on Euronext UTP and both have been offered options for migrating to Optiq® ahead of termination of Euronext UTP maintenance. Support for the previous generation trading platform, NSC®, will cease in 2019 once all clients using NSC® have been migrated to Optiq®. This will further simplify Euronext's technology operation and reduce expenses.

Euronext has issued a sub-license to a third-party for the sale and maintenance of certain legacy software modules including NSC®. In addition to generating license revenue, such agreements enable Euronext to increase its focus on Optiq® and future extensions thereof.

Optiq® enables the technologies business to be more competitive by offering solutions that are faster, more resilient and cheaper to operate. It has been designed for high-volume markets and so will meet the throughput and resilience needs of most global exchanges. As a result, Euronext Technology Solutions priorities for the future Optiq® roadmap will include integrating new functions and asset classes to increase the flexibility, configurability and extensibility offered to clients.

Most technology solutions provided to clients include software for reference data management, price calculation and market control functions. The high level of commonality between exchange operations around the world means that many of these solutions can be delivered to clients with little or no client-specific customisation. In some cases, client requirements can be met by simple configuration changes and in others only minor software modifications are required. Whichever approach is taken, the rights to new platform capabilities remain with Euronext and are incorporated into the core product for the benefit of all users (including Euronext itself). This mutually beneficial, user-community approach means that Euronext can maintain an industry leading platform with lower expenses than would otherwise be the case.

Where Euronext does not offer commercial in-house software for a function required by a client, third-party software can easily be integrated with Optiq®. This approach is used for the MAR surveillance service offered to MTF and SI operators which provides monitoring

(1) Previously reported as Market Solutions.



of compliance with the Market Abuse Regulation as a remotely delivered service. This service enables clients to outsource their MAR monitoring operations and take advantage of the investments in staff and processes made by Euronext for its own markets.

Optiq® will facilitate the development of more such services, specifically those performing analytic and regulatory processing of the large volumes of trading data generated by electronic exchanges. Demand for these applications is expected to grow as the scope and rigour of regulatory monitoring requirements increase.

Historically, revenue from the Euronext Technology Solutions & other business came from software license and maintenance fees. However, Euronext's ability to configure its technology for a wide range of market models means that the same Optiq® software can be offered in the form of a managed service. Optiq® as a Service enables exchanges and venue operators to take advantage of fully-hosted trading and clearing platforms without investing in data center or network infrastructure. With banks and financial intermediaries increasingly seeing migration to cloud and software-as-a-service as solutions to the competing pressures of cost-reduction and regulatory complexity, Euronext's experience as a service provider is receiving renewed interest. Euronext's MiFID II compliant MTF and SI services build on Euronext's own software, processes and infrastructure and offer clients an effective way to reduce costs without increasing regulatory risk. At the end of 2018, Euronext had four managed services in production for European venue operators and a binding letter of intent for implementation of a fifth.

The technologies & other business also receives revenue for network connectivity and server colocation under a revenue sharing agreement with ICE. This agreement enables Euronext to benefit from service sales to clients who connect to its markets via the ICE

SFTI® network or who take colocation space in the ICE data centers that house Euronext's trading platforms. For more information on SFTI® and colocation (see section 5.2 "Material contracts and related party transactions").

By combining the software, infrastructure and technology developed for its internal markets with the expertise of its technology staff and market managers, Euronext is able to offer a unique technology service to exchanges and venue operators around the world.

### 1.3.7.2 Euronext Technology Solutions & Other – Recent Developments

Euronext has built a specialist team of analysts, developers and engineers to support the commercial technology business from its centre of excellence in Porto. The team first project was the delivery of a complex MiFID II upgrade for a European MTF operator. This major release was delivered on-time and enabled the client to complete a smooth transition to the new regulatory regime. In 2018, the Porto team delivered a managed MTF service again meeting the delivery dates and budget constraints agreed with the client. They are now engaged on projects to deliver deployed Optiq® solutions to international clients and to implement Optiq® as a Service for a European venue operator.

In December 2018, Euronext Technology Solutions and other adopted the name "Euronext Technology Solutions" for use in the promotion and delivery of deployed Optiq® solutions and Optiq® managed services. This operating name change reflects the core role of Euronext business capabilities in the value that we deliver to technology clients and raises the profile of the Euronext brand in the commercial technology marketplace.

## 1.4 Regulation

### 1.4.1 OVERVIEW

Euronext is an organisation that provides exchange listing, trading, post-trade and related services in Europe. The Company operates exchanges in six European countries (Belgium, France, Ireland, the Netherlands, Portugal and the United Kingdom). Each of the European exchanges and/or its respective operator holds an exchange licence granted by the relevant national exchange regulatory authority and operates under its supervision. Each market operator is subject to national laws and regulations and other regulatory requirements imposed by exchange authorities, central banks and finance ministries as appropriate.

The six national regulatory authorities coordinate their regulation and supervision of the regulated markets operated by the Euronext group through the "Euronext College of Regulators", acting pursuant to memoranda of understanding which Euronext has committed to respect.

### 1.4.2 EUROPEAN REGULATION

The regulatory framework in which Euronext operates is substantially influenced and governed by European directives and regulations in the financial services area, many of which have been adopted pursuant to the Financial Services Action Plan, which was adopted by the European Union in 1999 to create a single market for financial services. This has enabled and increased the degree of harmonisation of the regulatory regime for financial services, public offers, listing and trading, amongst other activities.

#### Markets and Trading

There are currently two key pieces of European legislation that govern the fair and orderly operation of markets and trading: the MiFID/MiFIR and the MAR/MAD frameworks (both defined as below).

The MiFID II / MiFIR framework includes the Markets in Financial Instruments Directive and the Markets in Financial Instruments Regulation and is applicable since 3 January 2018.

The objective is to make European financial markets more transparent and to strengthen investor protection.

The MAR/MADII framework includes the Market Abuse Regulation ("MAR") and a Directive on criminal sanctions for market abuse ("MAD II") and is applicable since 3 July 2016. The objective is to guarantee the integrity of European financial markets and increase investor confidence. The concept of market abuse typically consists of insider dealing, unlawful disclosure of inside information, and market manipulation.

## Clearing and Settlement

### EMIR

EMIR (European Market Infrastructure Regulation) is primarily focused on the regulation of CCPs and includes the obligation for standardised OTC derivative contracts to be cleared through a CCP. EMIR came into effect on 16 August 2012, but most provisions only apply after associated delegated acts and regulatory technical standards enter into force. Delegated acts and regulatory technical standards in respect of, inter alia, the clearing obligation became effective on 15 March 2013.

### CSDR

The Regulation, of the European Parliament and of the Council on improving securities settlement in the European Union and on central securities depositories (CSD) Regulation or CSDR. It sets out uniform requirements for the settlement of financial instruments and rules on the organisation and conduct of central securities depositories (CSDs) in order to ensure secure, efficient and timely settlement of transactions. The CSD Regulation impacts the functioning of Euronext's CSD, Interbolsa Received the license as CSD under the CSDR regime on 12 July 2018.

In the meantime, the European Central Bank has introduced Target 2 Securities (T2S) to provide a central settlement function for the Euro area, with other European currencies invited to join. Euronext, through Interbolsa, participates in the TARGET2-Securities (T2S) platform, since March 2016, bringing substantial benefits to the European post-trading industry by providing a single pan-European platform for securities settlement in central bank money.

## Listing

The rules regarding public offerings of financial instruments and prospectuses, as well as on-going disclosure requirements for listed companies, are set out in the Prospectus Directive and corresponding implementation regulation, and the Transparency Directive, as implemented in the countries in which Euronext operates.

Companies seeking to list their securities on Euronext's regulated markets must prepare a listing prospectus in accordance with the requirements of the Prospectus Directive and corresponding implementing regulation, comply with the requirements of Euronext Rulebook I, the harmonised rulebook for the Euronext Market Subsidiaries, and any additional local listing requirements of Rulebook II and, following admission, comply with the on-going disclosure requirements set forth by the competent authority of their home Member State.

The objective of the Transparency Directive for listed companies is to reduce the gaps in the different national law. The modifications requires disclosure of major holdings of all financial instruments that could be used to acquire economic interest in listed companies and has the same effect as holdings of equity. The revised Directive will also provide for more harmonisation concerning the rules of notification of major holdings in particular by requiring aggregation of holdings of financial instruments with holdings of shares for the purpose of calculation of the thresholds that trigger the notification requirement.

Concerning the storage and access to regulated information the Transparency Directive provides that a European electronic access point to regulated information will be developed and operated by ESMA.

The new Prospectus Regulation (Regulation (EU) 2017/1129) is designed to repeal and replace the existing body of European prospectus law.

The Regulation is intended to be of particular benefit to European small and medium enterprises when issuing shares or debt. Companies already listed on public markets will also benefit when they list additional shares or issue corporate bonds.

The key changes to the prospectus regime will impact the following items:

- monetary thresholds for publication of a prospectus;
- issuers with securities already admitted to trading;
- prospectus summary;
- minimum disclosure regime;
- fast track approval;
- publication of prospectus;
- risk factors.

The Regulation entered into force on 20 July 2017 and will mainly apply from 21 July 2019, other than the following provisions which will apply earlier:

- from 20 July 2017: Certain exemptions from the obligation to publish a prospectus, including where an issuer has securities admitted to trading on a regulated market and wishes to admit further securities up to a limit of 20% over 12 months;
- from 21 July 2018: The exemption from the scope of the Regulation for offers of securities to the public with a total consideration in the EU of less than €1,000,000 (calculated over a period of 12 months);
- from 21 July 2018: The option for Member States to exempt offers of securities to the public from the obligation to publish a prospectus where the total consideration of each offer in the EU is less than €8,000,000 (calculated over a period of 12 months) and it is not subject to notification under Article 25.

## Indices

Euronext as an Indices administrator has to comply with the European Regulation (EU) 2016/ 1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the BMR) which is applicable since 1 January 2018.

The BMR introduced a common framework to ensure the accuracy and integrity of indexes used as benchmarks in the European Union. The BMR applies to the:

- provision of benchmarks;
- contribution of input data to a benchmark;
- use of a benchmark within the European Union.

## The Operation of Regulated Markets and MTFs

MiFID II/MiFIR, MAR/MAD, ESMA standards and the Euronext Rulebooks all provide minimum requirements for monitoring of trading and enforcement of rules by Euronext as the operator of regulated markets and MTFs. In particular, market operators are required to meet, inter alia, all the requirements set out in MiFID (and reinforced in MAR/MAD) including the obligation to ensure that the markets they operate allow financial instruments to trade “in a fair, orderly and efficient manner”.

To this end, Euronext has set up a framework to organise market monitoring by which it:

- monitors trading in order to identify breaches of the rules, disorderly trading conditions or conduct that may involve market abuse;
- reports breaches of rules or of legal obligations relating to market integrity to the competent authority.

Market surveillance and monitoring are implemented through a two-step process consisting of real-time market surveillance and post-trade (i.e., “next day”) analysis of executed trades. Euronext ensures member compliance with its rules by conducting on-site investigations and inspections.

## Group-Wide Supervision and Regulation

The national regulators of Euronext’s markets are parties to a memorandum of understanding most recently amended and restated in March 2018 that established a “Euronext College of Regulators” and provides a framework to coordinate their supervision and regulation of the business and of the markets operated by Euronext. The Company commits itself to the memorandum of understanding, to the extent that any obligations arising from the memorandum of understanding apply to the Company or its subsidiaries.

These regulatory authorities have identified certain areas of common interest and have adopted a coordinated approach to the exercise of their respective national rules, regulations and supervisory practices regarding listing requirements, prospectus disclosure requirements, on-going obligations of listed companies, takeover bid rules and disclosure of large shareholdings.

## National Regulation

Euronext’s market operators each hold licences for operating regulated markets. Some market operators also operate a number of markets that do not fall within the European Union definition of “regulated markets” or MTFs. Each market operator is subject to national laws and regulations pursuant to its market operator status.

## The Netherlands

Both Euronext and Euronext Amsterdam have an exchange licence from the Dutch authorities to operate regulated markets. This means that they are subject to the regulation and supervision of the Dutch Minister of Finance and the *Autoriteit Financiële Markten* (“AFM”). Since the creation of Euronext in 2000, the Dutch regulators have taken the view that the direct parent company of Euronext Amsterdam, as controlling shareholder, has to be seen as co-market operator and, accordingly, also requires an exchange licence. Pursuant to section 5:26 paragraph 1 of the Dutch Financial Supervision Act it is prohibited in the Netherlands to operate or to manage a regulated market without a licence granted by the Dutch Minister of Finance.

The Dutch Minister of Finance may, at any time, amend or revoke the licence if necessary to ensure the proper functioning of the markets or the protection of investors. The licence may also be revoked for non-compliance with applicable rules.

## Belgium

Euronext Brussels is governed by the Belgian Law of 21 November 2017 on the market infrastructures for financial instruments and transposing Directive 2014/65/EU. Accordingly to the Law, Euronext Brussels is responsible for matters such as the organisation of the markets and the admission, suspension and exclusion of members and has been appointed by law as the “competent authority” for listing matters within the meaning of EU Directive 2001/34/EC dated 28 May 2001. Euronext Brussels is subject to the supervision of the Financial Services and Markets Authority (FSMA), an independent public authority which strives to ensure the honest and equitable treatment of financial consumers and the integrity of the financial markets.

## Portugal

As a market operator, Euronext Lisbon is governed by Portuguese Decree of Law No. 357-C/2007 of 31 October 2007 which, along with the Portuguese Securities Code and regulations of the *Comissão do Mercado de Valores Mobiliários* (“CMVM”), governs the regime applicable to regulated markets and MTFs, market operators and other companies with related activities in Portugal. The creation of regulated market operators requires the prior authorisation in the form of a decree-law from the Portuguese Minister of Finance, following consultation with the CMVM.

The CMVM is an independent public authority that supervises and regulates markets and market participants, public offerings and collective investment undertakings. Its objectives are to ensure investor protection and an efficient and regular functioning of markets, monitor information, prevent risk and prevent and suppress illegal actions. The entities subject to the supervision of the CMVM should co-operate with the CMVM as requested. The CMVM carries out “on-site” supervision of the entities subject to its supervision and makes public infringements and fines imposed in accordance with applicable law.

## France

As a market operator, Euronext Paris, which is the market of reference for the Euronext shares, manages the Euronext regulated markets in France. In accordance with Article L.421-10 of the French Monetary and Financial Code, Euronext Paris adopts rules for each of these markets to ensure fair and orderly trading and efficient order execution. The requirements for market access and admission of financial instruments to trading are also covered by these rules, which are approved by the *Autorité des Marchés Financiers* ("AMF") and published on the market operator's website.

Euronext Paris markets are subject to the provisions of Article L.421-4 *et seq.* of the French Monetary and Financial Code, which authorises the French Minister of Economy to confer and revoke regulated market status upon proposal of the AMF, which has to consult with the *Autorité de Contrôle Prudentiel et de Résolution* ("ACPR").

## United Kingdom

Euronext London has been granted recognition by the *Financial Conduct Authority* ("FCA") to operate as a United Kingdom recognised investment exchange ("RIE"), pursuant to section 290 of the Financial Services and Markets Act 2000 (the "UK FSMA"). As such, Euronext London has certain self-regulatory responsibilities for its markets. In order to retain its status as an RIE, Euronext London is required to meet various legislative and regulatory requirements and failure to comply with these requirements could subject it to significant penalties, including de-recognition.

The regulatory framework applicable to Euronext London is supplemented by a series of legislative provisions regulating the conduct of participants. Importantly, the UK FSMA contains provisions making it an offense for any person to engage in certain market behaviour and prohibits market abuse through the misuse of information, the giving of false or misleading impressions or the creation of market distortions. Breaches of those provisions give rise to the risk of sanctions, including financial penalties.

## Republic of Ireland

The Irish Stock Exchange Plc trading as Euronext Dublin ('Euronext Dublin') is authorized by the Central Bank of Ireland ('CBI') as a market operator pursuant to Article 56 (2) of the European Union (Markets in Financial Instruments) Regulation 2017 (S.I. 375/2017). As a market operator, Euronext Dublin operates one regulated market and three multi-lateral trading facilities and adopts rules for each of these markets to ensure fair and orderly trading and efficient order execution.

In addition, Euronext Dublin has been appointed as the competent authority for listing by the department of Business, Enterprise and Innovation pursuant to the European Communities (Admission to Listing and Miscellaneous Provisions) Regulations 2007, as amended.

The CBI is responsible for the regulation and supervision of regulated markets and market operators authorised in Ireland. Euronext Dublin is required to meet various legislative and regulatory requirements and failure to comply with these requirements could subject it to enforcement action by the CBI including significant penalties and/or revocation of its authorisation as a market operator.

## Stichting

In connection with obtaining regulatory approval of the acquisition of Euronext by NYSE group, Inc. in 2007, NYSE Euronext implemented certain special arrangements which included a standby structure involving a Dutch foundation (*stichting*). Following the acquisition of NYSE Euronext by ICE and the Demerger, the Company became a party to these arrangements, which include a Further Amended and Restated Governance and Option Agreement (the "GOA"), to which ICE, the *stichting* and Euronext are parties. The *stichting* has been incorporated to mitigate the effects of any potential change in U.S. law that could have extraterritorial effects on the regulated markets operated by the Euronext Market Subsidiaries as a result of a U.S. shareholder holding a controlling interest in the Company. The board members of the *stichting* are independent from Euronext. Pursuant to the GOA, while the Company has U.S. shareholders with a controlling interest in the Company, the *stichting* is empowered to take actions to mitigate the adverse effects of any potential change in U.S. law that have certain extraterritorial effects on the regulated markets operated by the Euronext Market Subsidiaries. If there is no such controlling U.S. shareholder, the *stichting* becomes dormant and unable to exercise such powers. If a new U.S. shareholder were to gain control of the Company, the *stichting* would be automatically revived.

Up until 20 June 2014, the *stichting* was active through ICE's shareholding. Since the IPO, ICE sold its shareholding, and there has been no controlling American shareholder. At the Euronext College of Regulators' request, the *Stichting* has become dormant.

### 1.4.3 OWNERSHIP LIMITATIONS AND ADDITIONAL NOTIFICATION REQUIREMENTS

The rules set forth below apply to an acquisition of a direct or indirect interest in Euronext's market operators. These rules are in addition to shareholder reporting rules applicable to listed companies generally set out above.

- Under Dutch law, a declaration of no-objection of the Dutch Minister of Finance is required for any holding, acquisition or increase of a Qualifying Participation (defined as direct or indirect participation of at least 10% of the issued capital of the relevant entity or the power to exercise at least 10% of the voting rights) in an operator or holder of a regulated market in the Netherlands which has been granted an Exchange License to operate such market pursuant to section 5:26 of the Dutch Financial Supervision Act. The Dutch Minister of Finance has delegated its powers to grant a declaration of no-objection under section 5:32d of the Dutch Financial Supervision Act to the AFM except in cases where the acquisition of the Qualifying Participation involves a fundamental change to the shareholding structure of the relevant licensed operator or holder of a regulated market in the Netherlands. Euronext N.V. controls Euronext Amsterdam, which is the licensed holder and operator of a regulated market in the Netherlands, and has obtained a declaration of no-objection under section 5:32d referred to above. Therefore, any acquisition or holding increase of a direct or indirect interest in the Company that results in an indirect Qualifying Participation in Euronext Amsterdam, will trigger the requirement to obtain a declaration

of no-objection of the AFM or, in case of a fundamental change in the shareholding structure, the Dutch Minister of Finance. Such declaration should be granted unless such holding, the acquisition or increase: (1) could or would lead to a formal or actual control structure that is lacking in transparency and would therefore constitute an impediment to the adequate supervision of the compliance by the market operator with the rules applicable to the operator of a regulated market; (2) could or would lead to an influence on the regulated market operator or effect on the exploited or managed regulated market that forms a threat to the interests which the Dutch Financial Supervision Act seeks to protect; or (3) could jeopardise the healthy and prudent operation of the regulated market concerned. Non-compliance with the requirement to obtain a declaration of no-objection is an economic offense and may lead to criminal prosecution. In addition, if a person acquires or increases a Qualifying Participation without having obtained a declaration of no-objection, it will be obliged to cancel the transaction within a period to be set by the Dutch Minister of Finance or the AFM unless the person cures the offense and obtains a declaration of no-objection. The Dutch Minister of Finance or the AFM may request the District Court in Amsterdam to annul any resolutions that have been passed in a General Meeting of shareholders in which such person exercised its voting rights, if such resolution would not have been passed or would have been passed differently if such person would not have exercised its voting rights. The District Court will not annul the resolution if the relevant person obtains a declaration of no-objection prior to the decision of the court.

- Under French law, any person or group of persons acting in concert who acquires or increases, directly or indirectly, a holding in Euronext Paris shares or voting rights in excess of 10%, 20%, 33 1/3%, 50% or 66 2/3% is required to inform Euronext Paris, which in turn must notify the AMF and make the information public. Any person acquiring direct or indirect control of a market operator must obtain the prior approval of the Minister of Economy upon proposal of the AMF. Further, Euronext Paris shall promptly notify the AMF prior to any changes to the identity and the details of the holding of any existing shareholder or shareholders, alone or in concert, who is in a position to exercise, directly or indirectly,

significant influence (10% or more of the share capital or voting right) over the management of Euronext Paris and the proposed change can proceed as long as Euronext Paris does not receive any objection from the AMF within the period of time provided by the AMF General Regulation.

- Under Belgian law, any person who intends to acquire securities in a Belgian market operator and who would, as a result of such acquisition, hold directly or indirectly 10% or more of the share capital or of the voting rights in that market operator, must provide prior notice to the FSMA. The same obligation applies each time such person intends to increase its ownership by an additional 5%.
- Under Portuguese law, a shareholder who intends to acquire, directly or indirectly, a dominant holding (broadly defined as 50% or more of the share capital or voting rights) or a dominant influence (broadly defined as the majority of voting rights or the possibility to appoint or dismiss the majority of the members of the managing or supervisory bodies) in a Portuguese market operator must obtain the prior authorisation of the Portuguese ministry of finance (with prior advice of the CMVM). In addition, all entities envisaging (i) acquiring or disposing of a (direct or indirect) qualifying holding (10% or more of the share capital or voting rights or otherwise establishing a significant influence) or increasing a qualifying holding at the level of 10%, 20%, 33 1/3% and 50% or more of the shares capital or voting rights in a market undertaking in Portugal or (ii) otherwise establishing a control relationship with a market subsidiary in Portugal, must notify the CMVM of the acquisition or disposal as soon as a decision has been taken to proceed within four business days following the relevant transaction and seek a prior declaration of non-objection. The disposal/reduction of the aforementioned qualifying holdings (considering each threshold above) or change in the control relationship is also required to be notified to the CMVM.
- Under Irish law, prior notification to the Central Bank of Ireland of a proposed acquisition of, or increase in, a direct or indirect qualifying holding (10% or more of the capital or of the voting rights or which makes it possible to exercise a significant influence over the management of that undertaking) of Euronext Dublin is required.





# 2

## CORPORATE GOVERNANCE

A description of the shareholding structure of the Company is provided in section 4 “General description of the Company and its share capital”.

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## 2.1 Dutch Corporate Governance Code, "Comply or Explain"

The Dutch Corporate Governance Code ("the Code") became effective in 2016 and finds its statutory basis in Book 2 of the Dutch Civil Code. The Code applies to Euronext as it has its registered office in the Netherlands and its shares are listed on the regulated markets of Euronext Amsterdam, Euronext Brussels, Euronext Lisbon and Euronext Paris. A Dutch and an English version of the Code can be found at [www.commissiecorporategovernance.nl](http://www.commissiecorporategovernance.nl)

The Code is based on the notion that a company is a long-term alliance between the various stakeholders of the Company. Stakeholders are groups and individuals who, directly or indirectly, influence – or are influenced by – the attainment of the Company's objectives: employees, shareholders and other lenders, suppliers, customers and other stakeholders. The Management Board and the Supervisory Board have responsibility for weighing up these interests, generally with a view to ensuring the continuity of the Company and its subsidiaries, as the Company seeks to create long-term value. If stakeholders are to cooperate within and with the Company, they need to be confident that their interests are duly taken into consideration. Good entrepreneurship and effective supervision are essential conditions for stakeholder confidence in management and supervision. This includes integrity and transparency of the Management Board's actions and accountability for the supervision by the Supervisory Board. The compliance with the Code is not determined by the extent to which it is complied with to the letter, but rather by the extent to which all stakeholders are guided by its spirit.

The Code is based on a "comply or explain" principle. Accordingly, companies are required to state the extent to which they comply with the principles and best practice provisions of the Code in the annual report and, where it does not comply with them, why and to what extent it deviates from them.

Euronext acknowledges the importance of good Corporate Governance and endeavors to comply in general with the provisions of the Code. However, there are a limited number of best practice provisions that it currently does not comply with. The fact that Euronext is not compliant with a number of best practice provisions is related to the fact that Euronext is an international company uniquely supervised since its creation in 2000 by a College of international Regulators, supervising Euronext on a joint basis, which has required some specific features which may interfere with the specific provisions of the Dutch Code. Euronext is active in a number of European jurisdictions, each with different laws, regulations, best practices, codes of conduct, regulatory guidelines and views.

### Provisions of the Dutch Code regarding corporate law matters, that Euronext did not apply in 2018:

- Euronext did not fully apply best practice provision 2.2.1 (*"a Managing Board member is appointed for a maximum period of four years"*). The terms of appointment of the members of the Managing Board who had been appointed for an indefinite term before Euronext became a listed company have remained unchanged. With regard to the members of the Managing Board who were appointed since Euronext became a listed company, Euronext complied with this best practice provision. It is envisaged that the full Managing Board's members' appointment terms are progressively harmonised to comply with this best practice provision;
- Euronext did not apply best practice provision 2.1.7, item iii (*"for each shareholder, or group of affiliated shareholders, who directly or indirectly hold more than ten percent of the shares in the Company, there is at most one Supervisory Board member who can be considered to be affiliated with or representing them"*). Three members of the Supervisory Board namely Luc Keuleneer, Lieve Mostrey and Franck Silvent, have been proposed by Euronext's Reference shareholders, who as a group acting *via* the Reference shareholders' Agreement hold 23.86% of Euronext's shares. This group of shareholders acts jointly and has been granted a declaration of non-objection by the Dutch Ministry of Finance. The background of the presence of three members in Euronext's Supervisory Board who can be considered to be affiliated with or representing the Reference shareholders is related to the request of the Euronext College of Regulators at the moment of its IPO in 2014 for it to have a number of stable, long-term shareholders who could propose one third of the members of the Supervisory Board.
- Euronext did not fully apply best practice provision 2.3.4 (*"More than half of the members of the committees should be independent within the meaning of best practice provision 2.1.8."*). The composition of the Audit Committee is based on expertise, and the current composition is the result of changes in the course of 2018. Euronext will consider how it can comply with the provision in the future.



### Provision of the Dutch Code regarding the remuneration policy of the Managing Board that Euronext did not apply in 2018:

- Euronext did not apply best practice provision 3.2.1 vi (“...Shares should be held for at least five years after they are awarded”). Euronext has launched its 5-years LTI plan in 2015 with a three-years cliff vesting performance share plan to support its strategy. Euronext retained the flexibility as the one-size-fits-all principle could not apply, and adjusted this policy to its current needs of flexible monitoring and retention. Euronext executives are located in each of our European countries with specific lockup guidelines: the Netherlands, Ireland, France, the United Kingdom, Portugal and Belgium.
- Euronext did not apply best practice provision 3.2.3 (“the remuneration in the event of dismissal should not exceed one year’s salary (the “fixed” remuneration component”). In the event of termination by the Company of a member of the Managing Board the Company has decided to align progressively all Managing Board members’ contracts on the same line as was decided at the time of recruitment of the Chairman of the Managing Board in September 2015, and disclosed at the Shareholders’ Meeting of 27 October 2015: the limitation to twelve months of fixed salary as provided in the Dutch Corporate Governance Code has been balanced against the French AFEP-MEDEF Corporate Governance

Code recommendations, which provide for a maximum termination indemnity of twenty-four months compensation, fixed and variable remuneration. The termination indemnity has been limited to twice the annual fixed salary, which is in line with the relevant best practices in the various jurisdictions in which it is active. Managing Board members’ contracts have been amended to that effect.

### Provision of the Dutch Code regarding meetings with analysts that Euronext did not apply in 2018:

- Euronext did not apply best practice provision 4.2.3 (“meetings with analysts, presentations to analysts, presentations to investors and institutional investors and press conferences shall be announced in advance on the Company’s website and by means of press releases, enabling all shareholders to follow these meetings and presentations in real time, for example by means of webcasting or telephone”): Euronext always ensures that all shareholders and other parties are provided with equal and simultaneous information about matters that may influence the share price through the distribution via an authorized wire. All material developments are disclosed via press releases and all presentations used during analysts and investors meetings are available on Euronext’s website at the time the presentation starts. Euronext also provides real time webcast and conference call facilities for all its results presentations and other financial presentations.

2

## 2.2 Management & Control Structure

### Enterprise Risk Management and Internal Control Objectives

The objective of the Enterprise risk management framework (ERM) is to create and preserve favorable conditions for the Company to fulfill its mandate: to power pan-European capital markets to finance the real economy, while delivering value to shareholders. It is designed and operated to identify potential events that may affect the Company, assess risk to be within the defined guidelines, manage the risk through control mechanisms, and monitor the risk to understand the evolution. Euronext embeds the risk management philosophy into the Company culture, in order to make risk and opportunity management a regular and everyday process for employees. The Supervisory Board and Managing Board regard ERM as a key management process to steer Euronext and enable management to effectively deal with risks and opportunities.

### Enterprisewide Risk Management Framework and Governance

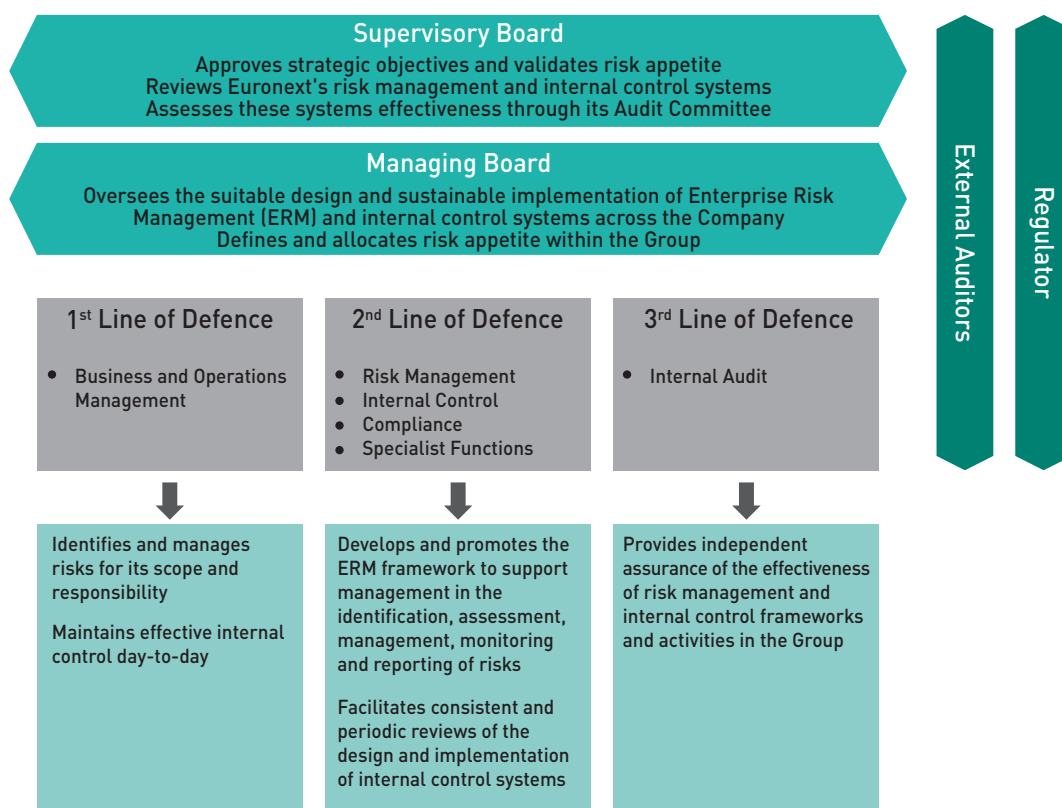
The ERM framework and governance is designed to allow the Managing Board and the Supervisory Board, as part of Euronext’s business model<sup>(1)</sup>, to identify and assess the Company’s principal risks to enable strong decision making with regards to the execution of the stated strategy. Reporting is made and consolidated on a regular basis to support this process. The ERM also enables the Supervisory Board and Managing Board to maintain and attest to

the effectiveness of the systems of internal control and risk management as set out in the Dutch Corporate Governance Code.

Governance Structure and related responsibilities for ERM process are as follows:

- the Supervisory Board, through the Audit Committee, supervises the effectiveness of the ERM system, including management actions to mitigate the risks inherent in the Group’s business activities;
- the Group’s Chief Executive Officer (“CEO”), backed by the Managing Board and supported by the Chief Financial Officer (“CFO”) and the Chief Risk Officer (“CRO”), is responsible for an effective ERM system;
- the Group’s CRO has primary responsibility for the ERM strategy, priorities, process design, culture development and related tools; the risk management organisation is structured cross-division, networked with risk owners on different organisation levels and drives a proactive risk management culture;
- the Group’s CFO has primary responsibility for the controls over financial reporting and regulatory capital requirements;
- the senior management of the Company assume responsibility for the operation and monitoring of the ERM system in their respective areas of responsibility, including appropriate responses to reduce probability and impact of risk exposures and increase probability and impact of opportunities.

(1) For more information on Euronext activities see section 1.3.1 “Business Overview”.



## ERM Framework

The objectives and principles for the ERM process are set forth in the Company's ERM Policy. The ERM process is based on best practices regarding the Internal Control and Enterprise risk management, including the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") initiative. It uses a bottom-up and top-down process to enable better management and transparency of risks and opportunities. At the top, the Supervisory Board and Managing Board discuss major risks and opportunities, related risk responses and opportunity capture as well as the status of the ERM process, including significant changes and planned improvements. The design of the ERM process seeks to ensure compliance with applicable laws and regulations with respect to internal control and risk management addressing both subjects in parallel.

### 2.2.1 SECOND LINE OF DEFENCE

#### 2.2.1.1 Risk Management

**Risk Appetite** is the level and nature of risk the business is willing to accept in achieving its strategic objectives. Risk appetite sets the basis for the requirements for monitoring and reporting on risk. Overall risk appetite is recommended by the Managing Board to the Supervisory Board as part of setting and implementing strategic and operational objectives.

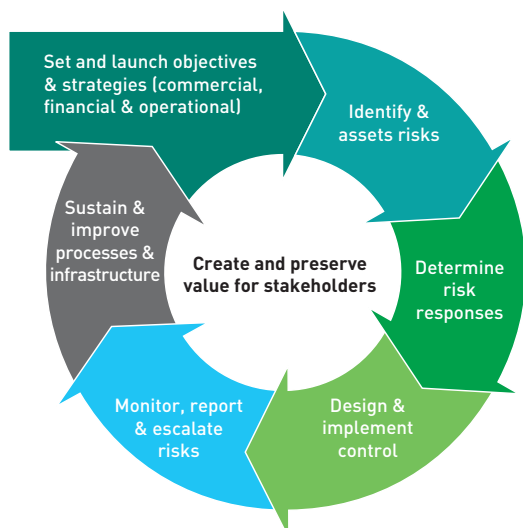
Risk appetite is considered at an operational level and strategic level with quantitative and qualitative components. These components are used during the assessment process to develop the residual risks and support what is escalated to the Managing Board and Supervisory Board.

**Risk Identification** involves the identification of threats to the Company as well as causes of loss and potential disruptions. Risks are composed of the following categories:

- **strategic:** the effect of uncertainty on Euronext's strategic and business aims and objectives; risk of missed opportunities due to execution decisions, inadequate resource allocation or changes in business development. Euronext is willing to take risks in pursuit of its strategic objectives;
- **financial:** risk of loss inherent in financing method which may impair the ability to provide adequate return; that cash flow will not be adequate to meet financial obligations. Euronext is willing to take some financial risk, however aligned with the long term nature of the business and maintaining its investment grade profile and capital requirements;
- **compliance:** risk of loss an organization faces when it fails to act in accordance with industry laws and regulations, internal policies or prescribed best practices. Euronext has a low appetite with respect to compliance risk, Euronext will evolve processes to improve efficiency without compromising compliance;
- **operational:** the risk of loss or inefficiency resulting from inadequate or failed internal processes, people and systems, or from external events; key programmes or projects are not delivered effectively. Euronext has a low appetite for risks that may impact its core business.



An emphasis is put on operational risk due to the importance of operations and initiatives for Euronext.



**Risk Assessment** is made in the possible event of an incident or a potential risk development. It aims to assess the risk qualitatively and quantitatively where possible, using supporting information, such as performance indicators. This assessment, defining the residual risk level, takes into account mitigation measures currently in place such as business continuity measures or insurance policies. The overall Risk Assessment phase is carried out by the risk management team ("RMT") in conjunction with Risk Coordinators ("RCs") based on data and information produced by and collected from the relevant areas *via* the periodic and *ad hoc* reporting or upon request of the RMT as necessary. Assessments are discussed with the business areas. Mitigations for each risk will be identified, evaluated, and the residual risk will be assessed and reported.

**Risk management** determines and implements the most appropriate treatment to the identified risks. It encompasses the following: avoidance, reduction, transfer and acceptance. Organizational units and employees perform risk management and implement mitigating actions as required by the risk appetite and escalation process. As noted, risks may remain after such management process is applied (see Risks section).

**Risk Reporting** – The Supervisory and Managing Boards and a Business Risk Group (BRG), made up of Senior Managers, are informed in a timely and consistent manner about material risks, whether existing or potential, and about related risk management measures in order to take appropriate action. Reports are issued to the above mentioned groups of the Company on a regular basis. *Ad hoc* reports may be issued when a new risk or the development of an existing risk warrants escalation to the relevant Committees of the Company.

**Business Continuity Management** – A component of efficient risk management is understanding that the identification of each risk that may be faced is an insurmountable task, therefore business continuity arrangements are necessary in order to respond to unforeseen events as quickly as possible, in the event of any disruption to our working environment. Effective

Business Continuity Management and Disaster Recovery are vital in protecting and underpinning the reputation, efficiency, resilience and competitiveness of the Company, as well as the Company's stakeholders. Business Continuity at Euronext is supported by the Business Continuity Steering Group and consists of representatives from the Company's major departments. Its role is to approve the Business Continuity & Disaster Recovery and Crisis Management policies and procedures and to provide guidance to the BCM team in the development of its function. The Business Continuity framework and its implementation at Euronext is based on internationally recognized business continuity principles including those developed by the Disaster Recovery Institute International (DRII), the International Organization for Standardization (ISO) and the Business Continuity Institute (BCI). Our Crisis Management framework includes escalation and communications rules, guidelines for action, and clearly defined roles and responsibilities.

In 2018, in addition to regular training, testing and exercises, work was undertaken to help improve, mature and embed Business Continuity at Euronext. In 2018 we saw maturing of the BCM program at Euronext through new and clear BCM reporting mechanisms and more maturing crisis management trainings.

**Program Development** – Euronext continues to drive improvements to its risk management process and the quality of risk information generation, while at the same time maintaining a simple and practical approach. The roadmap for 2018-19 for the ERM evolution included 3 key elements:

- embedding culture of risk management: Risk appetite discussions with the first line, key risk indicator discussions, ongoing training at various levels of the organization;
- involvement in key initiatives related to Optiq® technology platform, MiFID II compliance, Data Governance/GDPR and Agility for Growth initiatives;
- reporting/operation: ongoing risk appetite evolution, enhanced management reporting, impactful scenario analysis, risk tool implementation, further alignment of risk management and internal control approach for addressing risk and identifying controls.

The 2018-19 roadmap will continue with the topics above and will additionally focus on risk tool implementation, training program maturity and ongoing integration of new acquisitions.

Euronext seeks to continuously evaluate and improve the operating effectiveness of the ERM process.

## 2.2.1.2 Internal Control

Euronext has established a strong framework of internal control across its business areas and functions. This framework is based on ethical principles, established procedures and training of the key personnel who are responsible for implementing and overseeing it.

The internal control function as a second line of defence, aims at ensuring, in a permanent manner that identified risks are mitigated by controls, that controls are effective, documented and reported and that internal procedures exist and are updated on a regular basis.

### 2.2.1.3 Corporate Compliance – Code of Conduct and Ethics

Euronext is strongly committed to conducting its business with integrity, excellence and responsibility and to adhering to high standards of ethical conduct. The role of Corporate Compliance is to establish and maintain a first class compliance culture within the Company and to ensure that Euronext's business approach is in line with the highest ethical standards.

The Compliance department supports Euronext and its employees in complying with applicable laws and regulations and promotes ethical standards in accordance with good Corporate Governance. The Compliance department raises awareness among employees by articulating the responsibilities of the Company and its employees through policies and training and the monitoring of those policies and by providing a path for communication for employees. Compliance with applicable rules and principles and ethics is key to Euronext's success and it is the obligation of every employee to support this effort.

Euronext's code of conduct and ethics sets and reaffirms Euronext's high standards of ethical conduct and reinforces its business ethics, policies and procedures. Compliance with the Code is required of all board members (Managing Board, Supervisory Board and any other board) and all employees including consultants, contractors and temporary employees. The code of conduct and ethics, which is supplemented by nine corporate policies, governs without exception all business activities of the Company. The Code of Conduct and Ethics is available on the Euronext website. The code of conduct and ethics enables employees to report alleged breaches of a general, operational and financial nature. Relevant policy and procedures ensure that reporters in good faith are free to do so without fear of retaliation in accordance with the recent laws in the countries where Euronext operates.

More information on Euronext's commitment to Ethics are provided in section 2.5.2 "Presentation of the business environment".

Compliance processes are established as follows:



Guidelines and procedures are defined notably to ensure that anti-money laundering and sanctions, bribery and fraud and conflicts of interest concerns are managed and that business is always conducted in a fair manner. Staff training and awareness sessions are conducted regularly in all company locations to promote compliance and ethics standards.

The Company protects anyone who reports an alleged breach of laws or company policies in good faith and ensures that they shall in no way be put at a disadvantage by the Company as a result of the report.

Finally, given the dual positions of Euronext as a market operator and a listed issuer on the Euronext markets, the Compliance department has imposed strict personal dealing rules and a conflicts of interest procedure to ensure that neither the staff nor the Company itself could take undue benefits from this situation.

### 2.2.1.4 Chief Risk and Compliance Officer

The Chief Risk and Compliance Officer is appointed by the Managing Board, reports to the Chief Executive Officer and has a line of communication to the Audit Committee of the Supervisory Board. This reporting ensures the necessary independence of the Compliance department activities. Compliance Officers are located in countries where Euronext conducts its activities and are supported as necessary by local legal staff in order to benefit from the local expertise and knowledge of the local business and environment.

## 2.2.2 INTERNAL AUDIT – THIRD LINE OF DEFENSE

As a third line of defense, Internal Audit has no operational responsibilities over the entities/processes it reviews. The objectivity and organisational independence of the internal audit function is achieved through the Head of Internal Audit not performing operational management functions and reporting directly to the Chairman of the Audit Committee. He also has a dotted reporting line to the CEO.

For each audit, a formal report is issued and circulated. This includes recommendations for corrective actions with an implementation plan and the comments of the auditees. Implementation of accepted corrective actions is systematically followed up, documented and reported to the Audit Committee.

## 2.2.3 GENERAL INFORMATION

No information on family relationships between members of the Supervisory Board, members of the Managing Board and senior staff, as well as on convictions in relation to fraudulent offences, bankruptcies, receiverships, liquidations or official public incriminations with regard to these persons has been included in this Registration Document, as these matters are to the best knowledge of Euronext not applicable to these persons.

Further, to the best of Euronext's knowledge, the members of the Supervisory Board and the Managing Board do not have potential conflicts of interest with the Company in 2018 and up to date of the publication of this Registration Document. When new files are discussed at Supervisory Board and Managing Board meetings, generally concerning Merger and Acquisitions items, a regular conflict check is run and the Conflict of Interest policy then applies, the conflicted board director being withdrawn from the discussion.

## Statement of the Managing Board

### Responsibilities for the Financial Statements and Directors' Report

In accordance with Article 5: 25c(2)(c) of the Dutch Financial Supervision Act (*Wet op het financieel toezicht*), the Managing Board of Euronext hereby declares that, to the best of its knowledge, (i) the Financial Statements prepared in accordance with IFRS as adopted by the European Union and with Part 9, Book 2 of the Dutch Civil Code give a true and fair view of the assets, liabilities, financial position and profit or loss of Euronext and the enterprises included in the consolidation as a whole, and (ii) the directors' report gives a true and fair view of the position on the balance sheet date, the course of events during the financial year of Euronext and the enterprises included in the consolidation as a whole, together with a description of the principal risks that Euronext faces.

### Responsibility for this Registration Document

The entity responsible for the Registration Document is Euronext N.V. The Company declares that, having taken all reasonable care to ensure that such is the case, the information contained in the Registration Document, including the Financial Statements and the directors' report, is, to the best of the Company's knowledge, in accordance with the facts and contains no omission likely to affect its import. Euronext N.V. is represented by its Managing Board.

### In Control Statement

Euronext's first and second lines of defence perform their roles in risk assessments, evaluations of the operating effectiveness of controls, and reporting on risk management and control. The concluding results are regularly discussed at senior and executive management level. Group Audit, as the third line of defence, evaluates both the design and effectiveness of Euronext's governance, risk management and control processes. Audit reports are discussed with risk and process owners and the Audit Committee.

Based on the risk management processes, the Managing Board makes the following statements regarding internal risk management and control, taking into account Euronext's strategy and risk profile:

In accordance with best practice provision 1.4.3 of the Dutch Corporate Governance Code, Euronext's Managing Board is of the opinion that, in respect of financial reporting risks, the internal risk management and control system, as described in 2.2.1.1 "Risk management" and 2.2.1.2 "Internal control" (i) provides a reasonable level of assurance that the financial reporting in this Registration Document does not contain any errors of material importance, and (ii) has worked properly during the financial year 2018.

As set out in section 2.2, Euronext has a robust Enterprise Risk Management Framework and Governance, which allow the Managing Board to identify and assess the Company's principal risks to enable strong decision making with regards to the execution of the stated strategy. On the basis hereof the Managing Board has assessed the risk profile and the design and operating effectiveness of the risk management and control systems; this was discussed with the Audit Committee of the Supervisory Board.

The Managing Board declares that, based on the current state of affairs, the implementation of the Business Continuity Framework and the reporting process on existing or potential material risks,

as set out under 2.2.1, it is justified that the financial reporting is prepared on a going concern basis; and that this Registration Document is to the best of the Managing Board's knowledge, in accordance with the facts and contains no omission likely to affect its import. Furthermore, as described in the 1.2 and the chapter "Risks", this Registration Document reflects the material risks and uncertainties that are relevant to the expectation of the Company's continuity for the period of twelve months after the preparation of this Registration Document.

**Stéphane Boujnah,**

CEO and Chairman of the Managing Board

**Anthony Attia,**

CEO Euronext Paris & Global Head of Listing and Post Trade

**Chris Topple,**

CEO of Euronext London & Head of Global Sales

**Maurice van Tilburg,**

CEO Euronext Amsterdam

**Vincent Van Dessel,**

CEO Euronext Brussels

**Daryl Byrne,**

CEO of Euronext Dublin & Head of Debt & Funds Listings and ETFs

### Availability of Documentation

The Articles of Association of Euronext, historical information and relevant documentation for investors and shareholders may be viewed on Euronext's website in the Investor Relations section at [www.euronext.com/en/investors](http://www.euronext.com/en/investors).

## 2.2.4 SUPERVISORY BOARD

Euronext has a two-tier governance structure with a Supervisory Board and a Managing Board. The governance arrangements of the Supervisory Board described in this section are based on, among other things, Dutch law, Euronext's Articles of Association and the rules of procedures for the Supervisory Board. These arrangements include additional provisions and modifications agreed with the Euronext College of Regulators designed to ensure the long-term stability and autonomy of Euronext and curb possible disproportionate levels of influence that large shareholders may have on it.

### Responsibilities

The Supervisory Board is responsible for the supervision of the activities of the Managing Board and the supervision of the general course of the business of Euronext. The Supervisory Board may on its own initiative provide the Managing Board with advice and may request any information from the Managing Board that it deems appropriate. In performing their duties, the members of the Supervisory Board must act in the interests of Euronext and those of its business. The Supervisory Board is collectively responsible for carrying out its duties.

## Appointment and Dismissal

Members of the Supervisory Board are appointed by the General Meeting (i) in accordance with a proposal of the Supervisory Board or (ii) from a binding nomination to be drawn up by the Supervisory Board, with due observance of the profile (*profiel*) for the size and the composition of the Supervisory Board adopted by the Supervisory Board and reviewed annually. The profile sets out the scope and composition of the Supervisory Board, taking into account the nature of the business, its activities, and the desired expertise, experience, diversity and independence in matters of capital markets in general and in particular in the areas of finance, economics, human resources and organisation, information technology and data processing, legislation and regulation, legal matters and compliance.

The Articles of Association of Euronext provide that each member of the Supervisory Board is appointed for a maximum period of four years provided that unless such member of the Supervisory Board has resigned or is removed at an earlier date or unless otherwise specified in the relevant proposal for appointment, his or her term of office shall ultimately lapse immediately after the day of the first General Meeting to be held during the fourth year after the year of his or her appointment. An appointment can be renewed for a term of up to four years at a time.

The General Meeting may suspend or dismiss a member of the Supervisory Board at all times. The Supervisory Board can make a proposal for the suspension or dismissal of a member of the Supervisory Board. If the suspension or dismissal occurs in accordance with a proposal thereto by the Supervisory Board, a resolution of the General Meeting for suspension or dismissal of a member of the Supervisory Board requires an absolute majority of the votes cast. However, such resolution of the General Meeting requires a majority of at least two-thirds of the votes cast representing more than one third of the outstanding and issued share capital, if the suspension or dismissal does not occur in accordance with a proposal by the Supervisory Board.

## Meetings and Decision-Making

The Articles of Association provide that the Supervisory Board shall adopt resolutions by an absolute majority of the votes cast. Each member of the Supervisory Board has one vote. In the event of a tie of votes, the Chairman of the Supervisory Board has a casting vote.

A member of the Supervisory Board may not participate in the deliberation and the decision-making process of the Supervisory Board if it concerns a subject in which this member of the Supervisory Board has a direct or indirect personal interest which conflicts with the interest of Euronext and its business enterprise. In such event, the other members of the Supervisory Board shall be authorised to adopt the resolution. If all members of the Supervisory Board have a conflict of interest as indicated, the resolution shall nevertheless be adopted by the Supervisory Board, notwithstanding the conflict of interests. In 2018, no transactions have taken place in which members of the Managing Board and Supervisory Board were conflicted.

## Members of the Supervisory Board

The Articles of Association provide that the number of members of the Supervisory Board will be determined by the Supervisory Board and will consist of a minimum of three members. Only natural persons can be members of the Supervisory Board. In the event of a vacancy, the Supervisory Board continues to be validly constituted by the remaining member or members of the Supervisory Board.

As per 1 January 2018, the Supervisory Board was composed of Rijnhard van Tets, Koenraad Dom, Ramon Fernandez, Manuel Ferreira da Silva, Jim Gollan, Kerstin Günther, Lieve Mostrey, Franck Silvent and Dick Sluimers. Rijnhard van Tets and Koenraad Dom retired from the Supervisory Board following the Annual General Meeting that was held on 15 May 2018. In the same meeting, Manuel Ferreira da Silva and Lieve Mostrey were re-appointed to the Supervisory Board and Luc Keuleneer and Padraic O'Connor were appointed, subject to regulatory approval, to the Supervisory Board, each for a term of four years. The appointment of Luc Keuleneer and Padraic O'Connor took effect on 6 June 2018.

Following the retirement of Rijnhard van Tets on 15 May 2018, Dick Sluimers became the Chairman of the Supervisory Board. The chairman of the Supervisory Board is not a former member of the Managing Board of the company and is independent within the meaning of best practice provision 2.1.8 of the Dutch Corporate Governance Code.

Euronext has assessed that the appointment to the Supervisory Board in 2018 are in compliance with the requirements as included in the Dutch "Wet bestuur en toezicht" regarding the maximum number of Supervisory Board positions.

Luc Keuleneer and Padraic O'Connor took part in an induction program offered by Euronext. The induction program consisted of a series of meetings with key staff members, with whom the various aspects of Euronext business, clients and initiatives, governance and regulatory environment, finance and the risk and compliance program at Euronext were discussed.

The Supervisory Board consisted of nine members as at 31 December 2018 and was composed as follows:

### Dick Sluimers

Dick Sluimers is the Chairman of the Supervisory Board since 15 May 2018 and chairs the Nomination and Governance Committee. He was appointed to the Supervisory Board in 2016. He is also the Chairman of the Supervisory Board of Euronext Amsterdam N.V.

Mr Sluimers is the former CEO of APG group. He currently is Extraordinary State Councillor at the Dutch Council of State. Furthermore he is a member of the Supervisory Boards of AkzoNobel N.V., NIBC N.V. and Atradius N.V., as well as a member of the board of directors of FWD group Limited. He is also a member of the board of Governors of the State Academy of Finance and Economics, a Trustee of the Erasmus University Trustfund, a member of the board of the Amsterdam Concert Hall Fund, and a member of the Electoral Committee of the Dutch Liberal Party, and a member of the advisory boards of Quore Capital and Hemingway Corporate Finance.



Mr Sluimers was CFO and later CEO in the Management Board of pension fund ABP from 2003 to 2008. Between 1991 and 2003 he held various positions at the Dutch Ministry of Finance, most recently as Director General of the Budget. Prior to that he was Deputy Director General at the Ministry of Public Health and held senior positions at the Ministry of Social Affairs and the Ministry of Finance. In addition, he was a member of the Supervisory Boards of Fokker N.V., the National Investment Bank N.V., Inter Access N.V. and ABP Insurance N.V. He was also Trustee of the International Financial Reporting Standards Foundation (IFRS), a member of the Advisory Board of Rabobank, Chairman of the board of Governors of the Postgraduate Programme for Treasury Management at the Vrije Universiteit Amsterdam, a member of the Advisory Board of Netspar and a board member of Holland Financial Centre.

He studied economics at the Erasmus University in Rotterdam and read politics at the University of Amsterdam for several years.

### Ramon Fernandez

Ramon Fernandez is a member of the Supervisory Board, a member of the Remuneration Committee and a member of the Nomination and Governance Committee. He was appointed to the Supervisory Board in 2015.

Mr Fernandez has a dual experience in the public and private sectors. He is currently the Deputy CEO and Group Chief Financial and Strategy Officer of Orange. He is also the Chairman of the board of Orange Bank, a member of the board of directors at Orange Maroc, Orange Middle East Africa, Compagnie Financière d'Orange Bank and a member of the Supervisory Board at Orange Polska S.A., Euler Hermes and at Iris Capital Management S.A.S.

He is a graduate of the *Institut d'Études Politiques* and of the *École Nationale d'Administration*, Graduation Year 1993 – Léon Gambetta.

### Manuel Ferreira da Silva

Manuel Ferreira da Silva is a member of the Supervisory Board, a member of the Remuneration Committee and a member of the Nomination and Governance Committee. He was appointed to the Supervisory Board of Euronext N.V. in 2012.

Mr Ferreira da Silva is Vice-Chairman of the board of the SERRALVES Foundation, Museum of Contemporary Art. He served for thirty-five years as a banker at Banco BPI where he was executive member of the board for the last sixteen years and the CEO of its wholly-owned investment bank. He was a member and, between 2012 and 2014, Chairman of the council of the University of Porto School of Economics and is the Vice-Chairman of the Supervisory Board of Porto Business School. He was member of the board of the Lisbon and Porto Stock Exchanges between 2000 and 2001 and a member of the Advisory Board of the Portuguese Securities Market Commission (CMVM) between 2001 and 2005. Between 1980 and 1989, Mr Ferreira da Silva lectured at the University of Porto School of Economics and spent two years as an assistant director of the Navy's Centre of Operational Research. He graduated with a degree in Economics from the Universidade do Porto in 1980 and holds a MBA from the Nova School of Business and Economics (Lisbon, 1982).

### Jim Gollan

Jim Gollan is a member of the Supervisory Board and chairs the Audit Committee. He was appointed to the Supervisory Board in 2015. He is also the Chairman of Euronext London.

Previously, Mr Gollan was a board member of NYSE LIFFE and a non-executive director of Merrill Lynch International, where he chaired the board Risk Committee, and Bank of America Merrill Lynch International Limited, where he chaired the board. Currently, he is the Chair of the charity Brain Research UK. His executive career includes roles as Board Chair, CEO and CFO, working in the United Kingdom, Europe and Asia in banking, fund management and financial markets with Standard Chartered, Lloyds Bank, Gartmore and SIX group. Mr Gollan was also the practice leader of KPMG's Financial Services Consulting, Asia and is a Fellow of the Institute of Chartered Accountants in England and Wales.

### Kerstin Günther

Kerstin Günther is a member of the Supervisory Board and a member of the Audit Committee. She was appointed to the Supervisory Board in 2016.

Ms Günther is a senior digitalization and transformation executive with 26 years international management experience in the ICT sector. From 1991 till 2017 she worked for the Deutsche Telekom group with focus on Central and Eastern Europe, where she held various management positions. Ms Günther was Senior Vice President Technology (CTIO) Europe before she founded "Deutsche Telekom Pan-Net" in 2015, Deutsche Telekom's international, digital, virtualized infrastructure cloud and centralized European service production, which she lead as Managing Director until June 2017. Until March 2019, she was CFO and a member of the board of the foundation "Bürgerstiftung Rheinviertel" in Bonn, Germany. On April 2019, Ms Günther joined the Helmholtz Institute Munich as scientific technical Managing Director. From 2013 until 2017 she was Chairperson of the board of Magyar Telekom and Vice-Chairperson of the board of Slovak Telekom. She is a graduate of the Technical University of Wroclaw, Poland (MSc 1991) and of Case Western Reserve University Cleveland, USA (MBA 1999).

### Luc Keuleneer

Luc Keuleneer is a member of the Supervisory Board and a member of the Audit Committee. He was appointed to the Supervisory Board in 2018. He is also a member of the Supervisory Board of Euronext Amsterdam and a non-executive member of the board of directors of Euronext Brussels.

Mr Keuleneer is professor financial and treasury management at several universities in Belgium and the Netherlands. He is a non-executive director and member of the Audit Committee of SFPI-FPIM, the Federal Holding and Investment company of the Belgian state, and a number of other companies. He is the government commissioner of the Belgian "Protection fund for deposits and financial instruments". Previously, Mr Keuleneer worked for Paribas Bank Belgium, the Belgian Institute of Chartered Accountants, Deloitte & Touche Management Solutions KPMG



Corporate finance and as expert-advisor financial institutions and public enterprises to the Belgian Minister of Finance. He holds a MSc in Business Engineering of the Catholic University Leuven (Belgium) and a Master in Business Administration with a specialisation in finance from the University of Chicago (US), and has had additional training in Strategic Finance at IMD-Lausanne and in Financial risk management at the Swiss Finance Institute.

### Lieve Mostrey

Lieve Mostrey is a member of the Supervisory Board, chairs the Remuneration Committee, and is a member of the Nomination and Governance Committee. She was appointed to the Supervisory Board in 2014.

Since January 2017, Ms Mostrey has been appointed Chief Executive Officer of Euroclear group. Ms Mostrey joined Euroclear in 2010 as executive director and Chief Technology & Services Officer. Previously, Ms Mostrey was a member of the Executive Committee of BNP Paribas Fortis in Brussels, where she was responsible for IT technology, operations (including securities, payments, credit cards, mortgages, clients and accounts), property and purchasing. Ms Mostrey began her career in 1983 within the IT department of Generale Bank in Brussels, moving to Operations in 1997 and, upon its merger with Fortis in 2006, became country manager for Fortis Bank Belgium. She became Chief Operating Officer of Fortis Bank in 2008, which was acquired by BNP Paribas in 2009. She was also a non-executive director of the boards of Euroclear PLC and Euroclear S.A./N.V. between 2006 and 2010 and of ReadDolmen between 2013 and March 2017. Having earned a degree in civil engineering from Katholieke Universiteit Leuven in 1983, Ms Mostrey completed a post-graduate degree in economics from Vrije Universiteit Brussel in 1988.

### Padraic O'Connor

Padraic O'Connor is a member of the Supervisory Board and a member of the Remuneration Committee. He was appointed to the Supervisory Board in 2018. He previously was the Chairman of the Irish Stock Exchange.

Mr O'Connor is non-executive Chairman of USBank Global Fund Services (Ireland) Ltd, LGIM (Europe) Ltd and Sarasin Funds Management (Ireland) Ltd, and a non-executive director of Fideuram Asset Management Ireland DAC. He is also a director of European Wholesale Securities Market Limited, a subsidiary of Euronext. He was the Managing Director of NCB group between 1991 and 1999 prior to which he was Chief Economist at the firm. Before joining NCB, Mr O'Connor worked at the department of Finance and the Central Bank of Ireland. He holds primary and postgraduate degrees in Economics from University College Dublin.

### Franck Silvent

Franck Silvent is a member of the Supervisory Board and a member of the Audit Committee. He was appointed to the Supervisory Board in 2017.

Mr Silvent is a Managing Partner of Degroof Petercam Finance.

Mr Silvent worked in the French Ministry of Finance (Inspection Générale des Finances) as an auditor from 1998 to 2002. In 2002 he was appointed Deputy Director of Strategy, Finance, Management Control and Accounting at Caisse des Dépôts. From 2005 to 2012 he worked at Compagnie des Alpes (CDA) where he served as Director of Finance, Strategy and Development, before becoming Deputy CEO. From 2013 to August 2017, Mr Silvent has been Director of Finance, Strategy and Holdings at Caisse des Dépôts.

He graduated from the *École Nationale d'Administration*.

The table below contains information on the members of the Supervisory Board that has not been included above (as at 31 December 2018).

Name	Age	Gender	Nationality	Profession	Member since	Independent/ non-independent	End of current term
Dick Sluimers	65	Male	Dutch	Economist	14/07/2016	Independent	2020
Ramon Fernandez	51	Male	French	Deputy CEO	20/07/2015	Independent	2019
Manuel Ferreira da Silva	61	Male	Portuguese	Banker	15/03/2014	Independent	2022
Jim Gollan	63	Male	British	Accountant	20/07/2015	Independent	2019
Kerstin Günther	51	Female	German	Engineer	14/07/2016	Independent	2020
Luc Keuleneer	59	Male	Belgian	Professor	06/06/2018	Non-independent	2022
Lieve Mostrey	58	Female	Belgian	CEO	19/12/2014	Non-independent	2022
Padraic O'Connor	69	Male	Irish	Economist	06/06/2018	Independent	2022
Franck Silvent	46	Male	French	Managing Partner	03/11/2017	Non-independent	2021

Three members of the Supervisory Board, namely Luc Keuleneer, Lieve Mostrey and Franck Silvent, were proposed by the Company's Reference shareholders, who as a group hold more than ten percent of the Company's shares. The Company regards these three members of the Supervisory Board as non-independent within the meaning of the Dutch Corporate Governance Code. The background of the presence of three non-independent members in Euronext's Supervisory Board is related to the wish of Euronext College of Regulators for Euronext to have a number of stable, long-term shareholders.

Dutch law requires large Dutch companies to pursue a policy of having at least 30% of the seats on both the Managing Board and the Supervisory Board held by men and at least 30% of those seats held by women. Euronext qualifies as a large Dutch Company and does not meet these gender diversity targets with respect to the Supervisory Board, as two of the nine members are women. This is partly related to historical circumstances and partly to the sectors in which Euronext is active.

Euronext will continue to promote gender diversity within its Supervisory Board by striving to increase the proportion of female members by taking into account all relevant selection criteria including, but not limited to, gender balance, with regard to future appointments.

During 2018, no Supervisory Board member acted as a delegated Supervisory Board member, nor was any Supervisory Board member involved in Euronext's management.

As far as Euronext is aware, there were no transactions in which there were conflicts of interest with the members of the Supervisory Board that were of material significance to Euronext and/or to any of its subsidiaries during the 2018 financial year.

Euronext's Articles of Association provide for an indemnity for each present or former member of the Managing Board and each present or former member of the Supervisory Board against all costs, charges, losses and liabilities incurred by them in the proper execution of their duties or the proper exercise of their powers in any such capacities in the Company including, without limitation, any liability incurred in defending proceedings in which judgment is given in their favour or in which they are acquitted, or which are otherwise disposed of without a finding or admission of material breach of duty on their part, other than cases of willful misconduct or gross negligence (*opzet of grove nalatigheid*).

The Supervisory Board is supported by Euronext N.V.'s Company secretary, Paul Theunissen.

Euronext N.V.'s registered address serves as the business address for all members of the Supervisory Board, being Beursplein 5, 1012 JW, Amsterdam, the Netherlands.

## Committees of the Supervisory Board

### Audit Committee

As per 1 January 2018, the Audit Committee was composed of Jim Gollan, Koenraad Dom, Kerstin Günther, Franck Silvent and Dick Sluimers. Following the Annual General Meeting that was held on 15 May 2018, Koenraad Dom and Dick Sluimers retired from the Audit Committee and as per 1 July 2018 Luc Keuleneer was appointed to it. As per 31 December 2018, the Audit Committee was composed of Jim Gollan, Kerstin Günther, Luc Keuleneer and Franck Silvent. The Committee has been chaired by Jim Gollan throughout 2018. The Audit Committee is equally composed of independent and non-independent members.

The Audit Committee assists the Supervisory Board in supervising and monitoring the Managing Board by advising on matters such as the compliance by Euronext with applicable laws and regulations, Euronext's disclosure of financial information, including its accounting principles, the recommendation for the appointment of Euronext's external auditor to the General Meeting, the recommendations from Euronext's internal auditor and external auditor, and the review of the internal risk management and control systems and IT and business continuity safeguards, as well as technologies and security issues.

The roles and responsibilities of the Audit Committee as well as the composition and the manner in which it discharges its duties are set out in the charter of the Audit Committee included in the regulations of the Supervisory Board. The Audit Committee will meet as often as

the Chairman of the Audit Committee or a majority of the members of the Audit Committee deems necessary but in any event at least twice a year.

### Nomination and Governance Committee

As per 1 January 2018, the Nomination and Governance Committee was composed of Rijnhard van Tets, Ramon Fernandez, Manuel Ferreira da Silva and Lieve Mostrey. The Committee was chaired by Rijnhard van Tets. Following his retirement from the Supervisory Board and the Committee after the Annual General Meeting that was held on 15 May 2018, Dick Sluimers entered the Committee and became its Chairman. As per 31 December 2018, the Nomination and Governance Committee was composed of Dick Sluimers, Ramon Fernandez, Manuel Ferreira da Silva and Lieve Mostrey.

The responsibilities of the Nomination and Governance Committee relating to selection and appointment include recommending criteria and procedures to the Supervisory Board for the selection of candidates to the Managing Board and the Supervisory Board and its Committees, identifying and recommending to the Supervisory Board candidates eligible to serve on the Managing Board and the Supervisory Board and its Committees, establishing and overseeing self-assessment by the Managing Board and the Supervisory Board and its Committees, conducting timely succession planning for the CEO and the other positions of the Supervisory Board and the Managing Board and reviewing and evaluating the size, composition, function and duties of the Managing Board and the Supervisory Board, consistent with their respective needs.

The responsibilities of the Nomination and Governance Committee relating to governance include the supervision and evaluation of compliance with the Dutch Corporate Governance Code.

The roles and responsibilities of the Nomination and Governance Committee as well as the composition and the manner in which it discharges its duties are set out in the charter of the Nomination and Governance Committee included in the regulations of the Supervisory Board. The Nomination and Governance Committee will meet as often as necessary and whenever any of its members requests a meeting.

### Remuneration Committee

As per 1 January 2018, the Remuneration Committee was composed of Lieve Mostrey, Ramon Fernandez and Manuel Ferreira da Silva. As per July 2018, Pdraic O'Connor was appointed to the Committee. As per 31 December 2018, the Remuneration Committee was composed of Lieve Mostrey, Ramon Fernandez, Manuel Ferreira da Silva and Pdraic O'Connor. The Committee has been chaired by Lieve Mostrey throughout 2018.

The responsibilities of the Remuneration Committee include analysing the possible outcomes of the variable remuneration components and how they may affect the remuneration of the members of the Managing Board, preparing proposals for the Supervisory Board concerning remuneration policies for the Managing Board to be adopted by the General Meeting, preparing proposals for the Supervisory Board concerning the terms of the service agreements and total compensation of the individual members of the Managing Board, preparing proposals for the Supervisory Board concerning the performance criteria and the application thereof for the Managing Board, preparing proposals for

the Supervisory Board concerning the approval of any compensation plans in the form of share or options, reviewing the terms of employment and total compensation of employees directly reporting to the Managing Board and the total compensation of certain other specified employees, defined in consultation with the Managing Board, overseeing the total cost of the approved compensation programmes, preparing and publishing on an annual basis a report of its deliberations and findings and appointing any consultant in respect of executive remuneration.

The roles and responsibilities of the Remuneration Committee as well as the composition and the manner in which it discharges its duties are set out in the charter of the Remuneration Committee included in the regulations of the Supervisory Board. The Remuneration Committee will meet as often as necessary and whenever any of its members requests a meeting.

Other than as set out in section 2.1 above and in accordance with provision 2.1.10 of the Code, the Supervisory Board complies with the requirements of independence, as set out in the best practice provisions 2.1.7 -2.1.9 of the Code.

### 2.2.5 MANAGING BOARD

The Managing Board is responsible for the day-to-day management of the operations of Euronext and is supervised by the Supervisory Board. As described in the Articles of Associations, the Managing Board is required to inform or seek approval from the Supervisory Board depending on the matter. In performing their duties, the members of the Managing Board must act in the interests of Euronext and those of its business. The Managing Board as a whole is authorised to represent Euronext.

As per rules of procedure of the Managing Board, the Managing Board currently consists of the Chief Executive Officer ("CEO") of the Euronext group, the Head of Markets and Global Sales and the CEOs of the local exchanges. The members of the Managing Board are appointed by the General Meeting only in accordance with a proposal of the Supervisory Board or upon a binding nomination by the Supervisory Board. Prior to making a nomination, the proposed nomination must be submitted to the College of Regulators and the Dutch Ministry of Finance for approval.

The Managing Board shall adopt resolutions by an absolute majority of the votes cast knowing that conflicted members cannot participate and that the Chairman of the Managing Board has a casting vote.

The following matters require the approval of the Supervisory Board:

- issue and acquisition of shares in the capital of Euronext and debt instruments issued by it or of debt instruments issued by a limited partnership or general partnership of which Euronext is a fully liable partner;
- application for admission of such shares to trading on a regulated market or a multilateral trading facility as described in section 1: 1 of the Dutch Financial Supervision Act or a similar system comparable to a regulated market or multilateral trading facility from a state which is not a member state or the withdrawal of such admission;
- a proposal to reduce the issued share capital;

- entering into or terminating a long-term cooperation with a legal entity or company or as fully liable partner in a limited partnership or general partnership, if such cooperation or termination is of major significance to Euronext;
- the acquisition or disposal of a participating interest in the capital of a company, if the participating interest represents an amount of at least €25 million or such greater amount as the Supervisory Board may determine from time to time and communicates to the Managing Board in writing;
- other investments representing an amount of at least of €25 million or such greater amount as the Supervisory Board may determine from time to time and communicates to the Managing Board in writing;
- a proposal to amend the Articles of Association;
- a proposal to dissolve Euronext;
- a proposal to conclude a legal merger or a legal demerger or to convert Euronext in another legal form;
- application for bankruptcy and for suspension of payments;
- termination of the employment of a considerable number of employees at the same time or within a short period of time;
- far-reaching changes in the employment conditions of a significant number of employees, or far-reaching changes in management incentive schemes or pension schemes;
- the annual budget for the next financial year, including the underlying budgets of the Euronext Market Subsidiaries; and
- proposed investments not covered by the budgets referred to in the preceding paragraph, including proposed investments submitted to the Managing Board by any of the local exchanges, in each case involving an amount greater than such amount as the Supervisory Board may determine from time to time and communicates to the Managing Board in writing.

Additionally, pursuant to Dutch law, resolutions of the Managing Board involving a major change in Euronext's identity or its business require the prior approval of the General Meeting and the Supervisory Board, which in any case include:

- the transfer of the enterprise or practically the whole enterprise to third parties;
- the entering into or the termination of a long-term joint cooperation with another legal entity or company or as fully liable partner in a limited partnership or a general partnership if this cooperation or termination of such a cooperation is of major significance to Euronext;
- the acquisition or disposal of a participating interest in the capital of a company having a value of at least one-third of the amount of the assets according to the balance sheet with explanatory notes thereto, or if Euronext prepares a consolidated balance sheet, according to such consolidated balance sheet with explanatory notes in the last adopted annual accounts.

The Rules of Procedure of the Managing Board provide that the Managing Board of a Euronext Market Subsidiary has the right to reject a resolution by the Managing Board if such resolution solely or principally has an impact on the exchange operated by such Euronext Market Subsidiary and such impact is material or of

strategic importance for the Exchange operated by such Euronext Market Subsidiary. Each member of the Managing Board of such Euronext Market Subsidiary has the right to request that the item is placed on the agenda of the Supervisory Board of Euronext. The Supervisory Board shall then discuss the matter with the Managing Board of Euronext, and consider the arguments of the Managing Board of the Euronext Market Subsidiary, following which the Supervisory Board will take a final and binding decision on the matter.

## Members of the Managing Board

The table below lists the members of the Managing Board at 31 December 2018.

Name	Age	Position	Appointed on
Stéphane Boujnah	54	Group CEO	4 November 2015
Anthony Attia	44	CEO Euronext Paris & Global Head of Listing and Post Trade	15 March 2014
Daryl Byrne	46	CEO Euronext Dublin & Head of Debt & Funds Listings and ETFs	24 October 2018
Chris Topple	45	CEO Euronext London & Head of Global Sales	24 October 2018
Vincent Van Dessel	60	CEO Euronext Brussels	15 March 2014
Maurice van Tilburg	47	CEO Euronext Amsterdam	6 May 2015

On 1 January 2018, the Managing Board was composed of Stéphane Boujnah (Chairman), Anthony Attia, Paulo da Silva, Lee Hodgkinson, Vincent Van Dessel and Maurice van Tilburg.

Lee Hodgkinson resigned from the Managing Board on 19 March 2018.

Deirdre Somers was appointed to the Managing Board on 6 June 2018 and left the Company on 19 September 2018.

Daryl Byrne and Chris Topple were appointed to the Managing Board on 24 October 2018.

On 27 November 2018, Euronext announced that Isabel Ucha would join the Managing Board (subject to regulatory approval) as successor to Paulo da Silva. Paulo da Silva resigned with effect from 31 December 2018. Isabel Ucha's appointment will be on the agenda of the Annual General Meeting that will be held on 16 May 2019. She will also succeed Paulo da Silva as CEO of Euronext Lisbon and as CEO of Interbolsa. A biography of Isabel Ucha is provided below

## Appointment and Dismissal

Members of the Managing Board are appointed by the General Meeting of shareholders (i) in accordance with a proposal of the Supervisory Board or (ii) from a binding nomination to be drawn up by the Supervisory Board.

The General Meeting of shareholders may suspend or dismiss a member of the Managing Board at all times. Managing Board members may also be suspended by the Supervisory Board.

the biographies of the members of the Managing Board and Senior management.

All members of the Managing Board who were appointed before Euronext N.V. became a listed company were appointed for an indefinite period of time; the appointments that occurred since were made in compliance with the Dutch Corporate Governance Code for four years terms. All appointments' terms will progressively be compliant with the Dutch Corporate Governance Code.

Euronext has assessed that the appointment to the Managing Board in 2018 is in compliance with the requirements as included in the Dutch "Wet bestuur en toezicht" regarding the maximum number of Supervisory Board positions.

Euronext's registered address serves as the business address for all members of the Managing Board, being Beursplein 5, 1012 JW, Amsterdam, the Netherlands.



**Age:**  
54

**Nationality:**  
French

**First appointment:**  
2015

**Location:**  
Euronext Paris  
14, place des Reflets,  
92054, Paris La Défense

### Stéphane Boujnah

#### CEO and Chairman of the Managing Board

##### Previous experiences:

Head of Santander Global Banking and Markets for continental Europe

##### Biography:

Stéphane Boujnah has been the CEO of Euronext and Chairman of the Managing Board of Euronext since 2015. Before joining Euronext, Mr Boujnah was Head of Santander Global Banking and Markets for continental Europe. From 2005 to 2010, he was Managing Director at Deutsche Bank responsible for the development of the investment banking operations in France. Previously he founded KM5 Capital, an advisory company specialised in equity raising and M&A advice for venture capital funds and innovative technology companies. From 2000 to 2002, he was Director of the European M&A team of Credit Suisse First Boston Technology Group in Palo Alto and London. From 1997 to 1999, Mr Boujnah was senior adviser to the French Minister for Economy, Finance and Industry. He began his career in 1991 as a business lawyer at Freshfields.

Mr Boujnah was a member of the Commission pour la Libération de la Croissance Française established by the then President Nicolas Sarkozy in 2007. He is founder and Vice-President of the Board of directors of the think tank En Temps Réel and President of the board of directors of Accentus and Insula Orchestra.

He is also a member of the Board of Euronext Dublin.

He graduated from the Institut d'Etudes Politiques de Paris. He holds a Master degree and a DEA in Law from La Sorbonne Paris, a LL.M. in Law from the University of Kent, and a MBA from Insead.

##### Other current mandates:

- Board member of Euronext Dublin
- Vice-President of the Board of directors of the think tank En Temps Réel
- President of the board of directors of Accentus and Insula Orchestra



**Age:**  
44

**Nationality:**  
French

**First appointment:**  
2014

**Location:**  
Euronext Paris  
14, place des Reflets,  
92054, Paris La Défense

### Anthony Attia

#### CEO of Euronext Paris, Global Head of Listing and Post Trade

##### Previous experiences:

Chief of staff to the President and Deputy CEO of NYSE Euronext

##### Biography:

Anthony Attia has been the CEO of Euronext Paris since 2014. He is also Global Head of Listing and Post Trade for the group. From 2010 to 2013, based in New York, he served as Chief of Staff to the President and Deputy CEO of NYSE Euronext. Areas of responsibilities included strategy, technology and integration. In 2008, following the merger between NYSE and Euronext, he was appointed Senior Vice President in charge of designing and deploying the Universal Trading Platform across all markets. In 2004, he served as Executive Director, Head of Operations for Euronext. He was responsible for market surveillance, the operational relationship with customers, and business development projects in Amsterdam, Brussels, Lisbon and Paris. In 2000, he was the Program Director for the Euronext integration, in charge of migrating the French, Belgian and Dutch exchanges to the Euronext single order book and NSC trading system. Since he joined Société des Bourses Françaises in 1997, he has held a number of responsibilities including market organisation, business strategy, mergers and integration, and trading system design. He is a member of the board and audit committee of LCH SA, a director of Euronext Dublin and the Vice President of FESE, the Federation of European Exchanges. He is also the Chairman of the Board of Directors of Liquidshare, the blockchain company redefining post trade for European SMEs. He holds an Engineering degree in computer science, applied mathematics and finance from the Institut d'Informatique d'Entreprise and also studied at Insead.

##### Other current mandates:

- Member of the board and audit committee of LCH SA
- Director of Euronext Dublin
- Vice President of FESE
- Chairman of the Board of Directors of Liquidshare





## Daryl Byrne

CEO of Euronext Dublin, Head of Debt & Funds Listings and ETFs

### Previous experiences:

Chief Regulatory Officer of Euronext Dublin

### Biography:

Daryl Byrne became the CEO of Euronext Dublin and the Head of Debt & Funds Listings and ETFs in 2018. He joined the Irish Stock Exchange in 2000 and has held a number of senior management roles. Since 2011, as Chief Regulatory Officer, he was responsible for Euronext Dublin's regulatory functions and operations relating to the listing of financial instruments on Euronext Dublin's markets, across multiple asset classes including equity, debt and funds. He was also responsible for Euronext Dublin's regulatory engagement with issuers and market participants, as well as domestic and EU regulatory authorities. Mr Byrne was instrumental in the development of Euronext Dublin's global markets for securities. Previously he held the position of Head of Strategy Planning and Brand. He is a member of the board of ISE OldCo Ltd. Mr Byrne currently participates on the ESMA Corporate Finance Standing Committee Consultative Working Group and the European Corporate Governance Codes Network, and is a former member of the Irish REITs Forum and the Company Law Review Group. Mr Byrne is a Fellow Chartered Accountant and holds a Bachelor of Business Studies degree from Trinity College Dublin.

### Other current mandates:

- Member of the board of ISE OldCo Ltd
- ESMA Corporate Finance Standing Committee Consultative Working Group
- European Corporate Governance Codes Network

**Age:**  
46

**Nationality:**  
Irish

**First appointment:**  
2018

**Location:**  
Euronext Dublin  
28 Anglesea Street,  
Dublin 2



## Chris Topple

CEO of Euronext London, Head of Global Sales

### Previous experiences:

Co-head of Societe Generale Prime Services

### Biography:

Chris Topple joined Euronext as CEO of Euronext London and Head of Global Sales in 2018. He is also a member of the boards of Euronext UK Holdings, Algomi and AlgoNext. Previously, Mr Topple has been co-head of Societe Generale Prime Services, a global multi-asset, multi-instrument prime brokerage proposition, including financing, custody and execution. Before that, he was responsible for leading the Prime Brokerage and Clearing Services (PCS) sales teams globally within Societe Generale's Newedge Group. Mr Topple joined Newedge from Lehman Brothers / Nomura in 2012, where he spent five years as Co-Head of Prime Brokerage Sales. Prior to Lehman Brothers, he worked for JP Morgan from 1993 to 2005 in a variety of senior roles, including Global Head of Electronic Trading Sales across Fixed Income, European Head of Fixed Income Prime Brokerage Sales and Head of European Clearing Sales. Mr Topple holds a BSc in European Business with Technology Politecnico di Torino from Italy and Brighton Polytechnic.

### Other current mandates:

- Member of the board of Euronext UK Holdings
- Member of the board of Algomi
- Member of the board of AlgoNext

**Age:**  
45

**Nationality:**  
British

**First appointment:**  
2018

**Location:**  
Euronext London  
10th floor,  
110 Cannon Street,  
London EC4N 6EU



**Age:**  
60

**Nationality:**  
Belgian

**First appointment:**  
2014

**Location:**  
Euronext Brussels  
Rue du Marquis 1,  
Bte 1-Markiesstraat,  
1, bus 1, 1000 Brussels

## Vincent Van Dessel

**CEO of Euronext Brussels**

### Previous experiences:

CEO of Euronext Brussels

### Biography:

Vincent Van Dessel has been the CEO of Euronext Brussels since 2009. From 2003 to 2009, Mr Van Dessel was General Manager of Euronext Brussels. From 2000 to 2003, he was Chairman of the Market Authority of the Brussels Exchanges, responsible for members' admission, listing, company information and the supervision of the markets. Upon the merger of the Amsterdam, Paris and Brussels exchanges into Euronext in 2000, he became member of the Executive Committee of Euronext N.V. Group. He joined the Brussels Stock Exchange in 1992 as Director Markets and Listing and later became member of the Managing Board of the Brussels Exchanges. Mr Van Dessel started his career as a stockbroker in 1984. Mr Van Dessel is a director of Enternext S.A.. He has an MSc in Applied Economics from KU Leuven University and is also a regular guest lecturer at several universities, including the Paris Sorbonne. He has also been a member of the Euribor Steering Committee.

### Other current mandates:

- Director of Enternext S.A.
- Member of the Euribor Steering Committee



**Age:**  
47

**Nationality:**  
Dutch

**First appointment:**  
2015

**Location:**  
Euronext Amsterdam  
Beursplein 5,  
1012 JW Amsterdam

## Maurice van Tilburg

**CEO of Euronext Amsterdam**

### Previous experiences:

Head of Business Projects & Design of the European Equity and Equity Derivatives Markets at Euronext

### Biography:

Maurice van Tilburg has been the CEO of Euronext Amsterdam since 2015. He is responsible for driving the Client Centricity program for the Euronext group and for all European Market Operations since 2017. This includes operational for markets in Paris, Amsterdam, Brussels, Lisbon, London as well as markets that are operated on behalf of other exchanges or MTFs. Until this appointment to the Managing Board, he was Head of Business Projects & Design of the European Equity and Equity Derivatives Markets at Euronext, where he was responsible for the process reform of business initiatives and project delivery of new products and services. Prior to that Mr Van Tilburg was in charge of issuer support and execution of corporate actions across all Euronext Cash Markets in Europe. Mr Van Tilburg started his career in the exchange sector in 1995 at the EOE Options Exchange in Amsterdam and then moved to Euroclear Netherlands where he was responsible for the operational delivery of all settlement and custody services for the Dutch market. Mr Van Tilburg is a member of the Supervisory Boards of Company Webcast B.V. iBabs B.V. and MSI Services B.V., and a director of Enternext S.A. He is also a board member of the Dutch Securities Institute and a member of the advisory committee of the AFM. Mr Van Tilburg holds an engineering degree and a post graduate audit degree from the VU University Amsterdam.

### Other current mandates:

- Member of the Supervisory Boards of Company Webcast B.V. iBabs B.V. and MSI Services B.V.
- Director of Enternext S.A.
- Board member of the Dutch Securities Institute
- Member of the advisory committee of the AFM

## Senior Management

### Alain Courbebaisse

Alain Courbebaisse is the Chief Information and Technology Officer of the Company. He leads the IT function across Euronext. Mr Courbebaisse joined Euronext in 2017.

Prior to joining Euronext, Mr Courbebaisse was Head of Prime Brokerage and Clearing Services and Head Of Platform Sales at Societe Generale Americas Services, and prior to this he was the Global CIO of Newedge. In his earlier roles, he was European CIO and Global head of Development at Fimat, Head of IT at Draeger Medical S.A., Consultant and Developer for IBM. Mr Courbebaisse is President of Euronext Technologies S.A.S., Chairman of the board of FastMatch Inc., a member of the Supervisory Board of Tredzone and a member of the boards of Euronext IP & IT Holding B.N., Euronext Synapse LLC, Euronext Technologies Unipessoal Lda, and AlgoNext Ltd. Mr Courbebaisse graduated from Conservatoire National des Arts et Metiers in Computer science.

### Simon Gallagher

Simon Gallagher is Head of Cash and Derivatives at Euronext, with overall P&L responsibility for these activities, including the product offer, market model, client strategy and liquidity programmes. Current priorities include revamping Euronext's retail and institutional offers, with a particular focus on enhancing liquidity experience of institutional traders, as well as the development of Euronext Block, a Large-in-Scale block trading MTF for Equities. Prior to this role, he held several positions within Euronext in Corporate Finance and Strategy, and occupied various roles in the oil and gas sector. He is a CFA charter-holder who holds an MBA from the University of Birmingham and a degree in Economics from the University of Surrey.

### Amaury Houdart

Amaury Houdart is the Chief Talent Officer of the Company. He leads the Human Resources function and strategic initiatives related to employee engagement, talent development, and organisational changes across Euronext. Mr Houdart joined Euronext in 2016.

Prior to joining Euronext, Mr Houdart was Group Director of Human Resources and Employee Shareholding at Groupe Steria SCA, a leading European IT services company. In his earlier roles, he was Business Consulting Manager, Mergers & Acquisitions Director and then Human Resources Director at Unilog LogicaCMG, a leading international IT services company. Mr Houdart graduated from Paris Dauphine University in International Affairs.

### Catherine Langlais

Catherine Langlais is the Executive Legal Director and General Counsel of the Company. Catherine Langlais joined Euronext Paris' subsidiary Matif S.A. (the French Derivatives exchange) in 1990. Prior to joining Euronext, she had been working since 1977 as an in-house lawyer at Credit National, a French bank (now Natixis). Ms Langlais was involved in the creation of the Euronext group in 2000 and its subsequent listing in Paris in 2001. She was also involved in the merger of NYSE with Euronext in 2007,

the acquisition of NYSE Euronext by ICE in 2013 and subsequent separation and IPO of Euronext in 2014.

Ms Langlais has been the executive director of Legal and Regulatory Affairs of the Euronext group since 2004, and was a member of the Management Committee of NYSE Euronext. Her present responsibilities include participating in strategy, development policy, and the supervision of all legal matters for the Euronext group. In addition, she coordinates and manages the regulatory and public affairs tasks of the Euronext markets (encompassing Amsterdam, Brussels, Lisbon, London and Paris): rulebook preparation, discussions with the Euronext College of Regulators and approval of all regulatory matters. She also coordinates Euronext group's corporate social responsibility activities. Ms Langlais is also a member of the board of directors of Euroclear Holding S.A./N.V. and of Euroclear S.A./B.V. She graduated from the Paris XI Sorbonne University in International Law and from the Paris IV-Sorbonne University in Anglo-American civilisation and literature. Ms Langlais has been a *Chevalier de la Légion d'Honneur* since 2009.

### Giorgio Modica

Giorgio Modica is the Chief Financial Officer of the Company. He joined Euronext in 2016. His responsibilities include both Euronext's financial and corporate facilities and services. Mr Modica joined from BNP Paribas (Paris and Milan), where he was a senior Corporate Finance banker in Financial Institutions for nine years, holding the responsibility for the Stock Exchange sector globally and for the overall FIG markets in Italy and Spain. In over fifteen years of international investment banking experience, Mr Modica covered both M&A and ECM, as well as the structuring of financing solutions (equity and debt).

Since 2011, as advisor to NYSE Euronext and then Euronext, Mr Modica has supported the Euronext group very closely throughout its key milestone transactions, including the attempted combination with Deutsche Börse, the carve-out of Euronext and its subsequent IPO. Mr Modica started his career at the venture capitalist firm MyQube in Geneva, and then moved to investment banking at HSBC in Milan and MCC/Capitalia in Rome. He is a director of Euronext UK Holdings Ltd, Euronext US Inc., FastMatch Inc., Euronext Dublin, and Irish Stock Exchange Services Limited. Mr Modica graduated cum-laude from Bocconi University and holds a Master in Finance from SDA Bocconi.

### Isabel Ucha

Isabel Ucha joined Euronext in 2007 and has been a board member of Euronext Lisbon since 2014. She has gathered significant experience in developing and supporting the Company's commercial activity and product development in Portugal, and established strong ties with the government, regulators and other actors in the ecosystem. She was also part of the team that set up the Euronext Technology Centre in Porto. She is also a member of the board of Enternext.

Ms Ucha has held positions in both the private and public sectors, namely as Head of Issuing and Markets for the Portuguese Debt Management office (IGCP), and with the issuers division of CMVM, the Portuguese securities regulator. She also served twice in the Government of Portugal, as an economic advisor for the Prime Minister for four years, and earlier in her career in the Foreign Affairs Ministry.

Prior to joining Euronext, Ms Ucha spent seven years as partner for a consultancy company. She holds a Master Degree in Finance from London Business School, and a Degree and Master in Economics from Universidade Católica and Universidade Nova. On 27 November 2018, Euronext announced that Isabel Ucha would join the Managing Board (subject to regulatory approval) as successor to Paulo da Silva. Paulo da Silva resigned with effect from 31 December 2018. Isabel Ucha's appointment will be on the agenda of the Annual General Meeting that will be held on 16 May 2019. She will also succeed Paulo da Silva as CEO of Euronext Lisbon and as CEO of Interbolsa.

### Diversity

Dutch law requires large Dutch companies to pursue a policy of having at least 30% of the seats on both the Managing Board and the Supervisory Board held by men and at least 30% of those seats held by women. Euronext qualifies as a large Dutch Company and currently does not meet these gender diversity targets with respect

to the Managing Board, as less than 30% of its members are women. This is partly related to historical circumstances and partly to the sectors in which Euronext is active. The Managing Board is composed of all countries of Euronext representatives. Out of eleven members (including Senior Management members and Stéphane Boujnah), one is a woman. The appointee to the Managing Board is a woman.

The Senior Leadership team in 2018 was composed of 27% of women. The balance of country representation was the following: 55% France, 13% the Netherlands, 8% United Kingdom, 8% Portugal, 7% Belgium, 7% Ireland and 2% United States. The average age of this group is 46 years.

Euronext will continue to promote gender diversity within its Managing Board by striving to increase the proportion of female members by taking into account all relevant selection criteria including, but not limited to, gender balance, with regard to future appointments.

## 2.3 Report of the Supervisory Board

### 2.3.1 MEETINGS

The Supervisory Board met thirteen times in 2018: there were seven in-person meetings and six conference calls.

### 2.3.2 SUPERVISORY BOARD ATTENDANCE RECORD

On average, 92.3% of the Supervisory Board members were present at these meetings. Not taking part in the Supervisory Board's deliberations in relation to a potential conflict of interest is not counted as being absent.

In 2018, thirteen Supervisory Board meetings were held.

Name	Attended	Absence ratio
Dick Sluimers	13 out of 13 meetings	0%
Koenraad Dom (retired 15 May 2018)	4 out of 4 meetings	0%
Ramon Fernandez	9 out of 13 meetings	30.77%
Manuel Ferreira da Silva	12 out of 13 meetings	7.69%
Jim Gollan	12 out of 13 meetings	7.69%
Kerstin Günther	12 out of 13 meetings	7.69%
Luc Keuleneer (appointed 6 June 2018)	9 out of 9 meetings	0%
Lieve Mostrey	12 out of 13 meetings	7.69%
Padraic O'Connor (appointed 6 June 2018)	9 out of 9 meetings	0%
Franck Silvent	12 out of 13 meetings	7.69%
Rijnhard van Tets (retired 15 May 2018)	4 out of 4 meetings	0%

In 2018, six Audit Committee meetings were held.

Name	Attended	Absence ratio
Jim Gollan	6 out of 6 meetings	0%
Koenraad Dom (retired 15 May 2018)	4 out of 4 meetings	0%
Kerstin Günther	6 out of 6 meetings	0%
Luc Keuleneer (appointed 1 July 2018)	2 out of 2 meetings	0%
Franck Silvent	4 out of 6 meetings	33.33%
Dick Sluimers (retired 15 May 2018)	4 out of 4 meetings	0%

In 2018, six Nomination and Governance Committee meetings were held.

Name	Attended	Absence ratio
Dick Sluimers (appointed 15 May 2018)	4 out of 4 meetings	0%
Ramon Fernandez	4 out of 6 meetings	33.33%
Manuel Ferreira da Silva	5 out of 6 meetings	16.67%
Lieve Mostrey	4 out of 6 meetings	33.33%
Rijnhard van Tets (retired 15 May 2018)	2 out of 2 meetings	0%

In 2018, six Remuneration Committee meetings were held.

Name	Attended	Absence ratio
Lieve Mostrey	5 out of 6 meetings	16.67%
Ramon Fernandez	3 out of 6 meetings	50%
Manuel Ferreira da Silva	5 out of 6 meetings	16.67%
Padraic O'Connor (appointed 1 July 2018)	2 out of 2 meetings	0%

Most Supervisory Board meetings were also attended by all or by most members of the Managing Board. In addition, several managers were invited to discuss specific items included on the Supervisory Board's agenda.

### 2.3.3 SUPERVISORY BOARD ACTIVITIES

The Supervisory Board was informed and consulted by the Managing Board in almost all of its meetings on the course of business and the main risks attached to it, Euronext's financial and operational performance and matters related to the Euronext's governance and strategy. Large parts of the meetings of the Supervisory Board that were held on 16 March 2018 and 9 November 2018 were dedicated to Euronext's strategy.

During the meetings held in 2018, the Supervisory Board approved the quarterly and semi-annual statements, the semi-annual report, the annual report for 2017, the budget for 2019, and the agendas of the General Meetings, including the nomination for appointments to the Supervisory Board and the Managing Board, the nomination of the external auditor, and a proposal regarding the dividend. All meetings of the Supervisory Board were prepared by the Chairman of the Managing Board in close co-operation with the Chairman of the Supervisory Board.

### 2.3.4 BOARD EVALUATION

The annual evaluation of the Supervisory Board, its Committees and Managing Board by the Supervisory Board relating to the year 2018 took place in January and February 2019. This evaluation was conducted through questionnaires, the results of which were compiled by the Corporate Secretary. The report on the outcome of the questionnaires was discussed initially by the Nomination and Governance Committee and subsequently by the Supervisory Board as a whole.

The topics included in the questionnaires covered, among other items, the interaction with the Managing Board, the Supervisory Board meetings, Chairmanship, communications, decision making processes, lessons learned from events that occurred through the year, succession and development planning, shareholder value, the composition and profile of the Supervisory Board, the Committee structure and the competencies and expertise of its members.

The performance of the individual Management Board members and the Management Board as a whole was discussed during the physical meetings of the Nomination and Governance Committee and the executive session of the Supervisory Board in February 2019.



After discussing the results of the questionnaires, the Supervisory Board concluded that the Supervisory Board and its Committees had properly discharged their responsibilities during 2018. During the board evaluation, the Supervisory Board further concluded that the relation and interaction with the Managing Board, including the flow of information, was good. The Chair of the Remuneration Committee led the review of the performance of the Chairman. The Supervisory Board concluded that the Chairman had performed his duties well.

The Supervisory Board and its Committees agreed that during 2019 they will increase their attention for items such as post-acquisition integration, technology and culture.

### 2.3.5 REPORT AUDIT COMMITTEE

As per 1 January 2018, the Audit Committee was composed of Jim Gollan, Koenraad Dom, Kerstin Günther, Franck Silvent and Dick Sluimers. Following the Annual General Meeting that was held on 15 May 2018, Koenraad Dom and Dick Sluimers retired from the Audit Committee and as per 1 July 2018 Luc Keuleneer was appointed to it. As per 31 December 2018, the Audit Committee was composed of Jim Gollan, Kerstin Günther, Luc Keuleneer and Franck Silvent. The Committee has been chaired by Jim Gollan throughout 2018.

The Audit Committee convened six times in 2018. These meetings were regularly attended by, in addition to the members of the Audit Committee, the Chairman of the Supervisory Board, the CEO, the CFO, the member of the Managing Board in charge of Operations, the Chief Information and Technology Officer, the Head of Risk and Compliance department, the General Counsel, the Head of Internal Audit and the external auditors.

In addition, the Audit Committee held regular individual discussions with the external auditors and the Head of Internal Audit. The Supervisory Board was regularly informed about the results of these discussions. The Chairman of the Audit Committee reported to the Supervisory Board about the activities of the Committee and about its meetings and discussions in the Supervisory Board meetings.

Among the items that were discussed by the Audit Committee were the annual, semi-annual and quarterly figures, risk management, the investor base, the share price development, the appointment of the external auditors, the internal and external audit planning and reports, litigations, and the external auditors' reports.

### 2.3.6 REPORT REMUNERATION COMMITTEE

As per 1 January 2018, the Remuneration Committee was composed of Lieve Mostrey, Ramon Fernandez and Manuel Ferreira da Silva. As per 1 July 2018, Padraic O'Connor was appointed to the Committee. As per 31 December 2018, the Remuneration Committee was composed of Lieve Mostrey, Ramon Fernandez, Manuel Ferreira da Silva and Padraic O'Connor. The Committee has been chaired by Lieve Mostrey throughout 2018.

The Remuneration Committee held six meetings in 2018. The Committee focused on reviewing short term and long term incentives decisions after year end results, with a specific focus on Managing Board members. The Committee also reviewed a Compensation policy adjustment proposal and proposed compensation for new hires. In 2018, the Remuneration Committee:

- proposed to the Supervisory Board an adjustment of the Remuneration Policy for the Managing Board, following an external benchmark delivered in 2017. The proposed amended Remuneration Policy was adopted by the General Meeting on 15 May 2018;
- proposed to the Supervisory Board an adjustment of the remuneration structure for the Supervisory Board. The proposed amended remuneration structure was adopted by the General Meeting on 15 May 2018;
- analysed as every year the outcome of the annual performance criteria, their impact on short term incentive, long term incentive and total compensation of the members of the Managing Board, and proposed subsequent decisions to the Supervisory Board;
- reviewed as every year the total cost of the approved compensation programs for all employees, and proposed subsequent decisions to the Supervisory Board;
- analysed and proposed terms and conditions for new senior hires, in line with the Remuneration Policy.

### 2.3.7 REPORT NOMINATION AND GOVERNANCE COMMITTEE

As per 1 January 2018, the Nomination and Governance Committee was composed of Rijnhard van Tets, Ramon Fernandez, Manuel Ferreira da Silva and Lieve Mostrey. The Committee was chaired by Rijnhard van Tets. Following his retirement from the Supervisory Board and the Committee after the Annual General Meeting that was held on 15 May 2018, Dick Sluimers entered the Committee and became its Chairman. As per 31 December 2018, the Nomination and Governance Committee was composed of Dick Sluimers, Ramon Fernandez, Manuel Ferreira da Silva and Lieve Mostrey.

The Nomination and Governance Committee met six times in 2018. Topics that were discussed in the Committee's meetings included the evaluation and assessment of the Managing Board, the evaluation and assessment of the Supervisory Board, the composition of the Managing Board, the composition and rotation schedule of the Supervisory Board and succession planning.

### 2.3.8 FINANCIAL STATEMENTS

The Managing Board has prepared the 2018 Financial Statements and has discussed these with the Supervisory Board. The Financial Statements will be submitted for adoption at the 2019 Annual General Meeting as part of the Registration Document.

## 2.4 Remuneration Report

### 2.4.1 REMUNERATION POLICY

#### Remuneration

The principles of Euronext's remuneration policy are to ensure adequate performance based rewards are strongly aligned with shareholders' short-term and long-term interests creating the ability for the Company to attract and retain high calibre staff at all levels.

Therefore Euronext's remuneration policy:

- creates a remuneration structure that will allow the Company to attract, reward and retain qualified executives; and
- provides and motivates executives with a balanced and competitive remuneration that is focused on sustainable results and is aligned with Euronext's long-term strategy.

In determining the level and structure of the remuneration of the members of the Managing Board, the Remuneration Committee takes into account, among other things, the financial and operational results as well as non-financial indicators relevant to Euronext's long-term objectives. The Remuneration Committee has performed and will perform scenario analyses to assess that the outcomes of variable remuneration components appropriately reflect performance and with due regard for the risks to which variable remuneration may expose the Company.

In determining the compensation of members of the Managing Board, the Supervisory Board has taken and will take into account the impact of the overall remuneration of the Managing Board on the pay differentials within the Company.

The remuneration of the members of the Managing Board consists of the following components:

- a fixed (base) salary component ("base salary");
- a short term incentive (STI) in the form of cash reward ("STI");
- a long term incentive (LTI) in the form of equity ("LTI"); and

- pension provisions (post-employment benefits) and fringe benefits.

Euronext believes that it is crucial to provide shareholders with transparent and comprehensible information about its remuneration philosophy. The first source of information for shareholders is the remuneration report. The information provided during the Company's analyst presentations, meetings with shareholders and during the Annual General Meeting of shareholders is the second most important source of information. It is also critical to explain to shareholders why a proper remuneration system has a positive impact on the Company and how it helps to align the interest of all stakeholders.

For instance, in some countries, listed companies already have to submit the remuneration of their executives (board of directors, Executive Committee and/or Advisory Board) to a binding shareholders say-on-pay vote at the Annual General Meeting. In other countries strong recommendations by national or international Corporate Governance bodies (such as the International Corporate Governance Network) exist. Euronext is committed to implement best practice for say-on-pay, considering existing applicable legislation, planned legislation such as the European Union shareholders rights Directive, and recommendations in the jurisdictions in which it is active as guiding principles. Other best practices will be followed such as benchmarking against comparable institutions, defining measurable performance targets and balancing short-term and long-term remuneration components notably through an adequate cash-to-stock ratio.

The application of these principles to the remuneration of the Managing Board was reviewed by the Remuneration Committee and Supervisory Board in 2018, following a comprehensive total compensation benchmark in 2017. The updated framework of the remuneration policy was adopted by the Annual General Meeting in May 2018.

The tables hereafter reflect the current remuneration of the Managing Board.

### Executive Remuneration Summary

The remuneration of the Managing Board is composed of the following key elements:

Element	Purpose	Commentary
Base salary	Reflect the responsibility and scope of the role taking into account seniority and experience	Base salary is reviewed annually through our compensation review process to ensure competitiveness against competitors.
STI	Reward annual financial and individual performance	<p>Target 75% of base salary for the CEO and 50% or 40% of base salary for other Managing Board members.</p> <p>For the Managing Board, 100% of total STI is paid in cash.</p> <p>The performance criteria are based on delivery against pre-set EBITDA, market share and cost targets, on successful execution of the strategic plan and on individual qualitative targets.</p> <p>The full STI percentage is payable if 100% of the relevant targets are met. If the relevant targets are over performed by 20%, the payment of the STI will be increased by 100%. The level of outperformance reflects the absolute cap of the STI. If the relevant targets are underperformed by 20%, the payment of the STI will be decreased by 50%. Linear extrapolation between performance bands is applied.</p>
LTI	Incentivise performance over the longer term and aim to retain key employees	<p>On target performances of 100% of base salary for the CEO, and ranging from 50% to 75% for other Managing Board members depending on role and seniority. LTI awards vest after three years. The grant of LTI awards will be determined on the rules set by the Remuneration Committee and are linked to performance criteria.</p> <p>The grant of the LTI is conditional and depends on two performance measures to be met: Total shareholders Return compared with a selected Index and actual EBITDA compared to a target cumulated EBITDA, both over a 3 years period. Both criteria having equal weight and being used as the discount or multiplier percentage on the conditionally granted LTI. See for more details section 2.4.2.</p>
Pension arrangements and fringe benefits	Ensure competitive benefits package and conformity with local market practice	The pension arrangements of the members of the Managing Board consist of state pension and additional pension schemes that are in line with local practice in the countries where Euronext operates. In addition members of the Managing Board are entitled to the usual fringe benefits such as a company car, expense allowance, medical insurance, accident insurance in line with local market practice in the countries where Euronext operates.

### 2.4.2 REMUNERATION CHART

#### Short Term Incentive (STI) 2018

Performance conditions for the short term incentive are set by the Supervisory Board annually for the relevant year. They include criteria concerning Euronext's financial performance, quantitative criteria representing company performance and/or individual qualitative performance.

In 2018 the performance criteria of the group CEO short term incentive were based on:

- 40% on delivery pre-set EBITDA, market share and operational costs targets;
- 30% on securing the integration of recent acquisitions, delivering Optiq® & implementing the Agility for Growth strategic plan;
- 30% on strict Individual target.

The targets that are set for the other individual Managing Board members are challenging but realistic, based on:

- 30% on delivery pre-set EBITDA, market share and operational costs targets;
- 20% on securing the integration of recent acquisitions, delivering Optiq® & implementing the Agility for Growth strategic plan;
- 30% on Individual quantitative targets related to the strategy implementation and operational costs targets with a focus on the division;
- 20% on strict Individual target.

All short term incentive objectives are supportive of the long term strategy of Euronext and aligned with shareholder interests.

An overall underperformance of the set objectives will lead to a discount of the STI payment whereby a 20% negative deviation leads to a 50% reduction of STI. Over performance will lead to a multiplier whereby a 20% outperformance of the set objectives will lead to an increase of 100% of STI. This level of outperformance reflects the absolute cap of the STI. Linear extrapolation between performance bands is applied.

### SHORT-TERM INCENTIVE (STI) COMPONENT AS A PERCENTAGE OF THE BASE SALARY FOR MANAGING BOARD MEMBERS

Position	On target annual STI as % of base salary	Maximum STI as % of base salary
CEO	75.00%	150.00%
CEO France/CEO Netherlands/ CEO Ireland/CEO UK	50.00%	100.00%
CEO Belgium/CEO Portugal	40.00%	80.00%

### Long Term Incentive (LTI) as of 2018

The actual number of conditional LTI Performance Share Plan ("PSP") awards that vest depends on the performance of the following two performance measures:

- Total Shareholder Return ("TSR") (50% weighting): The TSR performance will be based on an absolute difference between the Total Shareholders Return Index of Euronext and Total Shareholders Return Index of the STOXX Europe 600 Financial Services index during the vesting period. An overall underperformance in reference to the index will lead to a discount on the conditional LTI at vesting date whereby a 20% negative deviation leads to a 50% reduction of conditionally

granted LTI at vesting date. Below 20% the multiplier will be 0%. Over performance will lead to a multiplier whereby a 20% outperformance of the index will lead to an increase of 100% in conditionally granted LTI at vesting date. This level of outperformance reflects the absolute cap of the LTI allotment;

- average Earnings Before Interest, Tax, Depreciation and Amortisation and Exceptional Items (EBITDA) margin (50% weighting): The EBITDA performance will be based on the delta between (i) the actual cumulated EBITDA of the Company for the three year period, as reported in the audited financial statement of the Company, and (ii) a target cumulated EBITDA the same period computed based on a target yearly EBITDA growth rate ("y") as approved by the Remuneration Committee. The multiplier of the shares granted in year N+1 (e.g. grant year), will be computed at the end of the three-year period (i.e. N+3), based on the ratio i/ii. An overall underperformance in reference to this ratio will lead to a discount on the conditional LTI at vesting date whereby a 0.9 ratio leads to a 50% reduction of conditionally granted LTI at vesting date. Below 0.9 the multiplier will be 0%. Over performance will lead to a multiplier whereby a 1.1 ratio will lead to an increase of 100% in conditionally granted LTI at vesting date. This level of outperformance reflects the absolute cap of the LTI allotment;
- these percentages are independent and both weighted equally; they are being used as the discount or multiplier percentage on the conditionally granted LTI;

A summary table of the above is as follows.

Euronext performance conditions (for each part of the performance conditions)		Vesting % of the number of shares
Total Shareholder Return (TSR)	Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA)	
+20% or higher	Ratio i/ii is at 1.1 or higher	Increase of 100%
At target to +20%	Ratio i/ii is between 1 and 1.1	Increase on linear basis from original grant up to and including 100% increase
At target	Ratio i/ii is equal to 1	Original granted number
At target to -20%	Ratio i/ii is between 1 and 0.9	Decrease on linear basis from original grant to lapse of 50% of the shares
More than -20%	Ratio i/ii is below 0.9	Lapse of 100% of the shares

The main features of the LTI arrangements are the following:

- equity awards will be made in the form of performance shares ("Performance Shares") with a three year cliff vesting schedule ("Performance Share Plan");
- the provisional and conditional target grant of LTI will be a percentage of gross annual salary;
- at vesting date the actual grant will be determined taking into consideration the performance of Euronext against the criteria of TSR for 50% of the performance shares granted and the absolute EBITDA performance for 50% of the performance shares granted (as described above);
- participants are not entitled to dividends during the vesting period.

An important objective of the LTI is to provide an incentive to the Managing Board members to continue their employment relationship

with Euronext and to focus on the creation of sustainable shareholder value.

The number of LTI awards will be determined annually by the Supervisory Board depending on the contribution to the long term development of Euronext. In principle it is the intention to:

- issue a maximum of 5,250,000 Performance Shares;
- determine the conditions of the grant of the Performance Shares in accordance with the terms and conditions set forth in the decision of the Annual General Meeting; and
- award the Performance Shares to Eligible Employees during a fixed period of five (5) years from the date of said Annual General Meeting, in accordance with Dutch law, the Plan rules and the Remuneration Policy 2015 as adopted by the Annual General Meeting.

### LONG-TERM INCENTIVE (LTI) COMPONENT AS A PERCENTAGE OF THE BASE SALARY FOR MANAGING BOARD MEMBERS

Position	On target annual conditional LTI as % of base salary	Maximum LTI as % of base salary at vesting, all performance conditions overachieved
CEO	100.00%	200.00%
CEO France/CEO Netherlands/CEO Ireland/CEO UK	75.00%	150.00%
CEO Belgium/CEO Portugal	50.00%	100.00%

### 2.4.3 REMUNERATION OF MANAGING BOARD MEMBERS

#### Managing Board and Senior Management Remuneration for 2018

Euronext's Supervisory Board establishes the individual remuneration of the members of the Managing Board within the framework of its remuneration policy as adopted by the Annual General Meeting upon a recommendation by the Remuneration Committee.

For the actual remuneration expensed for the year 2018, reference is made to Note 56 of the Financial Statements included in this Registration Document. The total remuneration for the members of the Managing Board, for the year 2018 amounts to €6,095,229. This amount includes a pro rata compensation related to Lee Hodgkinson and Deirdre Somers.

The total remuneration consists of (i) an aggregate base salary, (ii) the aggregate short-term incentive compensation based on the achievements against objective measureable criteria and (iii) the aggregate LTI compensation recognised in accordance with IFRS 2 and (iv) an amount to be contributed to post-employment benefits. For the members of the Managing Board in active service on 31 December 2018 these amounts are as described herewith:

Name	Title	Currency	Base salary (annualised per 31/12/2018)	STI over 2018	LTI compensation based on IFRS 2 <sup>(c)</sup>	Post-employment benefits
Stéphane Boujnah	Group Chief Executive Officer Euronext	EUR	725,000	1,015,000	532,813	
Anthony Attia	CEO of Euronext Paris and Global Head of Listing and Post Trade	EUR	300,000	270,000	352,996	
Chris Tople <sup>(a)</sup>	CEO of Euronext London and Head of Global Sales	EUR	356,181	356,181	19,470	5,444
Daryl Byrne <sup>(a)</sup>	CEO of Euronext Dublin and Head of Debts and Fund Listings & ETFs	EUR	270,000	100,000	6,224	6,750
Paulo da Silva <sup>(b)</sup>	CEO of Euronext Lisbon & Interbolsa and Head of Technologies	EUR	230,000	140,000	-	34,500
Maurice van Tilburg	CEO of Euronext Amsterdam and Head of Market Operations and Client Centricity	EUR	270,000	190,000	280,721	16,677
Vincent Van Dessel	CEO of Euronext Brussels	EUR	275,655	110,000	181,860	34,631

(a) 2018 Short Term Incentive for new joiners are reflecting a contractual arrangement at the time of hiring for Chris Tople and prorata temporis in the CEO role for Daryl Byrne.

(b) On 31 December 2018 Paulo da Silva resignation became effective.

(c) IFRS standard 2 on "Shared-based payments" prescribes recognition of expense for share based grants on the fair value as per grant date. This "grant date fair value" is expensed over the 3-year vesting period.

The base salary is linked to the overall job responsibilities of the individual Managing Board member and reflects internal consistency.

The STI consists of an annual performance compensation component as a percentage of base salary. The variable component levels are set by the Supervisory Board and may vary per member of the Managing Board. They are set annually for the relevant year and shall include criteria concerning Euronext's financial performance,

quantitative criteria representing company performance and/or individual qualitative performance as described above in the section 2.4.2.

There are no specific agreement made by the Company with a Managing Board member that provides a payment upon termination of employment as a result of a public takeover bid within the meaning of Article 5:70 of the Dutch Financial Supervision Act.



## 2018 Group CEO Pay ratio

The ratio between the total annual remuneration of the group CEO and the average annual employee compensation in 2018 was 19.6 (calculated using total cash, including base salary and short term incentive). The comparable 2017 ratio was 17. (Please refer to note 56 for further details on Managing Board remuneration).

## 2.4.4 REMUNERATION OF SUPERVISORY BOARD MEMBERS

Reference is made to Note 56 of the Financial Statements included in this Registration Document where an overview of remuneration paid to Euronext's Supervisory Board members is provided.

The General Meeting held on 15 May 2018 has set the annual remuneration for the members of the Supervisory Board in accordance with the schedule below.

Role	Fixed amount	Variable amount*
Chairman of the Supervisory Board	€60,000	€3,500
Vice-Chairman of the Supervisory Board	€45,000	€2,500
Member of the Supervisory Board	€40,000	€2,500
Chairman of the Audit Committee (in addition)	€15,000	-
Member of the Audit Committee (in addition)	€6,000	-
Chairman of the Nominating and Governance Committee (in addition)	€10,000	-
Member of the Nominating and Governance Committee (in addition)	€6,000	-
Chairman of the Remuneration Committee (in addition)	€10,000	-
Member of the Remuneration Committee (in addition)	€6,000	-

\* Variable amount will be paid to members of the Supervisory Board per meeting for six (6) ordinary meetings and a maximum of ten (10) extraordinary meetings and calls (call that last more than one hour) per year.

The gross amounts that were paid to members of the Supervisory Board in 2018 are as follows:

Dick Sluimers	€112,500
Ramon Fernandez	€69,500
Manuel Ferreira da Silva	€72,000
Jim Gollan	€105,892
Kerstin Günther	€66,000
Lieve Mostrey	€0
Franck Silvent	€63,500
Luc Keuleneer	€49,875
Padraic O'Connor	€42,375
Rijnhard van Tets	€35,875
Koenraad Dom	€22,875
Dominique Auberon	€0
<b>TOTAL</b>	<b>€640,392</b>

Three members of the Supervisory Board, Dick Sluimers, Luc Keuleneer and Rijnhard van Tets, also received remuneration in relation to their positions in the Supervisory Board of Euronext Amsterdam, one of Euronext's subsidiaries. One member of the Supervisory Board, Jim Gollan, also received remuneration in relation to his position as Chairman of the board of Euronext London Limited, one of Euronext's subsidiaries. These remunerations are included in the figures as illustrated above.

Rijnhard van Tets and Koenraad Dom retired after the Annual General Meeting held on 15 May 2018. Luc Keuleneer and Padraic O'Connor were appointed on the same date subject to regulatory approval. Their appointments became effective on 6 June 2018, the date on which such regulatory approval was granted.

Euronext does not issue option or share plans or other incentive plans to the Supervisory Board. Euronext has not granted any loans to members of the Supervisory Board.

Costs and expenses related to Supervisory Board membership may be reimbursed.

There are no service contracts which provide for benefits upon termination of employment with members of the Supervisory Board.

## 2.4.5 LOCK-UP OF ORDINARY SHARES

There is currently no lock-up of ordinary shares.

## 2.4.6 EMPLOYEE PROFIT SHARING AND INCENTIVE PLANS

At the time of the IPO in 2014, the Company offered Ordinary Shares to all eligible employees, which Ordinary Shares are held through the French *Fonds Commun de Placement d'Entreprise* "Euronext group" ("FCPE"). The number of units held by the members of the Managing Board per 31 December 2018 in the FCPE are included in the table below.

Name	Number of FCPE units
Anthony Attia	1,378.76
<b>TOTAL</b>	<b>1,378.76</b>

## 2.5 Euronext ESG policy

### 2.5.1 PRESENTATION OF THE BUSINESS ENVIRONMENT

#### 2.5.1.1 Euronext main activities

Euronext is a pan-European exchange group offering a diverse range of products and services and combining transparent and efficient equity, fixed income securities and derivatives markets in Amsterdam, Brussels, Dublin, Lisbon, London and Paris. Euronext's businesses comprise listing, cash trading, derivatives trading, advanced data services, post-trade and technologies and other corporate services.

For more information on Euronext activities see section 1.3.1. "Business Overview"

#### 2.5.1.2 Competition

On the corporate listing side, competition between exchanges for domestic issuers is rare. When a domestic issuer lists on another exchange, it tends to be on an American market rather than on another European stock exchange, in particular with respect to global companies and SMEs in the technology sector. As part of its Agility for Growth strategy, Euronext successfully sought to attract issuers from new markets: (*i.e.* Germany, Switzerland, Italy and Spain) and therefore faces competition of those local markets. In 2017, Euronext opened new offices in five European cities outside its core markets – in Germany (Munich), Italy (Milan), Spain (Madrid) and Switzerland (Zurich) – to assist Tech companies in developing their business on a greater scale through capital markets.

While competition in the cash trading market is relatively mature, in recent years Euronext has faced increased pressure on pricing and market share in equity options trading, in particular from new entrants to the market that have fee structures that are significantly lower than the Company's and reduced cost structure aligned with their narrower service offering.

The competition for proprietary real-time market data is still limited as trading participants prefer to receive and use market data from the home exchange rather than using substitute pricing. However, Euronext is experiencing an increasing pressure, both from a regulatory (MiFID II) and competitive perspective through alternative trading platforms, including MTFs such as BATS who focus on the most liquid blue-chip stocks. Nevertheless, Euronext believes that diversity in a wide range of stocks is Euronext's strength in this increasingly competitive environment and will help Euronext retain its position as preferred data source.

Interbolsa is the entity that provides post-trade services in Portugal (mainly settlement services and notary and central maintenance services). Interbolsa, like all CSDs in Europe, is facing increased regulatory pressure related to competition. According to the CSD Regulation, the creation of an integrated market for securities settlement with no distinction between national and cross-border securities transactions avoids distortions of competition.

The regulation further considers that further the systemic importance of CSDs, competition between them should be promoted in order to enable market participants the possibility to choose any CSD in Europe.

For more information on the competition, see section 1.1.3. "Business Environment"

### 2.5.2 PRESENTATION OF EURONEXT'S ESG MISSION AND GOVERNANCE

#### 2.5.2.1 Euronext's ESG Mission

The world is facing significant challenges to ensure a sustainable future for our people and our planet, and many national and international initiatives are addressing these challenges. Every type of organization will have to play its own role in the transition to a sustainable society, depending on its impact and its opportunities. The finance sector can be an important contributor to the global sustainability agenda and promote sustainable finance, by incorporating environmental, social and governance (ESG) factors into investment decision-making, and by supporting the allocation of capital to the realization of the transition.

Euronext has a special position in the financial ecosystem. It is serving the real economy by bringing together buyers and sellers in high integrity trading venues that are transparent, efficient and reliable. In this key role Euronext has a responsibility vis-à-vis the whole finance community, to contribute to the financial stability and the sustainable agenda in the countries in which it operates. Being the legitimate ecosystem representative, Euronext has the legitimacy to be the spokesperson for the sector at both the national government and the EU levels to help setting standards and guidelines.

The ESG mission of Euronext is:

- to deliver a high integrity ecosystem, for all its global stakeholders and its community, thereby contributing to enhancing the security and transparency of Euronext's markets;
- to respect and develop its human capital which is critical to its business success and equip it with appropriate Human Resources policies;
- to drive and facilitate sustainable finance, to foster the dialogue between the various actors in the industry and to contribute to the financing of the real economy in its transition to a sustainable society.

#### 2.5.2.2 Transparency and Reporting

Creating transparency by businesses on their diversity and sustainability efforts is vital in order to identify sustainability risks, and to enable us to manage change towards a sustainable global economy by combining long-term profitability with social justice and environmental protection. In this context, disclosure of non-financial

information helps the measuring, monitoring and managing of undertakings' performance and their impact on society.

Also, shareholders and other stakeholders are more and more interested in diversity and non-financial information in order to have a meaningful, comprehensive understanding of a company's development, performance, position and impact of its activity. They thoroughly analyze this information in their investment-decision process. In this context, disclosure of non-financial information helps increasing investor and consumer trust.

The European Parliament acknowledged the importance of this transparency, and, in this context, the European Directive 2014/95/UE dated 22 October 2014 imposes to public-interest entities which are large undertakings with more than 500 employees to publish non-financial information including information on environmental, social and employee matters, diversity, respect for human rights and on anti-corruption and bribery matters.

This chapter describes the sustainability vision of Euronext, and how Euronext fulfils the new requirements of the Directive, which has been implemented in The Netherlands by a Decree dated 14 March 2017 on disclosure of non-financial information ("Besluit bekendmaking niet-financiële informatie") and a Decree dated 29 August 2017 on the contents of Directors' Reports ("Besluit inhoud bestuursverslag").

### 2.5.2.3 Materiality analysis

As a first step towards the creation of a Euronext ESG strategy, Euronext launched mid 2018 a pan-European stakeholder consultation process to identify the most relevant ESG related issues that its stakeholders believe should be its main areas of attention and effort. Euronext has had the feedback from a wide selection of its stakeholders which has enabled it to better understand the priorities of its stakeholders in relative how Euronext as a company perceive its priorities.

Although Euronext is still in the process of finalizing the stakeholder engagement process, the results so far have enabled Euronext to perform an initial materiality analysis, defining the issues where Euronext can have the most impact on the economy, society and environment, and that most influence the decision-making of its stakeholders. Euronext's stakeholders see that it plays a role in ESG from different angles: Euronext as a representative of the ecosystem, as a business and as a corporate actor. In each of these roles, Euronext has different responsibilities. During the course of 2019, Euronext will finalise the list of its key issues and will create a materiality matrix. The key issues will be grouped into 5 pillars:

- Stakeholders;
- Markets;
- Environment;
- People;
- Community.

All 5 pillars are based on the core values of Euronext, integrity, agility, energy and accountability. The pillars will also serve as the format of the second half of this chapter (see section 2.5.3. "Pillars of our ESG strategy").

### 2.5.2.4 ESG Governance

The General Counsel is in charge of coordinating ESG at the Group level, making sure that all relevant departments integrate the ESG objectives into their missions. The General Counsel keeps the Group's Managing Board informed about ESG initiatives.

In the fourth quarter of 2018, an ESG Task Force was created to support the General Counsel. The Task Force consists of members of various departments throughout Europe, and supports the General Counsel in preparing the materiality analysis that will form the basis of the ESG strategy of the Euronext group. The Task Force will continue this role in 2019, and will support the business to develop new initiatives aligned with the forthcoming Group Strategic Plan.

## 2.5.3 PILLARS OF ESG STRATEGY

### 2.5.3.1 Stakeholders

Euronext has an ongoing dialogue with all its principal stakeholders (clients, (members, issuers, financial analysts, and investors), suppliers and subcontractors, employees, shareholders and regulators).

#### Advisory Committees

In this context, since 2014, each subsidiary exchange of the Group has one or more exchange committees ("Advisory Committees") consisting of external stakeholders, to advise and assist the local Managing Board in a non-binding, advisory capacity on new products and market developments. These committees discuss strategic issues at the local level, being the operational and technical issues linked to the business areas (Cash/Derivatives/Listing). It is also expected that Committee participants propose new ideas and be active in raising topics or issues that fall within the scope of the Committee. The Advisory Committees are consulted on issues of major interest to Euronext users (*i.e.* issuers, investors and other interested parties), where products and services might be developed to meet users' needs. Euronext commits to listening to the opinions of each Committee and taking these into account in its decision-making process insofar as possible, in the interests of both the Company and its shareholders.

#### Clients

Euronext continues to reinforce its business integrity by striving to improve the services it provides, making responsible business decisions, and actively managing the social and environmental impacts of its actions to help individuals, communities, businesses and economies progress and grow.

Euronext is a leading service provider of services for issuers, investors, intermediaries and technology data vendors. The Product and Sales teams, the Issuer-Client Coverage Group, the Market Supervision team and the Technology department provide competent care in the relationship management across all of the Group's customers.

Within the Listing department, over 4,000 individual meetings were held with a broad spectrum of listed, non-listed companies and ecosystem members to promote capital markets benefits and

accompany entrepreneurs in their development projects. To fulfil its mission, the Listing team capitalises on the local representatives that have been set up in Paris (and in other major French cities), Lisbon, Brussels, Amsterdam as well as in Munich, Frankfurt, Zurich, Madrid and Milan given the European expansion in the course of 2017.

Pedagogy, education and proximity are core values which underpin the Listing team's strategic deployment. In keeping with this logic, the Listing team seeks to make its issuers aware of social responsibility issues.

Transparency and knowledge sharing are also at the very heart of the Listing team values. Before launching new projects, the team consults with local ecosystem members, acting as the house of collective and inclusive growth. As an illustration, the Listing team is currently consulting on potential sustainable finance offering.

On an annualised basis Euronext's Client Coverage Center ("CCC") held over 1,500 client meetings in 2018 and the CCC exchanged over 27,000 e-mails and 10,000 calls with clients, covering a vast array of topics, either bilaterally or on a Group level, during which it consulted closely with trading customers to create products and services that meet their needs and requirements. Euronext has been particularly active with regard to new cash equity and ETF's MTFs (Euronext Block and Euronext Access) and the financial derivatives and commodities product launches, in many cases receiving clients' public endorsement for the Company's development plans.

For the third consecutive year, a customer satisfaction survey ("NPS")<sup>(1)</sup> was conducted in 2018 whereby clients provided anonymous feedback on a wide range of topics covering each aspect of the business. Several hundred contacts participated in the survey, providing valuable insight into client perception of Euronext's strategic initiatives, client relationship management, and product offering. The results of this annual exercise are at the foundation of the continuous internal process to intensify client centricity and are the following: Issuers +15, Market data: +3, Interbolsa: +33 and Members: +13 (comparison with 2017 figures are available in the Dashboard (see page 92)).

## Suppliers and Subcontractors

Euronext's goal is to drive excellence throughout its organisation and to support and positively influence its supply chain.

Euronext works with suppliers who share its own values. In 2015, it focused on the preparation and assessment of a chart for suppliers, to complete its existing internal procedure. Since 2016, this chart (referred to as Euronext Supplier code of conduct), including provisions regarding human rights, diversity and inclusion, and environmental protection, is provided together with requests for proposal to each envisaged supplier.

Additionally, any new vendor selected by Euronext is first screened, to identify any current or previous sanctions, and is compared to the Euronext country black list (directly based on the OECD blacklist of Non Cooperative Countries or Territories ("NCCT")) – reviewed on a yearly basis.

In 2018, more than 1.300 new suppliers were screened: a few of them led to further investigation but none were rejected. The investigations were due to suppliers having their bank accounts in a "black listed" country. After escalation with Business and Compliance, they were reviewed and accepted.

Additionally, in 2018, all subcontractor agencies in France (accounting for more than 80% of the subcontracting purchasing category at the Group level) have been further screened, based on their Social and Tax reports to authorities.

## Employees

Euronext promotes an environment that encourages collaborative work, learning and innovation allowing each employee to shape his/her future and the future of the Company. As detailed in the below section 2.5.3.4., the Company undertakes several initiatives to support and nourish a culture of performance through an ongoing dialogue with its employees. In 2019 it will be formalized with an engagement survey.

## Shareholders, Analysts and Investors

Euronext has an ongoing dialogue with financial analysts, shareholders and investors. The Company focuses on communicating clearly and providing transparent explanations. Euronext has decided to publish full financial results on a quarterly basis. These results are commented on in either physical meetings or conference calls for analysts and investors and are accessible to the general public via webcast found on the Company's website.

In addition, Euronext investor relations team met with around 280 investors and ESG investors in 2018, notably through conducting roadshows in eight countries (United-Kingdom, France, Germany, Switzerland, the Netherlands, the United States, Canada and Sweden) and attended eight investors conferences. Euronext is willing to continue to engage with its shareholders on a regular basis so as to enhance the knowledge of the Company and the understanding of its strategy.

Prior to the IPO, on 27 May 2014, a group of institutional investors (collectively, the "Reference shareholders", and each a "Reference shareholder") purchased an aggregate percentage of the issued and outstanding Ordinary Shares from ICE, the selling shareholder at the IPO. The Reference shareholders have entered into a reference shareholders' agreement (the "Reference shareholders Agreement") governing the relationship among the Reference shareholders. This agreement expired on 20 June 2017 and was extended for a further period of two years commencing on 21 June 2017. The new Reference shareholders group accounts for 23.86% of Euronext's share capital.

At the time of its IPO in 2014, Euronext's dividend policy was established to achieve a dividend pay-out ratio of approximately 50% of net income, upon the approval of the Annual General Meeting, and as long as the Company is in position to pay this dividend while meeting all its various duties and obligations. In May 2017, Euronext decided to complement this policy, for the remainder of its "Agility for Growth" strategic plan with the introduction of a floor to the dividend per share. Starting at the Annual General Meeting in 2017 and until the Annual General Meeting in 2020, Euronext dividend policy is to

(1) The NPS represents the difference between the members who are positive vis-à-vis Euronext and those who are detractors (the neutrals are not taken into account). When the figure is positive it means that the promoters outweigh the detractors (and vice versa).

distribute the highest of 50% of the reported net income and a floor at €1.42 per share, upon the approval of the Annual General Meeting, and as long as the Company is in position to pay this dividend while meeting all its various duties and obligations.

For further information about share capital and shareholder structure or dividend, please refer to section 4.3. of this Registration Document.

### Regulators and Finance industry as a whole

Euronext is an organisation that provides exchange listing, trading, post-trade and related services in Europe. The Company operates exchanges in five European countries. Each Euronext market operator is subject to national laws and regulations and other regulatory requirements imposed by exchange authorities, central banks and finance ministries as appropriate.

The six national regulatory authorities coordinate their regulation and supervision of the regulated markets operated by the Group through the "Euronext College of Regulators", acting pursuant to memoranda of understanding which Euronext has committed to respect. These regulatory authorities have identified certain areas of common interest and have adopted a coordinated approach to the exercise of their respective national rules, regulations and supervisory practices regarding listing requirements, prospectus disclosure requirements, on-going obligations of listed companies, takeover bid rules and disclosure of large shareholdings. Representatives of each national authority meet in working groups on a regular basis in order to coordinate their actions in areas of common interest and agree upon measures to promote harmonisation of their respective National Regulation. Euronext representatives are invited on a regular basis to part of those meetings.

For more information on the regulation, see section 1.4. "Regulation" of this Registration Document.

### NGOs

Euronext does not only collaborate with stakeholders with whom it has direct contact, it also strives to be an engaged member of the global financial system, and has become a partner in various global NGOs seeking to improve the global financial ecosystems in terms of ESG issues. Further, Euronext actively responds to questionnaires from interested parties inquiring about our ESG practices and standards in place.

### United Nations Sustainable Stock Exchange Initiative Membership

Euronext joined the United Nations SSE Initiative in December 2015, which aims to explore how exchanges can work together with investors, regulators, and companies to enhance corporate transparency on Environmental, Social and Corporate Governance (ESG) issues and encourage responsible long-term approaches to investment.

Euronext's six market operators have voluntarily committed – through dialogue with investors, companies and regulators – to promote sustainable, long-term investment and improved ESG governance disclosure and performance among the companies listed on their respective exchange. The decision of membership to SSE reflected the commitment of Euronext in these areas. In 2018,

the SSE Initiative convened a "Ring the environment alarm" through a bell ringing event at the heart of joint Global Round Table and Climate Finance Day in Paris, France. One of the several keynote speakers was a Euronext representative.

The Sustainable Stock Exchanges initiative published its Progress report in 2018 on the ranking of the world's stock exchanges in terms of disclosure of the performance of sustainability indicators. Euronext Paris is ranked number two, Euronext Amsterdam is ranked number three and Euronext Brussels is ranked number twelve. This analysis explored the extent to which the world's publicly traded companies are disclosing the seven basic metrics: employee turnover, energy, greenhouse gas emissions, injury rate, payroll, water consumption and waste.

### Task Force on Climate-related Financial Disclosures ("TCFD")

On 22 March 2018, Euronext endorsed the Task Force on Climate-related Financial Disclosures Recommendations and committed to further support transparency on climate-related risks and opportunities on financial markets.

The Task Force established by the Financial Stability Board ("FSB"), developed voluntary recommendations on climate-related information that companies and organisations should disclose to help investors, lenders, and others make sound financial decisions. Structured around four thematic areas – Governance, Strategy, risk management and Metrics & Targets – the TCFD Recommendations provide a framework for companies to respond to the increasing demand for transparency on climate-related risks and opportunities from investors.

The signing of the recommendations took place during an opening bell ceremony in Brussels, held in presence of Michael Bloomberg (leader of the Task Force), and during which the Belgian State, the National Bank of Belgium and the Belgian Financial Services and Markets Authority (FSMA) also signed up to endorse the TCFD Recommendations. The bell ringing coincided with the "High Level Conference: Financing Sustainable Growth" organized by the European Commission in Brussels.

### 2.5.3.2 Markets

#### Trusted, Fair and Orderly Markets

As an operator of regulated markets, Euronext's mission is to bring together buyers and sellers in venues that are transparent, efficient and reliable.

To this end, Euronext:

- adopts rules for each of its markets to ensure fair and orderly trading and efficient order execution;
- sets up a framework to organise market monitoring by which it monitors trading in order to identify breaches of the rules, disorderly trading conditions or conduct that may involve market abuse;
- reports breaches of rules or of legal obligations relating to market integrity to the competent authority. Market surveillance and monitoring are implemented through a two-step process consisting of real-time market surveillance and post-trade (i.e., "next day")



analysis of executed trades. Euronext ensures member compliance with its rules by conducting on-site investigations and inspections;

- invests in technology aiming at improve its monitoring.

Euronext's team has a mission to bring innovation and agility to the markets. Since Euronext's IPO in June 2014, Euronext has focused on researching and developing new products together with its client community. These new products are now beginning to come to market and Euronext is excited about expanding its capabilities and making its business work better for Euronext's customers.

Part of Euronext's role in maintaining trusted, fair and orderly markets includes ensuring the security of those markets. The growth in the digitalization of the finance industry over the last years has revolutionized the sector. This transformation means that an increasing number of financial services are becoming available to more and more people at an ever increasing pace. Euronext has grown and continues to thrive with these changes *via* increased storage and processing power enabling us to grow in complexity and size. With increased size and access comes potential liabilities, however Euronext through Infosec Management and Cybersecurity governance has security controls in place in order to protect our markets from unwanted activity.

Euronext management has a strong commitment to upholding the security of our markets. Management oversees the information security/cybersecurity strategy and review process as well annual plans, ensuring that the program stays current with the evolving environment and to avoid and treat potential negative impacts to Euronext. For further information of cybersecurity risks please refer to the operational risks page 10 of this document.

### Be the Spokesperson of the Sector

A central element of Euronext's work involves engagement with all actors within our ecosystems. Alongside customers, be they issuers, investors and intermediaries, Euronext also dedicates considerable time and resources to engaging with policymakers and regulators with a view to shaping positively the regulatory framework which governs our activities. This engagement focuses on both the EU institutions, namely the Commission, Parliament and Member States in Council, as well as all relevant authorities in the Euronext jurisdictions. It is also complemented by engagement of trade associations of which Euronext is a member, notably FESE at European level, as well as *via* various national associations.

### Financial and Regulatory Education of Issuers and Fostering Issuer-Investor Dialogue

#### Corporate Services

Euronext Corporate Services was launched in 2016 as part of "Agility for Growth" strategic plan, with the ambition of helping listed companies and relevant organisations be more efficient. Euronext Corporate Services provides a suite of technology and advisory solutions in relation to investor relations, communication, governance and compliance. This offering has been built through a combination of organic developments and acquisitions. Since February 2017, Euronext Corporate Services has acquired four companies providing innovative solutions for a total investment of around € 40 million (namely Company Webcast, IR.Manager, iBabs and InsiderLog).

Euronext Corporate Services offers a unique and comprehensive value proposition articulated around four main pillars that are described in section 1.3.3.2.

Euronext Corporate Services already serves more than 1,800 clients of which are 450 listed companies, 900 private groups and 450 public organisations. With respect to listed companies, Euronext Corporate Services help them make the most effective of capital markets, from blue-chip large caps to SMEs, located across all Euronext markets but also beyond (e.g. Sweden, UK, Germany, Italy).

The Euronext Corporate Services offering assists companies and organisations in reducing their environmental impact. The board portal solution enables a significant reduction of paper consumption through paperless and digital meetings. The webcast and webinar solutions reduce the negative environmental impacts of transportation through remote and digital conferences. In addition, Euronext Corporate Services supports the adoption of best practices in terms of good Corporate Governance as the board portal solution enables a more collaborative, secured, efficient and informed decision-making process within board of directors and executive committees. Finally, Euronext Corporate Services also favors greater transparency and clarity in the way companies and organisations communicate not only externally but also internally.

#### Tech Share and Family Share Programs

Euronext developed initiatives targeting the Tech sector and family businesses. In particular, TechShare, a free pre-IPO educational program has welcomed a growing number of applicants since its launch in 2015.

In 2017, Euronext has launched new initiatives for family businesses. The aim is to encourage them to view financial markets as a source of financing, a governance and transmission tool, a way to enhance their visibility and a mean of raising their profile with investors. Family-owned SME stocks benefit from increased assistance in several areas. This includes European roadshows to meet investors, improved financial analysis coverage through the Morningstar program and FamilyShare, a dedicated program offering support and coaching to unlisted family businesses, will be set up across Euronext markets and tailored to the specific needs of each country. This unique pan-European initiative is designed to familiarise family-owned businesses with capital markets, both equity and bonds, giving them the information they need to bring their companies to the market.

### 2.5.3.3 Environment

Euronext has developed sustainable products and services with environmental added value. In addition it has put a strong focus on reducing its own footprint. In this chapter we describe the various initiatives through which we show our commitment to the transition to a sustainable society.

#### ESG Product Offerings

Euronext continues to grow the range of its ESG products that are offered on our exchanges. Euronext started its first ESG product offering over a decade ago with the Low Carbon 100 Europe Index and has continued to increase the number of ESG indices as well as diversify the ESG product offering to socially responsible ETFs, Green Bonds, and specific commodity futures. Below is a discussion of the wide-range of ESG products offered by Euronext.

## Sustainable Indices

Euronext ESG Indexes are designed to support common approaches to environmental, social and governance (ESG) investing. Euronext ESG indices are based on a fully transparent and rules-based selection process and measures risk and performance across a variety of Environmental, Social and Governance (ESG) areas.

As a stock exchange committed to sustainability, Euronext will continue to extend over 2019 its ESG index offering thanks to its partners expertise: Vigeo Eiris, CDP, Carbone 4 and Mirova/ISS-oekom.

### Euronext Vigeo Eiris Family of Indices

Euronext entered into a cooperation agreement with Vigeo Eiris in March 2013. Vigeo Eiris is the leading European expert in the assessment of companies and organisations with regard to their practices and performance on environmental, social and governance ("ESG") issues. Several families of indices have been created in.

#### A) EURONEXT VIGEO EIRIS INDICES

Launched in 2013, this family is composed of seven indices exist (Euronext Vigeo Eiris World 120, Euronext Vigeo Eiris Europe 120, Euronext Vigeo Eiris Eurozone 120, Euronext Vigeo Eiris US 50, Euronext Vigeo Eiris France 20, Euronext Vigeo Eiris United Kingdom 20 and Euronext Vigeo Eiris Benelux 20), whose components are reviewed and updated twice a year. Euronext Vigeo indices are composed of the highest-ranking listed companies as evaluated by the Vigeo-Eiris agency in term of their performance in corporate responsibility. Companies weights are calculated accordingly to their respective Equitics scores. The weighting of each component at the review date reflects the score of the company divided by the total sum of the scores of all components.

#### B) CAC 40 GOVERNANCE INDEX

Launched in February 2017, the CAC 40 Governance Index measures the performance of the CAC 40 members weighted according to their respective Vigeo Eiris governance rating. The Corporate Governance structure specifies the distribution of rights and responsibilities among the different participants in the organisation – such as the board, managers, shareholders and other stakeholders – and lays down the rules and procedures for decision making (ECB annual report 2004). According to the Organisation for Economic Co-operation and Development ("OECD"), there are several benefits resulting from a good Corporate Governance. Utilizing its teams' expertise and its unique and well-regarded methodologies, Vigeo Eiris rating provides Euronext with a Corporate Governance score for each stock of the CAC 40 index.

#### C) EURONEXT ESG LEADERS FAMILY OF INDICES

Launched in February 2018, these indices measure the performance of the top performing companies in the ESG/Energy transition field, with regards to their respective Vigeo Eiris rating.

The first set of indices covers Europe, Eurozone and France and the selection is made by taking the most sustainable companies with regard to their practices and performance on environmental, social and governance ("ESG") issues:

- Euronext France ESG Leaders 40 EW;
- Euronext Eurozone ESG Leaders 40 EW;
- Euronext Europe Sustainable 100 EW;

- SBF Top 50 ESG EW;
- Euronext Euro 50 ESG;
- Euronext Eurozone 100 ESG.

The second set of indices covers Eurozone and France. The selection is made by taking the companies with the best Energy Transition Performance scores. The Energy Transition Performance is a forward-looking approach that analyses a company's capacity to adapt their business model and manage sector-specific risks and opportunities related to the transition to a low-carbon economy:

- Euronext France Energy Transition Leaders 40 EW;
- Euronext Eurozone Energy Transition Leaders 50 EW.

### Euronext Carbone 4 Family of Indices

#### A) LOW CARBON 100 EUROPE INDEX - THE FIRST ONE

In 2008, Euronext was the first exchange to launch a pan-European index focusing on CO<sub>2</sub> emissions, designed with the support from a group of international experts and in close collaboration with Non-Governmental Organisations. The index measures the performance of Europe's 100 largest blue chips with the lowest CO<sub>2</sub> emissions in their respective sectors or sub-sectors. Today, the index is an underlying for an ETF.

In November 2015, Euronext announced a major change in the methodology used for its Low Carbon 100 Europe Index, revolutionizing the traditional approach to assess companies' CO<sub>2</sub> emissions. This new method is based on a more efficient means of measuring the energy performance of businesses. The new version of the index, designed with Carbone 4 and Carbon Disclosure Project ("CDP"), the leading consulting firm specialised in carbon strategy, is based on a more in depth and relevant assessment of each company's carbon footprint.

This identifies, for the first time, businesses making a positive contribution to the transition process-not only through their own day to-day performance, but also through the products they sell. Selection of index component companies will also reflect the emissions avoided because of their innovative approach to products and services.

In June 2018, the Steering Committee approved to change the methodology of the Low Carbon 100 Europe Index to exclude companies with a fossil fuel activity. The shares of companies involved in the following activities will be excluded from the index by the Expert Committee at the reviews:

- companies with fossil fuel reserves;
- companies searching, collecting, treating, refining or transporting coal, oil or gas;
- utilities using fossil fuels to produce electricity.

### Euronext CDP Family of Indices

#### A) EURONEXT CLIMATE EUROPE INDICES

Launched in 2016, the Euronext Climate Europe is a free float market cap index designed to be a low carbon Universe. Composed of 200 large companies based on their climate score. It paves the way to many climate friendly innovative variants (high yields, low risk, growth...). These indices are well established with several Structured Products linked to the index.

To perform this best in class approach, Euronext calculates a climate score by combining the scores of two cutting-edge experts, Carbone 4 and the Carbon Disclosure Project ("CDP"). Carbone 4 assesses the Company's impact on climate change and its contribution to reduced Green House Gas ("GHG") emissions, while taking into account induced and avoided emissions and the forward-looking analysis. The CDP performance score assesses the level of action taken on climate change in term of mitigation, adaptation and transparency.

Two indices have been derived over 2017 around this Euronext Climate Euronext Index for investment purpose: The Euronext Climate Orientation Priority index and Euronext Climate Objective 50 EW index.

### B) EURONEXT CDP ENVIRONNEMENT FRANCE INDICES

Launched in 2018, these indices measure the performance of the top performing companies selected from the SBF 120 index in the environmental fields, with regards to their respective CDP rating. CDP gives a score to the companies in the universe based on three different themes, forests, water and climate. The companies that form the index universe are ranked on their environmental score and the 40 highest ranking companies will be selected in the index.

### Euronext OEKOM Family of Indices

#### A) EURONEXT RESPONSIBLE INVESTMENT INDICES

Launched in 2018, the Euronext Responsible Investment indices are composed of the best companies in terms of Mirova/ISS-oekom Sustainability score. The Mirova/ISS-oekom Sustainability score is based on the qualitative opportunities assessment and risk review score.

#### Forum Ethibel

Euronext works also with Forum Ethibel, a Belgian non-profit organization with over 20 years' experience in the field of rating, independent audit and certification of financial products and services that meet specific requirements in terms of ethics and sustainability. In this context, it calculates for Forum Ethibel the two following indices:

- Ethibel Sustainability Index Excellence Europe (ESI Europe);
- Ethibel Sustainability Index Excellence Global (ESI Global).

### EURONEXT ESG INDICES

Launch Date	Name	Nr of components	Currency
2008	Low Carbon 100 Europe Index	100	EUR
2013	Euronext Vigeo Benelux 20 Index	20	EUR
2013	Euronext Vigeo Euro 120 Index	120	EUR
2013	Euronext Vigeo Europe 120 Index	120	EUR
2013	Euronext Vigeo France 20 Index	20	EUR
2013	Euronext Vigeo UK 20 Index	20	GBX
2016	Euronext Climate Europe	200	EUR
2017	CAC 40 Governance	40	EUR
2017	EN Climate Orientation Priority 50 EW	50	EUR
2017	Euronext Climate Objective 50 EW	50	EUR
2018	Euronext France ESG Leaders 40 EW	40	EUR
2018	Euronext France Energy Transition Leaders 40 EW	40	EUR
2018	Euronext Eurozone ESG Leaders 40 EW	40	EUR
2018	Euronext Eurozone Energy Transition Leaders 50 EW	50	EUR
2018	Euronext Europe Sustainable 100 EW	100	EUR
2018	Euronext France 40 Responsible Investment	40	EUR
2018	CAC Large 60 Responsible Investment SW	60	EUR
2018	Euronext Responsible Investment Euro 50 EW	50	EUR
2018	Euronext CDP Environment France EW	40	EUR
2018	Euronext CDP Environment France Ex Oil & Gas EW	40	EUR
2018	Euronext Reitsmarket GRESB Global Sustainable Index	30	EUR
2018	Euronext Eurozone 100 ESG	100	EUR
2018	Euronext Euro 50 ESG EW	50	EUR
2018	Euronext Climate Objective 50 Euro EW	50	EUR
2018	Euronext BeNe ESG Leaders 20	20	EUR
2018	Euronext Core Europe 30 ESG EW	30	EUR
2018	Euronext Core Europe 100 ESG EW	100	EUR
2018	SBF Top 50 ESG EW	50	EUR

### Socially Responsible ETF Accessible on the Euronext Markets

Socially responsible ETFs that follow companies engaged with green investments or environmentally friendly initiatives are beginning to gain in popularity.

The sustainable investing theme has quickly gained momentum and assets related to it are growing on Euronext.

Four new ESG ETF were listed on our markets in 2018, with a combined €818 million in assets. Currently, there are 15 ESG-related ETFs with €4.1 billion in assets under management.

ETF Name	Underlying Index	Total Assets (€ Mn)
AMUNDI INDEX EQUITY GLOBAL LOW CARBN - UCITS ETF EUR	MSCI World Low Carbon Leaders	34.7
AMUNDI INDEX EQUITY GLOBAL LOW CARBN - UCITS ETF USD	MSCI World Low Carbon Leaders	616.9
BNP Paribas Easy MSCI KLD 400 Social UCITS ETF Capitalisation	MSCI KLD 400 Social Index (TR)	61.4
BNPPEASY LOW CARBON UCITSETF	Low Carbon Europe NTR	440
iShares J.P. Morgan ESG EM Bond UCITS ETF USD (Acc)	JP Morgan ESG EMBI Glob Divers	109.2
Lyxor Green Bond (DR) UCITS ETF - Acc	Solactive Green Bond EUR USD I	54
UBS (IRL) ETF PLC - MSCH ACWI SOCIALLY RESPONSIBLE UCITS ETF (HEDGED TO EUR) A-ACC	MSCI ACWI SRI 5% Cap	57.25
UBS (IRL) ETF PLC - MSCH UNITED KINGDOM IMI SOCIALLY RESPONSIBLE UCITS ETF (GBP) A-DIS	MSCI UK SRI	114.6
UBS ETF - MSCI EMERGING MARKETS SOCIALLY RESPONSIBLE UCITS ETF (USD) A-DIS	MSCI EM SRI 5% Issuer Capped	354
UBS ETF - MSCI JAPAN SOCIALLY RESPONSIBLE UCITS ETF (JPY) A-DIS	MSCI Japan SRI	217
UBS ETF - MSCI PACIFIC SOCIALLY RESPONSIBLE UCITS ETF (USD) A-DIS	MSCI Pacific SRI	82.3
UBS ETF - MSCI UBS ETF - MSCI EMU SOCIALLY RESPONSIBLE UCITS ETF (EUR) A-DIS	MSCI EMU SRI 5% Issuer Capped	615.5
UBS ETF - MSCI USA SOCIALLY RESPONSIBLE UCITS ETF (HEDGED TO EUR) A-DIS	MSCI USA SRI hdg to EUR	52.7
UBS ETF - MSCI USA SOCIALLY RESPONSIBLE UCITS ETF (USD) A-DIS	MSCI USA SRI	584
UBS ETF - MSCI WORLD SOCIALLY RESPONSIBLE UCITS ETF (USD) A-DIS	MSCI World SRI	708

Recent academic research has shown that high ESG ratings are correlated with lower cost of capital, market-based outperformance and accounting-based outperformance. Harvard Business School discovered that “high sustainability” firms outperform “low sustainability” firms over the long haul with lower volatility.

### Green Bonds: a Continued Growth of Issuances

Green Bonds are any type of bond instruments where the proceeds will be exclusively applied to finance or re-finance, in part or in full, new and/or existing, eligible Green Projects including: renewable energy, energy efficiency (including efficient buildings), sustainable waste management, sustainable land use (including sustainable forestry and agriculture), biodiversity conservation, clean transportation, clean water, climate change adaptation, etc...

2018 was a year of continued activity for green bonds, as the product provided an efficient and innovative capital market tool to accelerate the financing of the ecological transition.

In 2018, Euronext attracted close to €9 billion of additional green bond from non-sovereign institutions mainly driven by financial institutions (Swedbank, ABN Amro Bank, BNP Paribas, KBC) and utilities players (ex: Engie, Tennet holdings). Through the year, Euronext green bond franchise (excluding sovereign issues) has sustained substantial listing activity by welcoming 22 green bonds (in line with 2017 records) from 19 different issuers that together raised €8.7 billion (vs. €11.4 billion in 2017). In total, Euronext green bonds franchise gathers 39 green bond issuers (excluding sovereign issues) that raised more than €38 billion worth of green bonds through 83 deals since 2012.

Selected green bonds highlights for 2018 include:

- the trend of sovereign green bond issuance continued into 2018, after €10 billion were raised by France Trésor in 2017, then propelling a nascent market to record levels. After €4.4 billion worth of green bonds issued on Euronext Brussels in March 2018, Ireland followed suit with a €3 billion green bond issuance in October 2018 (that was oversubscribed almost three times);
- the Company in charge of expanding the Paris metropolis (*Société du Grand Paris*) held 2018's record by raising €1.8 billion worth of green bonds as it aims to give an edge to the Paris region when it comes to environmental matters;
- Engie extended its lead as top corporate green bond issuer on Euronext, issuing an €1 billion green bond in 2018 to reach €6.25 billion in total over the past five years. The proceeds will be used to finance the global utility player's growth in renewable energy or energy efficiency projects, and in natural resources preservation projects, as well as R&D investments in such areas and equity participations in projects of the social impact Engie fund “Rassembleurs d'Energies”.

By promoting green and climate bonds to issuers from various sectors and geographies, Euronext provides them with new sources of financing and promotes a sustainable growth strategy that is mindful of a low-carbon and resource-efficient economic model while it creates intangible value for Socially Responsible Investment investors.

Euronext has invested considerable effort in the development of its green bond franchise, notably through its partnership with the Finance For Tomorrow initiative, campaigning for the Paris ecosystem to play a leading role in the transition to a more sustainable finance.

2018 has also marked a further step in the growth of Euronext green bond franchise, through the acquisition of the Irish Stock Exchange in March 2018 (now trading as Euronext Dublin). The operation has made Euronext the leader in bond listings globally while providing a platform to accelerate its green bond franchise. Euronext Dublin partners with the Climate Bonds Initiative to provide support to green bond issuers.

## Supporting the Needs of the industry by Creating Specific Commodity Contracts

Euronext is pursuing the expansion of its commodity derivatives strategy by becoming the European specialist content provider of reference on agricultural products and markets. Euronext will provide economic analysis, training and establish price reporting services for European agricultural markets.

### Wheat, Rapeseed and Corn Contracts

Long time developed in close cooperation with the agricultural industry for hedging purposes, Rapeseed products (oilseeds and meal) and Corn contract are said to be non-GMO or conventional products as well as the wheat is. The underlying is said to be conventional, which is defined as a product containing no genetically modified organisms, or containing genetically modified organisms whose presence is adventitious or technically unavoidable, in accordance with requirements in force under EU Regulations. It refers and complies with EC Regulation n°1829/2003 of the European Parliament and the Council of the 22 September 2003 on genetically modified food and feed (OJEU 18-10-2003).

### Wood Pellets Future

Developed in close cooperation with the biomass committees, the new futures contract ("Residential Wood Pellets Contract") launched in November 2015 has been designed to meet the needs of market professionals looking for portfolio diversification and price-hedging tools against fluctuations in the prices of pellets or closely-related products.

## Financing a Greener Economy

Euronext has sought over the course of several years to support climate-friendly innovation by financing Cleantech companies. The Cleantech company cluster refers to enterprises that do not only seek to embody resource efficient, environmentally beneficial business practices in the way they carry out their operations, but develop, create and sell products and services that are resource efficient and benefit the environment. Their models range from but are not limited to production, storage and distribution of renewable or low carbon energy sources as well as pollution mitigation, conservation, and restoration.

From 2013, Euronext has devoted dedicated resources to create proximity with innovative companies across its markets, in order to provide stronger education on the benefits of leveraging capital markets to fund growth. Cleantech companies were then identified and as such benefitted from Euronext's full support.

Some of the major initiatives in this respect include:

- TechShare: 23 Cleantech SMEs part of the community learning how to leverage capital markets;

- Tech40 Index: 20% of this increasingly important index is made up Cleantech SMEs;

- Morningstar: the programme fully covers the scope of Cleantech SME issuers (46).

In 2018, Euronext has attracted 5 new Cleantechs companies to its markets (including Euronext Access), providing them with close to €800 million in equity funding. These operations enriched the Euronext Cleantech's community, adding the largest Cleantech ever listed on Euronext: Neoen, that raised €700 million for a €1.4 billion market capitalization. In total of 47 Cleantechs companies are listed on Euronext, worth a combined €6.4 billion, making it the leading Cleantech SME franchise in Europe.

Selected Cleantech' funding deals for 2018 include:

- Neoen IPO: French leading and one of the world's leading independent producers of renewable energy, that focuses on producing sustainable electricity locally and on a large scale at competitive rates. Neoen was the mark of the largest Cleantech IPO in Europe in 5 years raising close to €700 million for a €1.4 billion market capitalization;
- Alfen IPO: Dutch cleantech focusing on the construction of transformer substations, energy storage systems, charging stations for electric vehicles. Alfen was able to raise €85 million on Euronext in March 2018, for a €200 million market capitalization;
- Electro Power Systems' follow-on public offering: After its IPO in 2015 the Company, that specializes in hybrid-storage solutions and micro-grid systems that enable intermittent renewable sources to be transformed into a stable power source, has come back to the market to further finance its growth through a €30 million public offer. Since its IPO, the Company valuation has grown 86% to €167 million.

## Environmental Impact

Euronext is committed to taking environmental impacts into account when conducting its business.

Euronext has become an organisation that is proactively improving its environmental credentials, particularly the management of its greenhouse gas emissions (GHG). The Group's primary GHG arise from energy, waste and water in its offices and data centers, from staff travel, and indirectly from its supply chain (see figures in the Dashboard, page 92).

### Buildings

In most of its buildings across the five locations, the Group rolls out water-saving initiatives such as motion sensors on taps and water saving toilet flushes. Motion detector lighting saves the necessary energy in meeting rooms, storages and sanitary rooms. In 2016, all regular lamps were being replaced by LED and other energy saving lamps. The use of organic products for the cleaning and maintenance of the building is being developed. Euronext aims to send as little waste as possible to the incinerators. The Company separates waste at the source and works with secondary parties who specialise in sorting and recycling waste. In addition, Euronext uses free air (natural air) for its air-conditioning systems when the outside temperature drops below 12°C. Thanks to the Group's building management system, technical installations are automatically switched off during the night and at week-ends. High



efficiency boilers provide buildings with the necessary heating during the winter season, and where possible thermal insulation is placed in the form of wall and roof insulation and double-glazed windows.

Euronext decided it would relocate its Paris office to new premises in the La Défense business center in 2015 for a nine-year lease. The new office Praetorium benefits from the following certifications: HEQ (High environmental quality), BREEAM (sustainable building design and construction) and VHEP (very high energetic performance). More specifically, Praetorium benefits from presence detectors to monitor external blinds, lighting and air conditioning, depending on the climate; it has triple glazed windows to optimise insulation and enable maximum natural heating, and possesses

sensors to analyse air quality to ensure employees have access to a clean environment. Finally, the bee hives on the roof (with 80kg of honey produced in 2018 compared to 95kg in 2017) and the newly created aromatic herbs' square contribute to a more sustainable environment.

Euronext Brussels moved its offices in May 2015. The Marquis building, where Euronext Brussels have now its premises, has BREEAM certification (sustainable building design and construction).

Euronext concluded in 2017 the transfer of IT operations located in Belfast to Porto, to the same premises as Interbolsa, Euronext's Portuguese Central Securities Depository ("CSD").

The 2018 results of consumption of Electricity, gas and oil are the following (For comparison with 2017, please refer to the Dashboard, page 92):

	Amsterdam	Brussels	Dublin	Lisbon and Porto	Paris	London
Gas (m <sup>3</sup> )	124,295	5,096	7,954	4,543.5	Not Applicable	Not Applicable
Water (m <sup>3</sup> )	4,842	337	86	1.669 m <sup>3</sup>	4,270 m <sup>3</sup>	Not Applicable
Frozen water (m <sup>3</sup> )	Not Applicable	Not Applicable	Not Applicable	Not applicable	243,188 m <sup>3</sup>	Not Applicable
Cold water production (m <sup>3</sup> )	Not Applicable	Not Applicable	Not Applicable	Not Applicable	860 mWh	Not Applicable
Electricity (KWh)	3,330,030	129,465K	64,386	451,105	1,881,761	518,938
Oil (diesel) (L)	4,500	Not Applicable	90	550 L	Not applicable	Not Applicable

## Recycling

Plans are in place to improve waste and/or hazardous waste management in Euronext's offices, more especially in Amsterdam and Paris.

A project to gradually replace a significant part of the existing TL light with LED within the Amsterdam building has been started in 2017 and has continued in 2018. Also, the emergency power supply has been replaced by a more advanced and economical version. This new so called "UPS system" is more energy-efficient than its predecessor. Moreover, coffee cups have been replaced by a more environmentally friendly ones which stimulates reuse of the cups and a new concept with official "cradle to cradle" certificate has been installed for the sanitary dispensers (including the fillings). The technical staff is continuously monitoring the building management system in order to optimize the energy consumption. The Amsterdam building is also occupied by 31 tenants whereby the utility costs are shared between the parties in the building.

Euronext Paris also brought full attention to reducing the quantity of waste when moving to the building at La Défense: under a voluntary system, the staff members are asked to take care of making a selective quality sorting, by reducing their own quantity of waste. Individual paper baskets were removed, and 127 waste sorting bins were displayed in the whole building (one-point selective sorting for approximately fifteen occupants).

In Brussels, Euronext accounts for 2.67% of overall gas, electricity and water consumption (fixed percentage). The landlord organizes a recycling process with the help of an external supplier specialised in installing selective sorting systems for company waste (paper, cardboard, plastic, glass, cans, drink carton, waste (class II)). The cleaning company uses ecological products and there is a small honey production on the roof of the building. Since 2018, ink cartridges are recycled as well.

In Lisbon, the recycling process is managed by the landlord for the whole building where Euronext Lisbon is located. There are no specific information for Euronext Lisbon but 100% of papers, cartridges and batteries are recycled. The cleaning company makes a selective quality sorting of paper, plastic, glass, and common waste that is treated by a specialised company.

Porto office participates in the campaign "Paper for Food" that is an action promoted by the Portuguese Federation of Food Banks, (Federação Portuguesa de Bancos Alimentares) with environmental and solidarity purposes. All paper collected is converted into food products to be distributed by those in need. During 2018, 208.760 kgs. of paper was delivered to the Food Bank that was converted in 17 thousand euros of food products.

The 2018 results of recycling are the following (For comparison with 2017, please refer to the Dashboard, page 92):

	Amsterdam	Brussels	Lisbon and Porto	Paris	London
Recycled paper (kg)	10.138	520	208,76 <sup>(a)</sup>	11.276,1	480
Ink Cartridges (kg)	58	5,9	/	339,23	5
Batteries (kg)	29	Not Applicable	/	12	50 <sup>(b)</sup>

(a) This figure only concerns Porto. There are no available information for Lisbon but 100% of paper, cartridges and batteries are recycled.

(b) Includes also other electronics.

### Green IT, ongoing actions

In 2018, Euronext has initiated a project to be able to move its infrastructure in the cloud. The setup is now done and first applications are in production in the cloud. So far this project didn't allow us to stop existing hardware in our datacenter, as main part is linked to other applications, but it will come in 2019 as we expect to accelerate the process.

Euronext's goal is to continue to reduce hardware and datacenter footprints in the future. Optiq, the new trading system that will be put in place is less hardware consuming than UTP the existing one.

A Hardware refresh initiative has also been launched in 2018 and lot of old hardware has been decommissioned or have been replaced by up to date ones. The new servers are consuming 50% less electricity than the old ones (DL G9 instead of GL G7), and they're performing better at the same time.

### 2.5.3.4 People

At Euronext, corporate responsibility is part of our identity. Euronext conducts its business ethically and integrates consideration of the impact of its actions on its employees. Euronext promotes an environment that encourages collaborative work, learning and innovation allowing each employee to shape his/her future and the future of the Company.

### Who we are

#### Euronext staff as at 31 December 2018

Permanent employees	848
Including employees from 2018 new acquired entities	150

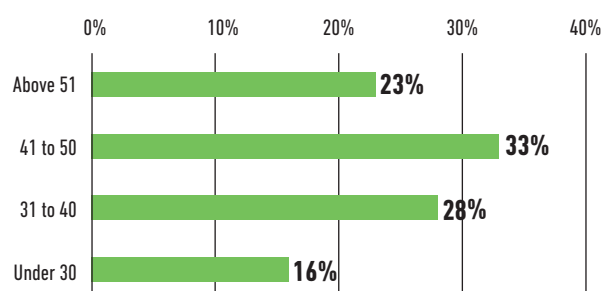
The total number of permanent employees as at 31 December 2018 was 848 including 150 employees from 2018 new acquired entities (InsiderLog AB, Irish Stock Exchange Plc). This 31 December 2018 headcount also takes into consideration Commcise's employees acquired on 20 December 2018, where 28 employees are located across UK, India and US.

This headcount represents 837.09 full-time equivalents (FTE) at the end of December 2018. The net evolution of headcount between 31 December 2017 (687 employees in headcount) and 31 December 2018, is plus 161.

For the details of hiring in 2018, please refer to the section below "Talent".

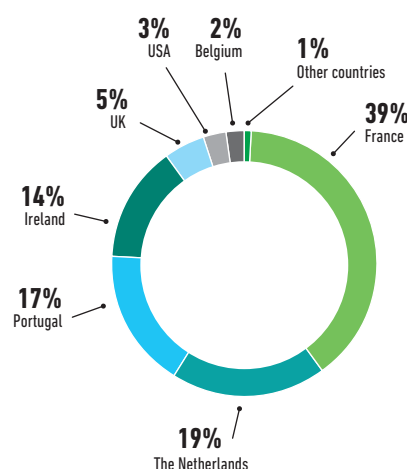
In addition, 62 trainees, apprentices and interns worked for Euronext as of year end 2018.

Euronext's average employee age is 43 years old, divided in the following age groups, 16% under 30 years old, 28% in the 31-40 age bracket, 33% in the 41-50 age bracket and 23% above 51 years old.



Euronext has employees in France (39% of Euronext employee total headcount), in the Netherlands (19%), in Portugal (17%), in Ireland (14%), in the United Kingdom (5%), in the United States (3%), in Belgium (2%) and in other countries (Germany, Hong Kong, Italy, Singapore, Spain, Sweden and Switzerland) (1%).

The percentage of employees located in each of the countries where Euronext operates is shown in the graph below:



## How we work

Values shape a company's behaviour and define who they are. At Euronext, our values are the principles by which we define ourselves, they are a reflection of us. They are not an abstract wish list, but a foundation that we have chosen to be embedded in the way that we work. Our 5 values are unity, integrity, agility, energy and accountability.

They underlie all our actions and are the reason why Euronext upholds respecting fundamentals rights.

## Respect of the Human Rights

Euronext supports the UN Guiding Principles on Business and Human Rights, together with the International Labor Organization Conventions and Recommendations. Euronext's employees are located in countries where fundamental rights, in particular social rights, freedom of association and equality and abolished forced labor and child labor, are promoted.

## Promoting Diversity

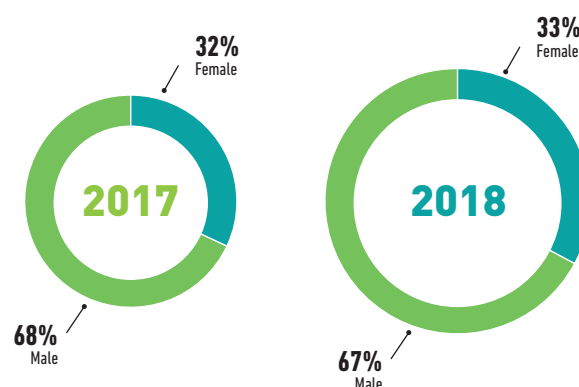
Euronext is a multinational financial markets company born from the coming together of market exchange activities in Amsterdam, Brussels, Paris and Lisbon. Euronext is now present in 11 European countries and in US and Asia. The federal governance model is central to its organisation, and naturally creates an environment where people of diverse cultures and backgrounds collaborate and drive the organisation forward. Its long-standing commitment to diversity is entrenched in its

corporate values, particularly that of "Unity" which encompasses three main elements:

- we respect and value the people we work with;
- we are unified through a common purpose;
- we embrace diversity and strive for inclusion.

In February 2018, a new Euronext Diversity Policy was adopted by the Euronext Managing Board, available on Euronext's website<sup>(1)</sup>. This policy was an opportunity for Euronext to set its position on Diversity and reaffirm its commitment to ensuring an inclusive environment for all forms of diversity. Diversity at Euronext includes gender, ethnicity, religion, sexual orientation, age, language, socioeconomic status, physical ability, experience and education.

## EURONEXT IS NOW MONITORING SOME DIVERSITY METRICS



	2018	2017	2016
Number of disabled employees	10	10	11
Number of nationalities represented	22	20	20
% of females in Senior Leadership Team	26%	24%	25%

in 2018, Euronext continued to launch several initiatives around Diversity promotion:

- Euronext Leadership trainings have been composed of diverse group, representing in each session various locations, functions and a balanced representation of male/female;
- Euronext participated to several seminars in London or Amsterdam dedicated to women's development;

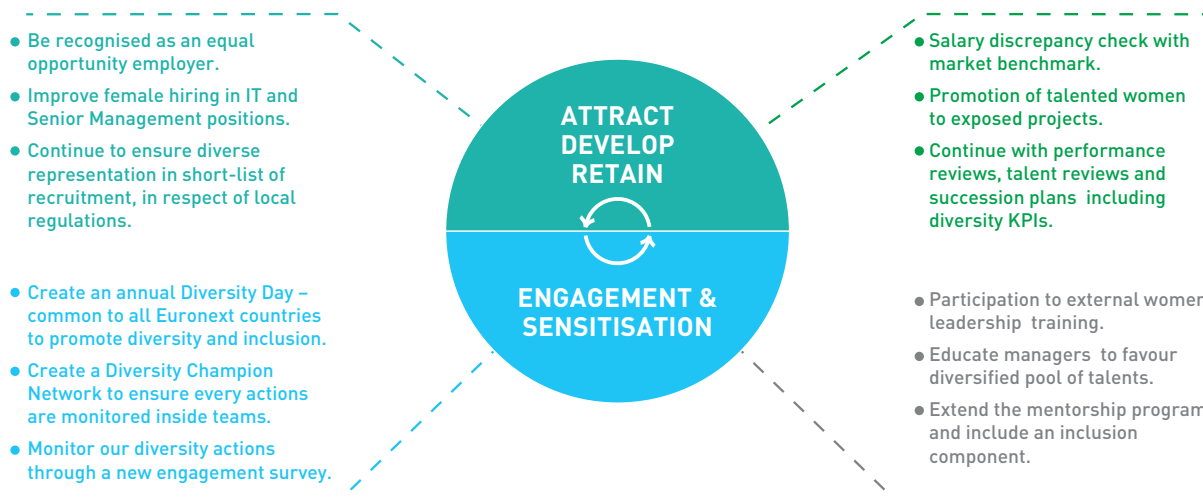
- a day of International Women's Rights Day was organised in all locations;
- a focus was done on gender diversity in recruitment, talent reviews, performance and compensation processes, in line with local laws.

In 2019, circa 16% of the annual salary increase budget went to catching-up on gender equality salary situations.

(1) <https://www.euronext.com/fr/investors/corporate-governance>

Following an ExchangeLab campaign that allowed all staff to suggest ideas, the below action plan has been designed for the coming years:

## WHAT EURONEXT IS COMMITTED TO DO



## Support a Culture of Social Dialogue

Euronext is committed to social dialogue, supporting union representation rights and facilitating worker representative bodies.

Euronext is also committed to respecting the right to collective bargaining, in accordance with local laws of the countries where its employees are located.

In accordance with local laws and regulations, local works councils are set in France, in the Netherlands and in Portugal (Porto). The works councils represent Euronext employees, are informed and/or consulted on economic, financial, social and organisation matters, and complement collective or national labour negotiations.

In France, staff representative elections were organized in 2018 in the two legal entities to renew the Work Councils according to local regulations.

	France	The Netherlands	Portugal
Number of local Work Council sessions held in 2018	23 (across 2 legal entities)	20	5

Given the recent evolution of the Company (new expansions in Dublin and Porto) it was decided to replace the formal European Work Council with more inclusive Staff Representatives Meetings at the European level. The Staff Representatives Meetings now include representatives from all European countries and covers all business lines.

	2018	2017	2016
Number of meeting of staff representative at European levels	1	2	2

The Company maintains continuous and constructive dialogue with all its workers' representative bodies. In Paris in 2018, Euronext entered into three new collective agreements. A new collective pension agreement was signed with the Dutch Works Council in 2018.

In 2018, Euronext launched an innovative strategic dialogue with all its employees on the new strategic plan. It will be continued in 2019 and demonstrates the value Euronext gives to open dialogue in all its forms.

## Encourage Health and Safety at Work

Euronext proposes to its employees several initiatives through its Wellnext program to maintain and improve health and wellbeing at work. Each location is monitoring absenteeism rate on a monthly basis.

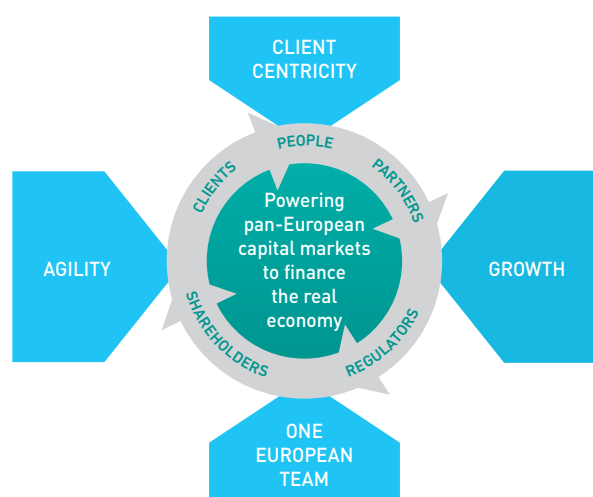
Euronext ensures the safety of its employees at work and in their working environment by ensuring regular review and updates of safety procedures developed in each location, and coupled with regular testing.

Each Euronext location proposes adapted initiatives based on local needs. Below is a list of main local initiatives:

	France & Belgium	Portugal	UK	Netherlands	Ireland
Local Wellnext initiatives	Free organic fruit each day	Free fruit	Free fruit	Health Assessment check every 3 years	Free fruit
	Sport classes and fitness room	B2 Run (annual runner event)	Discounted local gym membership	One week yearly dedicated on health and wellness at work topics with conferences, workshop...	Ergonomic testing available on need
	Employee Assistance Program available on need	Gym agreements	Energy, Health & Happiness campaign with employees reducing their life ages through various initiatives	Chair massage	Employee Assistance Programme through our health insurers
	Health and safety attributions within the newly elected "economic and social committee"	Pharmacy agreements	Guest speaker regarding importance of mental health awareness	Weekly inhouse Zumba classes	Health & Fitness Talk
	Training to Safety at work for new comers & also for the graduate ones (retraining course every 2 years)	Training to safety at work		Training for managers how to coop with stress signals in their teams	Onsite Massages
	Mandatory health assessment every 5 years at health services	Massage		Regular workplace check	Onsite Health Assessments
	Flu Vaccination				Eye test

## Euronext people roadmap

### "One Euronext Team" Transformation Program



As part of the Agility for Growth strategic plan released in May 2016, client centricity, entrepreneurship, innovation, talent development and the open federal model of the Company were identified as key drivers for the Euronext teams to deliver this plan.

Euronext's Human Resources policy is continuing to evolve, in accordance with the Agility for Growth strategic plan, while at the same time recognising that candidates and employee's expectations are changing and responding to this.

This evolution is supported by the Euronext values of integrity, accountability, agility, energy and unity. These values guide the actions, style and expertise of all Euronext's activities and are shared and celebrated with employees, customers and partners to ensure success.

In this context and for the third year, the Company continued to implement its Human Resources transformation programme called "One Euronext Team" in order to improve the Euronext Human Resources practices, processes and tools over a period of three years.

The People roadmap is composed of four main pillars: Engagement, Performance, Talent and Human Resources transformation.

Actions are formulated at group and local level, ensuring cross fertilisation of best initiatives. The Managing Board, local management teams and Human Resources teams monitor progress on a monthly basis.

This transformation program aims at motivate and stimulate current employees and attract new motivated ones.

#### ENGAGEMENT

Euronext promotes an environment which encourages collaborative work and innovation, allowing each employee to shape his/her future and the future of the Company. The Company aims to develop employee engagement and client centricity mind-set.

The Senior Leadership team, composed of 60 Senior Managers, is responsible for implementing the Agility for Growth strategy and sharing progress, challenges and performance with other members of the teams. The Company has also continued in 2018 to encourage town halls (all staff meetings) and team meetings in each country and function, in order to foster a culture of transparency in communication.

At the end of 2018, Euronext conducted its third client satisfaction survey, the results of which will be available in 2019. Conducted in parallel, an employee survey allowed the Company to ascertain the evolving internal perception and understanding of client centricity at Euronext. The client centricity programme priorities and roadmap for 2019/20 will be developed based on the findings of both surveys. Eighteen (18) employees across the countries and functions are identified as Client Centricity Champions, supported by 3 group coordinators to follow the action plan implementation.

In 2018, Euronext continued to reinforce opportunities for employees to express, share and develop new ideas. The "Exchange Lab" platform has been used for four campaigns, including one open to all staff across Euronext to generate ideas to promote Diversity, allowing more than 120 participations, 41 ideas suggested and 9 selected to be implemented.

	2018	2017
Number of ExchangeLab campaigns	4	3



Another initiative was launched in December 2018 to allow all staff to contribute and provide their input to help Euronext's Managing Board shape the new strategic plan as well as its implementation. It is the first time such an opportunity has been offered to employees to openly participate in this crucial moment of the Company and it reflects the value the Company management places on collective employee engagement. 385 employees have answered to the survey. The results were available at the end of January 2019 and will be used to complete the new strategic plan preparation. They have been made public to all staff in preparation of workshops in all locations.

### PERFORMANCE

This aspect aims at strengthening Euronext's performance culture by equipping Euronext's managers with the tools to develop and motivate their teams, and to recognise the contributions of each employee within each team.

Since 2016, Euronext has worked to promote the culture of continuous feedback, encouraging managers and employees to discuss on a regular basis.

The annual review process, which brings key formalized steps to this ongoing feedback culture, was deployed starting in November with the self-appraisal period, followed between December 2018 and January 2019 with an annual review meeting and new objectives set for 2019, in line with Agility for Growth.

Lunch & Learns training sessions in each location have been implemented. These sessions aim to deepen the feedback culture by providing all employees and managers the opportunity to experiment concrete feedback techniques. It is facilitated by professional external coaches.

The Human Resources team is monitoring indicators to ensure a written track record of key performance discussions are entered in the HR system:

	2018
Number of employees with an annual review form completed	98%
Number of employees with objectives forms completed	95%

Euronext also aims to ensure competitive and fair compensation, fostering new initiatives, growth and sustainable performance.

The Company provides a competitive base salary in line with market standards and short-term incentives to reward performance.

The Company also uses a long-term incentive (LTI) plan, in the form of performance shares reward. The LTI plan for 2018 is a discretionary performance share plan which 200 employees benefited from in 2018, of which 30,5% were women.

The plan helps to align the interests of Euronext executives and other eligible employees, with those of the Company and long term (or prospective) shareholders. It also provides an incentive for longer term commitment and retention of key employees. LTI vesting is conditional to presence and performance conditions.

The Remuneration policy also includes local benefits plans.

For specific information on Managing Board and Supervisory Board remuneration please refer to sections 2.4.3. and 2.4.4. of this document.

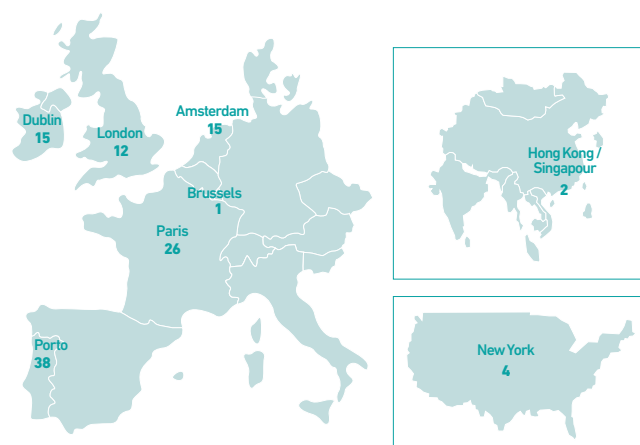
### TALENT

The goal of this facet is to develop the right skills for the future of the Company, whilst offering all employees development opportunities during their career at Euronext. It runs from talent acquisition through to talent development, including learning and development actions.

In continuity with the two previous years, the talent review was executed in 2018 in order to identify employees who show potential as future leaders of the Company, thus ensuring the sustainability of Euronext's organisational structure. Talent reviews are held in a consultative manner by Senior Managers within one department; this consultation focuses on mutual exchange of feedback on employee performance and potential. Talent Reviews also help identify employees' development needs. Talent reviews are held in each function, and output is discussed by the Managing Board. They are also used to identify potential successors in the organisation's key roles, and formalise a succession plan.

Euronext also strives to hire the best talent for the right role, at the right place and in the right moment, in order to achieve its ambitions. Euronext's Talent Acquisition strategy encourages managers to promote diversity when recruiting external talent, and KPIs were implemented in 2018 in order to track progress, in particular in the recruitment of female employees: 113 new permanent employees were hired, split across all geographies, historical or more recent ones.

	2018	2017	2016
Number of permanent and non-permanent employees hired in the year	113	101	94
% of females included in the above number	25%	30%	NA
Talent pool of trainees, interns, apprentices	62	51	NA



Euronext runs internal educational and information programmes including frequent “Lunch & Learn” sessions, in order to develop expertise in each of the key functions, in line with the Agility for Growth strategy. Forty-three (43) Lunch & Learn sessions were held in the Group in 2018, to which all employees were invited.

	2018	2017	2016
Number of Lunch & Learn sessions	43	39	34

## TRAINING GROUP ACTIVITY SUMMARY

	Project Management	Leadership	Pitching for business
2018	82 participants for session either dedicated to the Project Management community or to all staff across locations	94 participants from all locations, 34% of which were female	36 participants from clients facing teams from Sales and Listing functions
2017	151 participants from all Euronext countries	17 participants from all locations, 47% of which were female	9 participants from the Market and Global Sales team

Specific training is also available for employee representatives based upon their needs.

In 2018, Euronext teams deployed the Career framework within the Information Technology department. Twelve (12) Career Framework roles have been identified to represent the main roles within the Information Technology family. The Career Framework provides a clear map of the professional roles available within Euronext. The other role families will be deployed in 2019.

### HUMAN RESOURCES TRANSFORMATION

In 2018, the Human Resources team continued to launch projects to reinforce Euronext’s Human Resources organisation, tools and processes.

The Human Resources team is organised around countries, functions (Cash Equities and Derivatives, Global Sales, Debts & Funds Listings and ETF’s, Listings, Information Technology, Operations, Central Functions) and specialist skills. The objective of this organisation is to continue to support the federal model of Euronext, whilst reinforcing the implementation of the Euronext strategy.

Key transformation resulted in a new and harmonized time management system deployed for all entities in Europe, completed with a global payroll system renewed in all locations.

In 2018 the concept of “Learning Weeks” was created and deployed across all locations to promote learning and development to all its employees and managers. Through inspiring conferences, workshops and face-to-face meetings, all employees were offered deep content to develop their soft skills, to learn about capital markets trends and on new technologies. The “Learning Weeks” were facilitated by internal experts or external thought leaders. They will be continued in 2019.

A dedicated budget is also set and spent for external vendor training purposes across Euronext locations.

	2018	2017	2016
% of employees trained (reported training or development activity)	70%	57%	51%

In 2018, it represents more than 12,500 hours of training reported with an estimated average of 29,5 hours per employee trained.

Employee training was focused on the following key areas: specific industry skills, personal and professional development including management skills, languages, security and information technology.

As this transformation program is aiming to ensure Euronext employees and managers benefit from a seamless HR experience, the Human Resources team also renewed and designed a new onboarding approach for its new employees in 2018.

## 2.5.3.5 Our Community

### Euronext commitment to Ethics

Euronext’s commitment to high ethical and legal standards of conduct is core to Euronext businesses, and the Group aims to be a model for the industry by supporting the highest ethical standards in its dealings with its colleagues, employees, business partners, customers and in its communities.

Euronext is committed to ensuring a balance between the needs of its employees with those of the Company guaranteeing each and every employee can excel and develop in a safe, discrimination and harassment free environment.

### Euronext Code of Business Conduct and Ethics

Euronext has adopted a Code of Business Conduct and Ethics that reaffirms its commitment to high standards of ethical conduct and reinforces its business integrity, policies and procedures.

The Code of Business Conduct and Ethics explains the Company's core values and basic ethical obligations in conducting business. In particular, it addresses the following themes:

- conflicts of interest;
- inside information and personal trading;
- confidential information and privacy;
- anti-money laundering, sanctions and anti-bribery;
- fair competition.

### Euronext Compliance Policies

These policies aim at ensuring compliance with the laws and promoting best practice as well as the higher ethical standards.

They intend to raise awareness among Euronext employees and avoid non-compliance or reputational risks.

Euronext has implemented the Anti-Money Laundering and Sanctions Policy and Guidance according to the 4<sup>th</sup> European Union AML Directive. The financial sector relies on Euronext to act as a gatekeeper preventing money laundering and terrorist financing activities. The Euronext Anti-Money Laundering and Sanctions Policy is designed to ensure compliance with EU AML Directives and Regulations applicable to an operator of regulated markets and trading venues. It includes the need to have in place appropriate systems and controls to identify and mitigate the risk of Euronext being used to facilitate money laundering, other financial crime and terrorist financing.

Furthermore, Euronext maintains a strong focus on detecting integrity breaches such as market abuse, market manipulation, and insider trading which are reported to regulators. Euronext has internal procedures and dedicated teams for this purpose and to ensure compliance with requirements of the Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on Market Abuse ("Market Abuse Regulation").

Prevention of market abuse by Euronext staff is supported by a Personal Trading Policy, a Euronext N.V. Insider trading Policy as well as a Confidential and Inside information Policy.

Finally, Euronext has adopted an anti-bribery policy and a conflict of interest policy according to best practice to comply with local laws, as well as a gift meals and entertainment policy which strives to ensure all Euronext staff upholds the highest standards with respect to conflicts of interest and anti-corruption. The Anti-Bribery Policy is established to prevent, identify and report the activities constituting bribery in its many forms. Similarly, Euronext has established the Conflicts of interest Policy to avoid conflicts situations, ensure that Employees understand what a conflict of interest is, in its many forms and offer guidance to Employees on how to manage such conflicts.

Euronext notes that following the acquisition of Commicse on 20 December 2018, Euronext has staff members in India at the end of 2018. While Euronext is assessing on an ongoing basis its ESG risk profile, the late acquisition date of Commicse in 2018 did not allow Euronext to fully analyse any potential ESG risks from this acquisition, for which the assessment is still being performed at the date of this report.

The aforementioned policies apply to Euronext and its majority owned subsidiaries, and to all Euronext employees including consultants (including interns and temporary staff) and agents.

### Training and Awareness

Staff training and awareness sessions are conducted regularly in all company locations to promote compliance and ethics standards. Each new employee is trained shortly after joining by the Euronext Compliance department. Euronext conducts ongoing training as refresher and as necessary, such as following the modification of these policies. Finally, some teams receive specific training as they have been identified as more exposed to certain risks.

### GENERAL COMPLIANCE TRAINING NEW EMPLOYEES, INTERNS, AND CONSULTANTS

2018		
	Number	Percentage of total employees
Staff that received the training	208	88.90%

### Whistleblowing Program

The Company, via its Whistleblowing Policy, allows Employees to report in confidence alleged breaches of the laws or Company policies, and protects anyone who reports in good faith, ensuring that they shall in no way be put at a disadvantage by the Company as a result of the report. The Whistleblowing Policy also describes how the reports are treated, how investigations are carried out and contains the rights and obligations of Employees when they want to report an alleged breach.

Additionally, the Company is committed to providing all employees and others who are on Company property with a safe and healthy work environment. Accordingly, all employees will comply with all health and safety laws and regulations as well as Company policies governing health and safety. All employees are responsible for immediately reporting accidents, injuries and unsafe equipment, practices or conditions to a manager or other designated person.

*For more information on the Code of Business Conduct and Ethics see section 2.2.1.3 "Corporate Compliance – Code of Business Conduct and Ethics"*

### Data Protection

The Euronext group is strongly committed to protecting the personal data and upholding the right to privacy as provided by Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of Personal Data and on the free movement of such data ("GDPR") and any national implementing laws and regulations of the GDPR. A Privacy Statement<sup>(1)</sup> outlines how and why we collect and process personal data and provides an overview of the rights in relation to personal data.

(1) See <https://www.euronext.com/fr/privacy-policy>

## Ethical Supply Chain

Euronext is committed to ethical behavior not only within the Group but also with its suppliers and vendors. Euronext introduced its Euronext Supplier Code of Conduct which includes provisions for human rights, diversity and inclusion, and environmental protection. All new vendors are first screened for any past or current sanctions, and is checked against the Euronext country black list which is directly based on the OECD blacklist of Non Cooperative Countries or Territories (NCCTs) and is reviewed on a yearly basis.

## VENDOR SCREENINGS

	2018	2017
Number of vendors screened	1,300	900
Numbers of vendors rejected	0	0

## Community Outreach and Engagement

Euronext takes into account its business impact on its local and global communities and its employees play important roles in their communities. Euronext contributes to its local communities through volunteerism, philanthropy and thought leadership. Euronext works with its community of global business leaders to foster corporate responsibility more broadly.

## Financial Literacy

As a stock exchange, Euronext is at the center of financial markets and communities. As a meeting point for a broad range of stakeholders, Euronext is committed to improving the broader understanding how financial institutions, including Euronext work together and their impacts on the world around them. Euronext strives to improve financial understanding far beyond its own company—seeking to reach employees at its broad community of companies, as well as teachers, students, and people in its communities. Euronext believes it can have a broader role to play. Euronext takes the opportunity to partner with international organizations in the field, namely by celebrating Global Money Week, Global Entrepreneurship Week, Financial Literacy Week, with events and bell ceremonies across all its locations.

The ESG strategy of Euronext mainly focuses on Financial Literacy and Sustainability. However, the Company also devotes attention to explaining the role of an exchange, and how it contributes to the growth of the economy and the well-being of people.

## Volunteering

Euronext's employees volunteer for several organizations in all its European locations, Euronext helping to identify and select the themes and institutions with a wide offer of company sponsored initiatives, that most suit its employees wishes and abilities.

Euronext's employees give time to volunteering initiatives.

In 2018 several initiatives were pursued locally, such as:

- in Amsterdam: through the AEX Experience at the exchange building, Euronext Amsterdam hosted numerous financial literacy and education tours about the role of the exchange and the functioning of capital markets. In total, 474 groups representing over 10,000 persons took part in these tours in 2018. Next to this, educational seminars for private investors were organised; In Porto: a campaign, called "Paper for food", with environmental and solidarity aspects, was organised: staff at the Porto office

collected old newspapers, magazines, leaflets, etc., delivered it to the "Food Bank", which received money for this waste paper and used the money to purchase food for the economically most disadvantaged families;

- in Lisbon, some volunteers have visited schools that had requested a brief introduction to the capital markets and how companies can grow using it as a tool for financing their businesses;
- in Paris: 15 presentations were organized, with the support of internal teams from all departments, for various High Schools in and around Paris, for Universities (Université Catholique de Lille, Master II Droit Financier Paris Sorbonne, Master II Finance Paris Dauphine, Master II Finance Toulouse) and for business schools (ESSCA). Those presentations aimed at giving pedagogic explanations on the role of an exchange to young High School students, and entering into more elaborate details on the functions of an exchange for students in universities and business schools; the Euronext group CEO dedicated a half-day presentation of the role of an exchange to young students from a Collège in Pantin, and several members of Euronext Paris management dedicated time for Finance education sessions in the context of the Journée Nationale des Jeunes;
- in Dublin: employees volunteered in help at the Capuchin Day centre which helps fed those in need. Through our charity committee we also raised awareness for cancer Support & had a representative from the charity ARC Cancer support onsite to speak to our employees. We also had a representative from Movember (a cancer charity) come onsite from a breakfast talk to speak to employees about Men's Cancer Awareness.

## Giving Visibility

One of the most unique aspects of Euronext's ESG's strategy is the way in which the Company allocates its resources. Our status allows and business ecosystem provides us with a unique position to raise awareness and to promote leadership and best practices. Companies, NGOs, non-profits, associations and foundations are invited to participate to Euronext's opening and closing stock markets bell ceremonies, conferences and seminars.

Euronext has a program of opening or closing the markets with a bell event ("Gong" in Amsterdam). Some of these events gave visibility to international causes or charities – in particular to the following:

- in Amsterdam: 53 bell events have been hosted in relation to international causes or charities such as International Women's Rights Day and Global Money Week;
- in Brussels:
  - bell ceremony organised for the signature by Euronext of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD),
  - bell ceremony for the International Women's Rights Day;
- in Paris:
  - International Women's Rights Day on 8 March;
- in Porto and Lisbon: organization of the International Women's Rights Day and collaboration with and support to the Business Council for Sustainable Development (an initiative of many leading firms to promote environment, social and governance development);

- in Dublin: International Women's Rights Day presentation on Una Keogh (first female trader in the Irish Stock Exchange) & bell ringing.

## Sponsoring and Donations

The Company encourages its staff to volunteer in the financial literacy field, but has also granted a few sponsorship or donations:

- in Amsterdam: donations were made to Stofwisselkracht to sponsor a cycle tour for children with a metabolic diseases (and a team of Euronext has participated in the tour and raised money for the organisation), to Surfkids to support a special magazine for sick children who are in Hospital, Hospital and to Nationaal Fonds Kinderhulp, this organization has several projects especially for the more than 300,000 children who live in poverty in the Netherlands. They organise birthday parties, they buy Christmas gifts and special needs for school. The organise summer camps or make sure those kids are able to practice sport;
- in Brussels, a contract was signed with the Antwerp Management School ("AMS") : sponsoring of €7.000. AMS requested financial support for a research project of its students of the *Advanced Master in Innovation and Entrepreneurship*. The project concerns research with regard to three ecosystems and, among others, IPO's in these ecosystems. As the project is situated in the field of financial education, Euronext Brussels agreed to support it in the framework of our ESG policy;
- in London: donations of €7.900 to Sir John Cass' Foundation Primary School;
- in Paris, sponsorship to Banyan association for the sponsoring to Journée Internationale des Jeunes (€3.500) and to the association Crée Ton Avenir (€2.400), which helps teenagers with their professional orientation and the development of their competences and knowledge of the professional world; furthermore, a donation was made with regard to the organization of the International Women's Rights Day;
- in Portugal, Euronext has been one of the great promoters and sponsor of the national initiative Finance for Growth: a program created with the support of the Portuguese Government dedicated to enlightening SMC businesses on the different financing solutions. The initiative aims to get to 1,500 companies, via conferences and a roadshow all over the country, to work closely with those who wants to know more about the tools that better suit their financing needs (being capital markets one of those);
- in Dublin, the Charity committee raised money and awareness for: Arc Cancer Support, Irish Society for the Prevention of Cruelty to Children, the Capuchin Day centre (where those in need are fed daily) and Movember (Men's Cancer Awareness). Other corporate donations were given to the Mater Hospital and the Irish Cancer Society.

## Good Corporate Governance

The Company respects the Corporate Governance Guidelines, Recommendations and Codes set in place in the Netherlands (see section 2.1.), and aims to comply with the ones set in place in the other Euronext locations, and notably the French Afep – Medef Recommendations and the 2009 Belgian Code on Corporate Governance.

The governance of Euronext reflects the highest standards of independence, oversight, and transparency. The Company applies strict principles and guidelines to its own governance practice and to the companies that list on its markets.

Euronext's two-tier governance is composed of a Supervisory Board and a Managing Board. The Supervisory Board's main role is the supervision and oversight of the Company's management. The Supervisory Board is chaired by an independent non-executive director. The managing board is responsible for the developing and implementing the Company strategy as well as assuring the day to day operations. The Managing Board is chaired by the group CEO. The functions of Chief Executive Officer ("CEO") (chairing the Managing Board) and Chairman (chairing the Supervisory Board) are separated.

In 2018, the Supervisory Board was composed of nine non-executive directors including two female directors.

Three independent committees report to the Supervisory Board: the Audit Committee, the Nomination and Governance Committee and the Remuneration Committee. Each Committee is chaired by one of the Supervisory Board members and includes several Supervisory Board members.

The General Meeting held on 15 May 2018 has set the annual remuneration for the members of the Supervisory Board in accordance to their role(s), see section 2.4.4. "Remuneration of the Supervisory Board members".

In 2018, the Supervisory Board and its three related committees<sup>(1)</sup> held thirty-one (31) sessions through in person meetings or conference calls.

By the end of 2018 the Managing Board included seven (7) directors, and in its "Extended Managing Board composition" it included five (5) Executive Managers who attended all its meetings (Chief Financial Officer, Chief Information & Technology Officer, General Counsel, Chief Talent Officer and the Head of Cash and Derivatives).

In 2018, the Company has reaffirmed the role of the Euronext Managing Board and of the Investment Committee, performed monthly risk reviews and strengthened the Senior Leadership team with sixty Senior Managers.

The Senior Leadership team, a new Executive group created in 2016, is composed of 26% of females. The balance of country representation is the following: 55% France, 13% Netherlands, 8% United Kingdom, 8% Portugal, 7% Belgium, 7% Ireland and 2% United States. The average age of this group is 45 years old.

Executive compensation respects the Company's remuneration policy, ensuring adequate performance based rewards. For further details see section 2.4. "Remuneration Policy".

Detailed information about Euronext's Governance can be found on the Corporate Governance page on Euronext's website as well as in sections "Corporate Governance" and "Management control structure" of this Registration Document.

The enterprise risk management framework also illustrates Euronext's commitment to ESG.

Euronext governance includes internal auditing and internal control teams, supported by external firms to audit specific items, provide guidance and control. In 2018, nine (9) assignments on various domains,

(1) Audit Committee, Nomination and Governance Committee and Remuneration Committee.



including Information Technology, Business entities and Support Functions, have been conducted by the Internal Audit department.

## 2.5.4 ESG RISKS CONSIDERATIONS

Euronext as a European market operator does not face standalone material ESG risks. However ESG considerations are important to Euronext and certain risks faced by Euronext may be qualified as ESG are already taken into account in other risk categories.

### 2.5.4.1 Social

Given Euronext's role as market operator and mission to uphold the highest standards for a transparent market, the integrity of our markets is one of our imperatives. We believe that financial markets are a cornerstone to a well-functioning economy and, by extension, society. Therefore the risk of an integrity breach of our markets may be considered a societal risk. However, given the strict legal framework and highly regulated environment in which Euronext operates, these risks are considered as compliance risks.

Euronext mitigates potential risks to our market integrity by ensuring strong controls and procedures. Euronext has implemented the Anti-Money Laundering and Sanctions Policy and Guidance according to the 4<sup>th</sup> European Union AML Directive.

Euronext maintains Member and Issuer Compliance teams to support fair and orderly markets and protect against integrity breaches such as market abuse, market manipulation and insider trading, which if detected are reported to Regulators. With respect to Euronext as an issuer, further controls and policies in order to ensure the highest standards and integrity are maintained:

- Euronext Personal Trading Policy;
- Euronext N.V. Insider Trading Policy;
- Confidential and Insider Information Policy;
- Conflicts of Interest Policy;
- Anti-Fraud Policy;
- Anti-Bribery Policy (in best practice accordance to local laws);
- Anti-Money Laundering and Sanctions Policy;
- Gifts, Meals, and Business Entertainment Policy;
- Employee code of conduct;
- Whistleblowing policy.

Euronext ensures regular training sessions for all employees and targeted training sessions for those employees with access to potential price sensitive information. Euronext also manages a whistleblowing policy to ensure employees have a place to report issues confidentially. For further information please refer to the 2.5.3.4. section for more information.

Euronext employees are essential to the Company and are a critical stakeholder. While Euronext protects itself from key man risk through succession planning and its organization (please refer to section 2.3.7. for further information) employee health, wellbeing, and growth are imperative to the Company. As such Euronext has several initiatives in place to employee wellness

(please refer to section 2.5.3.4. "Encourage health and safety at work") in addition to upholding European labor laws Euronext employees benefit from local works councils in France, the Netherlands, and Portugal. Given Euronext's geographic footprint (Europe) and sector, Euronext does not face material Labor/ Human Rights risks. Euronext employees are covered by European Labor Laws and the Company benefits from having Euronext has limited employees outside of Europe (US and Hong Kong) and is obligated to uphold European Labor Laws.

Euronext seeks to ensure the highest standards within the Company and throughout our supply chain via the Euronext Supplier code of conduct. This code of conduct first signed in 2015 includes provisions regarding human rights, diversity and inclusion, and environmental protection, ensuring that Euronext has an ethical supply chain. Additionally all new vendors are screened for past or current sanctions. For further information regarding our supply chain please refer to section 2.5.3.1. "Suppliers and subcontractors".

Euronext notes that following the acquisition of Commicse on 20 December 2018, Euronext has staff members in India at the end of 2018. While Euronext is assessing on an ongoing basis its ESG risk profile, the late acquisition date of Commicse in 2018 did not allow Euronext to fully analyse any potential ESG risks from this acquisition, for which the assessment is still being performed at the date of this report.

### 2.5.4.2 Environmental

As an electronic services provider, Euronext does not directly engage in materially environmentally sensitive activities. Nevertheless, Euronext is committed to environmental sustainability and has endeavored over the past 10 years to offer an increasing range of ESG products and services to its clients. Euronext further strives to reduce our own environmental footprint, and most recently in our latest initiative "Green IT". Green IT looks at the promotion of IT solutions that reduce our consumption of natural resources, for example the use of communication tools over international travel, reducing the footprint of physical platforms to virtual environments and reduction of hardware consumption. Please refer to page 82 for further details on Euronext's Green IT Initiative and 2.5.3.3 section ("ESG product offerings") for information regarding the ESG products offered by Euronext.

### 2.5.4.3 Governance

Euronext upholds the highest standards of Corporate Governance and complies with the Dutch Code of Governance. Euronext's two-tiered board structure ensures strong oversight over management. Euronext maintains a majority independent Supervisory Board in order to ensure all shareholders are appropriately represented. Finally, Euronext seeks to ensure that executive remuneration and non-executive director remuneration are not excessive with respect to market and sector peers, and that for executive directors, variable compensation is aligned with Company performance. For more information on the composition of the Supervisory Board, please refer to section 2.2.4. for details regarding non-executive and executive remuneration please refer to 2.4.3. section and 2.4.4. section of this document.

## 2.5.5 DASHBOARD

## Net Promoting Score

2018 Net Promoting Score (NPS) results by business lines are the following compared to 2017:

	2018	2017
Issuers	+15	+9
Market Data	+3	+15
Interbolsa	+33	+47
Members	+13	-15

## Total Consumption of Electricity, Gas and Oil for the Year

	Amsterdam		Brussels		Dublin		Lisbon and Porto		Paris		London	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Gas (m <sup>3</sup> )	124,295	123,010	5,096	14,552.7	7,954	8,314	4,543.5	42,541	N/A	N/A	N/A	N/A
Water (m <sup>3</sup> )	4,842	4,943	337	1408	86	301	1,169	2,125	4,270	2,925.8	N/A	N/A
Frozen water (m <sup>3</sup> )	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	243,188	233,219	N/A	N/A
Cold water production (mWh)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	860	829	N/A	N/A
Electricity (kWh)	3,330,030	3,533,369	129,465	133,277	64,386	29,570	451,105	465,133	1,881,761	1,915,119	518,938	433,044
Oil (Diesel) (L)	4,500	4,500	N/A	N/A	90	90	550	550	N/A	N/A	N/A	N/A

## Recycling

	Amsterdam		Brussels		Lisbon and Porto <sup>(a)</sup>		Paris		London	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Recycled paper (kg)	10,138	14,200	520	1,386	208.76	238.6	11,276.1	26,080.7	/	480
Ink cartridges (kg)	58	136	5.9	/	/	/	339.23	565	3.5	5
Batteries (kg)	29	26	/	/	/	/	12	15	/	50

(a) These figures only concern Porto. There are no available information for Lisbon but 100% of paper, cartridges and batteries are recycled.

## Other indicators

Clients and suppliers	2018	2017	2016
Transactions client meetings	1,500	1,400	750
Exchange of emails with clients	27,000 e-mails	28,000 e-mails	8,500 emails
Calls with clients	10,000 calls	13,000 calls	12,000 calls
Number of new suppliers screened	1,300	900	/

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# 3

## SELECTED HISTORICAL CONSOLIDATED FINANCIAL INFORMATION AND OTHER FINANCIAL INFORMATION

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# 3 Selected historical consolidated financial information and other financial information

In compliance with Article 28 of EC Regulation No. 809/2004, the following information is incorporated by reference in the Registration Document:

## For Financial Year 2016

Required disclosures in the report of the Managing Board appearing in the Statement of the Managing Board, the Consolidated Financial Statements are presented on pages 116-163 and the corresponding auditors report is presented on page 177 of the 2016 Registration Document filed with the *Autoriteit Financiële Markten* on 7 April 2017.

## For Financial Year 2017

Required disclosures in the report of the Managing Board appearing in the Statement of the Managing Board, the Consolidated Financial Statements are presented on pages 135-203 and the corresponding auditors report is presented on page 206 of the 2017 Registration Document filed with the *Autoriteit Financiële Markten* on 29 March 2018.

## SELECTED HISTORICAL CONSOLIDATED FINANCIAL INFORMATION

The selected consolidated financial information set out below is derived from the audited Consolidated Financial Statements for the financial years ended 31 December 2018, 2017 and 2016 and should be read in conjunction with, and is qualified by reference to, those Financial Statements.

### Selected Consolidated Income Statement Data

In thousands of euros	Year ended		
	31 December 2018	31 December 2017	31 December 2016
Revenue			
Listing	106,490	84,247	68,708
Trading revenue	276,572	237,854	220,835
of which			
■ Cash trading	210,947	190,276	180,727
■ Derivatives trading	43,910	40,339	40,108
■ FX trading	21,715	7,239	-
Advanced data services	118,298	104,673	105,697
Post-trade	77,381	71,698	67,627
of which			
■ Clearing	55,331	51,132	47,992
■ Custody and Settlement	22,050	20,566	19,635
Euronext Technology Solutions & Other revenue	36,063	33,465	33,009
Other income	229	357	560
<b>TOTAL REVENUE</b>	<b>615,033</b>	<b>532,294</b>	<b>496,436</b>
Salaries and employee benefits	(118,488)	(104,363)	(99,776)
Depreciation and amortisation	(23,400)	(16,932)	(15,088)
Other operational expenses	(142,295)	(130,149)	(112,766)
<b>OPERATING PROFIT BEFORE EXCEPTIONAL ITEMS</b>	<b>330,850</b>	<b>280,850</b>	<b>268,806</b>
Exceptional items	(21,474)	(14,787)	(10,038)
<b>OPERATING PROFIT</b>	<b>309,376</b>	<b>266,063</b>	<b>258,768</b>
Finance costs	(5,481)	(3,553)	(2,142)
Change in fair value of financial liabilities	(3,200)	-	-
Other net financing income/(expense)	3,421	(47)	1,336
Results from equity investments	5,984	48,325	6,032
Share of net (loss) of associates and joint ventures accounted for using the equity method, and impairments thereof	1,612	287	(19)
<b>PROFIT BEFORE INCOME TAX</b>	<b>311,712</b>	<b>311,075</b>	<b>263,975</b>
Income tax expense	(94,084)	(68,886)	(66,962)
<b>PROFIT FOR THE YEAR</b>	<b>217,628</b>	<b>242,189</b>	<b>197,013</b>
<b>PROFIT ATTRIBUTABLE TO:</b>			
■ Owners of the parent	215,968	241,297	197,013
■ Non-controlling interest	1,660	892	-

## Selected Consolidated Balance Sheet Data

<i>In thousands of euros</i>	As at 31 December 2018	As at 31 December 2017	As at 31 December 2016
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	38,884	27,782	27,492
Goodwill and other intangible assets	705,636	515,134	321,156
Deferred income tax assets	20,932	7,991	5,021
Investments in associates and joint ventures	72,685	75,004	15,957
Financial assets at fair value through other comprehensive income	220,100	-	-
Financial assets at amortised cost	7,021	-	-
Other non-current assets	812	-	-
Available-for-sale financial assets	-	147,503	117,060
Other receivables	-	7,968	7,086
<b>TOTAL NON-CURRENT ASSETS</b>	<b>1,066,070</b>	<b>781,382</b>	<b>493,772</b>
<b>Current assets</b>			
Trade and other receivables	101,082	94,986	81,599
Other current assets	9,240	-	-
Income tax receivables	2,532	1,428	7,645
Derivative financial instruments	7,361	-	-
Other current financial assets	14,160	-	-
Cash and cash equivalents	398,018	187,785	174,501
<b>TOTAL CURRENT ASSETS</b>	<b>532,393</b>	<b>284,199</b>	<b>263,745</b>
<b>TOTAL ASSETS</b>	<b>1,598,463</b>	<b>1,065,581</b>	<b>757,517</b>
<b>Equity and liabilities</b>			
<b>TOTAL EQUITY</b>	<b>802,324</b>	<b>729,480</b>	<b>548,018</b>
<b>Non-current liabilities</b>			
Borrowings	504,940	164,682	69,005
Other non-current financial liabilities	17,400	10,000	-
Deferred income tax liabilities	21,429	19,834	600
Post-employment benefits	10,666	11,713	13,249
Contract liabilities	41,461	-	-
Provisions	5,994	5,081	6,488
<b>TOTAL NON-CURRENT LIABILITIES</b>	<b>601,890</b>	<b>211,310</b>	<b>89,342</b>
<b>Current liabilities</b>			
Borrowings	3,745	203	96
Other current financial liabilities	6,986	6,654	-
Derivative financial instruments	85	-	-
Current income tax liabilities	11,240	17,429	27,202
Trade and other payables	115,332	99,161	90,607
Contract liabilities	55,487	-	-
Provisions	1,374	1,344	2,252
<b>TOTAL CURRENT LIABILITIES</b>	<b>194,249</b>	<b>124,791</b>	<b>120,157</b>
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>1,598,463</b>	<b>1,065,581</b>	<b>757,517</b>

## Selected Statement of Cash Flows Data

<i>In thousands of euros</i>	Year ended		
	31 December 2018	31 December 2017	31 December 2016
Net cash provided by operating activities	223,512	207,003	175,095
Net cash (used in) investing activities	(215,152)	(185,093)	(23,540)
Net cash provided by/(used in) financing activities	202,012	(8,524)	(128,628)
<b>NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>210,372</b>	<b>13,386</b>	<b>22,927</b>
Cash and cash equivalents – Beginning of year	187,785	174,501	158,642
Non-cash exchange gains/(losses) on cash and cash equivalents	(139)	(102)	(7,068)
<b>CASH AND CASH EQUIVALENTS – END OF YEAR</b>	<b>398,018</b>	<b>187,785</b>	<b>174,501</b>

## OTHER FINANCIAL INFORMATION

### Non-IFRS financial measures

Euronext uses the following non-IFRS measures as supplemental measures since it believes they provide meaningful supplemental information regarding its financial and operational performance. These measures should not be used instead of, or considered as alternatives to operating result or any other performance measure derived in accordance with IFRS:

- EBITDA;
- EBITDA margin.

Non-IFRS measures are not prepared in accordance with IFRS and may be different from, and not comparable to, similarly titled measures reported by other companies. These measures should be read in conjunction with the Consolidated Financial Statements:

- EBITDA is defined as the operating profit before exceptional items and depreciation and amortisation;
- EBITDA margin is defined as the operating profit before exceptional items and depreciation and amortisation, divided by total revenue.

### Reconciliation of EBITDA and EBITDA margin

<i>In thousands of euros (except for percentages)</i>	Year ended		
	31 December 2018	31 December 2017	31 December 2016
Operating profit before exceptional items	330,850	280,850	268,806
Depreciation and amortization	(23,400)	16,932	15,088
Operating profit before exceptional items and depreciation and amortisation (EBITDA)	354,250	297,782	283,894
<b>TOTAL REVENUE</b>	<b>615,033</b>	<b>532,294</b>	<b>496,436</b>
EBITDA margin <sup>(a)</sup>	58%	56%	57%

(a) EBITDA margin is a non-IFRS measure and is not audited. EBITDA margin should not be considered as an alternative to, or more meaningful than, and should be read in conjunction with, operating profit before exceptional items.

## Adjusted EPS Definition

In €m and EPS in €/share	Year ended	
	31 December 2018	31 December 2017
<b>NET INCOME REPORTED</b>	<b>216.0</b>	<b>241.3</b>
<b>EPS REPORTED</b>	<b>3.10</b>	<b>3.47</b>
Intangible assets related to acquisitions (PPA...)	(7.4)	(2.40)
Exceptional items	(21.5)	(14.8)
Capital gains or losses		40.6
Tax related to those items	5.6	2.7
<b>ADJUSTED FOR INTANGIBLE ASSETS RELATED TO ACQUISITIONS, CAPITAL GAINS OR LOSSES AND EXCEPTIONAL ITEMS, INCL. TAX</b>		
Adj. Net Income	239.3	215.2
<b>ADJUSTED EPS</b>	<b>3.44</b>	<b>3.09</b>





# 4

## GENERAL DESCRIPTION OF THE COMPANY AND ITS SHARE CAPITAL

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## 4.1 Legal Information on the Company

### 4.1.1 GENERAL

Euronext is a public company with limited liability (*naamloze Vennootschap*) incorporated under the laws of the Netherlands and is domiciled in the Netherlands. The Company was incorporated in the Netherlands on 15 March 2014. Euronext's statutory seat (*statutaire zetel*) is in Amsterdam, the Netherlands, and its registered office and principal place of business is at Beursplein 5, 1012 JW Amsterdam, the Netherlands. The Company is registered with the trade register of the Chamber of Commerce for Amsterdam, the Netherlands, under number 60234520, and the telephone number is +31 (0)20-7214444.

### 4.1.2 CORPORATE OBJECTS

Euronext's corporate objects, as set out in Article 3 of the Articles of Association, are to participate and to manage other enterprises and companies of which the objects are to set up, develop, hold and operate, directly or indirectly, one or more regulated and other markets or other facilities with regard to the listing of, the trading in, the post-trade processing of transactions in, and related services and process in, securities and derivatives, as well as to manage and finance subsidiaries, to enter into joint ventures with other enterprises and other companies engaged in one or more of the activities referred to above; to acquire, operate and dispose of industrial and intellectual property rights as well as real property; to provide security for the debts of the Company, its subsidiaries or any other legal person and to undertake all that is connected to the foregoing or in furtherance thereof.

## 4.2 Share Capital

### 4.2.1 AUTHORISED AND ISSUED SHARE CAPITAL

Under the Articles of Association, Euronext's authorised share capital amounts to €200,000,001.60 and is divided into 125,000,000 Ordinary Shares, each with a nominal value of €1.60 and one priority share with a nominal value of €1.60. All of Euronext's shares have been or will be created under Dutch law.

As of 31 December 2018, Euronext's issued share capital amounts to €112,000,000 and is divided into 70,000,000 Ordinary Shares. The Priority Share is currently not outstanding. As of 31 December 2018, Euronext held 386,019 shares in its own share capital after settlement and custody of trades made on 28 and 31 December 2018. All shares that are issued at the date of the Registration Document are fully paid up.

Euronext is subject to the provisions of the Dutch Financial Supervision Act and the Articles of Association with regard to the issue of shares following admission. The shares are in registered form and are only available in the form of an entry in Euronext's shareholders' register and not in certificated form.

### 4.2.2 ISSUE OF SHARES

Under its Articles of Association Euronext may issue shares, or grant rights to subscribe for shares, only pursuant to a resolution of the General Meeting upon proposal of the Supervisory Board or upon proposal of the Managing Board, which proposal has been approved by the Supervisory Board.

Euronext's Articles of Association provide that the General Meeting may designate the authority to issue shares or grant rights to subscribe for shares, to the Managing Board upon proposal of the Supervisory Board on a proposal of the Managing Board, which proposal has been approved by the Supervisory Board. Pursuant to the Dutch Civil Code and Euronext's Articles of Association, the period of designation may not exceed five years. Such designation may be renewed by a resolution of the General Meeting for a subsequent period of up to five years each time. Unless the resolution determines otherwise, the designation is irrevocable. At the designation, the number of shares which may be issued by the Managing Board must be determined.

On 15 May 2018, the General Meeting designated the Managing Board as per 15 May 2018 for a period of eighteen months or until the date on which the meeting again extends the designation, if earlier, as the competent body to, subject to the approval of the Supervisory Board, issue ordinary shares and to grant rights to subscribe for ordinary shares up to a total of 10% of the currently issued ordinary share capital, which 10% can be used for general purposes, including but not limited to the financing (in cash or in kind by way of ordinary shares) of mergers and acquisitions as well as facilitating grants under the Company's employee remuneration and long term incentive plans; whereby not more than 2% of the currently issued ordinary share capital out of the aforementioned 10% will be issued for facilitating these plans, it being understood that it is the intention of the Company that they will in principle be funded by means of ordinary shares held as treasury stock (if need be, purchased from the market for this purpose).

### 4.2.3 PRE-EMPTION RIGHTS

Dutch company law and Euronext's Articles of Association in most cases give shareholders pre-emption rights to subscribe on a *pro rata* basis for any issue of new shares or upon a grant of rights to subscribe for shares. Exceptions to these pre-emption rights include the issue of shares and the grant of rights to subscribe for shares (i) to Euronext's employees, (ii) in return for non-cash consideration, or (iii) the issue of shares to persons exercising a previously granted right to subscribe for shares.

A shareholder may exercise pre-emption rights during a period of two weeks from the date of the announcement of the issue or grant. The General Meeting or the Managing Board, if so designated by the General Meeting, may restrict the right or exclude shareholder pre-emption rights. A resolution by the General Meeting to designate the authority to exclude or limit pre-emption rights to the Managing Board requires a majority of at least two-thirds of the votes cast if less than 50% of Euronext's issued share capital is represented and can only be taken upon proposal of the Supervisory Board or upon proposal of the Managing Board, which proposal has been approved by the Supervisory Board. If the General Meeting has not designated this authority to the Managing Board, the General Meeting may itself vote to limit or exclude pre-emption rights and will also require a majority of at least two-thirds of the votes cast, if less than 50% of Euronext's issued share capital is represented at the General Meeting.

On 15 May 2018, the General Meeting designated the Managing Board as per 19 May 2017 for a period of eighteen months or until the date on which the meeting again extends the designation, if earlier, as the competent body to, subject to the approval of the Supervisory Board, restrict or exclude the pre-emptive rights of shareholders pertaining to (the right to subscribe for) ordinary shares upon any issuance of ordinary shares (as referred to in Item 6a of the agenda of the meeting) to the extent such issuance pertains to the payment in ordinary shares in case of mergers and acquisitions or facilitating grants under the Company's employee remuneration and long term incentive plans.

The Company has an agreement with its Reference shareholders (see section 4.4.1.) to give reasonable prior notice if Euronext uses this authority for share issuances in case of a merger or acquisition transaction.

### 4.2.4 ACQUISITION OF SHARES IN EURONEXT'S CAPITAL

Euronext may acquire fully paid shares at any time for no consideration (*om niet*), or, subject to the following provisions of Dutch law and its Articles of Association, Euronext may acquire fully paid shares for consideration, namely if (i) its shareholders' equity, less the payment required to make the acquisition, does not fall below the sum of paid-in and called-up share capital and any

statutory reserves, (ii) Euronext and its subsidiaries would thereafter not hold shares or hold a pledge over Euronext shares with an aggregate nominal value exceeding 50% of its issued share capital, and (iii) the Managing Board has been authorised by the General Meeting, with the prior approval of the Supervisory Board.

Authorisation from the General Meeting to acquire Euronext shares must specify the number and class of shares that may be acquired, the manner in which shares may be acquired and the price range within which shares may be acquired. Such authorisation will be valid for no more than eighteen months. Any shares Euronext holds may not be voted or counted for voting quorum purposes.

On 15 May 2018, the General Meeting designated the Managing Board as per 15 May 2018 for a period of eighteen months or until the date on which the meeting again extends the authorisation, if earlier, to, subject to the approval of the Supervisory Board, have the Company acquire ordinary shares in the share capital of the Company through purchase on a stock exchange or otherwise. The authorisation is given for the purchase of up to 10% of the issued ordinary shares at the time of the purchase, for a purchase price between (a) the par value of the ordinary shares at the time of the purchase and (b) the average closing price of the ordinary shares on Euronext Paris, Euronext Amsterdam, Euronext Brussels and Euronext Lisbon, during the five trading days preceding the day of purchase within a margin of 10% of that purchase price. Under the Facilities Agreement (see section 5.1.10), Euronext's ability to acquire its shares is restricted, subject to certain exceptions.

### 4.2.5 REDUCTION OF SHARE CAPITAL

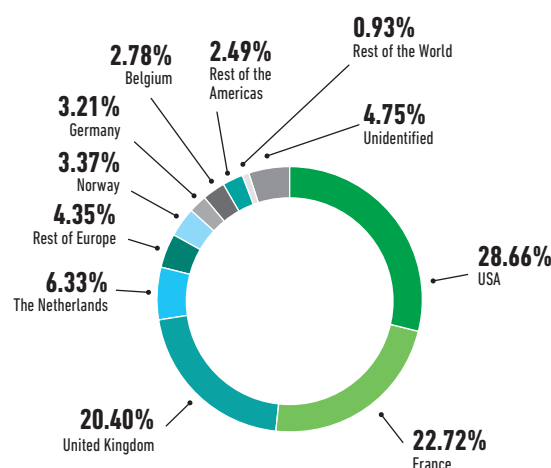
Under Euronext's Articles of Association, upon a proposal from the Supervisory Board, or upon proposal of the Managing Board, which has been approved by the Supervisory Board, the General Meeting may resolve to reduce Euronext's issued and outstanding share capital by cancelling its shares, or by amending Euronext's Articles of Association to reduce the nominal value of its shares. The decision to reduce Euronext's share capital requires a majority of at least two-thirds of the votes cast if less than 50% of Euronext's issued share capital is present or represented at the General Meeting.

## 4.3 Shareholder Structure

The shareholding structure as of 31 December 2018 was as follows.

Shareholder	Number of shares	% of capital
Reference shareholders	16,702,000	23.86%
Treasury Shares	386,019	0.55%
Employees	155,266	0.22%
Free float	52,756,715	75.37%
<b>TOTAL</b>	<b>70,000,000</b>	<b>100%</b>

GEOGRAPHIC BREAKDOWN OF THE FREE FLOAT IN 2018



## 4.4 Share Classes and Major Shareholders

### 4.4.1 REFERENCE SHAREHOLDERS

Prior to the IPO, on 27 May 2014, a group of institutional investors (collectively, the "Reference shareholders", and each a "Reference shareholder") purchased an aggregate of 33.36% of the issued and outstanding Ordinary Shares from the ICE, the selling shareholder at the IPO, at €19.20 or a 4% discount to the Offer Price (€20.00).

This Group of Reference shareholders was comprised of Novo Banco, BNP Paribas S.A., BNP Paribas Fortis S.A./N.V., ABN AMRO Bank N.V. through its subsidiary ABN AMRO Participaties Fund I B.V., ASR Levensverzekering N.V. (a company of the ASR Nederland group), Caisse des Dépôts et Consignations, Bpifrance Participations, Euroclear S.A./N.V., Société Fédérale de Participations et d'Investissement/Federale Participatie- en Investeringsmaatschappij, Société Générale and BancoBPI Pension Fund represented by BPI Vida e Pensões – Companhia de Seguros, S.A. The Reference shareholders had entered into a reference shareholders agreement (the "Reference shareholders Agreement") governing the relationship among the Reference shareholders.

On 13 June 2017, Euronext was informed that the Reference shareholders had decided to extend an amended version of their agreement dated 3 June 2014, which was due to expire on 20 June 2017 and which was extended for a further period of two years commencing on 21 June 2017. Eight of the initial Reference shareholders adhered to the extension, now accounting for 23.86% of Euronext's share capital. The new Reference shareholders group has agreed to a new lock-up period of two years commencing on 21 June 2017 and expiring on 20 June 2019. The Supervisory Board representation of the Reference shareholders will be maintained, as the Reference shareholders, acting jointly, will retain their right to nominate one third of the Supervisory Board seats.

On 14 December 2018, Caisse des Dépôts et Consignations announced it decided to simplify the structure of its shareholding in Euronext N.V. by transferring the 3.00% of the share capital of Euronext N.V. held by Bpifrance Participations to Caisse des Dépôts et Consignations itself, which already holds directly 3.00% of the equity of Euronext N.V. as well. Further to the transaction, Caisse des Dépôts et Consignations hold directly the 4,200,000 shares representing 6.00% of Euronext N.V. share capital.

Since 14 December 2018 and including the above change, the group of Reference shareholders comprises:

Name of reference shareholder	Number of shares	Individual shareholding (% of capital)
BNP Paribas group	1,554,000	2.22%
ABN AMRO Bank N.V. through its subsidiary ABN AMRO Participaties Fund I B.V.	1,148,000	1.64%
Caisse des Dépôts et Consignations	4,200,000	6.00%
Euroclear S.A./N.V.	5,600,000	8.00%
Société Fédérale de Participations et d'Investissement/ Federale Participatie – en Investeringsmaatschappij	3,150,000	4.50%
Société Générale	1,050,000	1.50%
<b>TOTAL SHAREHOLDING</b>	<b>16,702,000</b>	<b>23.86%</b>

### Share Transfer Restriction

Under the Reference shareholders Agreement, each of the Reference shareholders has agreed not to sell or otherwise transfer or dispose of any of the Ordinary Shares such Reference shareholder acquires pursuant to the Share Purchase Agreement for a period of two years commencing on 21 June 2017. This transfer restriction will not apply to any transfers to (i) affiliates of a Reference shareholder, provided that the transferee agrees to be bound by this transfer restriction and the other terms and conditions of the Reference shareholders Agreement and shall accede to the Reference shareholders Agreement, (ii) another Reference shareholder, provided that the Ordinary Shares transferred will continue to be subject to the transfer restriction and the other terms and conditions of the Reference shareholders Agreement as if originally held by the acquiring Reference shareholder, and (iii) a third party with the unanimous consent in writing of the Reference shareholders (subject to the consent of the relevant regulator(s), such consent not to be unreasonably withheld and provided the third party shall accede to the Reference shareholders Agreement, and further provided that no mandatory bid obligation is triggered by such transfer. In the case of transfers to an affiliate of a Reference shareholder, such affiliate must retransfer the relevant Ordinary Shares to the original Reference shareholder prior to ceasing to be an affiliate of such Reference shareholder. In the case of proposed transfers to another Reference shareholder, the other Reference shareholders will have a right of first refusal *pro rata* to their respective holdings, and such transfer may not result in any Reference shareholder, together with its affiliates, holding one third or more of the aggregate shareholding of the Reference shareholders. In addition, repo and securities lending transactions may be excluded from this restriction on the basis of guidelines to be agreed.

In the event of a tender offer announced or made by any person to acquire all or a portion of the Ordinary Shares, the Reference shareholders will review and assess the merits of the proposed bid and adopt a common position. Subject to consulting with the Euronext College of Regulators, if the outcome of that procedure is that the Reference shareholders decide to accept the offer, once made, the transfer restriction will not apply, except as provided to the contrary in any declaration of no-objection and subject to any and all other requirements and restrictions under applicable law and regulation, and with the understanding that no Reference shareholder will be obliged to sell its Ordinary Shares regardless the common position taken.

### Further Restrictions

Each of the Reference shareholders has agreed not to enter into any transaction or do anything, and not to permit its affiliates to enter into any transaction or do anything, if such transaction or action would result in the Reference shareholders or any of them becoming obligated to make a mandatory bid (verplicht openbaar bod) for the Ordinary Shares within the meaning of section 5:70 of the Dutch Wet op het financieel toezicht (Financial Supervision Act) implementing Article 5 of Directive 2004/25/EC.

### Supervisory Board Representation

The Reference shareholders, acting jointly, will have the right to one third of the Supervisory Board seats. Members of the Supervisory Board who are appointed upon a nomination by the Reference shareholders are referred to as "Reference shareholder directors". The Supervisory Board undertakes to include the name of the person nominated by the Reference shareholders in its binding nomination to the shareholders Meeting of Euronext, unless the Supervisory Board objects against the nomination if it reasonably believes that the nominee may not fulfil the suitability and integrity criteria under applicable Dutch law, and always subject to any applicable regulatory assessments, approvals and requirements.

The Reference shareholder directors have been appointed by the General Meeting each for a term of four years. If the Reference shareholders Agreement is terminated before the end of term of office of each Reference shareholder director, his or her term of office shall lapse immediately after the day of the first General Meeting of Euronext to be held after the date of termination of the Reference shareholders Agreement.

### Committee of Representatives

Each Reference shareholder has appointed one representative and one alternate duly authorised to represent and act for and in the name of the relevant Reference shareholder and any and all of its affiliates for all purposes of the Reference shareholders Agreement, who shall be the contact person vis-à-vis the other Reference shareholders and the Company. The representatives of all Reference shareholders constitute the Committee of Representatives which decides on all matters requiring a joint decision of the Reference shareholders. The decisions of the Committee of Representatives shall be binding upon all Reference shareholders.



### Voting

Depending on the decision concerned, the decisions of the Committee of Representatives shall be adopted by absolute majority of the votes cast or by qualified majority of two thirds of the votes cast, as indicated below. Each Reference shareholder will have such number of votes equal to the aggregate number of Ordinary Shares held by the Reference shareholder and its affiliates, provided that no Reference shareholder shall at any time have one-third or more of the votes within the Committee of Representatives regardless of the number of Ordinary Shares held.

In all instances where the Reference shareholders Agreement calls for joint decision making of the Reference shareholders in the General Meeting, each Reference shareholder will exercise, and will cause any of its affiliates to exercise, its voting rights in such shareholders' Meeting in accordance with the decision of the Committee of Representatives on the relevant subject.

The Reference shareholders agree to vote in accordance with the decision of the Committee of Representatives on any proposed shareholders' resolutions.

The following resolutions require a qualified majority of two thirds of the votes cast:

- any issuance of Ordinary Shares by the Company or rights to acquire Ordinary Shares (and exclusion or limitation or pre-emption rights, as the case may be);
- any decrease in the share capital of the Company;
- any authorisation for the Company to acquire its own shares;
- any issuance of securities other than Ordinary Shares, to the extent these give exposure to Ordinary Shares, including but not limited to hybrids and covered bonds;
- any proposal to appoint, suspend or remove any member of the Supervisory Board (including but not limited to any Reference shareholders director);
- any going private transaction or other change of control of the Company;
- any major identity transforming transactions requiring shareholders' approval pursuant to section 2: 107a of the Dutch Civil Code;
- any other major acquisitions or disposals not requiring approval under section 2: 107a of the Dutch Civil Code;
- any amendment of the Articles of Association of the Company; and
- any proposal for legal merger, demerger, conversion or dissolution of the Company.

For the following resolutions, the adoption is by absolute majority of the votes cast:

- any proposal to appoint, suspend or remove any member of the Managing Board;
- adoption of the annual Financial Statements of the Company;
- discharge of the members of the Managing Board and the Supervisory Board; and
- any dividend or other distribution to shareholders.

### Termination

The Reference shareholders Agreement and all restrictions and requirements thereunder or pursuant thereto shall terminate upon the earlier of (i) expiry of the Restricted Period, unless extended by written agreement signed by all Reference shareholders, subject to any regulatory declarations of no objection or regulatory approvals, (ii) the Company becoming bankrupt or being granted a (provisional) suspension of payment, and (iii) at any time after the Restricted Period, the aggregate shareholding of the Reference shareholders becoming less than 23% of the issued share capital of the Company unless increased to at least 23% again within 30 days after such event. The Reference shareholders Agreement is terminating in June 2019.

### Letter Agreement

In addition to the renewed Reference shareholders Agreement, the Letter Agreement of 4 June 2014 between Euronext and its Reference shareholders, as supplemented on 25 March 2015, has been amended and extended. The focus of the revised Letter Agreement dated 13 June 2017 is to strengthen the regular dialogue between Euronext and its Reference shareholders, addressing (i) the right of the Reference shareholders to retain one third of the Supervisory Board seats, (ii) the use by Euronext of the delegated authorities for the issuance / repurchase of shares, with the possible exclusion or restriction of pre-emption rights, (iii) the process of communication between Euronext and the Reference shareholders, which includes periodical meetings on topics including strategy, governance and financing structure; and (iv) the involvement of the Reference shareholders in the selection procedure in case of any vacancies for the CEO, the COO or Supervisory Board positions.

#### 4.4.2 MAJOR SHAREHOLDINGS

On top of the Reference shareholders who own jointly 23.86% and whose individual holdings are disclosed above and according to the AFM any substantial holding and gross short positions in issuing institutions and shares with special controlling rights have to be notified.

An issuing institution is: a public limited company (*naamloze Vennootschap*) incorporated under Dutch law whose (depository receipts for) shares are admitted to trading on a regulated market in the Netherlands or in another Member State of the European Union or an EEA State, or a legal entity incorporated under the law of a state that is not an European Union Member State and whose (depository receipts for) shares are admitted to trading on a regulated market in the Netherlands.

As soon as the substantial holding or short position equals or exceeds 3% of the issued capital, the holder should report this. Subsequently, it should notify the AFM again when its substantial holding or short position consequently reaches, exceeds or falls below a threshold. This can be caused by the acquisition or disposal of shares by the shareholder or because the issued capital of the issuing institution is increased or decreased. Thresholds are: 3%, 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%, 75% and 95%.

The duty to notify applies to legal entities as well as natural persons.

In 2018 and from 1 January 2019 until the publication of this report, the following crossings of thresholds were declared:

Date	Shareholder having crossed the threshold	Crossing of threshold in capital and voting rights	Type	No of shares	% of voting rights at date of declaration
12/02/18	Norges Bank	3%	Decrease	2,094,958	2.99%
15/02/18	Norges Bank	3%	Increase	2,103,202	3.00%
20/02/18	GIC Private Ltd	3%	Decrease	2,042,020	2.92%
22/02/18	Norges Bank	3%	Decrease	2,011,484	2.87%
23/02/18	Norges Bank	3%	Increase	2,171,859	3.10%
26/02/18	Norges Bank	3%	Decrease	2,014,081	2.88%
26/02/18	Norges Bank	3%	Decrease	2,014,081	2.88%
06/03/18	Norges Bank	3%	Increase	2,120,520	3.05%
07/03/18	Norges Bank	3%	Decrease	1,964,679	2.83%
23/03/18	Capital Research and Management Company	3%	Increase	2,115,158	3.02%
05/04/18	Norges Bank	3%	Increase	2,114,873	3.02%
10/04/18	Norges Bank	3%	Decrease	2,084,779	2.98%
28/08/18	Amundi Asset Management	5%	Increase	3,546,735	5.07%
14/02/19	Massachusetts Financial Services Company	3%	Increase	2,129,492	3.04%
08/03/19	Amundi Asset Management	5%	Decrease	3,488,519	4.98%
12/03/19	Massachusetts Financial Services Company	3%	Increase	2,934,626	4.16%
25/03/19	Capital Research and Management Company	5%	Increase	3,544,244	5.06%

None of Euronext's shareholders hold 10% or more in the capital of the Company.

As of the date of publication of the 2018 Registration Document, the only shareholders owning more than 3% (excluding Reference shareholders) and declaring it to the AFM are listed below:

Shareholder having crossed the threshold	Nb of shares	% of voting rights at date of declaration
Blackrock, Inc.	2,116,840	3.15%
Capital Research and Management Company	3,544,224	5.06%
Amundi Asset Management	3,488,519	4.98%
Massachusetts Financial Services Company	2,934,626	4.16%

## 4.5 General Meeting of Shareholders and Voting Rights

The Annual General Meeting must be held within six months after the end of each financial year. An Extraordinary General Meeting may be convened, whenever Euronext's interests so require, by the Managing Board or the Supervisory Board. Shareholders representing alone or in aggregate at least one-tenth of Euronext's issued and outstanding share capital may, pursuant to the Dutch Civil Code, request that a General Meeting be convened. Within three months of it becoming apparent to the Managing Board that Euronext's equity has decreased to an amount equal to or lower than one-half of the paid-in and called-up capital, a General Meeting will be held to discuss any requisite measures.

Euronext will give notice of each General Meeting by publication on its website and in any other manner that Euronext may be required to follow in order to comply with and the applicable requirements of regulations pursuant to the listing of its shares on Euronext Amsterdam, Euronext Brussels, Euronext Lisbon and Euronext Paris. The notice convening any General Meeting must include, among other items, an agenda indicating the place and date of the meeting, the items for discussion and voting, the proceedings for registration including the registration date, as well as any proposals for the agenda. Pursuant to Dutch law, shareholders holding at least 3% of Euronext's issued and outstanding share capital have a right to request the Managing Board and the Supervisory Board to include items on the agenda of the General Meeting.

The Managing Board and the Supervisory Board must agree to these requests, provided that (i) the request was made in writing and motivated, and (ii) the request was received by the Chairman of the Managing Board or the Chairman of the Supervisory Board at least sixty days prior to the date of the General Meeting.

The Managing Board must give notice of a General Meeting, by at least such number of days prior to the day of the meeting as required by Dutch law, which is currently forty-two days.

Each shareholder (as well as other persons with voting rights or meeting rights) may attend the General Meeting, to address the General Meeting and, in so far as they have such right, to exercise voting rights *pro rata* to its shareholding, either in person or by proxy. Shareholders may exercise these rights, if they are the holders of shares on the registration date which is currently the 28<sup>th</sup> day before the day of the meeting, and they or their proxy have notified Euronext of their intention to attend the meeting in writing at the address and by the date specified in the notice of the meeting.

The Managing Board may decide that persons entitled to attend General Meetings and vote there may, within a period prior to the General Meeting to be set by the Managing Board, which period cannot start prior to the registration date, cast their vote electronically or by post in a manner to be decided by the Managing Board. Votes cast in accordance with the previous sentence are equal to votes cast at the meeting.

Each shareholder may cast one vote for each Ordinary Share held. Members of the Managing Board and the Supervisory Board may attend a General Meeting in which they have an advisory role. The voting rights attached to shares are suspended as long as such shares are held by Euronext. The rights of the holders of Ordinary

Shares that were offered and sold in the Offering rank *pari passu* with each other and with all other holders of the Ordinary Shares, including the Reference shareholders, with respect to voting rights and distributions. Euronext has no intention of changing the rights of shareholders.

Resolutions of the General Meeting are taken by an absolute majority, except where Dutch law or Euronext's Articles of Association provide for a qualified majority or unanimity.

Two General Meetings were held in 2018.

The Annual General Meeting was held on 15 May 2018. In this meeting decisions were taken on the adoption of the 2017 Financial Statements, a dividend of €1.73 per ordinary share, the discharge the members of the Managing Board and Supervisory Board in respect of their duties performed during the year 2017, the re-appointments of Manuel Ferreira da Silva and Lieve Mostrey as a members of the Supervisory Board, the appointments of Luc Keuleneer and Padraic O'Connor as a members of the Supervisory Board, the appointment of Deirdre Somers as a member of the Managing Board, the remuneration policy, the remuneration of the members of the Supervisory Board, the appointment of Ernst & Young Accountants LLP as the Company's external auditors and the designation of the Managing Board as the competent body to 1) issue ordinary shares, 2) to restrict or exclude the pre-emptive rights of shareholders and 3) to acquire ordinary shares in the share capital of the Company on behalf of the Company. In addition, the Corporate Governance of the Euronext was discussed.

An Extraordinary General Meeting was held on 4 October 2018. In that meeting decisions were taken on the appointments of Daryl Byrne and Chris Topple as a members of the Managing Board.

## 4.6 Anti-Takeover Provisions

Euronext currently does not have any anti-takeover provisions.

## 4.7 Obligations of Shareholders and Members of the Managing Board to Disclose Holdings

Shareholders may be subject to notification obligations under the Dutch Financial Supervision Act. Pursuant to chapter 5.3 of the Dutch Financial Supervision Act, any person who, directly or indirectly, acquires or disposes of an actual or potential capital interest and/or voting rights in the Company must immediately give written notice to the AFM of such acquisition or disposal by means of a standard form if, as a result of such acquisition or disposal, the percentage of capital interest and/or voting rights held by such person reaches, exceeds

or falls below the following thresholds: 3%, 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%, 75% and 95%. In addition, any person whose capital interest or voting rights reaches, exceeds or falls below a threshold due to a change in Euronext's outstanding share capital, or in votes that can be cast on the shares as notified to the AFM by the Company, should notify the AFM no later than the fourth trading day after the AFM has published Euronext's notification of the change in its outstanding share capital.

Each person holding an interest in Euronext's share capital or voting rights of 3% or more at the time of admission of Euronext's shares to trading must immediately notify the AFM. Furthermore, every holder of 3% or more of the Company's share capital or voting rights whose interest at 31 December at midnight differs from a previous notification to the AFM must notify the AFM within four weeks.

For the purpose of calculating the percentage of capital interest or voting rights, the following interests must be taken into account: (i) shares and/or voting rights directly held (or acquired or disposed of) by any person, (ii) shares and/or voting rights held (or acquired or disposed of) by such person's subsidiaries or by a third party for such person's account or by a third party with whom such person has concluded an oral or written voting agreement, (iii) voting rights acquired pursuant to an agreement providing for a temporary transfer of voting rights in consideration for a payment, and (iv) shares and/or voting rights which such person, or any controlled entity or third party referred to above, may acquire pursuant to any option or other right to acquire shares and/or the attached voting rights.

Special rules apply to the attribution of shares and/or voting rights that are part of the property of a partnership or other form of joint ownership. A holder of a pledge or right of usufruct in respect of shares can also be subject to notification obligations, if such person has, or can acquire, the right to vote on the shares. The acquisition of (conditional) voting rights by a pledgee or beneficial owner may also trigger notification obligations as if the pledgee or beneficial owner were the legal holder of the shares and/or voting rights. Under the

Dutch Financial Supervision Act, Euronext was required to file a report with the AFM promptly after the date of listing its shares setting out its issued and outstanding share capital and voting rights. Thereafter, Euronext is required to notify the AFM promptly of any change of 1% or more in its issued and outstanding share capital or voting rights since the previous notification. The AFM must be notified of other changes in Euronext's issued and outstanding share capital or voting rights within eight days after the end of the quarter in which the change occurred. The AFM will publish all Euronext's notifications of its issued and outstanding share capital and voting rights in a public register. If a person's capital interest and/or voting rights reach, exceed or fall below the above-mentioned thresholds as a result of a change in Euronext's issued and outstanding share capital or voting rights, such person is required to make a notification not later than on the fourth trading day after the AFM has published Euronext's notification as described above.

Furthermore, each member of the Managing Board, the Supervisory Board and certain other persons who, *inter alia*, have (co-)managerial responsibilities in respect of the Company, as well as certain persons closely associated with any such members or other persons, must immediately give written notice to the AFM by means of a standard form of all shares and voting rights in Euronext held by him or her at the time of admission of Euronext's shares to listing and thereafter of any change in his or her holding of shares and voting rights in Euronext.

## 4.8 Short Positions

Each person holding a net short position amounting to 0.2% or more of the issued share capital of a Dutch listed company must report it to the AFM. Each subsequent increase of this position by 0.1% above 0.2% will also have to be reported. Each net short position equal to 0.5% of the issued share capital of a Dutch-listed company and any subsequent increase of that position by 0.1% will be made public via the AFM short selling register. To calculate whether a natural person or legal person has a net short position, their short positions and long positions must be set off. A short transaction in a share can only be contracted if a reasonable case can be made that the

shares sold can actually be delivered, which requires confirmation of a third party that the shares have been located. There is also an obligation to notify the AFM of gross short positions. The notification thresholds are the same as apply in respect of the notification of actual or potential capital interests in the capital and/or voting rights, as described above.

The AFM keeps a public register of all notification made pursuant to these disclosure obligations and publishes any notification received. In 2018, no short position was declared to the AFM.

## 4.9 Market Abuse Regime

The Market Abuse Regulation (EU) nr. 596/2014 (the "MAR") and related Commission Implementing Regulations and Delegated Regulations, provide for specific rules that intend to prevent market abuse, such as the prohibitions on insider trading, divulging inside information and tipping, and market manipulation (the "European Union Market Abuse Rules"). Euronext is subject to the European

Union Market Abuse Rules and non-compliance with these rules may lead to criminal fines, administrative fines, imprisonment or other sanctions.

The European Union Market Abuse Rules on market manipulation may restrict Euronext's ability to buy back its shares. In certain circumstances, investors in Euronext can also be subject to

the European Union Market Abuse Rules. Pursuant to Article 19 of the MAR ("Managers' transactions"), members of the Managing Board, Supervisory Board and any senior executive who has regular access to inside information relating directly or indirectly to Euronext and has the power to take managerial decisions affecting the future developments and business prospects of Euronext, (persons discharging managerial responsibilities (PDMR'S); in case of Euronext Supervisory Board, Managing Board and permanent invitees to Management Board meetings), must notify the AFM of every transaction conducted on their own account relating to the shares or debt instruments of Euronext or to derivatives or other financial instruments linked thereto.

In addition, certain persons closely associated with members of Euronext's Managing Board or any of the other persons as described above and designated by the MAR PDMR'S must also notify the AFM of every transaction conducted on their own account relating to the shares or debt instruments of Euronext or to derivatives or other financial instruments linked thereto. The MAR determines the following categories of persons: (i) the spouse or any partner considered by national law as equivalent to the spouse, (ii) dependent children, (iii) other relatives who have shared the same household for at least one year at the relevant transaction date and (iv) a legal person, trust or partnership, the managerial responsibilities

of which are discharged by a person discharging managerial responsibilities or by a person referred to in point (i), (ii) or (iii), which is directly or indirectly controlled by such a person, which is set up for the benefit of such a person, or the economic interests of which are substantially equivalent to those of such a person. These notifications must be made no later than on the third business day following the transaction date and by means of a standard form. The notification may be postponed until the moment that the value of the transactions performed for the PDMR that person's own account, or transactions carried out by the persons closely associated with that person, reaches or exceeds an amount of €5,000 in the calendar year in question.

The AFM keeps a public register of all notifications under art. 19 of the MAR. Third parties can request to be notified automatically by e-mail of changes to the public register. Pursuant to the MAR, Euronext will maintain a list of its insiders. In addition, to further ensure compliance with MAR, Euronext has adopted an internal policy relating to the possession of and transactions by members of its PDMR'S and employees in Euronext shares or in financial instruments of which the value is (co)determined by the value of the shares. Euronext N.V. Insider Trading Policy has been published on its website on <https://www.euronext.com/en/investors/corporate-governance>.

## 4.10 Transparency Directive

After the admission to listing of its shares on Euronext Amsterdam, Euronext Brussels and Euronext Paris on 20 June 2014, and on Euronext Lisbon on 17 September 2014, Euronext became a listed public limited liability company (*naamloze Vennootschap*) incorporated and existing under the laws of the Netherlands. The Netherlands is Euronext's home member state for the purposes

of Directive 2004/109/EC (as most recently amended by Directive 2013/50/EU, the "Transparency Directive") as a consequence of which it is subject to the Dutch Financial Supervision Act in respect of certain on-going transparency and disclosure obligations upon admission to listing and trading of its shares on Euronext Amsterdam, Euronext Brussels, Euronext Lisbon and Euronext Paris.

## 4.11 Dutch Financial Reporting Supervision Act

The Dutch Financial Reporting Supervision Act (*Wet toezicht financiële verslaggeving*) (the "FRSA") applies to financial years starting from 1 January 2006. On the basis of the FRSA, the AFM supervises the application of financial reporting standards by, among others, companies whose corporate seat is in the Netherlands and whose securities are listed on a Dutch Regulated Market or foreign stock exchange. Pursuant to the FRSA, the AFM has an independent right to (i) request an explanation from Euronext regarding its application of the applicable financial reporting standards and (ii) recommend to Euronext the making available of further explanations. If Euronext does not comply with such a request or recommendation, the AFM may request that the Enterprise Chamber order Euronext to

(i) make available further explanations as recommended by the AFM, (ii) provide an explanation of the way it has applied the applicable financial reporting standards to its financial reports or (iii) prepare Euronext's financial reports in accordance with the Enterprise Chamber's instructions.

This Registration Document also concerns the annual financial reporting within the meaning of 5:25c(2) of the Dutch Financial Supervision Act. The section "Risk" and the Chapters 1, 2 (excluding 2.3 and 2.4), 3, 4 and 5 concern the directors' report within the meaning of 2:391 of the Dutch Civil Code, the statement of the Managing Board has been included in Chapter 2.2.3 and the Financial Statements in Chapter 6.



## 4.12 Dividends and Other Distributions

Euronext may make distributions to its shareholders only insofar as its shareholders' equity exceeds the sum of the paid-in and called-up share capital plus the reserves as required to be maintained by Dutch law or by its Articles of Association. Under Euronext's Articles of Association, the Managing Board decides which part of any profit will be reserved.

At the time of its IPO in 2014, Euronext's dividend policy was established to achieve a dividend pay-out ratio of approximately 50% of net income, upon the approval of the Annual General Meeting, and as long as the Company is in position to pay this dividend while meeting all its various duties and obligations. In May 2017, Euronext decided to complement this policy, for the remainder of its 'Agility for Growth' strategic plan with the introduction of a floor to the dividend per share. Starting at the Annual General Meeting in 2017 and until the Annual General Meeting in 2020, Euronext dividend policy is to distribute the highest of 50% of the reported net income and a floor at €1.42 per share, upon the approval of the Annual General Meeting, and as long as the Company is in position to pay this dividend while meeting all its various duties and obligations.

Following the early repayment of its previous term loan facility on 23 March 2017 (See section 5.1.10), and under the conditions of the new bank loan facility in which the Group entered on 18 July 2017, Euronext is no longer restricted to distributions, share repurchases or share redemptions. Repurchase of shares for the needs of the Employee Offering and employee shareholding and management incentive programs that Euronext may implement from time to time, which may be offered for free or at a discount and repurchase of shares in accordance with liquidity or market making programmes are not restricted within the Facilities Agreement.

Euronext may make a distribution of dividends to its shareholders only after the adoption of Euronext's statutory annual accounts demonstrating that such distribution is legally permitted. The profit, as this appears from the adopted annual accounts, shall be at the free disposal of the General Meeting, provided that the General Meeting may only resolve on any reservation

of the profits or the distribution of any profits pursuant to and in accordance with a proposal thereto of the Supervisory Board or a proposal of the Managing Board, which has been approved by the Supervisory Board. Resolutions of the General Meeting with regard to a distribution at the expense of the reserves shall require the approval of the Managing Board and the Supervisory Board.

The Managing Board is permitted to resolve to make interim distributions to Euronext shareholders, subject to approval of the Supervisory Board. The General Meeting may also resolve to make interim distributions to Euronext shareholders, pursuant to and in accordance with a proposal thereto by the Managing Board, which has been approved by the Supervisory Board.

The Managing Board may decide that, subject to approval of the Supervisory Board, a distribution on shares shall not be made in cash or not entirely made in cash but other than in cash, including but not limited in the form of shares in the Company or decide that shareholders shall be given the option to receive a distribution either in cash or other than in cash. The Managing Board shall, subject to approval of the Supervisory Board, determine the conditions under which such option can be given to Euronext's shareholders.

Shareholders are entitled to share the profit *pro rata* to their shareholding. Claims to dividends and other distributions not made within five years from the date that such dividends or distributions became payable will lapse, and any such amounts will be considered to have been forfeited to Euronext (*verjaring*).

For the previous years, the following amounts of dividend per share were paid:

For the year 2014	€ 0.84
For the year 2015	€ 1.24
For the year 2016	€ 1.42
For the year 2017	€ 1.73

## 4.13 2019 Financial Calendar

First Quarter 2019 Results	16 May 2019
Annual General Meeting	16 May 2019
Second Quarter and First Half 2019 Results	1 August 2019
Third Quarter 2019 Results	7 November 2019



# 5

## OPERATING AND FINANCIAL REVIEW

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The following review relates to Euronext historical financial condition and results of operations for the years ended 31 December 2018, 2017 and 2016. This “Operating and Financial Review” is based on the audited Financial Statements for the years ended 31 December 2018, 2017 and 2016, which are included and incorporated by reference in this Registration Document and should be read in conjunction with “General description of the Company” and “Financial Statements”. Prospective investors should read the entire Registration Document and not just rely on the information set out below. The financial information included in this “Operating and Financial Review” has been extracted from the audited Consolidated Financial Statements.

The following discussion of Euronext results of operations and financial condition contains forward-looking statements. Euronext actual results could differ materially from those that are discussed in these forward-looking statements. Factors that could cause or contribute to such differences include those discussed below and elsewhere in this Registration Document, particularly under “Risk Factors”.

## 5.1 Overview

Euronext is a pan-European exchange group, offering a diverse range of products and services and combining transparent and efficient equity, fixed income securities and derivatives markets in Amsterdam, Brussels, Dublin, Lisbon, London and Paris. Euronext businesses comprise: listing, cash trading, derivatives trading, spot FX trading, advanced data services, post-trade and technologies & other.

Euronext management reviews the performance of the business, and makes decisions on allocation of resources, only on a company-wide basis. Therefore, Euronext has one reportable segment.

Euronext has been operating as an independent, publicly traded company since 20 June 2014. Prior to June 2014, Euronext’s businesses were part of ICE as a result of ICE’s acquisition of NYSE Euronext on 13 November 2013.

### 5.1.1 DEFINITIONS

The following defined terms are used in this Operating and Financial Review:

“Legacy Euronext” means the historical operations of the former Euronext N.V. (existing prior to 15 March 2014) and its subsidiaries, including LIFFE.

### 5.1.2 ESTABLISHMENT OF EURONEXT AS AN INDEPENDENT, PUBLICLY TRADED COMPANY

The legal entities of the Group have been owned by Euronext N.V. since the date that the internal reorganisation was finalised in March 2014. The Consolidated Financial Statements as of and for financial years ended 31 December 2018, 2017 and 2016 have been prepared as described further in Note 3 to the Consolidated Financial Statements (see “Financial Statements”). All transactions and balances between subsidiaries have been eliminated on consolidation.

### 5.1.3 SOURCES OF REVENUES

#### Listing

Admission fees comprise fees paid by companies to list and admit to trading equity and debt securities on Euronext markets. Corporate activity and other fees primarily consist of fees charged for centralising securities in connection with new listings and tender offers, they also include delisting fees. In addition, companies whose securities are listed or admitted to trading on Euronext markets pay annual fees.

Other than for Euronext Dublin which has a separate fee schedule, Euronext has adopted a common set of admission and annual fees for the Euronext and Euronext Growth™ markets. Companies having equity securities listed or admitted to trading on Euronext or Euronext Growth™ markets are subject to the following types of fees:

- initial admission fee charged based on the market capitalisation at first admission and calculated on a cumulative scale with decreasing rates and capped;
- subsequent admission fees charged based on the amount of capital raised and calculated on a cumulative scale with decreasing rates and capped; this also applies for other corporate events related fees;
- annual fees based on a variable decreasing percentage of the number of outstanding securities and a fixed fee based on the issuer’s market capitalisation beyond a defined threshold. The annual fee is capped.

Euronext Dublin has debt fee schedules for its regulated market and its Global Exchange Market. For other Euronext markets, admission fees for debt securities, issued both on a stand-alone basis or under a note program, are based on the maturity and principal amount admitted to trading, and, in respect of long-term debt (maturity over one year), number of years to maturity. Euronext offers lower admission fees for issuers that access the debt capital markets frequently and for issuers qualifying as SMEs.

Euronext offers centralisation services for orders in connection with a public offer, a public tender offer or a sales facility, in respect of securities admitted or to be admitted to any Euronext markets whether regulated or not.



A common set of admission and annual fees apply to ETPs. Issuers of ETPs listed and/or admitted to trading on Euronext markets are subject to the following types of fees:

- for warrants & certificates traded *via* the quote driven model, issuers are invoiced listing fees based on the average size of their products range (grouped in packages). There are several discounts available for which issuers can qualify in order to reduce their listing fees. A one-time admission fee is charged to issuers of structured notes and certificates not traded *via* the quote driven model, as well as a market access fee per instrument;
- primary and secondary listings of ETFs, exchange traded vehicles and exchange traded notes are charged initial admission fees. Additional admission fees are charged per cross and multi-currency listing; charges are also applicable on delisting and merger of instruments. An annual fee is charged each entire calendar year based in part on the value of the total shares outstanding under each ISIN;
- fund issuers are charged a one-time admission fee and a flat annual fee per listed open-end investment fund. A monthly service fee is also charged per fund traded on the net asset value trading facility. A flat delisting fee is charged per open-end investment fund.

## Cash, Derivatives and spot FX Trading

Revenues from Euronext cash trading and derivatives trading businesses consist of transaction-based fees for executing trades on Euronext cash markets and derivatives markets. These transaction fees are charged per executed order and based on value traded in cash equities and are charged per lot in derivatives. Trading volume in equity products is primarily driven by price volatility in equity markets and indices. The level of trading activity for all products is also influenced by market conditions and other factors.

Derivatives trading revenues received from transactions conducted on Euronext markets are variable, based on the volume and value of traded contracts, and recognised when executed. The principal types of derivative contracts traded are equity and index products and commodities products.

Spot FX trading revenues consist of transaction-based fees for executing trades. These transaction fees are charged per executed order and based on value traded.

## Advanced Data Services

The Group charges data vendors and end users, taking data *via* a direct feed, on a per-user basis for the access to its real-time data and Enterprise licenses are charged for non-display use and access to historic and reference data products. The Group also collects periodic license fees from vendors for the right to distribute the Group data to third parties. These fees are recognised on a monthly basis as services are rendered. The Group charges an index licence fee to trading desks, investment banks and asset managers for the creations of Structured Products (SP), Exchange Traded Products (ETPs) and exchange traded funds (ETFs) on Euronext owned (trademark) indices. The Group also collects fees for third party index calculations, iNAV calculation and partnerships stakes. The fees are recognized to the applicable period of the products.

## Post-Trade

Euronext operates Interbolsa, the Portuguese national CSD, and receives fees mainly with respect to the settlement instructions and the custody of securities registered/deposited in the centralised securities systems, namely listed and non-listed securities in Portugal. Euronext also receives a share of clearing income based on treasury services resulting from placement of collateral and the number of cleared derivatives trades cleared through LCH SA, in exchange for which Euronext pays LCH SA a fixed fee plus a variable fee based on derivatives trading volume.

## Euronext Technology Solutions & Other

Euronext Technologies & other revenue includes license fees and professional services fees for Optiq® software deployment, for managed IT services provided to third-party market operators (Optiq® as a Service), and for connection and data centre co-location services provided to market participants. Fees for software customisation and deployment services are recognised either on a time and materials basis or under the percentage completion method, depending upon the nature of the contract with the client. Percentage of completion is calculated based on the number of man days incurred to date as a percentage of the total estimated number of man days to complete the work. License fees, maintenance fees and support fees for deployed software are recognized pro rata over the life of the relevant contract. For Optiq® as a Service, setup fees and annual support fees are recognised pro rate over the life of the service contract. Connection and colocation service fees are recognised pro rata over the life of the client commitment.

### 5.1.4 COMPONENTS OF EXPENSES

Euronext's operating expenses include salaries and employee benefits, depreciation and amortisation, and other operational expenses, which include systems and communications, professional services, accommodation and other expenses.

## Salaries and Employee Benefits

Salaries and employee benefits expenses include employee salaries, incentive compensation (including stock-based compensation) and related benefits expenses, including pension and medical charges.

## Depreciation and Amortisation

Depreciation and amortisation expenses consist of costs from depreciating fixed assets (including computer hardware and capitalised software) and amortising intangible assets over their estimated useful lives.

## Systems and Communications

Systems and communications expenses include costs for development, operation and maintenance of trading, regulatory and administrative systems; investments in system capacity, reliability and security; and cost of network connectivity between customers and data centres, as well as connectivity to various other market centres. Systems and communications expenses also include fees



paid to third-party providers of networks and information technology resources, including fees for consulting, research and development services, software rental costs and licenses, hardware rental and related fees paid to third-party maintenance providers.

### Professional Services

Professional services expenses include consulting charges related to various technological and operational initiatives as well as legal and audit fees.

### Accommodation

Accommodation expenses include costs of leasing the properties used by the Group, as well as utilities, maintenance and security costs to maintain the properties used by the Group.

### Other Expenses

Other expenses include marketing, taxes, insurance, travel, professional membership fees and other expenses.

## 5.1.5 KEY FACTORS AFFECTING BUSINESSES AND RESULTS OF OPERATIONS

The economic and business environment in which Euronext operates directly affects Euronext's results of operations. The results have been and will continue to be affected by many factors, including the factors set out below. Euronext continues to focus its strategy to broaden and diversify its revenue streams, as well as on its company-wide expense reduction initiatives in order to mitigate these uncertainties.

### Trading Activity

A large proportion of Euronext's business is transaction-based. For the year ended 31 December 2018, Euronext derived 45% of its revenue from its cash trading, derivatives and spot FX trading businesses. Accordingly, fluctuations in the trading volumes directly affect Euronext revenues. During any period, the level of trading activity in Euronext markets is significantly influenced by factors such as general market conditions, market volatility, competition, regulatory changes, capital maintenance requirements, market share and the pace of industry consolidation.

A reduction in trading activity could make Euronext's markets less attractive to market participants as a source of liquidity, which in turn could further discourage existing and potential market participants and thus accelerate a decline in the level of trading activity in these markets. Because Euronext's cost structure is largely fixed, if the trading volumes and the resulting transaction fee revenues decline, Euronext may not be able to adjust its cost structure to counteract the associated decline in revenues, which would adversely affect its net income. Euronext's largely fixed cost structure also provides operational leverage, such that an increase in its trading volumes and the resulting transaction fee revenues would have a positive effect on its margins.

### Targeted Operating Optimisation

From its origination, Euronext has identified various ways to streamline its processes and enhance its operational efficiency. As such Euronext had identified the potential for pre-tax operating optimisation and net efficiencies of approximately €85 million by the end of 2016 on a run-rate basis, *i.e.* taking into account the full-year impact of any cost saving measure to be undertaken before the end of this period. This target was reached in a reduced timeline, by the end of Q1 of 2016.

As part of the Agility for Growth strategic plan released in May 2016, an additional cost reduction program was announced, aiming to deliver €22 million additional savings (€15 million, net of inflation) by the end of 2019, through infrastructure optimisation and further streamlining of the organisation.

Infrastructure optimisation: Euronext makes continuous efforts to improve its asset utilisation. Together with a rationalisation of the number of sites and the set-up of Euronext's IT team in Porto, it continues its effort to reinforce the culture of efficiency.

Expenses incurred to realise the efficiencies described above are classified as "Exceptional items" in the Income statement, for a total of €8.1 million in 2018. This expense is included in the total amount of exceptional items (€21.5 million in 2018), disclosed in Note 12 of the Consolidated Financial Statements.

### Derivatives Clearing Agreement

On 14 October 2013, Euronext entered into the Derivatives Clearing Agreement with LCH SA in respect of the clearing of trades on its continental Europe derivatives markets. Under the terms of the Derivatives Clearing Agreement, effective starting 1 April 2014, Euronext has agreed with LCH SA to share revenues. Euronext receives a share of clearing income based on treasury services and the number of cleared derivatives trades cleared through LCH SA, in exchange for which Euronext pays LCH SA a fixed fee plus a variable fee based on derivatives trading volume.

The term of the existing Derivatives Clearing Agreement is through 31 December 2018. On November 2017, Euronext announced the signing of the renewal of its agreement with LCH SA on the continued provision of derivatives and commodities clearing services for a period of 10 years.

For the year ended 31 December 2016, revenues derived from the Derivatives Clearing agreement are €48.0 million and the associated expense is €26.3 million. For the year ended 31 December 2017, revenues derived from the Derivatives Clearing agreement are €51.1 million and the associated expense is €27.9 million. For the year ended 31 December 2018, those revenue are €55.3 million and the associated expense is €29.8 million.

### Facilities Agreements and Bond

On 6 May 2014, Euronext entered into a syndicated bank loan facilities agreement ("the Facilities Agreement"), with BNP Paribas and ING Bank N.V. as Lead Arrangers, providing for a (i) a €250 million term loan facility and (ii) a €250 million revolving credit facility, both maturing or expiring in three years. On 20 February 2015, Euronext entered into the amended and extended facilities agreement. Based on this agreement, effectively on 23 March 2015

(i) the undrawn revolving credit facility has been increased with €140 million to €390 million and (ii) €140 million has been repaid as an early redemption of the €250 million term loan facility. The facilities agreement mature in three years on 23 March 2018, with a two times one year extension possibility, resulting in (i) a €390 million undrawn revolving credit facility and (ii) a net non-current borrowing of €108 million as of 31 December 2015.

On 23 September 2016, Euronext repaid €40 million as an early redemption of the €110 million term loan facility, resulting in a net non-current borrowing of €69 million as of 31 December 2016.

On 23 March 2017, the Group repaid the remaining outstanding non-current borrowing of €70 million, enabling the Group to terminate its term loan facility, which was supposed to mature on 23 March 2018. The Group also terminated its €390 million revolving credit facility agreement and entered into a new €250 million revolving credit facility ("The Facility") on 12 April 2017.

The Group signed a new bank loan facility ("The Bank Loan facility") as per 18 July 2017 with five banks to the amount of €175 million and accordion of €125 million. The new bank loan facility was used to fund the acquisitions of iBabs B.V. and FastMatch Inc., resulting in the recognition of a non-current borrowing of €165.0 million as per 31 December 2017.

On 18 April 2018, the Group issued a €500 million Senior Unsecured Note ("The Bond") to refinance its 2017 and 2018 acquisitions and diversify its financing mix. The Bond has a seven year maturity, with an annual coupon of 1%. On 18 April 2018 the Bond, rated "A" by Standard & Poor's rating agency, was listed on Euronext Dublin. Following receipt of the proceeds of the issued Bond, the Group repaid the €165.0 million bank loan facility. The existing €250.0 million "Facility" agreement remained unchanged and matures on 12 April 2022, with a two times one year extension possibility.

Reference is made to section 5.1.10 for more details on the Facility and the Bond.

## Acquisitions of subsidiaries

The following acquisitions of subsidiaries were made in 2018:

### ■ Acquisition of The Irish Stock Exchange Plc.

On 27 March 2018, the Group announced the completion of the acquisition of 100% of the shares and voting rights of the Irish Stock Exchange Plc., Ireland's incumbent stock exchange operator and a leading global debt and fund listing venue. The total purchase consideration of the transaction amounted to €174.5 million. The Irish Stock Exchange Plc. will operate under the business name Euronext Dublin.

### ■ Acquisition of InsiderLog AB

On 17 January 2018, the Group acquired 80% of the capital of InsiderLog AB, a Stockholm-based leading player in the field of insider list management, for a cash consideration of €5.8 million, plus a contingent earn-out payment depending on future financial performance.

### ■ Acquisition of Commcise Ltd

On 20 December 2018, the Group acquired 78% of the shares and voting rights of Commcise Ltd., a Software as a Service ("SaaS") provider of research evaluation and commission management

solutions for financial services firms, from its founders for an initial cash consideration of £27 million.

### ■ Acquisition of additional interest in FastMatch Inc.

On 1 February 2019, a settlement was reached between FastMatch Inc, Euronext US Inc and the former CEO of FastMatch Inc. Between the parties it was agreed that \$0.8 million would be paid to the former CEO in settlement of claims of alleged breach by FastMatch of his employment agreement, and an amount of \$8.1 million as additional consideration for the 1,437,575 shares of common stock of FastMatch Inc. (representing 7.52% of interest) that were transferred by the former CEO to Euronext US Inc. for \$.001 per share on 10 August 2018.

The following acquisitions of subsidiaries were made in 2017:

### ■ Acquisition of Company Webcast B.V.

On 14 February 2017, the Group acquired a 51% majority stake in Company Webcast B.V., a Dutch company specialised in professional webcast and webinar services. The transaction includes an initial cash payment of €3.6 million and a deferred payment estimated at €1.8 million. Call- and put options were granted by minority shareholders and the Group, with similar conditions. When executed, the Group acquires the minority stake of 49%, in 2020 at the earliest. A redemption liability is recorded at fair value of €8.2 million reflecting this commitment.

### ■ Acquisition of iBabs B.V.

On 7 July 2017, the Group acquired a 60% majority stake in iBabs B.V., a Dutch provider of dematerialised board portal solutions for corporate and public organisations, for an initial consideration of €30.1 million. iBabs' solutions will be integrated into the Euronext Corporate Services offering. The founding management team of iBabs B.V. will remain in place.

### ■ Acquisition of FastMatch Inc.

On 14 August 2017, the Group acquired a 90% majority stake in FastMatch Inc., a US-based Electronic Communication Network in the spot Foreign Exchange market. The acquisition includes an initial cash payment of \$153 million (on a cash-free and debt-free basis), a contingent earn-out payment for an additional \$10 million and customary minority rights for the management of FastMatch Inc. that will remain committed to the development of the business and stay invested with a 10% interest.

More details on the 2018 acquisitions can be found in Note 5 "Business Combinations" of the Consolidated Financial Statements (Section 6).

## Investments in Associates and Joint Ventures

### ■ Tredzone

On 22 July 2016, Euronext acquired a 34.04% stake in Tredzone S.A.S., a highly specialised low latency software developer, as part of its innovation strategy. Euronext has assessed the high level of performance of the Tredzone technology by using it to develop the next generation trading platform "Optiq®". This agreement will enable Tredzone to strengthen its leading edge technology and will allow Euronext to benefit from future developments made by Tredzone. Software development tools from Tredzone allow Euronext to fully leverage multi-core processing, hence enabling

substantial savings in use of hardware, simplifying and securing IT infrastructure. Designed by a team of experts from financial markets software design, these tools are specifically adapted to handle large amounts of data in real time within a complex environment. The €1.4 million investment was recognised as an investment in associate as at 31 December 2016. As per 31 December 2017 the investment amounted to €1.1 million. As per 31 December 2018, following a review for impairment of its associates and joint ventures, the Group decided to impair its interest in Tredzone S.A.S. to zero.

#### ■ European Central Counterparty N.V. ("EuroCCP")

In August 2016, Euronext announced it had signed a definitive agreement to acquire a 20% stake in European Central Counterparty N.V. ("EuroCCP"), the leading CCP for pan-European equity markets, providing clearing and settlement services. This deal will enable Euronext to offer user choice in clearing for the equity markets within the Eurozone, through the implementation of a preferred CCP model followed by a fully interoperable service, which will be open to other CCPs in due course. Following regulatory approvals, the completion of the transaction was finalised on 15 December 2016 for an amount of €13.4 million. The investment in EuroCCP has been recognised as an investment in associate as at 31 December 2016. As per 31 December 2017 the investment amounted to €14.1 million. As per 31 December 2018 the investment amounted to €14.4 million.

#### ■ Algonext Ltd

In November 2016, Euronext announced a 10 year partnership with fixed income technology provider Algomi to create a long-term joint venture. This joint venture, capitalised by Euronext, would have deployed Algomi's technology to a new multilateral trading facility ("MTF") "Synapse". Dealers would have been able to access the trading interface either directly through their existing Algomi technology or through their stand-alone systems. The platform would have used algorithmic smart matching processes to create an auction between dealers to improve liquidity and search for best execution. Algonext was incorporated on 16 December 2016 and, based on shared ownership, Euronext has an interest of 50%. The investment in Algonext amounting to €1.2 million has been recognised as an investment in joint ventures as at 31 December 2016. As per 31 December 2018, following a review for impairment of its associates and joint ventures, the Group decided to impair its interest in Algonext Ltd. to zero (see also "Algomi investment" within the "Equity investments" section).

#### ■ LiquidShare S.A.

On 10 July 2017 the Group, together with six other leading financial institutions, incorporated LiquidShare S.A., a fintech joint venture with the objective to improve SME's access to capital markets and improving the transparency and security of post-trading operations using blockchain technology. The Group, sharing joint control with the other founders, has an interest of 13.57% in LiquidShare. The investment in LiquidShare amounting to €0.9 million was recognised as an investment in joint ventures as at 31 December 2017. As per 31 December 2018 the investment amounted to €0.9 million.

#### ■ LCH S.A.

In the second half of 2017, the Group announced its intentions to swap its 2.31% stake in LCH Group for a 11.1% stake in LCH SA, subject to regulatory approvals and other customary conditions. The

transaction was finalised on 29 December 2017 and will strengthen the long-standing relationship between Euronext and LCH SA. Euronext will remain on the Board of LCH SA following completion of the share swap. Euronext will also nominate one representative to LCH SA Audit Committee and will continue to be represented at LCH SA Risk Committee. A new Consultative Committee dedicated to Euronext derivatives business will be created. The parties have agreed that Euronext will have certain minority protection rights connected with its new shareholding in LCH SA.

As the Group concluded it has significant influence, the 11.1% stake in LCH SA amounting to €58.0 million was recognised in investments in associates and joint ventures as per 31 December 2017. As per 31 December 2018 the investment amounted to €57.4 million.

## Equity Investments

### ■ Euroclear Investment

On 30 April 2014, ICE contributed to the Group a 2.75% ownership interest into Euroclear plc., an unlisted company involved in the settlement of securities transaction and related banking services. The fair value of the investment at that time was €63 million. Due to share buy-backs by Euroclear plc. in 2015 the direct investment in Euroclear plc. increased from 2.75% to 3.26% as per 31 December 2015. The fair value of the investment in Euroclear plc. was measured at €67.1 million as per 31 December 2015.

In 2016 this share buy-back program did not continue, however other valuation approaches were applied in a consistent manner to 2015, leading to an adjustment of fair value through Other Comprehensive Income of €0.5 million in 2016, bringing the fair value of the 3.26% direct investment in Euroclear plc. to €67.6 million as per 31 December 2016.

Due to share buy-backs by Euroclear plc. in 2017 the direct investment in Euroclear plc. increased from 3.26% to 3.34% as per 31 December 2017. The Group also holds an 1.53% indirect investment in Euroclear plc., through its 9.60% ownership interest in Sicovam Holding S.A.

Following the outcome of EU referendum in the UK and elections in the US, euro-zone was facing additional political pressure at the end of 2016. Increased political risk in economies long considered bastions of political stability were expected to affect risk-free rates, potentially reviving the euro crisis and raising the risk of an EU break-up scenario. In the first part of the year, this risk of destabilization in Europe was reduced by the results of elections in the Netherlands, France and Germany. The economic sentiment and outlook significantly improved and funds are flowing back to the euro-zone and translated into a robust share price performance across listed financial institutions within the EU.

This changing environment had an impact on the valuation of the Group's available-for-sale financial assets, especially on investments in financial institutions with a significant EU exposure, such as Euroclear plc. The sentiment in Europe, that had a dampening effect on the value of our direct- and indirect (through Sicovam Holding S.A.) equity investment in Euroclear plc at the end of 2016, positively impacted this value as per 31 December 2017. This ultimately led to an increase in fair value of the Group's investments in Euroclear plc and Sicovam S.A. in 2017 of €40.2 million.

As per 31 December 2017, following the above, the fair value of the investment in Euroclear plc. was measured at €96.2 million and the fair value of the investment in Sicovam Holding S.A. was measured at €41.7 million.

In 2018, the Group increased its interest in Euroclear plc from 3.34% to 3.53%, which was due to the acquisition of the Irish Stock Exchange Plc., that holds an 0.19% ownership interest in Euroclear plc. valued at €5.5 million on acquisition.

In 2018, as part of the fair value estimation of its investment in Euroclear plc. the Group considered two observable transactions for the determination of the fair value in addition to its primary valuation technique and applied a weighted approach taken into account a illiquidity discount for the limited number of transactions and the strategic rationale thereof. This ultimately led to an increase in fair value of the Group's investments in Euroclear plc and Sicovam S.A. of €45.0 million in 2018. This revaluation was recorded in Other Comprehensive Income.

As per 31 December 2018, following the above, the fair value of the investment in Euroclear plc. was measured at €133.8 million and the fair value of the investment in Sicovam Holding S.A. was measured at €54.5 million.

#### ■ Algomi Limited Investment

In November 2016, Euronext announced a 10-year partnership with would have used fixed-income technology provider Algomi Limited ("Algomi") to create a long-term joint venture "Algonext". This JV, initially capitalised by Euronext for \$2.3 million, would have deployed Algomi's technology to a new multilateral trading facility ("MTF"), owned and operated by Euronext. Based on shared ownership and governance, Euronext has recognised its 50% shareholding in Algonext as an "Investment in associates and joint ventures" from the date of incorporation.

On 2 March 2017, Euronext acquired a 7.59% stake in JV partner Algomi for \$10 million. This investment is recognized as an "Financial asset at fair value through OCI" from acquisition date. As part of the purchase agreement, Euronext was granted a warrant, allowing it to purchase 88,384 additional Algomi shares, that was exercised in the second half of 2017. The investment was recognized as an available-for-sale financial asset at fair value for €9.6 million as per 31 December 2017.

The management of Algomi decided to change its strategic course of direction in the second half of 2018, by focusing on their "Alpha" product, rather than further maintaining the "Honeycomb/Synchronicity" network. This has resulted in many banks terminating their contracts with Algomi. The Honeycomb/Synchronicity network is the major source of data to feed the MTF and without this data the MTF is not expected to generate any trade. The Group expects that this change in focus will have an adverse impact on the financial situations on both Algomi and Algonext, as these entities will not be generating license fee revenues going forward.

Considering this, the Group decided to record a downward revaluation of its investment in Algomi to reflect its revised estimated fair value (to zero), which is recognized in Other comprehensive income. Further, it recognized an impairment of its investment in joint venture Algonext bringing its carrying value to zero. Certain assets that were recognized for Algomi exclusivity rights and prepaid expenses for the joint venture have been impaired for which a charge has been recorded in Exceptional items.

#### ■ Oslo Børs VPS Holding ASA ("Oslo Børs VPS")

On 24 December 2018, Euronext announced it had approached the board of directors of Oslo Børs VPS Holding ASA ("Oslo Børs VPS") to seek its support for a €625m cash tender offer for all the outstanding shares of Oslo Børs VPS, the Norwegian Stock Exchange and national CSD operator, headquartered in Oslo. On 14 January 2019, Euronext published the offer document for its previously announced all-cash tender offer to acquire all issued and outstanding shares of Oslo Børs VPS for NOK 6.24 billion (€625m<sup>(1)</sup>). The offer document is available on Euronext's website, [www.euronext.com](http://www.euronext.com)<sup>(2)</sup>.

Following an invitation to consider an acquisition of shares in Oslo Børs VPS organized by a group of its shareholders, Euronext has already secured support for the offer from Oslo Børs VPS shareholders representing the majority of the total number of outstanding shares through irrevocable binding pre-commitments to tender shares in the context of the offer, and share purchases. These irrevocable undertakings remain valid regardless of any competing offer that has been or may be made in the context of this transaction until 31 August 2019. In addition, 22 shareholders decided on 11 February 2019 to strengthen their commitment to support Euronext's Offer by extending the deadline for their irrevocable pre-commitments to the end of December 2019. As of 1 April 2019, Euronext has secured 53.1% of the share capital of Oslo Børs VPS through a combination of 8.1% of shares owned directly and 45.0% of shares committed to Euronext in the form of irrevocable pre-commitments and tendered shares.

The original offer price of NOK145 per share, ie NOK6.24 billion (€625m<sup>(1)</sup>) for all outstanding shares of Oslo Børs VPS, has been amended to NOK158 per share, ie. NOK6.79 billion (€695 million<sup>(3)</sup>) on 11 February 2019, in order to demonstrate its willingness to share the benefits of this transaction with Oslo Børs VPS shareholders, the majority of whom supports Euronext's offer and to continue the dialogue with the minority of Oslo Børs VPS' shareholders who have not yet committed their shares for Euronext. The acceptance period of the tender offer commenced on 14 January 2019, and has been amended on 11 March 2019 and on 1 April 2019 so that Euronext will continue to receive and accept acceptances of the Offer up to 6 May 2019 at 18:00 Central European Time. Euronext has announced on 1 April 2019 that Tom Vidar Rygh, Senior Advisor at international private equity fund Nordic Capital and previous Chair and Member of the Board of Oslo Børs, has accepted to join the board of Oslo Børs VPS as an independent board member when the contemplated

(1) Based on an exchange rate of EUR 1.00 = NOK 9.97 as of December 23, 2018.

(2) <https://www.euronext.com/listview/investor-financial-events/862111>

(3) 9.77 EUR/NOK FX rate as of 8 February 2019; before additional interest payment



transaction is completed, subject to the usual regulatory approval. His strong profile and connection with the Norwegian ecosystem will support Euronext's growth ambitions in the Nordics.

On 4 March 2019, Euronext noted that the Oslo Børs VPS Board of Directors has considered Euronext's increased offer announced on 11 February 2019 as equal to the updated Nasdaq offer from a purely financial point of view. Euronext also noted that, following Nasdaq's announced decision to match Euronext's offer, the Board of Directors has upheld its recommendation of Nasdaq as the preferred bidder in line with its commitment to do so under any circumstances. Euronext reiterated that it has already secured a majority of the Oslo Børs VPS's shares, that its minimum ownership condition has therefore been fulfilled and that it will complete the transaction once regulatory clearance has been obtained, after the meeting of the other conditions stated below. The offer is subject to fulfilment or waiver of certain conditions, including but not limited to minimum acceptance level of at least 50.01% of Oslo Børs VPS outstanding shares (including shares already held by Euronext), condition which is already met, regulatory approvals, short confirmatory due diligence, a favourable vote from a majority of Euronext shareholders and completion of the transaction before 31 December 2019. On 1 April 2019, Euronext announced it has received the declaration of non objection from its College of Regulators for the contemplated acquisition of up to 100% of the capital of Oslo Børs VPS, meeting one of the condition precedents of its offer.

Euronext submitted its suitability application to Finanstilsynet concurrently to the launch of its Offer and has regular dialogue with all relevant parties. Euronext is authorised to operate regulated markets in Belgium, France, Ireland, the Netherlands, Portugal and the United Kingdom, and believes that its strategic ambition would preserve and strengthen the Norwegian financial market ecosystem.

Euronext is confident that the transaction can be completed during the course of Q2 2019 within the customary regulatory approval period in Norway according to applicable laws and regulations.

Euronext is determined to acquire Oslo Børs VPS and remains committed to a constructive and continuous dialogue with Oslo Børs VPS shareholders, Board and management as well as the wider Norwegian ecosystem. Euronext's Reference Shareholders have also confirmed their joint support to Euronext for this transaction.

As per 31 December 2018, the Group recognised the purchased 5.1% of the capital as an equity investment at fair value through other comprehensive income. The Group has a right to acquire 45.5% of additional outstanding shares. This right has the characteristics of a call option derivative instrument, measured at fair value as per 31 December 2018.

#### ■ LCH Group Investment

As per 31 December 2016, the Group held an 2.31% ownership in LCH Group Limited ("LCH Group") (2015: 2.31%). LCH Group is a multi-asset international clearing house managing and mitigating counterparty risks in market transactions. Management determined fair value for its stockholding in LCH Group based on updated information available as of 31 December 2016. The updated information provided Management with sufficient input to record a change in fair value for its investment in LCH Group of €1.7 million in 2016 (2015: €0.0 million) to €19.2 million as per 31 December 2016 (31 December 2015: €17.5 million).

In 2017, the Group entered into a share swap transaction of its 2.31% interest in LCH Group for an 11.1% interest in LCH SA, which was finalised on 29 December 2017. The share swap transaction led to a change in fair value of €38.4 million and subsequent de-recognition in available-for-sale financial assets with carrying value of €57.6 million, in relation to the 2.31% stake in LCH Group Ltd. leaving no value for this investment as per 31 December 2017. The share swap transaction resulted in a capital gain recognised in results from equity investments of €40.6 million, from the recycling to profit or loss of cumulative historical revaluations that were recognised in Other Comprehensive Income.

#### 5.1.6 GOODWILL

Goodwill recorded includes the entire goodwill that arose from the acquisition of the Amsterdam and Brussels stock exchanges in 2000 and the Lisbon stock exchange in 2002. It also includes an allocation of the goodwill that arose from the acquisition of Atos Euronext Market Solutions ("AEMS"), Euronext's preferred IT service provider, in 2008. In 2017, additional goodwill was recorded in relation to the acquisitions of Company Webcast, iBabs and FastMatch. In 2018, additional goodwill was recorded in relation to the acquisitions of InsiderLog, the Irish Stock Exchange and Commcise.

#### 5.1.7 FINANCIAL AND TRADING POSITION

Other than as described below, there has been no significant change in Euronext's financial or trading position since 1 January 2019.

#### Contemplated acquisition of Oslo Børs VPS

Please refer to section 5.1.5 on the contemplated acquisition of Oslo Børs VPS.



## 5.1.8 RESULTS OF OPERATIONS

### YEAR ENDED 31 DECEMBER 2018 COMPARED TO YEAR ENDED 31 DECEMBER 2017 AND 31 DECEMBER 2016

The table below sets forth Euronext's results of operations for the years ended 31 December 2018, 2017 and 2016.

<i>In thousands of euros</i>	Year ended		
	31 December 2018	31 December 2017	31 December 2016
Revenue	615,033	532,294	496,436
<b>Total revenue</b>	<b>615,033</b>	<b>532,294</b>	<b>496,436</b>
Salaries and employee benefits	(118,488)	(104,363)	(99,776)
Depreciation and amortisation	(23,400)	(16,932)	(15,088)
Other operational expenses	(142,295)	(130,149)	(112,766)
<b>Operating profit before exceptional items</b>	<b>330,850</b>	<b>280,850</b>	<b>268,806</b>
Exceptional items	(21,474)	(14,787)	(10,038)
<b>Operating profit</b>	<b>309,376</b>	<b>266,063</b>	<b>258,768</b>
Finance costs	(5,481)	(3,553)	(2,142)
Change in fair value of financial liabilities	(3,200)	-	-
Other net financing income/(expense)	3,421	(47)	1,336
Results from equity investments	5,984	48,325	6,032
Share of net profit/(loss) of associates and joint ventures accounted for using the equity method, and impairments thereof	1,612	287	(19)
<b>Profit before income tax</b>	<b>311,712</b>	<b>311,075</b>	<b>263,975</b>
Income tax expense	(94,084)	(68,886)	(66,962)
<b>PROFIT FOR THE YEAR</b>	<b>217,628</b>	<b>242,189</b>	<b>197,013</b>
<b>Profit attributable to:</b>			
■ Owners of the parent	215,968	241,297	197,013
■ Non-controlling interests	1,660	892	-

### Total Revenue

Euronext's total revenue for the year ended 31 December 2018 was €615.0 million, an increase of €82.7 million compared to €532.3 million for the year ended 31 December 2017.

For the year ended 31 December 2017 was €532.3 million, compared to €496.4 million for the year ended 31 December 2016, an increase of €35.9 million or 7.2%.

The table below sets forth Euronext's revenue for the years ended 31 December 2018, 2017 and 2016.

<i>In thousands of euros</i>	2018	2017	2016
Listing	106,490	84,247	68,708
Trading revenue	276,572	237,854	220,835
<i>of which</i>			
■ Cash trading	210,947	190,276	180,727
■ Derivatives trading	43,910	40,339	40,108
■ FX trading	21,715	7,239	-
Advanced data services	118,298	104,673	105,697
Post-trade	77,381	71,698	67,627
<i>of which</i>			
■ Clearing	55,331	51,132	47,992
■ Custody & Settlement and other	22,050	20,566	19,635
Euronext Technology Solutions & other revenue	36,063	33,465	33,009
Other income	229	357	560
<b>TOTAL REVENUE</b>	<b>615,033</b>	<b>532,294</b>	<b>496,436</b>

## Listing

For the year ended 31 December 2018:

Listing revenue was €106.5 million in 2018, an increase of 26.4% compared to 2017. This good performance was driven by the integration of Euronext Dublin (+€16.7 million) from Q2 2018 and incremental revenue from Corporate services (+€7.5 million). Excluding the adjustment on deferred revenue due to IFRS 15, listing revenue would have been €97.6 million in 2018.

Primary equity issues activity was impacted by market volatility over 2018 and reduced investors' appetite. However, Euronext value proposition notably attracted flagship innovative companies, such as Adyen and Neoen, for their listings. Euronext also welcomed on its markets listings of family businesses, such as Roche Bobois, and Tech SMEs, such as Acacia Pharma or Media Lab. In 2018, Euronext recorded 33 new listings, including 27 SME deals, compared to 29 listings (of which 18 SME deals) in 2017. This translated into €3.6bn raised in 2018, compared to €4.2bn last year.

Activity on the secondary market was stable in 2018 vs. 2017, supported by SME projects raising financing for their development as well as large M&A activities in Europe, including the Unibail-Rodamco-Westfield, Worldline-SIX and Essilor-Luxottica deals. Over 2018, €60.7bn were raised in secondary equity issues, compared to €62.3bn in 2017.

In total, €1.0 trillion in equity and debt were raised on Euronext's markets in 2018, compared to €789.4 billion in 2017<sup>(1)</sup>.

Corporate services generated €16.6 million in revenue in 2018, compared to €9.1 million in 2017.

For the year ended 31 December 2017:

Listing revenue was €84.2 in 2017, an increase of +22.6% compared to 2016, confirming the growing use of equity financing on capital markets. This solid performance was driven by a continuing strong increase in follow-on activity and the positive impact of the Corporate Services initiative, part of the "Agility for Growth" strategic plan.

Primary market activity was slightly impacted by uncertainties around political environment in Europe during the first quarter. However, 2017 saw the continued return of large capitalizations to Euronext's markets with listings such as ALD and VolkerWessels. During the year 2017, 26 new listings, including 16 SME deals, were completed, compared to 28 listings in 2016. This translated into €3.4bn raised in 2017, a decrease from €3.7bn last year.

In 2017, Euronext continued to be the venue of choice for Tech SMEs with 13 new listings. In particular, 3 Tech companies from the first TechShare cohort listed on Euronext during the year. Euronext also successfully launched its European Tech SME initiative in four new countries outside of Euronext's markets to assist tech companies in developing their business on a greater scale through capital markets.

Secondary markets recorded a very strong year on the back of strong M&A environment, confirming the use of capital market financing. This trend contributed to the strong increase in follow-on

activity and in a record year with €57.9bn of secondary equity issues, compared to €56.4bn in 2016.

In total, €323.9bn in equity and debt were raised on Euronext markets in 2017, compared to €304.1bn in 2016

Corporate Services, an Agility for Growth initiative, expanded its offering in 2017 and generated €9.1 million revenue, mainly due to the good performance of 2017 acquisitions, namely iBabs and Company Webcast, and to the commercial effort deployed this year.

## Trading

### Cash Trading

For the year ended 31 December 2018:

Average daily volume for cash trading increased to €8.1 billion in 2018, up +5.7% compared to 2017<sup>(1)</sup>. With volumes supported by volatility peaks through the year, and thanks to effective yield management, cash trading revenue increased by +10.9% in 2018, to a total of €210.9 million, thanks to an average yield over the year of 0.51bps, up +4.9% compared to 2017.

Euronext strengthened its cash trading market share throughout 2018, averaging 66.1% in 2018, compared to 64.4% in 2017.

The average daily transaction value of ETFs on the electronic order book was €266 million over 2018, up +7.0% compared to 2017, supported by market volatility. The total number of ETFs listed on Euronext was 1,150 at the end of December 2018.

For the year ended 31 December 2017:

Average daily volume for cash trading increased by +6.7% to €7.5 billion compared to 2016, benefiting from i/a better trading environment, despite very low volatility, with an improved macro environment in Europe at the end of the year, ii/reduced political uncertainty across Europe and iii/ improved corporate earnings across the Eurozone. In this environment of rising volume, revenue increased by +5.3% in 2017, to a total of €190.3 million. Yield remained stable over the year averaging 0.50 bps, at a comparable level to 2016.

Euronext continuously strengthened its cash trading market share throughout the year, averaging 64.4% in 2017 and reaching 67.1% in Q4 2017. This significant increase of +3.5 points compared to 2016 reflects the successful onboarding of additional participants to the new non-member proprietary fee scheme Omega, as well as the completed onboarding of all Euronext's retail brokers to the Best of Book service which attracted additional retail flow to Euronext markets. In addition, the implementation of further optimisation within the SLP programme attracted incremental volumes in 2017.

The average daily transaction value of ETFs was €473 million over 2017 and was down (-14.6%) compared to 2016, mainly due to lower volatility. 74 new ETF products were listed over 2017, bringing the total number of ETFs listed on Euronext to 804 at end of 2017.

(1) Historical data for 2017 differ due to the retroactive inclusion of Euronext Dublin data and reclassification to comply with updated FESE methodology.

## Derivatives Trading

For the year ended 31 December 2018:

Derivatives trading revenue increased in 2018, to €43.9 million, compared to €40.3 million in 2017. Average daily volume on individual equity derivatives was up +7.4% at 297,012 contracts, while the average daily volume on equity index derivatives was up +4.1% to 231,107 contracts.

Commodity products recorded increasing average daily volumes in 2018, up +10.8% to 57,191 contracts.

Yield on derivatives averaged 0.29bps in 2018, stable compared to 2017.

For the year ended 31 December 2017:

Derivatives trading revenue remained almost stable in 2017, at €40.3 million, compared to €40.1 million in 2016. Individual equity derivatives achieved a +24.0% increase on average daily volume to 276,483 contracts, while the average daily volume on equity index derivatives was up +3.5% to 221,922 contracts. As a reminder, TOM, the former competitor of Euronext on the Dutch market, ceased operations in June 2017. Because of this exceptional circumstance, a non-recurring migration of open-interest from TOM to Euronext took place in June at marginal rates and impacted the average yield for 2017.

Commodity products recorded declining average daily volumes in 2017, down -3.6% to 51,629 contracts. Despite a low-volatility market, the activity saw a recovery from mid-year in an improved competitive landscape, partially offsetting a weak start to the year.

Yield on derivatives averaged 0.29 bps over 2017, a decrease from 0.32 bps in 2016, due to the special Dutch circumstances stated above.

## Spot FX Trading

For the year ended 31 December 2018:

Spot FX trading activity on FastMatch's spot foreign exchange market recorded average daily volumes of \$20.1 billion, up +9.3% compared to 2017, supported by markets volatility through the year. As a result, spot FX trading generated €21.7 million of revenue in 2018. In 2017, spot FX trading generated €7.2 million of revenue for 4.6 months of consolidation.

For the year ended 31 December 2017:

The average daily volume on the FastMatch spot foreign exchange market was up +44.7% compared to 2016. Spot FX trading generated €7.2 million of revenue in 2017, for 4.6 months of consolidation after the acquisition of FastMatch in mid-August 2017.

## Advanced data services

For the year ended 31 December 2018:

Advanced data services reported a strong 2018 performance, with revenue up +13.0% to €118.3 million in 2018, resulting from new market data agreements, good traction from indices business, and reflecting the consolidation of Euronext Dublin activities.

For the year ended 31 December 2017:

Advanced data services organic performance remained robust, while revenue was down -1.0% to €104.7 million over the year, as a result of higher contractual audit findings in the second and third quarters of 2016. In 2017, Euronext onboarded 34 new data vendors, bringing the total number of vendors to 500, while 65 new clients for non-displayed policies were signed up.

## Post-Trade

### Clearing

For the year ended 31 December 2018:

Clearing revenue increased in 2018, to €55.3 million, +8.2% compared to 2017, reflecting a dynamic commodities activity during the year, and higher treasury income.

For the year ended 31 December 2017:

Clearing revenue increased by +6.5%, to €51.1 million in 2017, compared to €48.0 million in 2016, reflecting stronger derivatives trading activity as well as higher treasury and other clearing income.

### Settlement & Custody

For the year ended 31 December 2018:

Revenue from Interbolsa in Portugal and other post trade activities increased by +7.2%, to €22.1 million in 2018, driven by an increase in equities and public debt under custody and settlement activity compared to 2017.

For the year ended 31 December 2017:

Revenue from Interbolsa in Portugal increased by +4.7%, to €20.6 million in 2017, compared €19.6 million, driven by an increase of settlement, public debt and equities under custody during the year.

## Euronext Technology Solutions

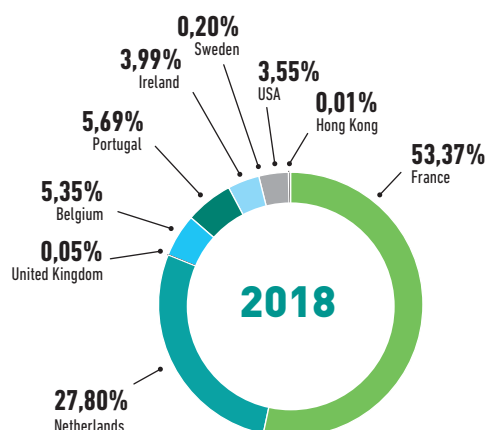
For the year ended 31 December 2018:

Euronext Technology Solutions revenue increased by +7.8% in 2018, to €36.1 million as the activity continued to benefit from Optiq® project work on commercial releases for international clients, as well as an increased activity in Managed Services solutions and in SFTI/Colocation services.

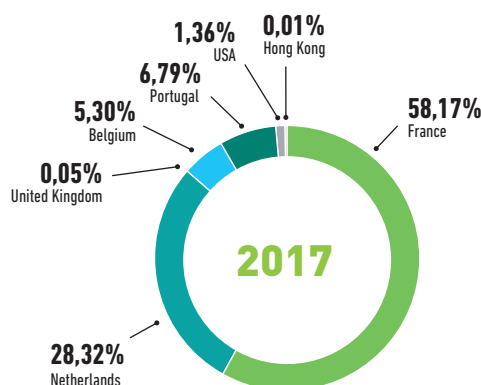
For the year ended 31 December 2017:

Revenue from Euronext Technology Solutions increased by +1.4% in 2017, to €33.5 million. The business continued to benefit from MiFID II projects and related work for commercial technology clients.

## EURONEXT 2018 THIRD PARTY REVENUE BY GEOGRAPHY



## EURONEXT 2017 THIRD PARTY REVENUE BY GEOGRAPHY



## Operating Expenses

In thousands of euros	Year ended		
	2018	2017	2016
Salaries and employee benefits	(118,488)	(104,363)	(99,776)
Depreciation and amortisation	(23,400)	(16,932)	(15,088)
Other operational expenses	(142,295)	(130,149)	(112,766)
<b>TOTAL OPERATING EXPENSES</b>	<b>(284,183)</b>	<b>(251,444)</b>	<b>(227,630)</b>

For the year ended 31 December 2018:

Euronext operating expenses in 2018 were €284.2 million, compared to €251.4 million in 2017, an increase of €32.7 million or 13.0%. The overall cost increase in 2018 was due to:

- the acquisitions of InsiderLog and Euronext Dublin; in 2018, and the full year cost impact from the acquisitions of iBabs and FastMatch;
- PPA and earn-out adjustment, related to the acquisitions mentioned above.

Euronext operating expenses comprise salaries and employee benefits, depreciation and amortisation, and other operational expenses.

For the year ended 31 December 2017:

Euronext operating expenses in 2017 were €251.4 million, compared to €227.6 million in 2016, an increase of €23.8 million or 10.5%. The overall cost increase in 2017 was due to:

- the acquisitions of Company Webcast, iBabs and FastMatch;
- PPA and earn-out adjustment, related to the acquisitions mentioned above;
- costs related to Agility for Growth initiatives and key projects such as the development of Euronext's new trading platform, Optiq®, and compliance with MiFID II.

Euronext operating expenses comprise salaries and employee benefits, depreciation and amortisation, and other operational expenses.

## Salaries and Employee Benefits

For the year ended 31 December 2018:

Salaries and Employee Benefits increased by €14.1 million, or 13.5%, to €118.5 million in 2018, compared to €104.4 million in 2017. This increase is attributable to the increase in headcount following the incorporation of newly acquired businesses.

For the year ended 31 December 2017:

Salaries and Employee Benefits increased by €4.6 million, or 4.6%, to €104.4 million in 2017, compared to €99.8 million in 2016. This increase is attributable to the increase in headcount following the incorporation of newly acquired businesses.

## Depreciation and Amortisation

For the year ended 31 December 2018:

Depreciation and Amortisation increased by €6.5 million, or 38.2%, to €23.4 million in 2018, compared to €16.9 million in 2017. This increase is mainly related to the acquisition of Company Webcast, iBabs and FastMatch in 2017, InsiderLog and Euronext Dublin in 2018, and their respective PPA.

For the year ended 31 December 2017:

Depreciation and Amortisation increased by €1.8 million, or 12.2%, to €16.9 million in 2017, compared to €15.1 million in 2016. This increase is mainly related to the acquisition of Company Webcast, iBabs and FastMatch in 2017 and their respective PPA.

## Other Operational Expenses

<i>In thousands of euros</i>	2018	2017	2016
Systems and communications	(26,208)	(22,354)	(17,099)
Professional services	(47,011)	(45,545)	(38,382)
Clearing expenses	(29,846)	(27,925)	(26,311)
Accommodation	(10,430)	(9,961)	(10,237)
Other expenses	(28,800)	(24,364)	(20,737)
<b>TOTAL</b>	<b>(142,295)</b>	<b>(130,149)</b>	<b>(112,766)</b>

For the year ended 31 December 2018:

System and Communications increased by €3.9 million, or 17.2%, to €26.2 million in 2018, compared to €22.4 million in 2017. This increase is mainly attributable to the integration of Euronext Dublin.

Professional Services increased by €1.5 million, or 3.2%, to €47.0 million in 2018, compared to €45.5 million in 2017. This increase is mainly attributable to the integration of Euronext Dublin and FastMatch.

Clearing expenses increased by €1.9 million, or 6.9%, to €29.8 million in 2018, compared to €27.9 million in 2017. This increase is linked to the higher Clearing revenues in 2017.

Accommodation increased by €0.5 million, or 4.7%, to €10.4 million in 2018, compared to €10.0 million in 2017. This increase is mainly attributable to additional accommodation costs resulting from the integration of Euronext Dublin and FastMatch.

Other Expenses increased by €4.4 million, or 18.2%, to €28.8 million in 2018 when compared to €24.4 million in 2017. This increase mainly reflects the integration of Euronext Dublin, including €1.7 million of one-off stamp duty tax relating to the acquisition of Euronext Dublin in the second quarter of 2018.

For the year ended 31 December 2017:

System and Communications increased by €5.3 million, or 30.7%, to €22.4 million in 2017, compared to €17.1 million in 2016. This increase is mainly attributable to costs related to key projects such as the development of Euronext's new trading platform, Optiq®, and compliance with MiFID II.

Professional Services increased by €7.2 million, or 18.7%, to €45.5 million in 2017, compared to €38.4 million in 2016. This increase is mainly attributable to an increase in consultant costs in 2017 related to key projects such as Optiq® and MiFID II.

Clearing expenses increased by €1.6 million, or 6.1%, to €27.9 million in 2017, compared to €26.3 million in 2016. This increase is linked to the higher Clearing revenues in 2016.

Accommodation decreased by €0.3 million, or -2.7%, to €10.0 million in 2017, compared to €10.2 million in 2016. This decrease is mainly attributable to the impact additional utilities costs for Cannon Bridge House in London in 2016 and the Belfast office termination in 2017.

Other Expenses increased by €3.6 million, or 17.5%, to €24.4 million in 2017 when compared to €20.7 million in 2016. This increase consists of various smaller elements, the main one being the increase in non-recoverable VAT expenses, membership fees and other expenses related to Agility for Growth initiatives in 2017.

## Operating Profit Before Exceptional Items

For the year ended 31 December 2018:

Euronext operating profit before exceptional items for the year ended 31 December 2018 was €330.9 million, compared to €280.9 million for the year ended 31 December 2017, an increase of €50.0 million.

For the year ended 31 December 2017:

Euronext operating profit before exceptional items for the year ended 31 December 2017 was €280.9 million, compared to €268.8 million for the year ended 31 December 2016, an increase of €12.0 million.

## Exceptional Items

<i>In thousands of euros</i>	2018	2017	2016
Restructuring costs	(8,126)	(2,159)	(7,082)
ICE Clear Netherlands termination fee	-	(5,000)	-
Acquisition costs	(2,088)	(5,280)	(3,322)
DB contract termination	(4,752)	-	-
Impairment Algomi	(3,226)	-	-
Termination of sales contract	(2,000)	-	-
Portuguese pension plan settlement	-	(1,565)	-
Refund pre-retirement plan Paris	-	2,208	-
Litigation provisions/settlements	(520)	(388)	-
Impairment w/o intangible assets	(893)	(2,621)	-
Other	131	18	366
<b>TOTAL</b>	<b>(21,474)</b>	<b>(14,787)</b>	<b>(10,038)</b>



For the year ended 31 December 2018:

In 2018, exceptional items included:

- €8.1 million of restructuring costs mainly related to expenses for employee termination benefits in the various Euronext locations;
- €2.1 million of costs incurred for contemplated acquisitions of major significance to the Group, potentially changing the Group's form or character (transformational acquisitions);
- €4.8 million of impact related to the early termination of the trading services contract provided by Deutsche Börse AG to the Irish Stock Exchange (see Note 2 of the Consolidated Financial Statements);
- €3.2 million of items related to the revaluation of the investment in Algomi Ltd. (see Note 2 of the Consolidated Financial Statements), of which €1.5 million related to impaired intangible assets in 2018 (see Note 17 of the Consolidated Financial Statements);
- €2.0 million of costs related to the termination of contract with a reseller within corporate services business;
- €0.5 million of litigation provisions/settlements attributable to individual legal cases, including the \$0.8 million settlement with former FastMatch CEO as mentioned in Note 2 of the Consolidated Financial Statements.
- • €0.9 million of onerous maintenance contract costs related to the impaired intangible assets that were reflected in last year's exceptional items.

For the year ended 31 December 2017:

In 2017, exceptional items included:

- €2.2 million of restructuring costs mainly related to expenses for employee termination benefits in the various Euronext locations;
- €5.0 million of breakup fee following the terminated agreement on derivatives clearing signed with ICE Clear Netherlands in 2017;
- €5.3 million of costs incurred for contemplated acquisitions of major significance to the Group, potentially changing the Group's form or character (transformational acquisitions);
- €1.6 million of past service costs recognised as a result of the Portuguese pension plan settlement from defined benefit to defined contribution (see Note 29 of the Consolidated Financial Statements);
- €2.2 million of benefit, related to the over funding of a pre-retirement plan ended in 2017;

- €0.4 million of litigation provisions/settlements attributable to individual legal cases;

- €2.6 million of costs related to the impairment of intangible assets (see Note 17 of the Consolidated Financial Statements).

## Operating Profit

For the year ended 31 December 2018:

Euronext operating profit for the year ended 31 December 2018 was €309.4 million, compared to €266.1 million for the year ended 31 December 2017, an increase of €43.3 million or 17.8%.

For the year ended 31 December 2017:

Euronext operating profit for the year ended 31 December 2017 was €266.1 million, compared to €258.8 million for the year ended 31 December 2016, an increase of €7.3 million or 2.8%.

## Net Financing Income / (Expense)

For the year ended 31 December 2018:

Euronext's net financing income / (expense) for the year ended 31 December 2018 was a net expense of €5.3 million, compared to a net expense of €3.6 million for the year ended 31 December 2017, an increase in net expense of €1.7 million. This increase reflects mainly the revaluation of earn-outs related to Company Webcast and InsiderLog. In details, in 2018, interest expenses increased following the Bond issued in April 2018 (see Note 28 of the Consolidated Financial Statements), non-current financial liabilities were remeasured by €3.2 million (see Note 34 of the Consolidated Financial Statements) and other net financing income was positively impacted by income from interest rate swaps, as a result of the Group entering into interest rate swap agreements (see Note 22 of the Consolidated Financial Statements).

For the year ended 31 December 2017:

Euronext's net financing income / (expense) for the year ended 31 December 2017 was a net expense of €3.6 million, compared to a net expense of €0.8 million for the year ended 31 December 2016, an increase in net expense of €1.4 million. This increase is mainly driven up by the early termination of the previous loan leading to accelerated amortization of transaction cost for €1.0 million and by one-off costs relating to a provision made for Portuguese stamp duty tax on cash pooling arrangements.

In thousands of euros	2018	2017	2016
Interest expense	(5,558)	(2,373)	(2,142)
Other finance costs	77	(1,180)	-
<b>Finance costs</b>	<b>(5,481)</b>	<b>(3,553)</b>	<b>(2,142)</b>
Contingent liabilities	(1,200)	-	-
Redemption liabilities	(2,000)	-	-
<b>Change in fair value of financial liabilities</b>	<b>(3,200)</b>	<b>-</b>	<b>-</b>
Interest income (effective interest method)	487	314	572
Interest income from interest rate swaps	3,534	-	-
Hedging result	(638)	-	-
Gain / (loss) on disposal of treasury investments	(220)	(5)	-
Net foreign exchange gain/(loss)	258	(356)	764
<b>Other net financing income/(expense)</b>	<b>3,421</b>	<b>(47)</b>	<b>(1,336)</b>
<b>TOTAL</b>	<b>(5,260)</b>	<b>(3,600)</b>	<b>(806)</b>

## Result from equity investments

For the year ended 31 December 2018:

In 2018, the €7.6 million of results from equity investments mainly related to the following items:

- €6.0 million of dividends received from Euroclear plc and Sicovam Holding S.A.;
- €1.6 million of investments in associates.

For the year ended 31 December 2017:

In 2017, the €48.6 million of results from equity investments mainly related to the following items:

- €40.5 million capital gain from the swap of the 2.31% stake in LCH Group for 11.1% stake into LCH SA;
- €1.7 million of deferred consideration of the sale of some LCH. Clearnet Ltd share to LSE in 2013;
- €6.1 million of dividends received from Euroclear plc, LCH Group Ltd. and Sicovam Holding S.A.

## Profit before Income Tax

For the year ended 31 December 2018:

Euronext profit before income tax for the year ended 31 December 2018 was €311.7 million, compared to €311.1 million for the year ended 31 December 2017, an increase of €0.6 million or +0.2%.

For the year ended 31 December 2017:

Euronext profit before income tax for the year ended 31 December 2017 was €311.1 million, compared to €264.0 million for the year ended 31 December 2016, an increase of €47.1 million or +17.8%.

## Income Tax Expense

For the year ended 31 December 2018:

Euronext's income tax expense for the year ended 31 December 2018 was €94.1 million, compared to €68.9 million for the

year ended 31 December 2017, an increase of €25.2 million or 36.6%. Euronext's effective tax rate was 30.2% for the year ended 31 December 2018 compared to 22.1% for the year ended 31 December 2017. The increase of the effective tax rate in 2018 is primarily attributable to:

- the release of a €20.4 million tax provision due to the lapse of the statute of limitations recorded in 2017, while in 2018 €4.0 of tax provisions were release.

For the year ended 31 December 2017:

Euronext's income tax expense for the year ended 31 December 2017 was €68.9 million, compared to €67.0 million for the year ended 31 December 2016, an increase of €1.9 million or 2.9%. Euronext's effective tax rate was 22.1% for the year ended 31 December 2017 compared to 25.4% for the year ended 31 December 2016. The decrease of the effective tax rate in 2017 is primarily attributable to:

- the release of a €20.4 million tax provision due to the lapse of the statute of limitations;
- a positive tax impact from the partially exempt the capital gain recognized on the LCH swap in December 2017.

## Profit for the Year

For the year ended 31 December 2018:

Euronext reported profit for the year ended 31 December 2018 was €217.6 million, compared to €242.2 million for the year ended 31 December 2017, an decrease of €24.6million or 10.1%. Of this profit, €216.0 million was attributable to the shareholders of the parent.

For the year ended 31 December 2017:

Euronext reported profit for the year ended 31 December 2017 was €242.2 million, compared to €197.0 million for the year ended 31 December 2016, an increase of €45.2million or 22.9%. Of this profit, €241.3 million was attributable to the shareholders of the parent.

## 5.1.9 CASH FLOW

The table below summarises Euronext consolidated cash flow for the years ended 31 December 2018, 2017 and 2016:

In thousands of euros	Year ended		
	31 December 2018	31 December 2017	31 December 2016
Net cash provided by operating activities	223,512	207,003	175,095
Net cash (used in) investing activities	(215,152)	(185,093)	(23,540)
Net cash provided by/(used in) financing activities	202,012	(8,524)	(128,628)
<b>NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>210,372</b>	<b>13,386</b>	<b>22,927</b>

## Net Cash Provided by Operating Activities

Net cash provided by operating activities increased by €16.5 million, to €223.5 million for year ended 31 December 2018, compared to €207.0 million for the year ended 31 December 2017. This increase was mainly attributable to:

- an increase of profit before tax for the period;

- an increase in D&A expenses, following the impact of PPA amortisation from newly acquired companies during the last twelve months;
- the impact from gain on disposal of the investment in LCH Group in 2017, following the share swap of 2.31% interest in LCH Group for an interest of 11.1% in LCH SA.

Net cash provided by operating activities was €207.0 million in the year ended 31 December 2017, compared to €175.1 million in the year ended 31 December 2016, an increase of €31.9 million or 18.2%. The main drivers of this increase were:

- operating profit before income tax, corrected for working capital changes, increased from €243.7 million in the year ended 31 December 2016 to €303.3 million in the year ended 31 December 2017;
- in addition, the income tax paid decreased by €12.0 million in 2017 to €68.4 million from €80.4 million in 2016, mainly due to refunds made by French tax authorities.

### Net Cash (Used in) Investing Activities

Net cash used in investing activities increased by €30.1 million, to €215.2 million for the year ended 31 December 2018, compared to €191.2 million for the year ended 31 December 2017. This increase was mainly attributable to the impact from the acquisition of 5.1% stake in Oslo Børs VPS.

Net cash used in investing activities was €185.1 million in the year ended 31 December 2017, compared to net cash used in investing activities of €23.5 million in the year ended 31 December 2016. This increase of cash outflow of €161.6 million is mainly driven by the acquisitions of subsidiaries (net of cash acquired) in 2017 for €157.3 million, and increased capital expenditures, mainly related to the increased activity on the Optiq® project.

### Net Cash Provided by / (Used in) Financing Activities

Net cash provided in financing activities increased by €210.5 million, to €202.0 million for the year ended 31 December 2018, compared to a net cash used in financing activities of €-8.5 million for the year ended 31 December 2017. The main financing activities that led to cash inflows in 2018 was the proceed of the Bond issued in April 2018. The main financing activity that led to cash inflow in 2017 was the proceed of the new Bank Loan facility agreement to fund the acquisitions of iBabs and FastMatch.

Net cash used in financing activities was €8.5 million in the year ended 31 December 2017, compared to net cash used in financing activities of €128.6 million in the year ended 31 December 2016, a decrease of €120.1 million. The main financing activities that led to cash outflows in 2016 were a repayment of borrowings of €71.2 million and dividend payments to shareholders of €98.8 million. The main financing activity that led to cash inflow in 2017 was the proceed of the new Bank Loan facility agreement to fund the acquisitions of iBabs and FastMatch.

#### 5.1.10 FACILITIES AGREEMENT AND BOND

On 12 April 2017, the Group entered into a new revolving loan facility agreement ("the Facility") with BNP Paribas and ABN AMRO BANK N.V. as Lead Arrangers. This new Facility has replaced the revolving credit facility of €390 million.

On 18 July 2017, the Group entered into a syndicated bank loan facility ("the Bank Loan") with BNP Paribas and ABN AMRO BANK N.V. as Lead Arrangers, providing for €175 million. The Bank Loan has been drawn in the amount of €165 million on 9 August 2017 in

order to (i) fund the acquisition of 89.8% of the shares and voting rights in FastMatch Inc and (ii) refinance the acquisition of 60% of the shares and voting rights in iBabs B.V. previously financed through the Facility. The Bank Loan and Facility are together referred to as Instruments. As per 31 December 2017 a non-current borrowing of €165.0 million was recognised related to the Bank Loan.

On 18 April 2018, the Group issued a €500 million Senior Unsecured Note ("The Bond") to refinance its 2017 and 2018 acquisitions and diversify its financing mix. The Bond has a seven year maturity, with an annual coupon of 1%. On 18 April 2018 the Bond, rated "A" by Standard & Poor's rating agency, was listed on Euronext Dublin. The Bond issue included €2.9 million of Bond discount and €0.5 million of issue costs. These were capitalised and are amortised over the period of the Bond. Following receipt of the proceeds of the issued Bond, the Group repaid the €165.0 million bank loan facility.

The existing €250.0 million revolving credit facility ("The Facility") agreement remained available and matures on 12 April 2023, with a one year extension possibility, after a first one year extension was made in 2018. The revolving credit facility agreement allows the Group to apply all amounts borrowed by it towards (i) general corporate and/or working capital purposes of the Group, (ii) satisfaction of the consideration payable for an acquisition and/or (iii) the payment of fees, costs and expense incurred in relation to an acquisition. The revolving credit facility bears an interest rate of EURIBOR plus a margin initially set at 0.25% based on the A rating. It should be noted that as at 31 December 2018, no advances have been drawn under the revolving credit facility.

Euronext is required to maintain compliance with a maximum leverage ratio if the credit rating would drop below BBB+. The maximum leverage ratio measures Euronext total gross debt to EBITDA (as such terms are defined in the Facilities Agreement). Euronext is required to maintain a leverage ratio of no more than 3.5x.

### Term, Repayment and Cancellation

The Facility matures in five years, respectively and initially included a two times one year extension possibility. In 2018, the Facility was extended for one year in order to maintain its five-year maturity. Euronext has the possibility to voluntarily cancel the Facility in whole or part or prepay amounts drawn.

### Interest Rates and Fees

The Facility has borne an interest rate of EURIBOR plus a margin initially set at 0.25%. It should be noted that as at 31 December 2018, there was no outstanding advance drawn under the Facility. EURIBOR is floored at 0%.

An extension fee of (i) 0.05% of the full amount is payable if Euronext requests that the initial maturity date be extended to the first relevant anniversary date or, (ii) 0.10% of the full amount of the relevant Instrument is payable if Euronext requests that the initial maturity date be extended to the second relevant anniversary date.

A utilisation fee accrues on a daily basis at the following applicable rate per annum to be applied on the amount drawn:

- if less than 33% of the total commitment under the Facility has been drawn at the relevant date, 0.10%;

- if 33% or more (but less than 66%) of the total commitment under the Facility has been drawn at the relevant date, 0.20%; or
- if 66% or more of the total commitment under the Facility has been drawn at the relevant date, 0.40%.

Euronext must also pay customary commitment fees at a rate per annum equal to 35% of the then applicable margin for the relevant Instrument on each lender's available commitment under the relevant Instrument during its availability period.

### Certain Covenants and Undertakings

The Facility contains a number of additional undertakings and covenants that, among other things, restrict, subject to certain exceptions, Euronext ability to:

- grant security interests over their assets;
- sell, transfer or dispose of certain assets;
- make certain loans or grant certain credit;
- enter into any amalgamation, demerger, merger or corporate reconstruction, unless the Company remains the surviving entity;
- make any substantial change to the general nature of Euronext business.

Euronext is permitted, among other things, to dispose of assets in the ordinary course of trading on arm's length terms for full market value without restriction, and otherwise where the aggregate fair value of the assets disposed of does not exceed 5% of Euronext consolidated total assets in any financial year.

In case of a downgrading event of Euronext, below BBB+ or equivalent by rating agencies, Euronext shall ensure that the leverage ratio as defined in the Bank Loan Agreement would not be greater than 3.5x.

### Events of Default

The Facility contains customary events of default, in each case with customary and appropriate grace periods and thresholds, including, but not limited to:

- non-payment of principal or interest;
- violation of financial covenants or other obligations;
- representations or statements being materially incorrect or misleading;
- cross-default and cross-acceleration relating to indebtedness of at least €50.0 million;
- certain liquidation, insolvency, winding-up or bankruptcy events;
- creditors' process and attachment having an aggregate value of more than €25.0 million;
- invalidity and unlawfulness;
- cessation of business;
- loss of any license required to carry on the Company's or any material subsidiary's business; and
- repudiation by the Company of a finance document.

The fair value of the Facility approximates its carrying value.

## 5.1.11 CONTRACTUAL OBLIGATIONS

The table below summarises Euronext debt, future minimum payment lease obligations under non-cancellable operating leases and capital expenditure commitments as at 31 December 2018:

In thousands of euros	Total	Payments due by year			Notes of the consolidated financial statements
		2019	2020-2023	Thereafter	
Debt (principal and accrued interest obligations)	503,745	3,745		500,000	
Debt (future interest obligations)	32,576	1,688	20,888	10,000	
Operating leases – minimum payments	74,488	23,249	44,364	6,875	Note 38.2 – Non-cancellable operating leases
Capital expenditure commitments	1,382	380	1,002	-	Note 38.1 – Capital Commitments
<b>TOTAL</b>	<b>612,191</b>	<b>29,062</b>	<b>66,254</b>	<b>516,875</b>	

### Capital Expenditures

Euronext's capital expenditures were €22.3 million and €23.9 million for the years ended 31 December 2018 and 2017, respectively. Capital expenditures decreased in 2018 when compared to 2017, which is primarily driven by investments done last year in Euronext's new trading platform (Optiq®) and "Agility for Growth" initiatives. Euronext's capital expenditure requirements depend on many factors, including the rate of its trading volume growth, strategic plans and acquisitions, required technology initiatives, regulatory requirements, the timing and introduction of new products and enhancements to existing products, the geographic mix of Euronext's business, and the continuing market acceptance of its electronic platform.

For the year ending 31 December 2018, Euronext has made operational capital expenditures as well as incurred capitalised software development costs. These expenditures were aimed at enhancing Euronext technology and supporting the continued expansion of Euronext's businesses. In 2018, Euronext spent approximately €11.0 million on hardware and investments in properties and €11.3 million on development efforts and acquisition of third party licenses.

### 5.1.12 OFF-BALANCE SHEET ARRANGEMENTS

Euronext is not a party to any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future material effect on Euronext's financial condition, results of operations, liquidity, capital expenditure or capital resources, other than the €250 million revolving credit facility under the Facilities Agreement and the commitments described in Note 38 of the Consolidated Financial Statements.

### 5.1.13 QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As a result of its operating and financing activities, the Group is exposed to market risks such as interest rate risk, currency risk and credit risk. The Group has implemented policies and procedures designed to measure, manage, monitor and report risk exposures, which are regularly reviewed by the appropriate management and supervisory bodies. The Group's central treasury team is charged with identifying risk exposures and monitoring and managing such risks on a daily basis. To the extent necessary and permitted by local regulation, the Group's subsidiaries centralise their cash investments, report their risks and hedge their exposures in coordination with the Group's central treasury team. The Group performs sensitivity analyses to determine the effects that may result from market risk exposures. The Group uses derivative instruments solely to hedge financial risks related to its financial position or risks that are otherwise incurred in the normal course of its commercial activities. The Group does not use derivative instruments for speculative purposes.

#### Interest Rate Risk

Substantially all interest-bearing financial assets and liabilities of the Group are either based on floating rates or based on fixed rates with an interest term of less than one year, except for the €500 million fixed rate Bond which has a maturity of seven years. The Group entered into interest rate swap contracts in order to hedge the interest rate risk inherent to the fixed rate Bond. As a result,

the Group is not exposed to significant fair value risk affecting fixed-rate financial assets and liabilities. As at 31 December 2018, the Group had an aggregated notional of €500 million fixed-to-floating interest rate swaps outstanding in relation to the fair value hedge of the €500 million Bond.

The Group is exposed to cash-flow risk arising from net floating-rate positions. The Group was a net borrower in Euros at 31 December 2018 and a net lender as per 31 December 2017. The sensitivity of net interest income to a parallel shift in the interest curves is that a 0.5% increase/decrease of the rate would have resulted in an increase/decrease of net interest income of €1.3 million based on the positions at 31 December 2018 (2017: no material impact). The Group was a net lender in Pound Sterling at 31 December, 2018 and 2017. The sensitivity of net interest income to a parallel shift in the interest curves is that a 0.5% increase/decrease of the rate would not have had a material impact on the net interest income based on the positions at 31 December, 2018 and 2017. The Group was a net lender in US Dollar at 31 December, 2018 and 2017. The sensitivity of net interest income to a parallel shift in the interest curves is that a 0.5% increase/decrease of the rate would not have had a material impact on net interest income based on the positions at 31 December, 2018 and 2017.

#### Liquidity Risk

The Group would be exposed to a liquidity risk in the case where its short-term liabilities become, at any date, higher than its cash, cash equivalents, short-term financial investments and available bank facilities and in the case where the Group is not able to refinance this liquidity deficit, for example, through new banking lines.

Cash, cash equivalents and short-term financial investments are managed as a global treasury portfolio invested in non-speculative financial instruments, readily convertible to cash, such as bank balances, money market funds, overnight deposits, term deposits and other money market instruments, thus ensuring a very high liquidity of the financial assets. The Group's policy is to ensure that cash, cash equivalents and available bank facilities allow the Group to repay its financial liabilities at all maturities, even disregarding incoming cash flows generated by operational activities, excluding the related party loans granted by the Group's subsidiaries to its Parent.

The net position of current financial assets, financial liabilities and available credit facilities, excluding working capital items, as of 31 December 2018 and 2017 is described in the table below:

<i>In thousands of euros</i>	2018	2017
Cash, cash equivalents and short term financial investments	398,018	187,785
Available credit facilities	250,000	250,000
Financial debt	(508,685)	(164,885)
<b>NET POSITION</b>	<b>139,333</b>	<b>272,900</b>

The movement in financial debt primarily relates to the issuing of a €500 million Senior Unsecured note ("The Bond"), partly offset by the repayment of the existing syndicated bank loan facility ("the Bank Loan") of €165.0 million. Both transactions occurred in April 2018.

References are made to section 5.1.10 for more details on the Bank Loan and the Bond.



<i>In thousands of euros</i>	Maturity < 1 year	Maturity between 1 and 5 years	Maturity > 5 years	Total
<b>2018</b>				
Trade and other payables	115,332	-	-	115,332
Other current financial liabilities	6,986	-	-	6,986
Borrowings	5,000	20,000	510,000	535,000
Other non-current financial liabilities	-	17,400	-	17,400
<b>2017</b>				
Trade and other payables	99,161	-	-	99,161
Other current financial liabilities	6,654	-	-	6,654
Borrowings	753	166,165	-	166,918
Other non-current financial liabilities	-	10,000	-	10,000

## Currency Risk

The Group's net assets are exposed to the foreign currency risk arising from the translation of assets and liabilities of subsidiaries with functional currencies other than the Euro. The following table summarises the assets and liabilities recorded in GBP functional currency and the related impact of a 10% in/decrease in the currency exchange rate on balance sheet:

<i>In thousands</i>	2018	2017
Assets	£46,911	£17,975
Liabilities	£(5,141)	£(3,310)
Net currency position	£41,770	£14,665
Absolute impact on equity of 10% in /decrease in the currency exchange rate	€4,649	€1,650

The following table summarises the assets and liabilities recorded in US\$ functional currency and the related impact of a 10% in/decrease in the currency exchange rate on balance sheet:

<i>In thousands</i>	2018	2017
Assets	\$196,579	\$182,147
Liabilities	\$(20,087)	\$(20,207)
Net currency position	\$176,492	\$161,940
Absolute impact on equity of 10% in /decrease in the currency exchange rate	€15,411	€13,470

Most operating revenue and expenses in the various subsidiaries of the Group are denominated in the functional currency of each relevant subsidiary. The Group's consolidated income statement is exposed to foreign currency risk arising from receivables and payables denominated in currencies different from the functional currency of the related entity.

## Credit Risk

The Group is exposed to credit risk in the event of a counterparty's default. The Group is exposed to credit risk from its operating activities (primarily trade receivables) and from its financing activities, including the investment of cash equivalents and short-term financial investments. The Group limits its exposure to credit risk by rigorously selecting the counterparties with which it executes agreements. Credit risk is monitored by using exposure limits depending on ratings assigned by rating agencies as well as the nature and maturity of transactions. Most customers of the Group are leading financial institutions that are highly rated.

Investments of cash and cash equivalents in bank current accounts and money market instruments, such as short-term fixed and floating rate interest deposits, are strictly restricted by rules aimed at reducing credit risk: maturity of deposits is lower than six months, counterparties' credit ratings are permanently monitored and individual counterparty limits are reviewed on a regular basis. In addition to the intrinsic creditworthiness of counterparties, the Group's policies also prescribe the diversification of counterparties (banks, financial institutions, funds) so as to avoid a concentration of risk. Derivatives are negotiated with leading high-grade banks.

The Group's trade and contract receivables, and other debt financial assets at amortised cost are exposed to credit risk. The maximum exposure to credit risk at the reporting date is the carrying value of each class of these financial assets.

The Group evaluates the concentration of credit risk with respect to trade and contract receivables as low, as most of its customers are leading financial institutions that are highly rated.

The other debt financial assets at amortised cost consist of (i) non-current financial assets at amortised costs, which include two loans in the total amount of €6.0 million, which will mature on 1 December 2019 and 6 July 2020 respectively, and bear an interest rate of Euribor 6 months plus an average margin of 4.5% and (ii) other current financial assets, which include short-term deposits with a maturity over three months. All of the entity's other debt financial assets at amortised cost are considered to have low credit risk, as the issuers of the instruments have a low risk of default evidenced by their strong capacity to meet their contractual cash flow obligations in the near term.

### 5.1.14 SIGNIFICANT ACCOUNTING POLICIES

Euronext Consolidated Financial Statements included in this Registration Document have been prepared and presented in accordance with International Financial Reporting Standards (IFRS), issued by the International Accounting Standards Board (IASB) and adopted by the European Union. See also Note 3 of the Consolidated Financial Statements, on 'Significant accounting policies and judgements'.

### 5.1.15 CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

In the application of the Group's accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. All assumptions, expectations and forecasts used as a basis for certain estimates within Euronext Financial Statements represent good faith assessments of its future performance for which Euronext management believes there is a reasonable basis. These estimates and assumptions represent Euronext's view at the times they are made, and only then. They involve risks, uncertainties and other factors that could cause Euronext actual future results, performance and achievements to differ materially from those estimated or forecasted. The estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods. The estimates and assumptions that may have a risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are described below. Euronext has discussed the development and selection of these critical accounting policies and estimates with its independent auditors.

Significant judgments made in the preparation of the Consolidated Financial Statements include the following:

#### Impairment of Goodwill

Goodwill represents the excess of the consideration transferred in a business combination over the Group's share in the fair value of the net identifiable assets and liabilities of the acquired business

at the date of acquisition. Goodwill is not amortised but is tested at least annually for impairment, or whenever an event or change in circumstances indicate a potential impairment.

For the purpose of impairment testing, goodwill arising in a business combination is allocated to the cash-generating units ("CGUs") or groups of CGUs that are expected to benefit from the synergies of the combination. Each CGU or CGU Group to which goodwill is allocated represents the lowest level within the Group at which the goodwill is monitored for internal management purposes.

The carrying value of a CGU Group is compared to its recoverable amount, which is the higher of its value in use and its fair value less costs of disposal. Impairment losses on goodwill are not subsequently reversed. Value in use is derived from the discounted future free cash flows of the CGU Group. Fair value less costs of disposal is based on discounted cash flows and market multiples applied to forecasted earnings. Cash flow projections are based on budget and business plan approved by management and covering a 2-year period in total. Cash flows beyond the business plan period are extrapolated using a perpetual growth rate. Key assumptions used in goodwill impairment test are described in Note 17 of the Consolidated Financial Statements.

#### Income Taxes

Due to the inherent complexities arising from the nature of the Group's business, from conducting business and being taxed in a substantial number of jurisdictions, significant judgments and estimates are required to be made for income taxes. The Group computes income tax expense for each of the jurisdictions in which it operates. However, actual amounts of income tax due only become final upon filing and acceptance of the tax return by relevant authorities, which may not occur for several years subsequent to issuance of the Consolidated Financial Statements.

The estimation of income taxes also includes evaluating the recoverability of deferred income tax assets based on an assessment of the ability to use the underlying future tax deductions against future taxable income before they expire. This assessment is based upon existing tax laws and estimates of future taxable income. To the extent estimates differ from the final tax return, earnings may be affected in a subsequent period.

The Group operates in various countries with local tax regulations. New tax legislation being issued in certain territories as well as transactions that the Group enters into regularly result in potential tax exposures. The calculation of Euronext's tax liabilities involves uncertainties in the application of complex tax laws. Euronext's estimate for the potential outcome of any uncertain tax position is highly judgmental. However, Euronext believes that it has adequately provided for uncertain tax positions. Settlement of these uncertainties in a manner inconsistent with Euronext's expectations could have a material impact on its results of operations, financial condition and cash flows. The Group recognises a liability for uncertain tax positions when it's probable that an outflow of economic resources will occur. Measurement of the liability for uncertain tax positions is based on management's best estimate of the amount of tax benefit/cost that will be realised upon settlement.

## Fair Value of Equity Investments

The Group holds investments in unlisted equity securities which are carried at fair value in the balance sheet. The valuation methodology and critical assumptions are described in Note 19 of the Consolidated Financial Statements.

## Classification of investments in associates

The Group classifies the interest in LCH SA as an investment in associate suggesting significant influence even though it owns less than 20% of the voting rights (see Note 7 of the Consolidated Financial Statements included in this Registration Document). The Group concludes it has significant influence over this investment, which is derived from the governance structure that was put in place and the Group's position as the largest customer and sole minority shareholder of LCH SA.

## Contingent consideration and buy options resulting from business combinations

The Group may structure its business combinations in a way that leads to recognition of contingent consideration to selling shareholders and/or buy options for equity held by non-controlling interests. Contingent consideration and buy options are recognized at fair value on acquisition date. When the contingent consideration or buy option meets the definition of a financial liability or financial instrument, it is subsequently re-measured to fair value at each reporting date. The determination of fair value is based on the expected level of EBITDA over the last 12 months that precede the contractual date (in case of contingent consideration) or exercise date of the underlying call- and put options (in case of buy option). The Group monitors the expected EBITDA based on updated forecast information from the acquired companies involved.

## Purchase price allocation

The cost of other intangible assets that are acquired in the course of business combinations, corresponds to their acquisition date fair values. Depending on the nature of the intangible asset, fair value is determined by application of:

- market approach (by reference to comparable transactions);
- income approach (Relief-from-Royalty- or Multi-period Excess Earnings Method;
- cost approach.

Assets with a finite useful life are amortized using the straight-line method over their expected useful life. Assets with an indefinite useful life are tested for impairment at least once a year.

## Revenue from contracts with customers

The Group applied the following judgments that significantly affect the determination of the amount and timing of revenue from contracts with customers:

### (i) Identifying performance obligations and determining the timing of revenue recognition of Listing admission fees

The Group provides services related to the initial (and subsequent) listing of securities on its markets and hereto directly related corporate action services, and ongoing services related to the continuous listing.

The Group determined that the admission services around initial (and subsequent) admission and its directly related corporate action services do not transfer a good or service to the customer, but are considered activities that the Group needs to undertake to enable the customer to be listed. The Group concluded that these activities should be combined with the ongoing listing services and should be used as inputs to produce the combined output, which is the service of being listed. As the service of being listed is satisfied over a period of time, as the customer simultaneously receives and consumes the benefits from the service, the related revenues are therefore recognised over a period of time.

The Group determined that the period of time that best reflects the satisfaction of listing admission services is the period over which the customer actually benefits from the admission. An average lifetime of companies being listed on Euronext's markets would serve as best proxy for the period that a listing customer benefits from an admission. Based on historic evidence, the Group has defined the following average lifetimes for the relevant groupings of listed securities:

Equity admissions:	5 years
Bond- and fund admissions:	3 years
Equity subsequent admissions ("follow-on's"):	3 years

Revenue from the listing admission services is therefore recognised over those periods of time.

### (ii) Cost to obtain or fulfil a contract related to listing admission services

The Group has considered the type of cost that is directly associated to a listing contract and that can be separately identifiable. Such cost would typically concern staff cost incurred by the Listings team involved in admission- and subsequent listing of an issuer. There is no correlation between number of listings and staff cost associated to the Listings team.

The majority of the cost to obtain and fulfil the contract is incurred in the period before the actual admission. The remaining cost associated to an admission and subsequent listing that is recorded post-admission, and its impact on the Group's income statement, would be marginal, therefore the Group has decided not to capitalize cost incurred to obtain- or fulfil listing contracts.

### (iii) Principal versus agent considerations

On 14 October 2013, the Group entered into a clearing agreement with LCH SA in respect of the clearing of trades on our continental Europe derivatives markets (the "Derivatives Clearing Agreement"). Under the terms of this Derivatives Clearing Agreement Euronext agreed with LCH SA to share revenues and receives clearing fee revenues based on the number of trades on these markets cleared through LCH SA. In exchange for that, we have agreed to pay LCH SA a fixed fee plus a variable fee based on revenues.

The definition of the accounting treatment of this agreement requires significant management judgment for the valuation and weighting of the indicators leading the principal versus agent accounting analysis. Based on all facts and circumstances around this arrangement, management has concluded that Euronext is 'principal' in providing Derivatives clearing services to its trading members. Therefore Euronext recognizes (i) the clearing fees received are classified as post trade revenues, and (ii) the fixed and variable fees paid to LCH SA as other operational expenses.

### Provision for expected credit losses of trade and contract receivables

The Group uses a provision matrix to calculate ECLs for trade and contract receivables. To measure expected credit losses, trade and contract receivables have been grouped based on shared credit risk characteristics and the days past due. The historical loss rates are based on the payment profiles of the sales over a period of 24 months before reporting date and the corresponding historical credit losses experience within this period. The historical loss rates are adjusted to reflect current and forward-looking factors specific to the debtors and economic environment.

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to

adjust the historical credit loss experience with forward-looking information. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

The assessment of the correlation between historical observed default rates, forecast economic conditions and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and of forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future. The information about the ECLs on the Group's trade and contract receivables is disclosed in note 36.4 of the Consolidated Financial Statements included in this Registration Document.

## 5.2 Material contracts and related party transactions

### 5.2.1 MATERIAL CONTRACTS

The major contracts for Euronext, entered into the ordinary course of business, but essential for its activity as a regulated markets operator, are:

- the clearing agreements signed with LCH SA;
- the Data Centre Services agreement signed with ICE;
- the Termination and Settlement agreement signed with Deutsche Börse AG following the acquisition of the Irish Stock Exchange in 2018 (and replacing the former Xetra trading system services & clearing agreements).

The Clearing Agreements are referred to in section 1.3.6 "Description of the Business / Post Trade / LCH SA" and 5.1.5 "Key Factors Affecting Businesses and Results of Operation / Derivatives Clearing Agreement".

### 5.2.2 RELATED PARTY TRANSACTIONS

Euronext has related party relationships with its associates and joint ventures, as disclosed in Note 31 of the Consolidated Financial Statements. The other related parties disclosure relates entirely to the key management of Euronext. For the transactions with its key management personnel, see section 2.4 Remuneration Report.

From the IPO on 20 June 2014, the transactions with ICE do not qualify as "related party transactions" under IAS 24. Nevertheless the agreements between Euronext and ICE were in force after the IPO. Some of them are long term agreements. Some of these services have been progressively terminated and replaced over the period 2014-2016.

Over the year 2018, services received from or rendered to ICE include the use of Data centre service, Colocation, Connectivity, UTP and other intellectual property rights as well as ancillary services. As at 31 December 2018, the following agreements remain active:

- data Centre Services Agreement;
- colocation Agreement;

- connectivity Agreement;
- UTP and Trading Technology Licence Deed;
- intellectual Property Agreement;
- Euronext Equity Index Trademark Licence Agreement;
- deed of Separation between Euronext and ICE.

#### Data Centre Services Agreement

ICE provides data centre services to Euronext from the Basildon site. Specifically, ICE houses the data centre equipment in the Data Centre and provides sub-services, such as power, access, physical security, environment, fire protection, connectivity, monitoring, support, remote hands, installation, receiving and warehouse space.

The agreement will subsist for an initial term of five years, starting 1 April 2014, with automatic renewal for a further five-year period, unless notice of termination is provided by either party at least twelve months before expiry of the initial term but no earlier than 24 months before the end of the initial term. ICE will guarantee to continue providing the services for a further two-year period from the date on which notice of non-renewal is received. Accordingly, the minimum period for this service is five years. In the course of 2015, the agreement has been renegotiated, leading to, under certain conditions, a lower price structure, to come into effect on 1 January 2016.

In December 2018, the contract has been renewed for a 5 years period, and adjusted on some specific clauses (e.g. exit clause, Data Protection)

#### Colocation Agreement

ICE provides co-location services directly to Euronext members on terms that are no worse than the terms on which ICE currently provides equivalent co-location services to its members. As the service is provided to members, there is no services agreement between ICE and Euronext but rather a commitment and payment of commission to Euronext by ICE for the right to provide the services.

This agreement will remain in force for a period of five years, starting 1 April 2014, unless terminated earlier with mutual agreement. ICE will commit not to increase the pricing, nor reduce the service or performance levels of colocation for the initial two-year period to ensure that Euronext customers receive colocation services at an equal (or better) standard to that currently provided by Euronext without any adverse price impact. Euronext is free to build its own colocation facility after the end of this two-year period if it wishes to do so, and in that case ICE will have the right to terminate the agreement on six months' notice.

ICE pays to Euronext commission in respect of the fees received under the colocation contracts as follows: 35% of the colocation hosting fee; 35% of any Liquidity Centre Network ("LCN") fees; and 100% of any subscription fees (for specific Euronext exchanges).

In December 2018, the contract has been renewed for a 5 years period, and adjusted on some specific clauses (e.g. exit clause, Data Protection)

### Connectivity Agreement

Euronext's customers are connected to the SFTI® network either via an SFTI® managed connection, a direct connection, or a third-party connection. ICE provides application services, including logical connections to the relevant Euronext products between the subscriber and host infrastructure. ICE agrees to provide the SFTI® services to Euronext customers on terms (including pricing, service, and performance) that, in the aggregate, are no worse than the standard terms on which ICE provides equivalent connectivity services to its customers.

This agreement will remain in force for five years, starting on 1 April 2014, unless terminated earlier with mutual agreement. This agreement contains substantially the same terms as the colocation agreement, including a general commitment not to raise fees or reduce services for two years. Euronext receives a commission based on 50% of the revenue earned from the access/subscription fees to Euronext markets via SFTI®.

In December 2018, the contract has been renewed for a 5 years period, and adjusted on some specific clauses (e.g. exit clause, Data Protection)

### UTP and Trading Technology Licence Deed

The intellectual property in the UTP and other trading technology, including core software and technology ("Core Items") and related support items ("Support Items") that are currently being used for the continental Euronext market is licensed by ICE (through NYSE Arca, LLC) to Euronext (through one of its subsidiaries) for the operation of the Euronext trading platforms.

Under the licence agreement, Euronext has been granted a perpetual, irrevocable, worldwide, non-exclusive, royalty-free and fully paid-up licence in respect of the use, modification and maintenance of the Core Items for any purpose and in respect of the use, modification and maintenance of the Support Items for the sole purpose of enabling the use of the Core Items. The licence includes any improvements or enhancements to the Core Items and the Support Items that are made before the IPO on 20 June 2014. Euronext owns improvements or enhancements that it makes or have made to the Core Items and the Support Items after the

IPO, and Euronext and ICE are not obliged to share their respective improvements or enhancements after the IPO.

Euronext may sub-licence its rights, including through multiple tiers of sub-licences. However, for a period of two years from the IPO, neither Euronext nor ICE is entitled to permit a defined list of exchange operators or owners of registered swap execution facilities or their affiliates to use UTP (though this will not affect any licences that were already in place as at 13 November 2013). The restricted list includes any of Nasdaq OMX, CME Group, Inc., BM&F Bovespa, London Stock Exchange Group Plc, Singapore Exchange Limited, Hong Kong Stock Exchange, Deutsche Börse Group, BATS Global Markets, Inc., Direct Edge, or Chi-X Global Holdings LLC; any person that acquires all or substantially all of the business of any of these entities; any person that at the time of the assignment or licence operates a registered swap execution facility; and any affiliate of any such persons. This restriction terminated in June 2016.

There are no circumstances in which the licence may be terminated by ICE.

Except where there is a breach of warranty by the indemnified parties, Euronext will indemnify NYSE Arca and its affiliates within ICE for all liability incurred under a third-party claim in connection with use of the UTP by Euronext or any of its sub-licensees after the IPO.

In the event of any infringement of the licensed rights, ICE will have the right to determine what enforcement action to take. ICE will offer Euronext the right to participate in any action it takes. If ICE does not take any enforcement action, Euronext will have the sole right to determine what enforcement action to take. If Euronext or any sub-licensee of Euronext is sued for infringement, ICE will provide all such information and assistance as Euronext may reasonably require.

### Intellectual Property Agreement

Under this agreement, Euronext is granted a perpetual, irrevocable, worldwide, non-exclusive, royalty-free and fully paid-up licence to use and sub-licence the name "Euronext UTP" in connection with its use of the UTP technology. The licence is not supported by any warranties from ICE. There are no circumstances in which the licence may be terminated by ICE.

To the extent that ICE wishes to use the name "UTP" in connection with its version of the UTP technology, ICE has agreed that it will use the name "NYSE UTP".

Also under this agreement, Euronext and ICE have permitted each other's groups to have until 1 June 2015 to cease current uses of each other's trademarks. From that date onwards, Euronext and ICE have ceased using each other's trademarks.

### Euronext Equity Index Trademark Licence Agreement

Under the licence agreement, LIFFE is granted a worldwide and non-exclusive licence in relation to the trademarks and associated logos for the indices generated by the Euronext Regulated Markets. The licence permits the use of these trademarks and associated logos in connection with the marketing, listing and trading of any tradable contract. However, until 1 January 2016, the licensed use is limited to LIFFE's current tradable contracts for listings on Bclear and only in respect of equity indices for AEX®, BEL 20®, CAC 40®,



and PSI 20®. This limitation will terminate early in case a third-party infrastructure provider acquires control of any Euronext company, or is granted a licence by Euronext company to use any of the trademarks for any of the indices generated by the Euronext Regulated Markets. Subject to appropriate limitations, LIFFE may sub-license the rights to ICE.

For its use of the licensed trademarks and associated logos, LIFFE pays the greater of (i) €0.05 per traded contract and (ii) 15% of the exchange and clearing fees on the traded contracts.

LIFFE will indemnify Euronext and its affiliates for all liability incurred under a third-party claim in connection with ICE's use of the licensed trademarks, other than where the third-party claim is for trademark infringement.

The licence agreement recognises that the parties may need to renegotiate the terms where Euronext is required, by a change in the law, to grant licences at market rates and on a non-discriminatory basis albeit such renegotiation shall take due account for the fact that ICE has already provided value for the use of the equity indices as part of the acquisition of NYSE Euronext by ICE.

### Deed of Separation between Euronext and ICE

Euronext and ICE entered into a deed of separation dealing with the conduct of various matters between the parties following the IPO. The principal terms of the deed of separation are as follows:

- non-solicitation: neither party may solicit or employ any executive or senior management personnel of the other party for a twelve month period, subject to the written consent of the other party;
- mutual release and indemnification: each of the parties: (i) releases and discharges the other party and its group from

liability existing or arising in connection with the Separation and IPO; (ii) indemnifies the other party and its group against third-party claims arising out of or in connection with the Separation and the IPO;

- indemnification for guarantees provided by ICE: Euronext indemnifies ICE in respect of guarantees provided by ICE entities of the obligations of the Group; and
- financial reporting, audit and accounting and related covenants: Euronext covenants to provide certain information to ICE for the purposes of ICE's financial reporting, audit and accounting obligations and to act in accordance with ICE's contractual obligations and relevant anti-corruption and sanctions compliance regimes.

Also, in connection with the separation of Euronext from ICE, Euronext and ICE entered into a series of transitional services agreements ("SLAs"). There were some ancillary services provided by ICE to Euronext ("ICE Ancillary Services") and ancillary services provided by Euronext to ICE ("Euronext Ancillary").

### Crossfinder licence agreement

FastMatch's operating system for its matching engine is based on the Crossfinder(R) software licensed by FastMatch from Credit Suisse pursuant to a perpetual license. The license granted by Credit Suisse is limited in scope to use by FastMatch in its operations as an electronic exchange for the trading of foreign exchange. Pursuant to that license, FastMatch has exclusive and unrestricted ownership of all modifications made to the Crossfinder code by FastMatch, as well as to any software developed by FastMatch independently.

## 5.3 Legal Proceedings

The Group is involved in a number of legal proceedings that have arisen in the ordinary course of its business. Other than as discussed below, management does not expect these pending or threatening legal proceedings to have a significant effect on the Group's financial position or profitability. The outcome of legal proceedings, however, can be extremely difficult to predict and the final outcome may be materially different from management's expectations.

### 5.3.1 EURONEXT AMSTERDAM PENSION FUND

Approximately 120 retired and/or former Euronext Amsterdam employees, united in an association, served summons on Euronext Amsterdam on 3 April 2014. The claim is based on the fact that Euronext Amsterdam terminated its pension agreement with the pension fund Mercurius ("PMA") and transferred the pension of the current employees of Euronext to Delta Lloyd Asset Management ("Delta Lloyd"). The pension entitlements of the

retired and/or former employees of Euronext Amsterdam have also been transferred by PMA to Delta Lloyd. The retired and/or former employees have been informed by PMA that the transfer of their entitlements to Delta Lloyd will result in a nominal pension entitlement without indexation in the future. The association claims that Euronext Amsterdam should guarantee the same pension entitlements of the retired Euronext Amsterdam employees under the same or similar conditions as those in the agreement between Euronext Amsterdam and PMA with the considerations that (i) the administration fee will be covered, (ii) the liability ratio will be covered and (iii) the loyalty and solidarity between retired and current employees is provided for. The amount will need to be calculated by an actuary.

After Euronext Amsterdam filed a statement of defence on 27 June 2014, the Subdistrict (Kanton) Division of the Court of Amsterdam on 11 July 2014 granted the retired and/or former employees Euronext Amsterdam a term until 8 August 2014 in order to file a rejoinder. On that date the counterparty was granted a postponement until 5 September 2014 for its statement of reply.

Both parties have filed all documents and statements and an oral hearing took place on 11 June 2015. The judge asked both parties to explore a settlement and Euronext currently assesses the costs of potential out of court solutions. The Court has been informed that no agreement on such a settlement could be reached.

On 24 June 2016 the judge delivered a decision. The claim is rejected that Euronext Amsterdam should guarantee the same pension entitlements of the retired Euronext Amsterdam employees under the same or similar conditions as those in the agreement between Euronext Amsterdam and PMA. However, the judge did hold that there has been an attributable breach by Euronext Amsterdam in the performance of the pension agreements with the members of the association. Euronext Amsterdam is ordered to pay for

damages resulting from the loss of indexation perspective incurred by the claimants other than the association. The association is not eligible to claim damages. The amount of the damages needs to be determined in a separate procedure (a "schadestaatprocedure"). Management believes that the decision is insufficiently motivated. On 21 September 2016 Euronext Amsterdam has filed for appeal against the decision. The grounds for appeal were filed on 6 December 2016. On 14 February 2017 the claimants filed their responses and also filed for appeal against certain parts of the decision of 24 June 2016. Euronext has responded to the grounds for appeal raised by claimants on 25 April 2017. An oral hearing took place on 24 November 2017. A decision is expected on 14 May 2019. No provision has been booked in connection with this case.

## 5.4 Insurance

Euronext maintains a comprehensive insurance program with the assistance of an insurance broker allowing Euronext to make an assessment of its risks, take out the proper insurance policies and deal with insurance management as smoothly as possible.

The main characteristics of the insurance program are the following:

- the main insurance policies are consolidated at the Euronext group level in order to ensure consistency of coverage across the Euronext group and to benefit from lower premiums;
- the scope of risks covered is determined by reference to Euronext's activities (listing, trading, market data, post-trade and technologies & other); and
- all insurance carriers are analysed from a credit rating perspective.

The main risks covered by Euronext's insurance program are the following:

- directors' & officers' liability: this policy covers losses related to an alleged wrongful Act committed by members of Euronext Managing Board, Euronext Supervisory Board and other senior management. Under this policy, any of Euronext past, present or future directors or officers will be insured against liability for negligence, default or breach of duty or other liability, other than cases of willful misconduct or gross negligence (*opzet of grove nalatigheid*);
- professional indemnity & crime: this policy provides first party coverage and indemnification against third-party claims arising out of negligence, errors or omissions in connection with professional services or failure to meet contractual obligations in the conduct of exchange activities and exchange related activities. This policy also covers first party losses resulting directly from dishonest or fraudulent acts committed by Euronext employees or third parties working with Euronext employees;

- cyber: this policy provides coverage for an Euronext's business interruption following malicious action on an IT system. Coverage is provided for claims arising from the interruption of systems or other failures of IT Security caused by damage to computer programs or data that results from a computer attack or unauthorised access or use of system. This policy also covers claims for the failure to protect personality identifiable information or unauthorised disclosure of confidential corporate information in any form;
- property damage & business interruption: this policy provides first party coverage for losses to Euronext's property or business interruption. The coverage includes tenant's liability and liability to third parties;
- terrorism; and
- commercial general liability: this policy provides coverage for negligent acts and/or omissions resulting in bodily injury, property damage, consequential losses and pure financial losses to third parties, their reputation, or their property as a result of using Euronext products and services.

In addition to the insurance program, risk management and business continuity plan policy and procedures are implemented in a complementary manner. Euronext believes that its existing insurance coverage, including the amounts of coverage and the conditions, provides reasonable protection, taking into account the costs for the insurance coverage and the potential risks to business operations.

## 5.5 Liquidity and Capital Resources

### 5.5.1 LIQUIDITY

Euronext's financial policy seeks to finance the growth of the business, remunerate shareholders and ensure financial flexibility, while maintaining strong creditworthiness and liquidity.

Euronext primary sources of liquidity are cash flows from operating activities, current assets and existing bank facilities. Euronext's principal liquidity requirements are for working capital, capital expenditures and general corporate use.

Euronext business is highly dependent upon the levels of activity in its exchanges, and in particular upon the volume of financial instruments traded, the number of shares outstanding of listed issuers, the number of new listings, the number of traders in the market and similar factors. Euronext has no direct control over these activities, which have historically resulted in volatility. While Euronext activities are not subject to significant seasonal trends, cash flows vary from month to month due to Euronext billing and collection efforts (most notably the annual billings for listed companies during the first quarter).

The financial resources ultimo 2018 can be summarised as follows:

In thousands of euros	Financial resources
Cash & cash equivalent	398,018
Revolving credit facility	250,000
<b>TOTAL FINANCIAL RESOURCES</b>	<b>648,018</b>

### 5.5.2 CONSOLIDATED REGULATORY CAPITAL REQUIREMENTS

Euronext N.V. is subject to regulatory capital requirements. These requirements were first set out in the Exchange License that was issued by the Dutch Minister of Finance in June 2014. Following discussion with the Dutch Minister of Finance in 2015 and 2016 a new exchange license was granted on 23<sup>rd</sup> of May 2016, including new capital requirements for both Euronext consolidated and Euronext Amsterdam N.V.

As from 23 May 2016 the following capital requirements apply to Euronext.

Euronext N.V. is subject to minimum regulatory capital requirements defined by the Minister of Finance and the AFM, under which Euronext is required:

- to ensure that its shareholders equity, liquidity and solvency satisfy what is required with a view to the interests which the Dutch Act on Financial Supervision (Wet op het financieel toezicht –Wft) aims to protect;
- Euronext shall have a minimum shareholders equity on a consolidated basis of at least Euro 250 million;
- Euronext shall take care of a stable financing. To that end, the total of long term assets of Euronext will to the satisfaction of the AFM be financed with shareholders equity and long term liabilities;

Euronext business has historically generated significant cash flow from operating activities to meet its cash requirements as well as to distribute dividends and make share premium repayments. Euronext expects future cash flow from operating activities to be sufficient to fund its capital expenditures, distribute dividends as well as pay its debts as they become due. In addition, Euronext has access to a €250 million revolving credit facility (see section 5.1.10 "Facilities Agreement").

More information on Euronext's cash flows is provided in section 5.1.9 "Cash Flow"

Because of its strict financial policy of maintaining strong creditworthiness and liquidity, and its significant operating cash flow generation capacities, Euronext N.V. considers its financial position as at 31 December 2018 as solid, both from a solvency and a liquidity perspective.

- Euronext shall have a positive regulatory capital on a consolidated basis. The regulatory capital is calculated according to the following formula: the paid up share capital plus the freely available reserves, less the items listed in section 36 of Regulation (EU) no. 575/2013. The standards drawn up by the European Banking Authority as referred to in section 36, second paragraph, of the Capital Requirements Regulation are taken into account in relation hereto;
- in deviation of the calculation set out in bullet point 4 of the regulatory capital, the value of the intangible fixed assets in connection with the acquiring of a controlling influence through an acquisition will be deducted in ten equal amounts from the regulatory capital, starting in the year that the acquisition has taken place (the year of acquisition pro rata for the number of months). If the value of the intangible assets is higher than factor ten times the most recent profits of the acquired business, the grow-in term can after approval from the AFM be based on a higher, reasonable factor (= grow-in term), taking into account a prudent and consistent dividend policy proposed by Euronext. If the grow-in term and the related dividend policy provide for a negative regulatory capital for a limited number of years of the grow-in term, than this fact will not prevent the execution of the consistent and prudent dividend policy of Euronext in those years;

- if Euronext foresees or reasonably can foresee that its shareholders equity or regulatory capital does not satisfy or will not satisfy the prescribed prudential requirements, it will notify the AFM thereof immediately. If at any moment Euronext does not comply with the prescribed requirements with respect to the minimum shareholders equity, the regulatory capital or the grow-in of the regulatory capital is behind the grow-in term as determined on beforehand, Euronext will provide the AFM with a prognosis of how it expects to again comply with the prescribed prudential requirements. Dividend distributions will be possible in such a situation, unless the AFM is of the opinion that the future development of the shareholders equity or the regulatory capital of Euronext do not allow for this. If necessary, the AFM can prescribe within which term and in which manner Euronext will need to comply with the prudential requirements.

In addition, Euronext is required to obtain the prior approval of the AFM in the following circumstances:

- the granting of personal and in rem security for debts of other enterprises or the assumption of debts and security by Euronext, to the extent this is or can be of influence on the functioning of the regulated markets held by Euronext or possibly can result in

Euronext or one or more of its regulated subsidiaries no longer satisfying the prescribed prudential requirements;

- to the extent there is a reorganisation, operational or legal separations of the license holders or merger which can be of material influence of the functioning of the regulated markets in the Netherlands operated by the license holders;
- proposed resolutions of Euronext which can be of significant influence on the financial soundness of Euronext.

Euronext is also required to ensure that, in the event of a possible insolvency of Euronext N.V., the local exchanges can continue to function operationally.

The AFM may impose further requirements with respect to the shareholders equity position, liquidity and solvency of Euronext, to the extent necessary for the compliance with the requirements of the regulated markets.

In addition, each of the Group's subsidiaries that is an operator of a regulated market and subsidiaries that are investment firms are subject to regulatory capital requirements relating to their general financial soundness, which include certain minimum capital requirements.

As of 31 December 2018, Euronext shareholders equity and regulatory equity was the following:

*In thousands of euros*

Shareholders equity	791,093
Less	
Intangible assets and deferred tax	381,071
Investments in financial sector	250,787
<b>REGULATORY EQUITY</b>	<b>159,235</b>

### 5.6 Tangible Fixed Assets

The main tangible fixed assets of the Group consist of the following categories:

- land & buildings;
- hardware & IT equipment;
- other Property & Equipment.

#### 5.6.1 PRINCIPAL PROPERTIES

Euronext's headquarters are located in Amsterdam, the Netherlands at Beursplein 5, and in Paris, France, at La Défense (92054), 14 Place des Reflets. Euronext's registered office is located at Beursplein 5, 1012 JW Amsterdam, the Netherlands.

Real estate Euronext – per 31 December 2018

Location / Building	Address	ZIP	City	Country	Lease commence	Lease expiry	Surfaces (sqm)	Owned / Leased
<b>Amsterdam, BEURSPLEIN 5</b>	5 Beursplein	1012 JW	Amsterdam	Netherlands	N/A	N/A	14450	Owned
<b>London</b>	110 Cannon Street	EC4N6EU	London	UK	2017	2022	540	Leased
<b>Brussels / LE MARQUIS</b>	1 rue de Marquis	1000	Brussels	Belgium	2014	2030	860	Leased
<b>Lisbon / VICTORIA-Seuros vida</b>	196-7 avenida da Liberdade	1250-147	Lisbon	Portugal	2018	2021	554	Leased
<b>Porto / INTERBOLSA</b>	3433 avenida da Boavista	410-138	Porto	Portugal	2016	2021	1089	Leased
<b>Porto / ENX Technologies</b>	3433 avenida da Boavista	410-138	Porto	Portugal	2016	2021	2265	Leased
<b>Paris / PRAETORIUM</b>	14 place des Reflets	92054	Paris Cedex	France	2015	2024	10217	Leased
<b>ZI Rosny sous Bois</b>	17 rue Montgolfier	93110	Rosny sous Bois	France	2012	2021	328	Leased
<b>Enternext Nantes</b>	6 rue Bisson	44000	Nantes	France	2017	2018	15	Leased
<b>Enternext Lyon</b>	3 place de la Bourse	69002	Lyon	France	2017	2018	15	Leased
<b>Enternext Bordeaux</b>	17 place de la Bourse	33076	Bordeaux Cedex	France	2017	2018	15	Leased
<b>Enternext Marseille</b>	10 place de la Jollette	13567	Marseille Cedex	France	2017	2018	15	Leased
<b>Suisse / TECHNOPARK</b>	1 Technoparkstrasse	CH-8005	Zurich	Switzerland	2017	2018	24	Leased
<b>Espagne / REGUS / Cuzco IV</b>	141 Paseo de Castellana – 5 floor	28046	Madrid	Spain	2017	2018	12	Leased
<b>Italy / Thurma Business Center</b>	1 Corso Italia	20122	Milan	Italy	2017	2018	16	Leased
<b>Frankfurt / Contora</b>	1 TaunusTor	60310	Frankfurt	Germany	2017	2018	16	Leased
<b>Munich / Design Offices</b>	4 Mies-van-der-Rohe-Str.	80807	Munich	Germany	2017	2018	14.45	Leased
<b>Hong Kong</b>	18 Westlands Road, level 60 One Island		Hong Kong	Hong Kong	2017	2018	44	Leased
<b>New York WeWork office</b>	261 Madison Avenue	NY10016	New York	USA	2018	2019	13	Leased
<b>New York</b>	180 Maiden Lane	NY10038	New York	USA	2016	2021	480	Leased
<b>Bengalore/ Obeya</b>	17 Cross Road, AJ Forte	560102IN	Bengalore	India	2018	2019	120	Leased
<b>Dublin/ Calaghan House</b>	13-16 Dame street		Dublin	Ireland	2017	2020	209	Leased
<b>Dublin/ Amoury building</b>	Foster Place		Dublin	Ireland	N/A	N/A	508	Owned
<b>London/ Francis House</b>	Francis street	SW1P1DE	London	UK	2017	2020	124	Leased



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## FINANCIAL STATEMENTS

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## 6.1 Consolidated Income Statement

<i>In thousands of euros (except per share data)</i>	Note	Year ended	
		31 December 2018	31 December 2017
Revenue	8	615,033	532,294
<b>TOTAL REVENUE</b>		<b>615,033</b>	<b>532,294</b>
Salaries and employee benefits	9	(118,488)	(104,363)
Depreciation and amortisation	10	(23,400)	(16,932)
Other operational expenses	11	(142,295)	(130,149)
<b>Operating profit before exceptional items</b>		<b>330,850</b>	<b>280,850</b>
Exceptional items	12	(21,474)	(14,787)
<b>Operating profit</b>		<b>309,376</b>	<b>266,063</b>
Finance costs	13	(5,481)	(3,553)
Change in fair value of financial liabilities	13	(3,200)	-
Other net financing income/(expense)	13	3,421	(47)
Results from equity investments	14	5,984	48,325
Share of net profit/(loss) of associates and joint ventures accounted for using the equity method, and impairments thereof	7	1,612	287
<b>Profit before income tax</b>		<b>311,712</b>	<b>311,075</b>
Income tax expense	15	(94,084)	(68,886)
<b>Profit for the year</b>		<b>217,628</b>	<b>242,189</b>
<b>Profit attributable to:</b>			
■ Owners of the parent		215,968	241,297
■ Non-controlling interests		1,660	892
<b>Basic earnings per share</b>	26	<b>3.10</b>	<b>3.47</b>
<b>Diluted earnings per share</b>	26	<b>3.09</b>	<b>3.45</b>

The above Consolidated Income Statement should be read in conjunction with the accompanying notes.

## 6.2 Consolidated Statement of Comprehensive Income

In thousands of euros	Note	Year ended	
		31 December 2018	31 December 2017
<b>Profit for the year</b>		<b>217,628</b>	<b>242,189</b>
<b>Other comprehensive income</b>			
Items that may be reclassified to profit or loss:			
■ Exchange differences on translation of foreign operations		5,963	(2,763)
■ Change in value of available-for-sale financial assets		-	78,635
■ Realisation of historical revaluation upon sale of available-for-sale financial assets	14	-	(40,534)
■ Income tax impact on change in value of available-for-sale financial assets		-	(6,401)
Items that will not be reclassified to profit or loss:			
■ Change in value of equity investments at fair value through other comprehensive income	19	35,399	-
■ Income tax impact on change in value of equity investments at fair value through other comprehensive income		(5,529)	-
■ Remeasurements of post-employment benefit obligations	29	1,677	3,629
■ Income tax impact on remeasurements of post-employment benefit obligations		(67)	(255)
<b>Other comprehensive income for the year, net of tax</b>		<b>37,443</b>	<b>32,311</b>
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>		<b>255,071</b>	<b>274,500</b>
<b>Comprehensive income attributable to:</b>			
■ Owners of the parent		253,348	273,697
■ Non-controlling interests		1,723	803

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



## 6.3 Consolidated Balance Sheet

<i>In thousands of euros</i>	Note	As at 31 December 2018	As at 31 December 2017
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	16	38,884	27,782
Goodwill and other intangible assets	17	705,636	515,134
Deferred tax assets	18	20,932	7,991
Investments in associates and joint ventures	7	72,685	75,004
Financial assets at fair value through other comprehensive income	19	220,100	-
Financial assets at amortised cost	36.4	7,021	-
Other non-current assets		812	-
Available-for-sale financial assets	19	-	147,503
Other receivables	36.4	-	7,968
<b>Total non-current assets</b>		<b>1,066,070</b>	<b>781,382</b>
<b>Current assets</b>			
Trade and other receivables	20	101,082	94,986
Other current assets	21	9,240	-
Income tax receivables		2,532	1,428
Derivative financial instruments	22	7,361	-
Other current financial assets	23	14,160	-
Cash and cash equivalents	24	398,018	187,785
<b>Total current assets</b>		<b>532,393</b>	<b>284,199</b>
<b>TOTAL ASSETS</b>		<b>1,598,463</b>	<b>1,065,581</b>
<b>Equity and liabilities</b>			
<b>Equity</b>			
Issued capital		112,000	112,000
Share premium		116,560	116,560
Reserve own shares		(17,816)	(17,269)
Retained earnings		509,483	468,882
Other reserves		70,866	35,096
<b>Shareholders' equity</b>	25	<b>791,093</b>	<b>715,269</b>
Non-controlling interests		11,231	14,211
<b>Total equity</b>		<b>802,324</b>	<b>729,480</b>
<b>Non-current liabilities</b>			
Borrowings	28	504,940	164,682
Other non-current financial liabilities	34	17,400	10,000
Deferred tax liabilities	18	21,429	19,834
Post-employment benefits	29	10,666	11,713
Contract liabilities	32	41,461	-
Provisions	30	5,994	5,081
<b>Total non-current liabilities</b>		<b>601,890</b>	<b>211,310</b>
<b>Current liabilities</b>			
Borrowings	28	3,745	203
Other current financial liabilities	34	6,986	6,654
Derivative financial instruments	22	85	-
Current income tax liabilities		11,240	17,429
Trade and other payables	31	115,332	99,161
Contract liabilities	32	55,487	-
Provisions	30	1,374	1,344
<b>Total current liabilities</b>		<b>194,249</b>	<b>124,791</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>1,598,463</b>	<b>1,065,581</b>

The above Consolidated Balance Sheet should be read in conjunction with the accompanying notes.

## 6.4 Consolidated Statement of Cash Flows

In thousands of euros	Note	Year ended	
		31 December 2018	31 December 2017
<b>Profit before income tax</b>		<b>311,712</b>	<b>311,075</b>
<b>Adjustments for:</b>			
■ Depreciation and amortisation	10	23,400	16,932
■ Share based payments	27	3,979	3,782
■ Change in fair value of financial liabilities	13	3,200	-
■ Impairment losses	14	-	5
■ Gain on disposal of available-for-sale financial assets	14	-	(42,225)
■ Share of profit from associates and joint ventures, and impairments thereof	7	(1,612)	(287)
■ Changes in working capital and provisions		(18,875)	(13,845)
<b>Cash flow from operating activities</b>		<b>321,804</b>	<b>275,437</b>
Income tax paid		(98,292)	(68,434)
<b>Net cash generated by operating activities</b>		<b>223,512</b>	<b>207,003</b>
<b>Cash flow from investing activities</b>			
Acquisition of associates and joint ventures	7	(853)	(2,107)
Acquisition of subsidiaries, net of cash acquired	5	(176,101)	(157,343)
Purchase of financial assets at FVOCI (2017: available-for-sale financial assets)	19	(31,684)	(9,583)
Proceeds from disposal of available-for-sale financial assets	14	-	1,707
Purchase of other current financial assets	23	(14,300)	-
Redemption of other current financial assets	23	18,820	-
Purchase of property, plant and equipment	16	(10,958)	(6,103)
Purchase of intangible assets	17	(11,307)	(17,774)
Dividends received from equity investments	14	5,984	6,105
Dividends received from associates	7	4,884	-
Proceeds from sale of property, plant and equipment and intangible assets		363	5
<b>Net cash (used in) investing activities</b>		<b>(215,152)</b>	<b>(185,093)</b>
<b>Cash flow from financing activities</b>			
Proceeds from borrowings, net of transaction fees	28	496,595	165,000
Repayment of borrowings, net of transaction fees	28	(165,000)	(71,150)
Interest paid		(643)	(712)
Interest received		274	275
Dividends paid to the company's shareholders	25	(120,441)	(98,809)
Dividends paid to non-controlling interests		(1,600)	-
Acquisitions of own shares	25	(5,787)	(986)
Employee Share transactions		(1,386)	(2,142)
<b>Net cash (used in) financing activities</b>		<b>202,012</b>	<b>(8,524)</b>
<b>Net (decrease)/increase in cash and cash equivalents</b>		<b>210,372</b>	<b>13,386</b>
Cash and cash equivalents – Beginning of the year		187,785	174,501
Non-cash exchange (losses)/gains on cash and cash equivalents		(139)	(102)
<b>CASH AND CASH EQUIVALENTS – END OF THE YEAR</b>		<b>398,018</b>	<b>187,785</b>

The above Consolidated Statement of Cash Flows should be read in conjunction with the accompanying notes.

## 6.5 Consolidated Statement of Changes in Equity

In thousands of euros	Note	Issued capital	Share premium	Reserve own shares	Retained Earnings	Other reserves			Total other reserves	Total Shareholders' equity	Non-controlling interests	Total equity
						Foreign currency translation reserve	Fair value reserve of financial assets at FVOCI	Change in value of available-for-sale financial assets				
Balance as at 31 December 2016		112,000	116,560	(18,883)	332,271	125	-	5,945	6,070	548,018	-	548,018
Profit for the year		-	-	-	241,297	-	-	-	-	241,297	892	242,189
Other comprehensive income for the year		-	-	-	3,374	(2,674)	-	31,700	29,026	32,400	(89)	32,311
Total comprehensive income for the year		-	-	-	244,671	(2,674)	-	31,700	29,026	273,697	803	274,500
Share based payments		-	-	-	3,778	-	-	-	-	3,778	-	3,778
Recognition of redemption liability		-	-	-	(8,200)	-	-	-	-	(8,200)	-	(8,200)
Dividends paid		-	-	-	(98,809)	-	-	-	-	(98,809)	-	(98,809)
Acquisitions of own shares		-	-	(986)	-	-	-	-	-	(986)	-	(986)
Non-controlling interests on acquisition of subsidiary		-	-	-	-	-	-	-	-	-	13,408	13,408
Other movements		-	-	2,600	(4,829)	-	-	-	-	(2,229)	-	(2,229)
Balance as at 31 December 2017		112,000	116,560	(17,269)	468,882	(2,549)	-	37,645	35,096	715,269	14,211	729,480
Change in accounting policy	3	-	-	-	(50,297)	-	37,645	(37,645)	-	(50,297)	-	(50,297)
Restated total equity at 1 January 2018		112,000	116,560	(17,269)	418,585	(2,549)	37,645	-	35,096	664,972	14,211	679,183
Profit for the year		-	-	-	215,968	-	-	-	-	215,968	1,660	217,628
Other comprehensive income for the year		-	-	-	1,610	5,900	29,870	-	35,770	37,380	63	37,443
Total comprehensive income for the year		-	-	-	217,578	5,900	29,870	-	35,770	253,348	1,723	255,071
Share based payments		-	-	-	3,979	-	-	-	-	3,979	-	3,979
Dividends paid		-	-	-	(120,441)	-	-	-	-	(120,441)	(1,600)	(122,041)
Acquisitions of own shares		-	-	(5,787)	-	-	-	-	-	(5,787)	-	(5,787)
Acquisition of non-controlling interest		-	-	-	(3,575)	-	-	-	-	(3,575)	(3,575)	(7,150)
Non-controlling interests on acquisition of subsidiary		-	-	-	-	-	-	-	-	-	472	472
Other movements		-	-	5,240	(6,644)	-	-	-	-	(1,404)	-	(1,404)
BALANCE AS AT 31 DECEMBER 2018		112,000	116,560	(17,816)	509,483	3,351	67,515	-	70,866	791,093	11,231	802,324

The above Consolidated Statement of Changes in Equity should be read in conjunction with the accompanying notes.

## 6.6 Notes to the Consolidated Financial Statements

### NOTE 1 GENERAL INFORMATION

Euronext N.V. ("the Group" or "the Company") is a public limited liability company incorporated and domiciled at Beursplein 5, 1012 JW Amsterdam in the Netherlands under Chamber of Commerce number 60234520 and is listed at all Continental Euronext local markets i.e. Euronext Amsterdam, Euronext Brussels, Euronext Lisbon and Euronext Paris.

The Group operates securities and derivatives exchanges in Continental Europe and Ireland (Euronext Dublin). It offers a full range of exchange- and corporate services, including security listings, cash and derivatives trading, and market data dissemination. It combines the Amsterdam, Brussels, Dublin, Lisbon and Paris exchanges in a highly integrated, cross-border organisation. The

Group also has a securities exchange in London (Euronext London Ltd.), operates Interbolsa S.A. (the Portuguese national Central Securities Depositories) and has a majority stake in FastMatch Inc., a US-based Electronic Communication Network in the spot foreign exchange market. The Group's in-house IT function supports its exchange operations. In addition, the Group provides software licenses as well as IT development and operation and maintenance services to third-party exchanges.

These Consolidated Financial Statements were authorised for issuance by Euronext N.V.'s Supervisory Board on 3 April 2019 and will be submitted for adoption by the Annual General Meeting (AGM) of Shareholders on 16 May 2019.

### NOTE 2 SIGNIFICANT EVENTS AND TRANSACTIONS

The financial position and performance of the Group was particularly affected by the following events and transactions that have occurred during the year:

#### Acquisition of The Irish Stock Exchange Plc.

On 27 March 2018, the Group announced the completion of the acquisition of 100% of the shares and voting rights of the Irish Stock Exchange Plc., Ireland's incumbent stock exchange operator and a leading global debt and fund listing venue. The total purchase consideration of the transaction amounted to €174.5 million. The Irish Stock Exchange Plc. will operate under the business name Euronext Dublin (see Note 5).

#### Acquisition of InsiderLog AB

On 17 January 2018, the Group acquired 80% of the capital of InsiderLog AB, a Stockholm-based leading player in the

field of insider list management, for a cash consideration of €5.8 million, plus a contingent earn-out payment depending on future financial performance (see Note 5).

#### Acquisition of additional interest in FastMatch Inc.

On 1 February 2019, a settlement was reached between FastMatch Inc, Euronext US Inc and the former CEO of FastMatch Inc. Between the parties it was agreed that \$0.8 million would be paid to the former CEO in settlement of claims of alleged breach by FastMatch of his employment agreement (see Note 12), and an amount of \$8.1 million as additional consideration for the 1,437,575 shares of common stock of FastMatch Inc. (representing 7.52% of interest) that were transferred by the former CEO to Euronext US Inc. for \$.001 per share on 10 August 2018 (see Note 5).

#### Acquisition of Commcise Ltd.

On 20 December 2018, the Group acquired 78% of the shares and voting rights of Commcise Ltd., a Software as a Service ("SaaS") provider of research evaluation and commission management solutions for financial services firms, from its founders for an initial cash consideration of £27 million. See Note 5, for further details on the acquisition.

#### Contemplated acquisition of Oslo Børs VPS Holding ASA ("Oslo Børs VPS")

On 24 December 2018, Euronext announced it had approached the board of directors of Oslo Børs VPS Holding ASA ("Oslo Børs VPS") to seek its support for a €625m cash tender offer for all the outstanding shares of Oslo Børs VPS, the Norwegian Stock Exchange and national CSD operator, headquartered in Oslo. On 14 January 2019, Euronext published the offer document for its previously announced all-cash tender offer to acquire all issued and outstanding shares of Oslo Børs VPS for NOK 6.24 billion (€625m). The offer document is available on Euronext's website, [www.euronext.com](http://www.euronext.com).

Following an invitation to consider an acquisition of shares in Oslo Børs VPS organized by a group of its shareholders, Euronext has already secured support for the offer from Oslo Børs VPS shareholders representing the majority of the total number of outstanding shares through irrevocable binding pre-commitments to tender shares in the context of the offer, and share purchases. These irrevocable undertakings remain valid regardless of any competing offer that has been or may be made in the context of this transaction until 31 August 2019. In addition, 22 shareholders decided on 11 February 2019 to strengthen their commitment to support Euronext's Offer by extending the deadline for their irrevocable pre-commitments to the end of December 2019. As of 1 April 2019, Euronext has secured 53.1% of the share capital

of Oslo Børs VPS through a combination of 8.1% of shares owned directly and 45.0% of shares committed to Euronext in the form of irrevocable pre-commitments and tendered shares.

The original offer price of NOK145 per share, ie NOK6.24 billion (€625m) for all outstanding shares of Oslo Børs VPS, has been amended to NOK158 per share, ie. NOK6.79 billion (€695 million) on 11 February 2019, in order to demonstrate its willingness to share the benefits of this transaction with Oslo Børs VPS shareholders, the majority of whom supports Euronext's offer and to continue the dialogue with the minority of Oslo Børs VPS' shareholders who have not yet committed their shares for Euronext. The acceptance period of the tender offer commenced on 14 January 2019, and has been amended on 11 March 2019 and on 1 April 2019 so that Euronext will continue to receive and accept acceptances of the Offer up to 6 May 2019 at 18:00 Central European Time. Euronext has announced on 1 April 2019 that Tom Vidar Rygh, Senior Advisor at international private equity fund Nordic Capital and previous Chair and Member of the Board of Oslo Børs, has accepted to join the board of Oslo Børs VPS as an independent board member when the contemplated transaction is completed, subject to the usual regulatory approval. His strong profile and connection with the Norwegian ecosystem will support Euronext's growth ambitions in the Nordics.

On 4 March 2019, Euronext noted that the Oslo Børs VPS Board of Directors has considered Euronext's increased offer announced on 11 February 2019 as equal to the updated Nasdaq offer from a purely financial point of view. Euronext also noted that, following Nasdaq's announced decision to match Euronext's offer, the Board of Directors has upheld its recommendation of Nasdaq as the preferred bidder in line with its commitment to do so under any circumstances. Euronext reiterated that it has already secured a majority of the Oslo Børs VPS's shares, that its minimum ownership condition has therefore been fulfilled and that it will complete the transaction once regulatory clearance has been obtained, after the meeting of the other conditions below.

The offer is subject to fulfilment or waiver of certain conditions, including but not limited to minimum acceptance level of at least 50.01% of Oslo Børs VPS outstanding shares (including shares already held by Euronext), condition which is already met, regulatory approvals, short confirmatory due diligence, a favourable vote from a majority of Euronext shareholders and completion of the transaction before 31 December 2019. On 1 April 2019, Euronext announced it has received the declaration of non objection from its College of Regulators for the contemplated acquisition of up to 100% of the capital of Oslo Børs VPS, meeting one of the condition precedents of its offer.

Euronext submitted its suitability application to Finanstilsynet concurrently to the launch of its Offer and has regular dialogue with all relevant parties. Euronext is authorised to operate regulated markets in Belgium, France, Ireland, the Netherlands, Portugal and the United Kingdom, and believes that its strategic ambition would preserve and strengthen the Norwegian financial market ecosystem.

Euronext is confident that the transaction can be completed during the course of Q2 2019 within the customary regulatory approval period in Norway according to applicable laws and regulations.

Euronext is determined to acquire Oslo Børs VPS and remains committed to a constructive and continuous dialogue with Oslo Børs VPS shareholders, Board and management as well as the wider

Norwegian ecosystem. Euronext's Reference Shareholders have also confirmed their joint support to Euronext for this transaction.

As per 31 December 2018, the Group recognised the purchased 5.1% of the capital as an equity investment at fair value through other comprehensive income (see note 19). The Group has a right to acquire 45.5% of additional outstanding shares. This right has the characteristics of a call option derivative instrument, measured at fair value as per 31 December 2018.

### Revaluation investment in Algomi and impairment of investment in Algonext

In November 2016, Euronext announced a 10-year partnership with leading fixed-income technology provider Algomi Limited ("Algomi") to create a long-term joint venture "Algonext". This JV, initially capitalised by Euronext for \$2.3 million, would deploy Algomi's technology to a new multilateral trading facility ("MTF"), owned and operated by Euronext. Based on shared ownership and governance, Euronext has recognised its 50% shareholding in Algonext as an "Investment in associates and joint ventures" from the date of incorporation.

On 2 March 2017, Euronext acquired a 7.59% stake in JV partner Algomi for \$10 million. This investment is recognized as an "Financial asset at fair value through OCI" from acquisition date. As part of the purchase agreement, Euronext was granted a warrant, allowing it to purchase 88,384 additional Algomi shares, that was exercised in the second half of 2017.

The management of Algomi decided to change its strategic course of direction in the second half of 2018, by focusing on their "Alpha" product, rather than further maintaining the "Honeycomb/Synchronicity" network. This has resulted in many banks terminating their contracts with Algomi. The Honeycomb/Synchronicity network is the major source of data to feed the MTF and without this data the MTF is not expected to generate any trade. The Group expects that this change in focus will have an adverse impact on the financial situations on both Algomi and Algonext, as these entities will not be generating license fee revenues going forward.

Considering this, the Group decided to record a downward revaluation of its investment in Algomi to reflect its revised estimated fair value, which is recognized in Other comprehensive income (see also Note 19). Further, it recognized an impairment of its investment in joint venture Algonext, which is recognized in Share of net profit/(loss) of associates and joint ventures accounted for using the equity method, and impairments thereof (see also Note 7). Certain assets that were recognized for Algomi exclusivity rights and prepaid expenses for the joint venture have been impaired for which a charge has been recorded in Exceptional items, in the Group's income statement (see also Note 12).

### Termination agreement with Deutsche Börse for the migration of Euronext Dublin to Optiq®

On 2 October 2018, the Group announced it had signed an agreement for the early termination of the trading services contract provided by Deutsche Börse AG to the Irish Stock Exchange (operating as Euronext Dublin), initially due on December 2021. The impact relating to the termination of the agreement amounted to €4.8 million, and was recognised in exceptional items (see Note 12).



### Bond issue and repayment of Bank Loan facility

On 11 April 2018, the Group launched a €500 million, 7-year inaugural bond issue, rated "A" by S&P, with an annual coupon of 1% and listed on Euronext Dublin. Part of the proceeds of the issue were used to (i) refinance in whole the existing €165 million Bank Loan facility and drawings under the revolving credit facility in connection with the acquisition of Euronext Dublin, and (ii) for general corporate purposes in line with the Agility for Growth strategy. For further details on the Bond issue and the repayment of the €165 million Bank Loan facility, reference is made to Note 28.

In relation to the fixed-rate €500 million Bond, the Group uses interest rate swap agreements to reduce the variability of the fair value of the Bond attributable to the change in interest rate, allowing it to transform the fixed rate exposure to floating rate. The swap agreements are formally designated and qualify as fair value hedges and are recorded at fair value in the Consolidated Balance Sheet. See Note 22, for further details on the fair value hedges and interest rate swaps.

### Long-Term Incentive Plan 2018 and share repurchase program

On 17 May 2018, a Long-Term Incentive plan ("LTI 2018") was established under the revised Remuneration Policy that was approved by the AGM on 6 May 2015. The LTI cliff vests after 3 years whereby performance criteria will impact the actual number of

shares at vesting date. The share price for this grant at grant date was €55.00 and 143,599 RSU's were granted. The total share based payment expense at the vesting date in 2021 is estimated to be €7.8 million. Compensation expense recorded during the year for this LTI 2018 plan amounted to €1.2 million (see Notes 9 and 27). As part of its LTI 2018 plan, the Group will repurchase 105,000 of its own shares under a repurchase program, which were implemented and directed by an independent agent (see Note 25).

### Changes in the Group's key management personnel during 2018

In April 2018, Lee Hodgkinson resigned from the Managing Board. On 30 July 2018, Chris Topple was appointed as his successor. At the Annual General Meeting (AGM) held on 15 May 2018, Deirdre Somers was officially appointed as a member of the Managing Board. On 28 June 2018, the Group announced that she had resigned from the Managing Board and Daryl Byrne was appointed as her successor.

Immediately after the AGM held on 15 May 2018, Rijnhard van Tets (former Chairman) and Koenraad Dom stepped down from the Supervisory Board. The Supervisory Board elected Dick Sluimers as its next Chairman. At the same meeting, Luc Keuleneer and Padraic O'Connor were appointed as new members of the Supervisory Board. Their appointments took effect on 6 June 2018.

See Note 35, for more details on the Group's key management personnel.

## NOTE 3 SIGNIFICANT ACCOUNTING POLICIES AND JUDGMENTS

The significant accounting policies applied in the preparation of these Consolidated Financial Statements are set out below. These policies have been consistently applied to all the years presented, unless stated otherwise. The Financial Statements are for the Group consisting of Euronext N.V. and its subsidiaries.

### Basis of preparation

The Consolidated Financial Statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted by the European Union. They also comply with the financial reporting requirements included in Title 9 Book 2 of the Dutch Civil Code, as far as applicable.

The Consolidated Financial Statements have been prepared on a historical cost basis, unless stated otherwise.

### Basis of consolidation

These Consolidated Financial Statements include the financial results of all subsidiaries in which entities in the Group have a controlling financial interest and it also incorporates the share of results from associates and joint ventures. The list of individual legal entities which together form the Group, is provided in Note 4. All transactions and balances between subsidiaries have been eliminated on consolidation. All transactions and balances with associates and joint ventures are reflected as related party transactions and balances (see Note 35).

#### (i) Subsidiaries

Subsidiaries are all entities controlled by the Group. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

The acquisition method of accounting is used to account for business combinations by the Group.

Intergroup transactions, balances and unrealised gains and losses on transactions between companies within the Group are eliminated upon consolidation unless they provide evidence of impairment. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

Non-controlling interest in the results and equity of subsidiaries are shown separately in the consolidated statement of profit or loss, statement of comprehensive income, statement of changes in equity and balance sheet respectively.

#### (ii) Associates and joint arrangements

Associates are entities over which the Group has the ability to exercise significant influence, but does not control. Generally, significant influence is presumed to exist when the Group holds 20% to 50% of the voting rights in an entity. Joint arrangements are

joint operations or joint-ventures over which the Group, together with another party or several other parties, has joint control. Investments in associates and joint ventures are accounted for using the equity method of accounting.

Under the equity method of accounting, the investments are initially recognised at cost and adjusted thereafter to recognise the group's share of the post-acquisition profits or losses of the investee in profit or loss, and the group's share of movements in other comprehensive income of the investee in other comprehensive income. Dividends received or receivable from associates and joint ventures are recognised as a reduction in the carrying amount of the investment. When the group's share of losses in an equity-accounted investment equals or exceeds its interest in the entity, including any other unsecured long-term receivables, the group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the other entity. Unrealised gains on transactions between the group and its associates and joint ventures are eliminated to the extent of the group's interest in these entities. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of equity accounted investees have been changed where necessary to ensure consistency with the policies adopted by the group. The carrying amount of equity-accounted investments is tested for impairment.

### Business combinations

Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition by acquisition basis, the Group recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets. The consideration transferred is measured at the fair value of any assets transferred, liabilities incurred and equity interests issued. The excess of the consideration transferred over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. To the extent applicable, any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree are added to consideration transferred for purposes of calculating goodwill. Contingent consideration is classified either as equity or a financial liability. Amounts classified as a financial liability are subsequently re-measured to fair value with changes in fair value recognised in profit or loss.

### Segment reporting

Segments are reported in a manner consistent with how the business is operated and reviewed by the chief operating decision maker, who is responsible for allocating resources and assessing performance of the operating segments. The chief operating decision maker of the Group is the Managing Board. The organisation of the Group reflects the high level of mutualisation of resources across geographies and product lines. Operating results are monitored on a group-wide basis and, accordingly, the Group represents one operating segment and one reportable segment. Operating results reported to the Managing Board are prepared on a measurement basis consistent with the reported Consolidated Statement of Profit or Loss.

### Foreign currency transactions and translation

#### (i) Functional and presentation currency

These Consolidated Financial Statements are presented in Euro (EUR), which is the Group's presentation currency. The functional currency of each Group entity is the currency of the primary economic environment in which the entity operates.

#### (ii) Transactions and balances

Foreign currency transactions are converted into the functional currency using the rate ruling at the date of the transactions. Foreign exchange gains or losses resulting from the settlement of such transactions and from the translation at year-end rates of monetary assets and liabilities denominated in foreign currencies are recognised in the Income Statement.

Exceptions to this are where the monetary items form part of the net investment in a foreign operation or are designated as hedges of a net investment, in which case the exchange differences are recognised in Other Comprehensive Income.

#### (iii) Group companies

The results and financial position of Group entities that have a functional currency different from the presentation currency are converted into the presentation currency as follows:

- assets and liabilities (including goodwill) are converted at the closing balance sheet rate;
- income and expenses are translated at average exchange rates (unless this is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and
- all resulting exchange differences are recognised as currency translation adjustments within Other Comprehensive Income.

### Property, plant and equipment

Property, plant and equipment is carried at historical cost, less accumulated depreciation and any impairment loss. The cost of purchased property, plant and equipment is the value of the consideration given to acquire the assets and the value of other directly attributable costs. All repairs and maintenance costs are charged to expense as incurred.

Property, plant and equipment is depreciated on a straight-line basis over the estimated useful lives of the assets, except land and construction in process assets, which are not depreciated. The estimated useful lives, which are reviewed annually and adjusted if appropriate, used by the Group in all reporting periods presented are as follows:

- Buildings (including leasehold improvements) 5 to 40 years;
- IT equipment 2 to 3 years;
- Other equipment 5 to 12 years;
- Fixtures and fittings 4 to 10 years.

## Goodwill and other intangible assets

### (i) Goodwill

Goodwill represents the excess of the consideration transferred in a business combination over the Group's share in the fair value of the net identifiable assets and liabilities of the acquired business at the date of acquisition. Goodwill is not amortised but is tested at least annually for impairment, or whenever an event or change in circumstances indicate a potential impairment.

For the purpose of impairment testing, goodwill arising in a business combination is allocated to the cash-generating units ("CGUs") or groups of CGUs that are expected to benefit from the synergies of the combination. Each CGU or CGU Group to which goodwill is allocated represents the lowest level within the Group at which the goodwill is monitored for internal management purposes.

The carrying value of a CGU Group is compared to its recoverable amount, which is the higher of its value in use and its fair value less costs of disposal. Impairment losses on goodwill are not subsequently reversed. Value in use is derived from the discounted future free cash flows of the CGU Group. Fair value less costs of disposal is based on discounted cash flows and market multiples applied to forecasted earnings. Cash flow projections are based on budget and business plan approved by management and covering a 2-year period in total. Cash flows beyond the business plan period are extrapolated using a perpetual growth rate. Key assumptions used in goodwill impairment test are described in Note 17.

### (ii) Internally generated intangible assets

Software development costs are capitalised only from the date when all of the following conditions are met:

- the technical feasibility of the development project is demonstrated;
- it is probable that the project will be completed and will generate future economic benefits; and
- the project development costs can be reliably measured.

Capitalised software development costs are amortised on a straight-line basis over their useful lives, generally from 2 to 7 years. Other development expenditures that do not meet these criteria, as well as software maintenance and minor enhancements, are expensed as incurred.

### (iii) Other intangible assets

Other intangible assets, which are acquired by the Group, are stated at cost less accumulated amortisation and impairment losses (if applicable). The estimated useful lives are as follows:

- purchased software and licenses: 2-8 years;
- customer relationships: 11-40 years;
- brand names: indefinite.

## Impairment of non-financial assets other than goodwill

Assets that are subject to amortisation and depreciation are reviewed for impairment whenever events or circumstances indicate that the carrying amount may not be recoverable. Assets that have an indefinite useful life are not subject to amortisation nor depreciation and are tested at least annually for impairment. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell or value in use. For purposes of assessing impairment, assets are grouped into Cash Generating Units ("CGUs"). A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent from other groups of assets. Non-financial assets, other than goodwill, that were previously impaired are reviewed for possible reversal of the impairment at each reporting date.

## Derivative financial instruments and hedging activities

### (i) Initial recognition and measurement

The Group uses derivative financial instruments, such as interest rate swaps, to hedge its interest rate risks. Such derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

For the purpose of hedge accounting, hedges are classified as fair value hedges when hedging the exposure to changes in the fair value of a recognised asset or liability or an unrecognised firm commitment.

At the inception of a hedge relationship, the Group formally designates and documents the hedge relationship to which it wishes to apply hedge accounting and the risk management objective and strategy for undertaking the hedge.

The documentation includes identification of the hedging instrument, the hedged item, the nature of the risk being hedged and how the Group will assess whether the hedging relationship meets the hedge effectiveness requirements (including the analysis of sources of hedge ineffectiveness and how the hedge ratio is determined). A hedging relationship qualifies for hedge accounting if it meets all of the following effectiveness requirements:

- there is 'an economic relationship' between the hedged item and the hedging instrument;
- the effect of credit risk does not 'dominate the value changes' that result from that economic relationship;
- the hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Group actually hedges and the quantity of the hedging instrument that the Group actually uses to hedge that quantity of hedged item.

The hedges relevant to the Group, that meet all the qualifying criteria for hedge accounting are accounted for, as described below:

### Fair value hedges

The change in the fair value of a hedging instrument is recognised in the statement of profit or loss. The change in the fair value of the hedged item attributable to the risk hedged is recorded as part of the carrying value of the hedged item and is also recognised in the statement of profit or loss.

For fair value hedges relating to items carried at amortised cost, any adjustment to carrying value is amortised through profit or loss over the remaining term of the hedge using the EIR method. The EIR amortisation may begin as soon as an adjustment exists and no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged.

If the hedged item is derecognised, the unamortised fair value is recognised immediately in profit or loss.

When an unrecognised firm commitment is designated as a hedged item, the subsequent cumulative change in the fair value of the firm commitment attributable to the hedged risk is recognised as an asset or liability with a corresponding gain or loss recognised in profit or loss.

### Hedges of a net investment

Hedges of a net investment in a foreign operation, including a hedge of a monetary item that is accounted for as part of the net investment, are accounted for as follows:

Gains or losses on the hedging instrument relating to the effective portion of the hedge are recognised as OCI while any gains or losses relating to the ineffective portion are recognised in the statement of profit or loss. On disposal of the foreign operation, the cumulative value of any such gains or losses recorded in equity is transferred to the statement of profit or loss.

The Group uses a foreign exchange forward contract as a hedge of its exposure to foreign exchange risk on its investments in foreign subsidiaries. Refer to Note 22 for more details.

#### (ii) Derivatives and hedging activities – (accounting policies applied until 31 December 2017)

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured at their fair value at each balance sheet date. The method of recognising the resulting gain or loss depends on whether or not the derivative is designated as a hedging instrument for accounting purpose, and if so the nature of the item being hedged. In order to qualify for hedge accounting, a transaction must also meet strict criteria as regards to documentation, effectiveness, probability of occurrence and reliability of measurement. Up until 31 December 2017, the Group did not elect to apply hedge accounting and, accordingly, gains and losses on remeasurement of derivatives instruments are systematically recognised in profit or loss, within financial income and expense.

### Financial assets

The Group classifies its financial assets in the following measurement categories:

- financial assets measured at amortised cost;

- financial assets measured at fair value through other comprehensive income (FVOCI);

- financial assets measured at fair value through profit or loss (FVPL).

The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows. For assets measured at fair value, gains and losses will either be recorded in profit or loss or OCI. For investments in equity instruments that are not held for trading, this will depend on whether the group has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income (FVOCI).

Except for trade receivables, at initial recognition the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss (FVPL), transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest. Trade receivables are initially measured at their transaction price if they do not contain a significant financing component in accordance with IFRS 15.

#### (i) Debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the asset. There are three measurement categories into which the Group classifies its debt instruments:

### Amortised cost

Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. Interest income from these financial assets is included in finance income using the effective interest rate method. Any gain or loss arising on de-recognition is recognised directly in profit or loss and presented in other gains/(losses), together with foreign exchange gains and losses. Impairment losses are presented as separate line item in the statement of profit or loss. The Group's financial assets at amortised cost includes the Group's Trade and other receivables, loans and deposits included under (non-current) Financial assets at amortised cost, short-term deposits with a maturity of more than three months included under Other current financial assets and Cash and cash equivalents.

### Fair value through OCI

Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through OCI, except for the recognition of impairment gains or losses, interest revenue and foreign exchange gains and losses which are recognised in profit or loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and recognised in other gains/(losses). Interest income from these financial assets is included in finance income using the effective interest rate method. Foreign exchange gains and losses are presented in other gains/(losses) and impairment expenses are presented as separate line item in the statement of profit or loss.



### Fair value through Profit or Loss

Assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss and presented net within other gains/(losses) in the period in which it arises.

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

#### (ii) Equity instruments

The Group subsequently measures all equity investments at fair value. Where the Group's management has elected to present fair value gains and losses on equity investments in OCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the de-recognition of the investment. Dividends from such investments will be recognised in profit or loss as results from equity investments when the Group's right to receive payments is established, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in OCI. The Group elected to classify irrevocably its unlisted equity securities that are held as long-term strategic investments that are not expected to be sold in the foreseeable future.

Changes in the fair value of financial assets at FVPL are recognised in other gains/(losses) in the statement of profit or loss as applicable. Impairment losses (and reversal of impairment losses) on equity investments measured at FVOCI are not reported separately from other changes in fair value.

#### (iii) Impairment of financial assets

The Group recognises an allowance for expected credit losses (ECLs) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For trade and contract receivables, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

Further disclosures relating to impairment of financial assets are also provided in Note 36.4.

The Group considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

#### (iv) Financial assets – (accounting policies applied until 31 December 2017)

Upon initial recognition, the Group classifies its financial assets in one of the categories described hereafter. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition and, in the case of assets classified as held-to-maturity, re-evaluates this designation at the end of each reporting period.

At initial recognition, the group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expensed in profit or loss. Financial assets are derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

### Financial assets at fair value through profit or loss ("FVPL")

Financial assets at fair value through profit or loss include financial assets held for trading purposes and are initially recognised at fair value and any subsequent changes in fair value are recognised directly in profit or loss. This category also includes derivatives financial instruments that are not designated as accounting hedges although they are used to hedge economic risks.

### Available-for-sale ("AFS") financial assets

Financial assets classified as Available-for-Sale ("AFS") are initially recognised at fair value and remeasured at fair value at the end of each reporting period. Unrealised gains and losses resulting from changes in fair value are recognised in Other Comprehensive Income and are recycled in the income statement upon impairment or disposal. AFS financial assets include long-term equity investments in companies over which the Group does not have control, joint control or significant influence. Equity instruments without a quoted price are valued using valuation techniques with (un)observable inputs. If the fair value of an unlisted equity instrument is not reliably measurable, the investment is held at cost less impairment. Interests and dividends are recognised in profit or loss when the Group's right to receive payments is established. If a decline in fair value below cost has occurred and has become other than temporary, an impairment is recognised in profit or loss. The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset is impaired. A financial asset is impaired and impairment losses are incurred only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset ("loss event") and that the loss event (or events) has an impact on the estimated future cash flows of the financial asset.



### Loans and receivables

Loans and receivables are non-derivative financial assets/liabilities with fixed or determinable payments that are not quoted in an active market. Initially recognised at fair value they subsequently are measured at amortised cost, using the effective interest method, less impairment. They are included in current assets, except for those with maturities greater than 12 months after the balance sheet date which are classified as non-current assets. Loans and receivables include: related party loans, trade and other receivables, cash and cash equivalents in the balance sheet.

### Trade receivables

Trade receivables are amounts due from customers for services performed in the ordinary course of business. They are generally due for settlement within 30 days and therefore are all classified as current. Trade receivables are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, when they are recognised at fair value. The Group holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost using the effective interest method, less loss allowance.

- (i) Trade receivables – (accounting policies applied until 31 December 2017)

Trade receivables are amounts due from customers for services performed in the ordinary course of business. Trade receivables are recognised initially at their fair value and subsequently measured at amortised cost using the effective interest method, less impairment. Impairment losses are measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced and the amount of the loss is recognised in profit or loss.

### Cash and cash equivalents

Cash and cash equivalents comprise cash at banks, highly liquid investments with original maturities of three months or less and investments in money market funds that are readily convertible to known amounts of cash and are subject to insignificant risk of changes in value.

### Borrowings

Borrowings are initially recorded at the fair value of proceeds received, net of transaction costs. Subsequently, these liabilities are carried at amortised cost, and interest is charged to profit or loss over the period of the borrowings using the effective interest method. Accordingly, any difference between the proceeds received, net of transaction costs, and the redemption value is recognised in profit or loss over the period of the borrowings using the effective interest rate method. Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalized as a prepayment for liquidity services and amortised over the period of the facility to which it relates.

### Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount can be reliably estimated. Restructuring provisions primarily comprise employee termination payments. Provisions are not recognised for future operating losses, unless there is an onerous contract. Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax risk-free discount rate. The increase in the provision due to passage of time is recognised as interest expense.

An onerous contract is a contract in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it. The unavoidable costs under a contract reflect the least net cost of exiting from the contract, which is the lower of the cost of fulfilling it and any compensation or penalties arising from failure to fulfil it.

### Trade and other payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business. Trade and other payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

### Post-employment benefit plans

The Group operates defined benefit and defined contribution pension schemes. When the Group pays fixed contributions to a pension fund or pension insurance plan and the Group has no legal or constructive obligation to make further contributions if the fund's assets are insufficient to pay all pension benefits, the plan is considered to be a defined contribution plan. In that case, contributions are recognised as employee expense when they become due.

For the defined benefit schemes, the net asset or liability recognised on the balance sheet comprises the difference between the present value of the defined benefit pension obligation and the fair value of plan assets. A net asset is recognised only to the extent the Group has the right to effectively benefit from the plan surplus. The service cost, representing benefits accruing to employees in the period, and the net interest income or expense arising from the net defined benefit asset or liability are recorded within operating expenses in the Statement of Profit or Loss. Actuarial gains and losses arising from experience adjustments, changes in actuarial assumptions or differences between actual and expected returns on assets are recognised in equity as a component of Other Comprehensive Income. The impact of a plan amendment, curtailment or settlement is recognised immediately when it arises in profit or loss.

### Share-based compensation

Certain employees of the Group participate in Euronext's share-based compensation plans. Awards granted by Euronext under the plans are restricted stock units ("RSUs"). Under these plans, Euronext receives services from its employees as consideration for equity instruments of the group. As the awards are settled in shares of Euronext N.V., they are classified as equity settled awards.

The share-based compensation reflected in the Statement of Profit or Loss relates to the RSUs granted by Euronext to the Group's employees. The equity instruments granted do not vest until the employee completes a specified period of service, typically three years. The grant-date fair value of the equity settled RSUs is recognised as compensation expense over the required vesting period, with a corresponding credit to equity.

Euronext has performance share plans, under which shares are conditionally granted to certain employees. The fair value of awards at grant date is calculated using market-based pricing, *i.e.* the fair value of Euronext shares. This value is expensed over their vesting period, with a corresponding credit to equity. The expense is reviewed and adjusted to reflect changes to the level of awards expected to vest, except where this arises from a failure to meet a market condition or a non-vesting condition in which case no adjustment applies.

### Treasury shares

The Group reacquires its own equity instruments. Those instruments ('treasury shares') are deducted from equity. No gain or loss is recognised in profit or loss on the purchase, sale, issue or cancellation of an entity's own equity instruments. Such treasury shares may be acquired and held by the entity or by other members of the consolidated group. Consideration paid or received is recognised directly in equity.

### Revenue from contracts with customers

The Group is in the business of providing a diverse range of products and services combining transparent and efficient equity, fixed income securities and derivatives markets. The Group's businesses comprise listing, cash trading, derivatives trading, spot FX trading, advanced data services, post-trade and technologies & other. Revenue from contracts with customers is recognised when control of the good and services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. The Group has generally concluded that, except for the revenue sharing agreement with Intercontinental Exchange (ICE), it is principal in its revenue arrangements because it typically controls the goods or services before transferring them to the customer.

The disclosures of significant accounting judgements, estimates and assumptions relating to revenue from contracts with customers are provided in section "Critical accounting estimates and assumptions".

#### (i) Listing

In its Interim Financial Statements of 30 June 2018, the Group reported that pending the outcome of the IFRIC discussion around the topic 'whether a stock exchange provides an admission service that is distinct from the ongoing listing', it considered its listing services consisting of two distinct performance obligations: admission services and ongoing listing services with respectively a point in time and an over-time revenue recognition.

On 16 January 2019, the IFRIC published an agenda decision that admission services are not distinct performance obligations, as these are considered activities performed by the Group at or near contract inception and are required to successfully transfer the goods or services for which the customer has contracted *i.e.* the service of being listed on the exchange.

Following the conclusion of the IFRIC, the Group has changed its accounting policy as stated below, with retrospective effect as from 1 January 2018.

Listing fees primarily consist of original listing fees paid by issuers to list securities on the various cash markets (admission fees), subsequent admission fees for other corporate actions (such as admission of additional securities) and annual listing fees paid by companies whose financial instruments are listed on the cash markets. The admission services around initial (and subsequent) admission and its directly related corporate action services are considered activities that the Group needs to undertake to enable the customer to be listed. These activities are combined with the ongoing listing services and are used as inputs to produce the combined output, which is the service of being listed. Consequently revenue generated from this combined performance obligation is recognised based on time elapsed over the listing period, as this best reflects the continuous transfer of the listing services.

#### (ii) Trading

The Group earns cash trading fees for customer orders of equity securities, debt securities and other cash instruments on the Group's cash markets and earns derivative trading fees for the execution of trades of derivative contracts on the Group's derivative markets. Spot FX trading fees are earned for execution of trades of foreign exchange contracts on the FastMatch markets. Customers obtain control over the service provided at execution of the trade, which is the only performance obligation. Revenue is recognised at that point in time.

#### (iii) Advanced data services

The Group charges clients on a per-user basis for the access to its real-time and proprietary market data information services. The Group also collects periodic license fees from clients for the right to distribute the Group data to third parties. Customers obtain control over the market data service provided during the period over which it has access to the data. Consequently revenue is recognised based on time elapsed over the market data access period, as the Group meets its obligation to deliver data consistently throughout this period.

The Group generates indices revenues from Index licensing fees, which gives customers the right to apply Euronext Index Trademark names in their products and ETFs. The nature of an index-license is considered a distinct 'right-to-access' license as the customer can reasonably expect the Group to undertake ongoing activities to support and maintain the value of its trademark names. Revenue generated from these licenses are therefore recognised evenly over the contractual period of the license, as this best reflects the continuous benefit from the license by the customer throughout this period.

#### (iv) Post trade

Post-trade revenue primarily include clearing, settlement and custody fees. Clearing fees are recognised when the clearing of the trading transaction is completed. Customers obtain control over the service provided at completion of clearing the securities, which is the only performance obligation. Revenue is recognised at that point in time. As the Group does not own its own clearing operation, it has put in place an agreement with LCH S.A. in which the latter is providing clearing service as a service provider, executing the service under control of the Group. The nature of the promise is the execution of a

cleared trade on the Group's trading platforms. The Group controls the services that are derived from that promise, before it is transferred to the customer. This makes the Group the principal in the transaction of providing clearing services to its customers and consequently the Group recognises its clearing revenue on a gross basis.

Settlement fees are recognised when the settlement of the trading transaction is completed. Customers obtain control over the service provided at completion of the settlement of the securities, which is the only performance obligation. Revenue is recognised at that point in time. Custody fees are recognised as the service of holding the customer's securities in custody is performed. Revenue is recognised based on time elapsed over that period of time, as this best reflects the continuous transfer of services.

### (v) Euronext Technology Solutions & other

Euronext Technology Solutions and other revenue include software license and maintenance services, IT (hosting) services provided to third-party market operators, connection services and data centre colocation services provided to market participants, and other revenue.

Software licenses that are distinct can be considered a 'right-to-use' license, given the significant stand-alone functionality of the underlying intellectual property. Consequently revenue will be recognised at the point in time of acceptance of the software and the source code by the customer. For software licenses that are combined with a significant modification service revenues are recognised over time, using the input method of labor hours spend during the significant modification period, as the Group has no alternative use for these combined performance obligations and would have an enforceable right to payment for performance completed to date. Revenue from software maintenance services are recognised evenly over the maintenance agreement period, as this best reflects the continuous transfer of maintenance services throughout the contract period.

The Group delivers hosting services to customers that are using the software installed in the Euronext datacentre to use the Group's trading platforms. Installation services provided before the start of a hosting service do not include significant client customisation of the software installed in the Euronext datacentre. The installation service itself does not transfer a good or service to the customer, but are required to successfully transfer the only performance obligation for which the customer has contracted, which is the hosting service. Revenue generated from this performance obligation is recognised evenly over the full service period of the hosting contract, as this best reflects the continuous transfer of hosting services to the customer.

Connection services and data centre colocation services are provided under a revenue sharing agreement with Intercontinental Exchange (ICE). Euronext is providing ICE the right to provide services directly to Euronext customers, to which Euronext provides a continuous customer access to the relevant Euronext group markets and as such, Euronext is arranging for the specified services to be provided by another party as an agent. Euronext customers connect to its markets via the ICE SFTI® network or rent colocation space in the ICE data centres that house Euronext's trading platforms. ICE receives fees from Euronext customers over the period of access to the SFTI® network and over the colocation rental period. The Group recognises its revenue share over that same period of time, using the practical expedient provided in IFRS 15.B16 that allows an entity to recognise

revenue in the amount to which it has the right to invoice. The entitled amount that Euronext invoices to ICE corresponds directly with the value that Euronext's performance obligation has to ICE, which equals to the agreed commission.

The Group also generates revenue from other connection services that trading members are using primarily for the purpose of placing their cash and derivatives trading orders. Members enter into contracts that generate access availability for placing trading orders (the active logon session). Customers obtain control over the service provided during the period of access to their active logon session. Revenue is recognised evenly over that period of time, as this best reflects the continuous transfer of technology services.

### (vi) Contract balances

#### Receivables

A receivable represents the Group's right to an amount of consideration that is unconditional (*i.e.*, only the passage of time is required before payment of the consideration is due) from the customer. The Group refers to billed receivables as *trade receivables*, whereas unbilled receivables are referred to as *contract receivables* by the Group.

#### Contract assets

A contract asset is the conditional right to consideration in exchange for goods or services transferred to the customer. Contract assets are transferred to receivables when the entitlement to consideration becomes unconditional and only the passage of time is required before payment is due.

#### Contract liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Group transfers goods or services to the customer, a contract liability is recognised when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when the Group performs under the contract.

### (vii) Significant financing component

Generally, the Group does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. The primary exception considers contracts containing listing services. As the payment for listing admission services appears upfront the start of the contract, the period between revenue recognition from listing admission services and payment by the customer can exceed one year. However the Group determined that the payment terms were structured not with the primary purpose of obtaining financing from the customer, but to minimize the risk of non-payment as there's not a stated duration of the period of the listing. As a consequence, the Group does not adjust any of the transaction prices for the time value of money.

### (viii) Cost to obtain or fulfill a contract

The Group does not incur material costs to obtain contracts such as sales commissions. Costs to fulfill a contract are costs that relate directly to a contract or a specifically anticipated contract,

generate or enhance resources of the Group that will be used to satisfy future performance obligations, and are recoverable. Costs to fulfill a contract are capitalised and amortised on a straight line basis over the term of the specific contract it relates to, consistent with the pattern of recognition of the associated revenue.

**(ix) Revenue – (accounting policies applied until 31 December 2017)**

The Group adopted IFRS 15 by applying the modified retrospective, without restating comparative information. As a result the comparative information provided continues to be accounted for in accordance with the Group's previous accounting policies below.

Revenue is measured at the fair value of the consideration received or receivable and represents amounts receivable for services provided in the normal course of business, net of discounts, rebates, VAT and other sales related taxes.

Listing fees primarily consist of original listing fees paid by issuers to list securities on the various cash markets (admission fees), subsequent admission fees for other corporate actions (such as admission of additional securities) and annual fees paid by companies whose financial instruments are listed on the cash markets. Admission fees are recognised at the time of admission to trading. Annual listing fees are recognised on a pro rata basis over the annual service period.

The Group earns cash trading fees for customer orders of equity securities, debt securities and other cash instruments on the Group's cash markets. The Group earns derivative trading fees for the execution of trades of derivative contracts on the Group's derivative markets. Cash and derivative trading fees are recognised when the trade transaction is completed.

The Group charges clients on a per-user basis for the access to its real-time and proprietary market data information services. The Group also collects periodic license fees from clients for the right to distribute the Group data to third parties. These fees are recognised on a monthly basis as services are rendered.

Post-trade revenue primarily include clearing, settlement and custody fees. Clearing fees are recognised when the clearing of the trading transaction is completed. Settlement fees are recognised when the settlement of the trading transaction is completed. Custody fees are recognised as the service is performed.

Euronext Technology Solutions and other revenue include software license and IT services provided to third-party market operators, connection services and data center colocation services provided to market participants, and other revenue. Software license revenue is recognised upon delivery and acceptance when the software does not require significant customisation or modification. Implementation and consulting services are recognised either on a time-and-material basis or under the percentage of completion method, depending upon the nature of the contract. When software requires significant modification or customisation, fees from software license and professional services are recognised altogether on a percentage-of-completion basis. The stage of completion is measured based on the number of man-days incurred to date as a percentage of total estimated number of man-days to complete. Software maintenance fees, connection and subscription service fees, and annual license fees are recognised ratably over the life of the agreement.

## Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards to the lessee. When the Group is the lessee in a finance lease, the underlying asset is recognised in the balance sheet at the inception of the lease, at its fair value or at the present value of minimum lease payments, whichever is lower. The corresponding liability to the lessor is included within borrowings. Payments made under operating leases are recognised in the Income Statement on a straight-line basis over the term of the lease.

## Exceptional items

Exceptional income and expense are identified based on their size, nature and incidence, and are disclosed separately in the Statement of Profit or Loss in order to provide further understanding of the financial performance of the Group. It includes clearly identifiable income and expense items which are infrequent and unusual by their size or by their nature.

## Taxation

The income tax expense for the fiscal year is comprised of current and deferred income tax. Income tax expense is recognised in the Income Statements, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the income tax impact is also recognised in other comprehensive income or directly in equity.

**(i) Current income tax**

The current income tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Group operates and generates taxable income. The Group recognises liabilities for uncertain tax positions when it is more likely than not that an outflow will occur to settle the position. The liabilities are measured based upon management's estimation of the expected settlement of the matter. Estimated liabilities for uncertain tax positions, along with estimates of interest and penalties, are presented within income taxes payable on the Balance Sheet and are included in current income tax expense in the Statement of Profit or Loss.

**(ii) Deferred income tax**

Deferred income tax is recognised on temporary differences arising between the tax basis of assets and liabilities and their carrying amounts in these Consolidated Financial Statements. However, deferred income tax liabilities are not recognised if they arise from the initial recognition of goodwill. Deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction, other than a business combination, that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates that have been enacted or substantively enacted at the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences or tax losses can be utilised.



Deferred income tax is provided on temporary differences arising from investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority on the same taxable entity.

### Critical accounting estimates and assumptions

In the application of the Group's accounting policies, management is required to make estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates. The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

The following critical assumptions concerning the future, and other critical sources of estimation uncertainty at the end of the reporting period, have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

#### (i) Impairment of goodwill

The Group performs goodwill impairment reviews in accordance with the accounting policy described above in Note 17. The recoverable amount of a CGU Group is determined based on a discounted cash flow approach, which requires the use of estimates. The critical assumptions used and the related sensitivity analysis are described in Note 17.

#### (ii) Income taxes

Due to the inherent complexities arising from the nature of the Group's business, and from conducting business and being taxed in a substantial number of jurisdictions, critical assumptions and estimates are required to be made for income taxes. The Group computes income tax expense for each of the jurisdictions in which it operates. However, actual amounts of income tax due only become final upon filing and acceptance of the tax return by relevant authorities, which may not occur for several years subsequent to issuance of these Consolidated Financial Statements.

The estimation of income taxes also includes evaluating the recoverability of deferred income tax assets based on an assessment of the ability to use the underlying future tax deductions against future taxable income before they expire. This assessment is based upon existing tax laws and estimates of future taxable income. To the extent estimates differ from the final tax return, earnings may be affected in a subsequent period.

The Group operates in various countries with local tax regulations. New tax legislation being issued in certain territories as well as transactions that the Group enters into regularly result in potential tax exposures. The calculation of our tax liabilities involves uncertainties

in the application of complex tax laws. Our estimate for the potential outcome of any uncertain tax position is highly judgmental. However, the Group believes that it has adequately provided for uncertain tax positions. Settlement of these uncertainties in a manner inconsistent with our expectations could have a material impact on our results of operations, financial condition and cash flows. The Group recognises a liability for uncertain tax positions when it's probable that an outflow of economic resources will occur. Measurement of the liability for uncertain tax positions is based on management's best estimate of the amount of tax benefit/cost that will be realised upon settlement.

#### (iii) Fair value of equity investments

The Group holds investments in unlisted equity securities which are carried at fair value in the balance sheet. The valuation methodology and critical assumptions are described in Note 19.

#### (iv) Classification of investments in associates

The Group classifies the interest in LCH SA as an investment in associate suggesting significant influence even though it owns less than 20% of the voting rights (see Note 7). The Group concluded that it has significant influence over this investment, which is derived from the governance structure that was put in place and the Group's position as the largest customer and sole minority shareholder of LCH SA.

#### (v) Contingent consideration and buy options resulting from business combinations

The Group may structure its business combinations in a way that leads to recognition of contingent consideration to selling shareholders and/or buy options for equity held by non-controlling interests. Contingent consideration and buy options are recognized at fair value on acquisition date. When the contingent consideration or buy option meets the definition of a financial liability or financial instrument, it is subsequently re-measured to fair value at each reporting date. The determination of fair value is based on the expected level of EBITDA over the last 12 months that precede the contractual date (in case of contingent consideration) or exercise date of the underlying call- and put options (in case of buy option). The Group monitors the expected EBITDA based on updated forecast information from the acquired companies involved.

#### (vi) Purchase price allocation

The cost of other intangible assets that are acquired in the course of business combinations, corresponds to their acquisition date fair values. Depending on the nature of the intangible asset, fair value is determined by application of:

- market approach (by reference to comparable transactions);
- income approach (Relief-from-Royalty- or Multi-period Excess Earnings Method);
- cost approach.

Assets with a finite useful life are amortized using the straight-line method over their expected useful life. Assets with an indefinite useful life are tested for impairment at least once a year.

#### (vii) Revenue from contracts with customers

The Group applied the following judgments that significantly affect the determination of the amount and timing of revenue from contracts with customers:



### Identifying performance obligations and determining the timing of revenue recognition of Listing admission fees

The Group provides services related to the initial (and subsequent) listing of securities on its markets and hereto directly related corporate action services, and ongoing services related to the continuous listing.

The Group determined that the admission services around initial (and subsequent) admission and its directly related corporate action services do not transfer a good or service to the customer, but are considered activities that the Group needs to undertake to enable the customer to be listed. The Group concluded that these activities should be combined with the ongoing listing services and should be used as inputs to produce the combined output, which is the service of being listed. As the service of being listed is satisfied over a period of time, as the customer simultaneously receives and consumes the benefits from the service, the related revenues are therefore recognised over a period of time.

The Group determined that the period of time that best reflects the satisfaction of listing admission services is the period over which the customer actually benefits from the admission. An average lifetime of companies being listed on Euronext's markets would serve as best proxy for the period that a listing customer benefits from an admission. Based on historic evidence, the Group has defined the following average lifetimes for the relevant groupings of listed securities:

■ equity admissions:	5 years;
■ bond- and fund admissions:	3 years;
■ equity subsequent admissions ("follow-on's"):	3 years.

Revenue from the listing admission services is therefore recognised over those periods of time.

### Cost to obtain or fulfil a contract related to listing admission services

The Group has considered the type of cost that is directly associated to a listing contract and that can be separately identifiable. Such cost would typically concern staff cost incurred by the Listings team involved in admission- and subsequent listing of an issuer. There is no correlation between number of listings and staff cost associated to the Listings team.

The majority of the cost to obtain and fulfil the contract is incurred in the period before the actual admission. The remaining cost associated to an admission and subsequent listing that is recorded post-admission, and its impact on the Group's income statement, would be marginal, therefore the Group has decided not to capitalize cost incurred to obtain- or fulfil listing contracts.

### Principal versus agent considerations

On 14 October 2013, the Group entered into a clearing agreement with LCH SA in respect of the clearing of trades on our continental Europe derivatives markets (the "Derivatives Clearing Agreement"). Under the terms of this Derivatives Clearing Agreement Euronext agreed with LCH SA to share revenues and receives clearing fee revenues based on the number of trades on these markets cleared through LCH SA. In exchange for that, we have agreed to pay LCH SA a fixed fee plus a variable fee based on revenues.

The definition of the accounting treatment of this agreement requires significant management judgment for the valuation and weighting of the indicators leading the principal versus agent accounting analysis. Based on all facts and circumstances around this arrangement, management has concluded that Euronext is 'principal' in providing Derivatives clearing services to its trading members. Therefore Euronext recognizes (i) the clearing fees received are classified as post trade revenues, and (ii) the fixed and variable fees paid to LCH SA as other operational expenses.

#### (viii) Provision for expected credit losses of trade and contract receivables

The Group uses a provision matrix to calculate ECLs for trade and contract receivables. To measure expected credit losses, trade and contract receivables have been grouped based on shared credit risk characteristics and the days past due. The historical loss rates are based on the payment profiles of the sales over a period of 24 months before reporting date and the corresponding historical credit losses experience within this period. The historical loss rates are adjusted to reflect current and forward-looking factors specific to the debtors and economic environment.

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to adjust the historical credit loss experience with forward-looking information. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

The assessment of the correlation between historical observed default rates, forecast economic conditions and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and of forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future. The information about the ECLs on the Group's trade and contract receivables is disclosed in Note 36.4.

### Changes in accounting policies and disclosures

The International Accounting Standards Board (IASB) continues to issue new standards and interpretations, and amendments to existing standards. The Group applies these new standards when effective and endorsed by the European Union. The Group has not opted for early adoption for any of these standards.

#### (i) Implication of new and amended standards and interpretations

The Group has applied the following standards and amendments for the first time for their annual reporting period commencing 1 January 2018. The Group had to change its accounting policies as a result of adopting IFRS 9 and IFRS 15 for the first time. The nature and effect of the changes as a result of adoption of these new accounting standards are described below.

In accordance with the transitional provision in IFRS 9 and IFRS 15, both standards were adopted without restating comparative information. The adjustments arising from adoption of the new standards are therefore only reflected in the opening balance sheet on 1 January 2018.

The following table shows the adjustments recognised for each individual line item in the consolidated opening balance sheet as per 1 January 2018. Line items that were not affected by the changes have not been included. As a result, the sub-totals and totals disclosed cannot be recalculated from the numbers provided. The adjustments are explained in more detail by standard below.

<i>In thousands of euros</i>	Reference	As originally presented 31 December 2017	IFRS 9	IFRS 15	Restated 1 January 2018
<b>Assets</b>					
<b>Non-current assets</b>					
Deferred tax assets	(a)	7,991	-	20,800	28,791
Financial assets at fair value through OCI		-	147,503	-	147,503
Financial assets at amortised cost		-	7,013	-	7,013
Other non-current assets		-	955	-	955
Available-for-sale financial assets		147,503	(147,503)	-	-
Other receivables		7,968	(7,968)	-	-
<b>Total non-current assets</b>		<b>781,382</b>	<b>-</b>	<b>20,800</b>	<b>802,182</b>
<b>Current assets</b>					
Trade and other receivables	(c)	94,986	-	(8,281)	86,705
Other current assets	(c)	-	-	8,281	8,281
<b>Total current assets</b>		<b>284,199</b>	<b>-</b>	<b>-</b>	<b>284,199</b>
<b>TOTAL ASSETS</b>		<b>1,065,581</b>	<b>-</b>	<b>20,800</b>	<b>1,086,381</b>
<b>Equity and liabilities</b>					
<b>Equity</b>					
Retained earnings		468,882	-	(50,297)	418,585
Change in accounting policy	(a)	-	-	(50,297)	(50,297)
Change in value of available-for-sale financial assets		37,645	(37,645)	-	-
Fair value reserve of financial assets at FVOCI		-	37,645	-	37,645
Shareholders' equity		715,269	-	(50,297)	664,972
<b>Total equity</b>		<b>729,480</b>	<b>-</b>	<b>(50,297)</b>	<b>679,183</b>
<b>Non-current liabilities</b>					
Contract liabilities	(a)	-	-	36,849	36,849
<b>Total non-current liabilities</b>		<b>211,310</b>	<b>-</b>	<b>36,849</b>	<b>248,159</b>
<b>Current liabilities</b>					
Trade and other payables	(b)	99,161	-	(5,245)	93,916
Contract liabilities	(a),(b)	-	-	39,493	39,493
<b>Total current liabilities</b>		<b>124,791</b>	<b>-</b>	<b>34,248</b>	<b>159,039</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>1,065,581</b>	<b>-</b>	<b>20,800</b>	<b>1,086,381</b>

### IFRS 9 "Financial instruments"

IFRS 9 "Financial Instruments" replaces IAS 39 "Financial Instruments": Recognition and Measurement for annual periods beginning on or after 1 January 2018, bringing together all three aspects of the accounting for financial instruments: classification and measurement; impairment; and hedge accounting.

The Group applied IFRS 9 prospectively, with an initial application date of 1 January 2018. The Group has not restated the comparative information, which continues to be reported under IAS 39. The effect of adopting IFRS 9 as at 1 January 2018 was presented in the table above.

The nature of the adjustments made at 1 January 2018 are described below:

### Classification and measurement

Under IFRS 9, debt instruments are subsequently measured at fair value through profit or loss, amortised cost, or fair value through OCI. The classification is based on two criteria: the Group's business model for managing the assets; and whether the instruments' contractual cash flows represent 'solely payments of principal and interest' on the principal amount outstanding.

The assessment of the Group's business model was made as of the date of initial application, 1 January 2018. The assessment of whether contractual cash flows on debt instruments are solely comprised of principal and interest was made based on the facts and circumstances as at the initial recognition of the assets.

The classification and measurement requirements of IFRS 9 did not have a significant impact to the Group. The following are the changes in the classification of the Group's financial assets:

- *trade and other receivables, non-current financial assets at amortised cost* (i.e., loans and deposits previously recognised under *non-current other receivables*) and *cash and cash equivalents* classified as *Loans and receivables* as at 31 December 2017. These instruments are held to collect contractual cash flows and give rise to cash flows representing solely payments of principal and interest and are therefore classified and measured as *Debt instruments at amortised cost* beginning 1 January 2018;
- equity investments in non-listed companies classified as *AFS financial assets* as at 31 December 2017 are classified and measured as Equity instruments designated at *fair value through OCI* beginning 1 January 2018. The Group elected to classify irrevocably its non-listed equity investments under this category at the date of initial application as it intends to hold these strategic investments for the foreseeable future. Consequently, changes

in fair value of those investments are recognised in OCI, with no subsequent reclassification of cumulative fair value gains and losses to profit or loss following de-recognition of those investments. There were no impairment losses recognised in profit or loss for these investments in prior periods.

The Group's non-current loans, deposits and prepayments were previously presented together under (*non-current*) *other receivables*. As a result of the change in classification and to reflect their different nature, the non-current loans and deposits of €7.0 million were reclassified to *non-current financial assets at amortised cost* and the non-current prepayments of €1.0 million were reclassified to *other non-current assets* as at 1 January 2018.

As a result of the change in classification of the Group's unlisted equity investments, the *AFS reserve* of €37.7 million related to those investments that were previously presented under accumulated OCI, was reclassified to *Fair value reserve of financial assets at fair value through OCI* as at 1 January 2018.

The accounting for the Group's financial liabilities remains largely the same as it was under IAS 39. The Group classifies derivative liabilities at fair value through profit or loss and all other financial liabilities at amortised cost. The implementation of IFRS 9 had no material effect on the classification and measurement of the Group's financial liabilities.

In summary, upon the adoption of IFRS 9, the Group had the following required or elected reclassifications as at 1 January 2018.

	IFRS 9 measurement category		
	Fair Value through profit or loss	Amortised Cost	Fair Value through OCI
<i>In thousands of euros</i>			
<b>IAS 39 measurement category</b>			
<i>Loans and receivables</i>			
Non current loans and deposits	7,013	-	-
Trade and other receivables	94,986	-	-
<i>Available-for-sale</i>			
Unlisted equity investments	147,503	-	147,503
	-	<b>101,999</b>	<b>147,503</b>

### Impairment

The adoption of IFRS 9 has changed the Group's accounting for impairment losses for financial assets by replacing IAS 39's incurred loss approach with a forward-looking expected credit loss (ECL) approach. IFRS 9 requires the Group to recognise an allowance for

ECLs for all debt instruments not held at fair value through profit or loss and contract assets.

As the identified impact on the existing loss allowance on transition to IFRS 9 was considered insignificant, the Group determined not to adjust the opening balance sheet as per 1 January 2018.

Consequently, the reconciliation of the ending impairment allowances in accordance with IAS 39 to the opening loss allowances determined in accordance with IFRS 9 was as follows:

	Allowance for impairment under IAS 39 as at 31 December 2017	Remeasurement	ECL under IFRS 9 as at 1 January 2018
<i>In thousands of euros</i>			
Loans and receivables under IAS 39/ Financial assets at amortised cost under IFRS 9	1,256	-	1,256

### Hedge accounting

The Group has elected to adopt the new general hedge accounting model of IFRS 9. This requires the Group to ensure that hedge accounting relationships are aligned with its risk management objectives and strategy to apply a more quantitative and forward-looking approach to assessing hedge effectiveness. The adoption of the hedge accounting requirements of IFRS 9 had no significant impact on the Group's Financial Statements, as the Group did not apply hedge accounting prior to 1 January 2018.

### IFRS 15 "Revenue from contracts with customers"

IFRS 15 supersedes IAS 11 "Construction Contracts", IAS 18 "Revenue" and related Interpretations and it applies, with limited exceptions, to all revenue arising from contracts with customers. IFRS 15 establishes a five-step model to account for revenue arising from contracts with customers and requires that revenue be recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer.

IFRS 15 requires entities to exercise judgement, taking into consideration all of the relevant facts and circumstances when

applying each step of the model to contracts with their customers. The standard also specifies the accounting for the incremental costs of obtaining a contract and the costs directly related to fulfilling a contract. In addition, the standard requires extensive disclosures.

The Group adopted IFRS 15 using the modified retrospective method of adoption with the date of initial application of 1 January 2018. Under this method, the standard can be applied either to all contracts at the date of initial application or only to contracts that are not completed at this date. The Group elected to apply the standard to all contracts as at 1 January 2018. The cumulative effect of initially applying IFRS 15 is recognised at the date of initial application as an adjustment to the opening balance of retained earnings. Therefore, the comparative information was not restated and continues to be reported under IAS 11, IAS 18 and related Interpretations.

The effect of adopting IFRS 15 as at 1 January 2018 was presented in the table in the first section of this note. Set out below, are the amounts by which each financial statement line item is affected as at and for the year ended 31 December 2018 as a result of the adoption of IFRS 15. The first column shows amounts prepared under IFRS 15 and the second column shows what the amounts would have been had IFRS 15 not been adopted:

Consolidated Statement of Profit or Loss for the year ended 31 December 2018:

<i>In thousands of euros (except per share data)</i>	Reference	Amounts prepared under		Increase / (decrease)
		IFRS 15	Previous IFRS	
Revenue	(a)	615,033	606,107	8,926
<b>Total revenue</b>		<b>615,033</b>	<b>606,107</b>	<b>8,926</b>
<b>Operating profit before exceptional items</b>		<b>330,850</b>	<b>321,924</b>	<b>8,926</b>
<b>Operating profit</b>		<b>309,376</b>	<b>300,450</b>	<b>8,926</b>
<b>Profit before income tax</b>		<b>311,712</b>	<b>302,786</b>	<b>8,926</b>
Income tax expense	(a)	(94,084)	(90,647)	(3,437)
<b>PROFIT FOR THE YEAR</b>		<b>217,628</b>	<b>212,139</b>	<b>5,489</b>
<b>Profit attributable to:</b>				
■ Owners of the parent		215,968	210,479	5,489
■ Non-controlling interests		1,660	1,660	-
<b>Basic earnings per share</b>		<b>3.10</b>	<b>3.02</b>	<b>0.08</b>
<b>Diluted earnings per share</b>		<b>3.09</b>	<b>3.01</b>	<b>0.08</b>

Consolidated Balance Sheet as at 31 December 2018:

		Amounts prepared under		
In thousands of euros	Reference	IFRS 15	Previous IFRS	Increase / (decrease)
Assets				
Non-current assets				
Deferred tax assets	(a)	20,932	1,925	19,007
Total non-current assets		1,066,070	1,047,063	19,007
Current assets				
Total current assets		532,393	532,393	-
TOTAL ASSETS		1,598,463	1,579,456	19,007
Equity and liabilities				
Equity				
Retained earnings	(a)	509,483	565,799	(56,316)
Shareholders' equity		791,093	847,409	(56,316)
Total equity		802,324	858,640	(56,316)
Non-current liabilities				
Contract liabilities	(a),(b)	41,461	-	41,461
Other non-current liabilities	(b)	-	5,214	(5,214)
Total non-current liabilities		601,890	565,643	36,247
Current liabilities				
Trade and other payables	(b)	115,332	131,743	(16,411)
Contract liabilities	(a),(b)	55,487	-	55,487
Total current liabilities		194,249	155,173	39,076
TOTAL EQUITY AND LIABILITIES		1,598,463	1,579,456	19,007

The nature of the adjustments as at 1 January 2018 and the reasons for the changes in the balance sheet as at 31 December 2018 and the statement of Profit or Loss for the year ended 31 December 2018 are described below:

#### (a) Revenue

##### LISTING

Listing fees primarily consist of original listing fees paid by issuers to list securities on the various cash markets (admission fees), subsequent admission fees for other corporate actions (such as admission of additional securities) and annual listing fees paid by companies whose financial instruments are listed on the cash markets.

Before adopting IFRS 15, the Group recognised original listing fees paid by issuers to list securities on the various cash markets (admission fees) and subsequent admission fees for other corporate actions (such as admission of additional securities) at the moment of the related event.

Under IFRS 15, the Group assessed the admission services around initial (and subsequent) admission and its directly related corporate action services and concluded that these services are considered activities that the Group needs to undertake to enable the customer to be listed. These activities are combined with the ongoing listing services and are used as inputs to produce the combined output, which is the service of being listed. Consequently revenue generated from this combined performance obligation is recognised over time, being the period of the listing.

As a result of this change in accounting on 1 January 2018, upon adoption of IFRS 15, the Group recognised a *non-current Contract liability* of €36.8 million and a *current Contract liability* of €34.2 million. In addition, the Group recognised the related *Deferred tax assets* of €20.8 million and decreased *Retained Earnings* by €50.3 million.

For the year ended 31 December 2018, IFRS 15 increased *Revenue* by €8.9 million and decreased *Income tax expense* by €3.4 million. In addition, it also increased *non-current Contract liabilities* and *current Contract liabilities* by €36.2 million and €39.1 million respectively, increased the related *Deferred tax assets* by €19.0 million and decreased *Retained Earnings* by €56.3 million.

##### EURONEXT TECHNOLOGY SOLUTIONS & OTHER

The Group delivers hosting services to customers that are using the software installed in the Euronext data centre to use the Group's trading platforms. Before adoption of IFRS 15, revenue from installation services provided before the start of a hosting service was recognised at the moment that the installation service was finalised.

Under IFRS 15, the Group assessed the installation services provided before the start of a hosting service and concluded that they are only activities that the Group needs to undertake to enable the hosting service. Therefore the installation services are combined with the hosting services and are used as inputs to produce the combined output specified in the contract. Consequently revenue generated from this combined performance obligation is recognised over time, being the full service period of the hosting contract.



As the identified impact on the Group's hosting revenue on transition to IFRS 15 was considered insignificant, the Group determined not to adjust the opening balance sheet as per 1 January 2018.

For the year ended 31 December 2018 the impact from installation services was not material and consequently IFRS 15 had no significant impact.

#### Post trade – Principle versus agent considerations

The Group assessed the principle versus agent consideration related to the recognition and presentation of its clearing revenue. As the Group does not own its own clearing operation, it has put in place an agreement with LCH S.A. in which the latter is providing clearing service as a service provider, executing the service under control of the Group. The nature of the promise is the execution of a cleared trade on the Group's trading platforms. The Group controls the services that are derived from that promise, before it is transferred to the customer. This makes the Group the principal in the transaction of providing clearing services to its customers and consequently the Group recognises its clearing revenue on a gross basis. The conclusion did not lead to a change in accounting, as before adoption of IFRS 15 the Group already considered itself as the principal in this agreement.

#### (b) Advances received (or amounts of consideration due) from customers

The Group receives advances primarily in relation to software maintenance, hosting services and indices licenses. Before adoption of IFRS 15, these advances were presented in *Trade and other payables* as deferred revenue.

As a result of this change in accounting on 1 January 2018, upon adoption of IFRS 15, these advances of €5.2 million were reclassified from *Trade and other payables* to *current Contract liabilities*.

For the year ended 31 December 2018, IFRS 15 increased *non-current Contract liabilities* by €5.2 million and decreased *Other non-current liabilities* by €5.2 million. It also increased *current Contract liabilities* by €16.4 million and decreased *Trade and other payables* by €16.4 million.

#### (c) Other adjustments

Prepayments were previously presented in *Trade and other receivables*, but are now presented as *Other current assets* to reflect their different nature. As a result, an amount of €8.3 million was reclassified from *Trade and other receivables* to *Other current assets* on 1 January 2018.

The following other amendments and interpretations also apply for the first time in 2018, but did not have a material impact on the Group's Consolidated Financial Statements:

#### IFRIC Interpretation 22 "Foreign Currency Transactions and Advance Considerations"

The Interpretation clarifies that, in determining the spot exchange rate to use on initial recognition of the related asset, expense or income (or part of it) on the derecognition of a non-monetary asset or non-monetary liability relating to advance consideration, the date of the transaction is the date on which an entity initially recognises the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, then the entity must determine

the date of the transactions for each payment or receipt of advance consideration. This Interpretation does not have any impact on the Group's Consolidated Financial Statements.

#### Amendments to IAS 40 "Transfers of Investment Property"

The amendments clarify when an entity should transfer property, including property under construction or development into, or out of investment property. These amendments do not have any impact on the Group's Consolidated Financial Statements.

#### Amendments to IFRS 2 "Classification and Measurement of Share-based Payment Transactions"

The IASB issued amendments to IFRS 2 "Share-based Payment" that address three main areas: the effects of vesting conditions on the measurement of a cash-settled share-based payment transaction; the classification of a share-based payment transaction with net settlement features for withholding tax obligations; and accounting where a modification to the terms and conditions of a share-based payment transaction changes its classification from cash settled to equity settled. On adoption, entities are required to apply the amendments without restating prior periods, but retrospective application is permitted if elected for all three amendments and other criteria are met. The Group's accounting policy for share-based payment transaction with net settlement features for withholding tax obligations is consistent with the approach clarified in the amendments. In addition, the Group has no cash-settled share based payments and had not made any modifications to the terms and conditions of its share-based payment transaction. Therefore, these amendments do not have any impact on the Group's Consolidated Financial Statements.

#### Amendments to IFRS 4 Applying IFRS 9 "Financial Instruments" with IFRS 4 "Insurance Contracts"

The amendments address concerns arising from implementing the new financial instruments standard, IFRS 9, before implementing IFRS 17 "Insurance Contracts", which replaces IFRS 4. These amendments are not relevant to the Group.

#### Amendments to IAS 28 "Investments in Associates and Joint Ventures" – Clarification that measuring investees at fair value through profit or loss is an investment-by-investment choice

The amendments clarify that an entity that is a venture capital organisation, or other qualifying entity, may elect, at initial recognition on an investment-by-investment basis, to measure its investments in associates and joint ventures at fair value through profit or loss. If an entity that is not itself an investment entity, has an interest in an associate or joint venture that is an investment entity, then it may, when applying the equity method, elect to retain the fair value measurement applied by that investment entity associate or joint venture to the investment entity associate's or joint venture's interests in subsidiaries. This election is made separately for each investment entity associate or joint venture, at the later of the date on which: (a) the investment entity associate or joint venture is initially recognised; (b) the associate or joint venture becomes an investment entity; and (c) the investment entity associate or joint venture first becomes a parent. These amendments do not have any impact on the Group's Consolidated Financial Statements.

### Amendments to IFRS 1 “First-time Adoption of International Financial Reporting Standards” – Deletion of short-term exemptions for first-time adopters

Short-term exemptions in paragraphs E3–E7 of IFRS 1 were deleted because they have now served their intended purpose. These amendments do not have any impact on the Group’s Consolidated Financial Statements.

- (ii) Future implications of new and amended standards and interpretations not yet adopted

The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group’s Financial Statements are disclosed below. The Group intends to adopt these new and amended standards and interpretations, if applicable, when they become effective. The quantitative information disclosed in this note may be subject to further changes in 2019.

### IFRS 16 “Leases”

In January 2016, the IASB published IFRS 16 Leases, replacing IAS 17 Leases and IFRIC 4 Determining Whether an Arrangement Contains a Lease and other interpretations. IFRS 16 abolishes for lessees the previous classification of leasing agreements as either operating or finance leases. Instead, IFRS 16 introduces a single lessee accounting model, requiring lessees to recognise assets for the right to use as well as leasing liabilities for the outstanding lease payments. This means that leases that were previously not reported in the Balance Sheet will have to be reported in the future – very similar to the current accounting of finance leases.

According to IFRS 16 a lessee may elect, for leases with a lease term of 12 months or less (short-term leases) and for leases for which the underlying asset is of low value, not to recognise a right-of-use asset and a lease liability. The Group will apply both recognition exemptions. The lease payments associated with those leases are recognised as an expense on either a straight-line basis over the lease term or another systematic basis.

Right-of-use assets are measured at cost less any accumulated depreciation and if necessary any accumulated impairment. The cost of a right-of-use asset comprise the present value of the outstanding lease payments, any lease payments made at or before the commencement date less any lease incentives received, any initial direct costs and an estimate of costs to be incurred in dismantling or removing the underlying asset. In this context, the Group also applies the practical expedient that the payments for non-lease components are generally recognised as lease payments. If the lease transfers ownership of the underlying asset to the lessee at the end of the lease term or if the cost of the right-of-use asset reflects that the lessee will exercise a purchase option, the right-of-use asset is depreciated to the end of the useful life of the underlying asset. Otherwise the right-of-use asset is depreciated to the end of the lease term.

*Lease liabilities*, which are assigned to financing liabilities are measured initially at the present value of the lease payments less any lease payments made before that date. Subsequent measurement of a lease liability includes the increase of the carrying amount to reflect interest on the lease liability and reducing the carrying amount to reflect the lease payments made.

According to IFRS 16 the depreciation of the right-of-use is recognised within the line item “depreciation and amortization”. The interest due on the lease liability is a component of interest expense.

IFRS 16 is to be applied to annual reporting periods beginning on or after 1 January 2019; early adoption is permitted if IFRS 15 is already applied. The Group will apply IFRS 16 for the first time for the financial year beginning on 1 January 2019.

In compliance with the transition regulations, the Group will not adjust the prior-year figures and will present the accumulated transitional effects in retained earnings. The Group as lessee will use following practical expedients of IFRS 16 at the date of initial application:

- With leases previously classified as operating leases according to IAS 17 the lease liability will be measured at the present value of the outstanding lease payments, discounted by the incremental borrowing rate at 1 January 2019. The respective right-of-use asset is generally recognised at an amount equal to the lease liability;
- An impairment review is not performed. Instead, a right-of-use asset is adjusted by the amount of any provision for onerous leases recognised in the Balance Sheet at 31 December 2018;
- Regardless of their original lease term, leases for which the lease term ends latest on 31 December 2019 are recognised as short-term leases;
- At the date of initial application, the measurement of a right-of-use asset excludes the initial direct costs; and
- Hindsight is considered when determining the lease term if the contract contains options to extend or terminate the lease.

The Group has reviewed all of its leasing arrangements over the last year in light of the new lease accounting rules in IFRS 16. These arrangements concern leases of office buildings in the various locations from which the Group operates its business, leases of IT -and other equipment for use by staff in its offices, leases of hardware IT equipment such as data servers, racks and mainframes used to operate the Euronext data centre in Basildon and the settlement & custody business of Interbolsa and leases of company cars.

Based on the Group-wide preparations for implementation of IFRS 16, the Group expects that the first-time application of IFRS 16 results in the recognition of right-of-use assets and lease liabilities for a total amount of €55.3 million, being the amount equal to the lease liability adjusted for previously recognised prepaid or accrued lease payments. At the date of initial application, the impact on retained earnings is expected to be insignificant.

Due to the adoption of IFRS 16, the Group’s operating profit will improve, while its interest expense will increase. This is due to the change in the accounting for expenses of leases that were classified as operating leases under IAS 17.

### IFRS 17 “Insurance Contracts”

In May 2017, the IASB issued IFRS 17 “Insurance Contracts” (IFRS 17), a comprehensive new accounting standard for insurance contracts covering recognition and measurement, presentation and disclosure. IFRS 17 is effective for reporting periods beginning on or after 1 January 2021, with comparative figures required. This standard is not applicable to the Group.

### IFRIC Interpretation 23 “Uncertainty over Income Tax Treatment”

The Interpretation addresses the accounting for income taxes when tax treatments involve uncertainty that affects the application of IAS 12 and does not apply to taxes or levies outside the scope of IAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments.

The Interpretation specifically addresses the following:

- whether an entity considers uncertain tax treatments separately;
- the assumptions an entity makes about the examination of tax treatments by taxation authorities;
- how an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates;
- how an entity considers changes in facts and circumstances.

An entity must determine whether to consider each uncertain tax treatment separately or together with one or more other uncertain tax treatments. The approach that better predicts the resolution of the uncertainty should be followed. The interpretation is effective for annual reporting periods beginning on or after 1 January 2019, but certain transition reliefs are available. The Group's current accounting policy is already consistent with the accounting addressed in the interpretation. Therefore, the interpretation will have no impact on the Group's Consolidated Financial Statements.

### Amendments to IFRS 9 “Prepayment Features with Negative Compensation”

Under IFRS 9, a debt instrument can be measured at amortised cost or at fair value through other comprehensive income, provided that the contractual cash flows are 'solely payments of principal and interest on the principal amount outstanding' (the SPPI criterion) and the instrument is held within the appropriate business model for that classification. The amendments to IFRS 9 clarify that a financial asset passes the SPPI criterion regardless of the event or circumstance that causes the early termination of the contract and irrespective of which party pays or receives reasonable compensation for the early termination of the contract. The amendments should be applied retrospectively and are effective from 1 January 2019, with earlier application permitted. These amendments have no impact on the Consolidated Financial Statements of the Group.

### Amendments to IFRS 10 and IAS 28 “Sale or Contribution of Assets between an Investor and its Associate

or Joint Venture”

The amendments address the conflict between IFRS 10 and IAS 28 in dealing with the loss of control of a subsidiary that is sold or contributed to an associate or joint venture. The amendments clarify that the gain or loss resulting from the sale or contribution of assets that constitute a business, as defined in IFRS 3, between an investor and its associate or joint venture, is recognised in full. Any gain or loss resulting from the sale or contribution of assets that do not constitute a business, however, is recognised only to the extent of unrelated investors' interests in the associate or joint venture.

The IASB has deferred the effective date of these amendments indefinitely, but an entity that early adopts the amendments must apply them prospectively. The Group will apply these amendments when they become effective.

### Amendments to IAS 19 “Plan Amendment, Curtailment or Settlement”

The amendments to IAS 19 address the accounting when a plan amendment, curtailment or settlement occurs during a reporting period. The amendments specify that when a plan amendment, curtailment or settlement occurs during the annual reporting period, an entity is required to:

- determine current service cost for the remainder of the period after the plan amendment, curtailment or settlement, using the actuarial assumptions used to remeasure the net defined benefit liability (asset) reflecting the benefits offered under the plan and the plan assets after that event;
- determine net interest for the remainder of the period after the plan amendment, curtailment or settlement using: the net defined benefit liability (asset) reflecting the benefits offered under the plan and the plan assets after that event; and the discount rate used to remeasure that net defined benefit liability (asset).

The amendments also clarify that an entity first determines any past service cost, or a gain or loss on settlement, without considering the effect of the asset ceiling. This amount is recognised in profit or loss. An entity then determines the effect of the asset ceiling after the plan amendment, curtailment or settlement. Any change in that effect, excluding amounts included in the net interest, is recognised in other comprehensive income.

The amendments apply to plan amendments, curtailments, or settlements occurring on or after the beginning of the first annual reporting period that begins on or after 1 January 2019, with early application permitted. These amendments will apply only to any future plan amendments, curtailments, or settlements of the Group.

### Amendments to IAS 28 “Long-term interests in associates and joint ventures”

The amendments clarify that an entity applies IFRS 9 to long-term interests in an associate or joint venture to which the equity method is not applied but that, in substance, form part of the net investment in the associate or joint venture (long-term interests). This clarification is relevant because it implies that the expected credit loss model in IFRS 9 applies to such long-term interests.

The amendments also clarified that, in applying IFRS 9, an entity does not take account of any losses of the associate or joint venture, or any impairment losses on the net investment, recognised as adjustments to the net investment in the associate or joint venture that arise from applying IAS 28 “Investments in Associates and Joint Ventures”.

The amendments should be applied retrospectively and are effective from 1 January 2019, with early application permitted. Since the Group does not have such long-term interests in its associate and joint venture, the amendments will not have an impact on its Consolidated Financial Statements.

### Annual Improvements 2015-2017 Cycle (issued in December 2017)

These improvements include:

#### IFRS 3 “Business Combinations”

The amendments clarify that, when an entity obtains control of a business that is a joint operation, it applies the requirements for a business combination achieved in stages, including remeasuring previously held interests in the assets and liabilities of the joint operation at fair value. In doing so, the acquirer remeasures its entire previously held interest in the joint operation.

An entity applies those amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after 1 January 2019, with early application permitted. These amendments will apply on future business combinations of the Group.

#### IFRS 11 “Joint Arrangements”

A party that participates in, but does not have joint control of, a joint operation might obtain joint control of the joint operation in which the activity of the joint operation constitutes a business as defined in IFRS 3. The amendments clarify that the previously held interests in that joint operation are not remeasured. An entity applies those amendments to transactions in which it obtains joint control on or after the beginning of the first annual reporting period beginning on or after 1 January 2019, with early application permitted. These amendments are currently not applicable to the Group but may apply to future transactions.

#### IAS 12 “Income Taxes”

The amendments clarify that the income tax consequences of dividends are linked more directly to past transactions or events that generated distributable profits than to distributions to owners. Therefore, an entity recognises the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognised those past transactions or events. An entity applies those amendments for annual reporting periods beginning on or after 1 January 2019, with early application is permitted. When an entity first applies those amendments, it applies them to the income tax consequences of dividends recognised on or after the beginning of the earliest comparative period. Since the Group's current practice is in line with these amendments, the Group does not expect any effect on its Consolidated Financial Statements.

#### IAS 23 “Borrowing Costs”

The amendments clarify that an entity treats as part of general borrowings any borrowing originally made to develop a qualifying asset when substantially all of the activities necessary to prepare that asset for its intended use or sale are complete.

An entity applies those amendments to borrowing costs incurred on or after the beginning of the annual reporting period in which the entity first applies those amendments. An entity applies those amendments for annual reporting periods beginning on or after 1 January 2019, with early application permitted. Since the Group's current practice is in line with these amendments, the Group does not expect any effect on its Consolidated Financial Statements.

There are no other IFRS's or IFRIC interpretations not yet effective, that would be expected to have a material impact on the Group in the current or future reporting periods and on foreseeable future transactions.

## NOTE 4 GROUP INFORMATION

The following tables provide an overview of the Group's subsidiaries, associates, joint-ventures and non-current investments:

Subsidiaries	Domicile	As at 31 December 2018	As at 31 December 2017
Enternext S.A.	France	100.00%	100.00%
Euronext Amsterdam N.V.	The Netherlands	100.00%	100.00%
Euronext Brussels S.A./N.V.	Belgium	100.00%	100.00%
Euronext IP & IT Holding B.V.	The Netherlands	100.00%	100.00%
Euronext Hong Kong Limited	Hong Kong	100.00%	100.00%
Euronext Lisbon S.A. <sup>(a)</sup>	Portugal	100.00%	100.00%
Euronext London Ltd.	United Kingdom	100.00%	100.00%
Euronext Paris S.A.	France	100.00%	100.00%
Euronext Technologies Holding S.A.S. <sup>(b)</sup>	France	0.00%	100.00%
Euronext Technologies Ltd. <sup>(c)</sup>	United Kingdom	0.00%	100.00%
Euronext Technologies S.A.S.	France	100.00%	100.00%
Euronext Technologies Unipessoal Lda.	Portugal	100.00%	100.00%
Interbolsa S.A. <sup>(d)</sup>	Portugal	100.00%	100.00%
The Irish Stock Exchange Plc. <sup>(e)</sup>	Ireland	100.00%	0.00%
ISE Old Co. Ltd. <sup>(e)</sup>	Ireland	100.00%	0.00%
Irish Stock Exchange Services Ltd. <sup>(e)</sup>	Ireland	100.00%	0.00%
European Wholesale Markets Ltd. <sup>(e)</sup>	Malta	80.00%	0.00%
Euronext Corporate Services B.V.	The Netherlands	100.00%	100.00%
Company Webcast B.V.	The Netherlands	51.00%	51.00%
iBabs B.V.	The Netherlands	60.00%	60.00%
MSI Services B.V.	The Netherlands	60.00%	60.00%
IR Soft Ltd.	United Kingdom	100.00%	100.00%
Euronext US Inc.	United States	100.00%	100.00%
Euronext Synapse LLC	United States	100.00%	100.00%
FastMatch Inc. <sup>(f)</sup>	United States	97.30%	89.78%
FastMatch Asia Markets Pte Ltd. <sup>(g)</sup>	Singapore	97.30%	0.00%
InsiderLog AB <sup>(h)</sup>	Sweden	80.00%	0.00%
Euronext UK Holdings Ltd. <sup>(i)</sup>	United Kingdom	100.00%	0.00%
Commcise Software Ltd. <sup>(j)</sup>	United Kingdom	78.00%	0.00%
Commcise India Pltd. <sup>(j)</sup>	India	78.00%	0.00%
Stichting Euronext Foundation <sup>(k)</sup>	The Netherlands	0.00%	0.00%
<b>Associates</b>	<b>Domicile</b>		
Tredzone S.A.S.	France	34.04%	34.04%
European Central Counterparty N.V.	The Netherlands	20.00%	20.00%
LCH SA	France	11.10%	11.10%
<b>Joint Ventures</b>	<b>Domicile</b>		
Algonext Ltd.	United Kingdom	50.00%	50.00%
LiquidShare S.A.	France	13.57%	13.57%
<b>Non-current investments</b>	<b>Domicile</b>		
Sicovam Holding S.A.	France	9.60%	9.60%
Euroclear plc. <sup>(l)</sup>	United Kingdom	3.53%	3.34%
Oslo Børs VPS Holding ASA <sup>(m)</sup>	Norway	5.10%	0.00%
Algomi Ltd.	United Kingdom	7.74%	7.74%

(a) Legal name of Euronext Lisbon S.A. is Euronext Lisbon – Sociedade Gestora de Mercados Regulamentados, S.A.

(b) In December 2018, Euronext Technologies Holding S.A.S. merged with Euronext Technologies S.A.S.

(c) Euronext Technologies Ltd. was liquidated in 2018.

(d) Legal name of Interbolsa S.A. is Interbolsa – Sociedade Gestora de Sistemas de Liquidação e de Sistemas Centralizados de Valores Mobiliários, S.A.

(e) The acquired subsidiaries are part of The Irish Stock Exchange, which operates under the business name Euronext Dublin and was acquired on 27 March 2018 (see Note 5).

(f) On 10 August 2018, the Group acquired an 7.52% additional interest in FastMatch Inc. (see Note 5).

(g) FastMatch Asia Markets Pte Ltd. was incorporated on 7 May 2018.

(h) InsiderLog AB was acquired on 17 January 2018 (see Note 5).

(i) Euronext UK Holdings Ltd was incorporated on 11 December 2018.

(j) On 20 December 2018, the Group acquired an 78% interest in Commcise Software Ltd. (see Note 5), owning all of the voting rights of Commcise India Pltd.

(k) Stichting Euronext Foundation is not owned by the Group but included in the scope of consolidation.

(l) The interest in Euroclear plc. increased to 3.53%, following the acquisition of the Irish Stock Exchange Plc. (see Note 5 and 19).

(m) On 28 December 2018 the Group acquired an interest of 5.1% in Oslo Børs VPS Holding ASA (see Note 19).



## NOTE 5 BUSINESS COMBINATIONS AND ACQUISITION OF NON-CONTROLLING INTERESTS

The acquisitions that occurred during the year are set out below.

### 5.1 Acquisition of the Irish Stock Exchange Plc.

On 27 March 2018, the Group acquired 100% of the shares and voting rights of the Irish Stock Exchange Plc., Ireland's incumbent stock exchange operator and a leading global debt and fund listing venue. The Group has acquired the Irish Stock Exchange Plc. to expand the Group's federal model and increase the Group's growth opportunities by diversifying its top line. The combined Group will become the largest centre for debt and funds listings globally.

Details of the purchase consideration, the net assets acquired and goodwill are reflected in the tables below.

Purchase consideration:

<i>In thousands of euros</i>	Fair value
Cash paid	174,529
<b>TOTAL PURCHASE CONSIDERATION</b>	<b>174,529</b>

The assets and liabilities recognised as a result of the acquisition are as follows:

<i>In thousands of euros</i>	Fair value
<b>Assets</b>	
Property, plant and equipment	7,571
Intangible assets: customer relations	20,600
Intangible assets: software platform	4,900
Financial assets at FVOCI	5,514
Current income tax receivables	1,103
Trade and other receivables	5,325
Other current financial assets	18,680
Cash and cash equivalents	33,819
<b>Liabilities</b>	
Deferred tax liabilities	(1,475)
Non-current contract liabilities	(5,370)
Trade and other payables	(23,831)
Current contract liabilities	(18,520)
<b>Net identifiable assets acquired</b>	<b>48,316</b>
Less: non-controlling interest	-
Add: Goodwill	126,213
<b>TOTAL PURCHASE CONSIDERATION</b>	<b>174,529</b>

The goodwill is primarily attributable to the expected synergies and other benefits from combining the assets and activities of the Irish Stock Exchange Plc., with those of the Group. The goodwill is not deductible for income tax purposes.

### Acquired receivables

The fair value of trade and other receivables was €5.3 million and included €2.9 million of trade receivables, which is not materially different to the gross contractual amount and it is expected that the full contractual amounts can be collected.

### Revenue and profit contribution

From the date of the acquisition, the Irish Stock Exchange Plc. has contributed €24.6 million of revenue and €0.6 million of net loss to the Group, due to exceptional items. If the acquisition would have occurred on 1 January 2018, consolidated revenue and profit for the year ended 31 December 2018 would have been €623.2 million and €219.8 million respectively.

### Analysis of cash flows on acquisition

<i>In thousands of euros</i>	2018
Acquisition related costs	(2,890)
<b>Included in cash flows from operating activities</b>	<b>(2,890)</b>
Cash consideration	(174,529)
Less: Balances acquired	33,819
<b>Included in cash flows from investing activities</b>	<b>(140,710)</b>
<b>NET CASH FLOW ON ACQUISITION</b>	<b>(143,600)</b>

### Acquisition related costs

Acquisition related costs of €2.9 million have been expensed and are included in professional services in Profit or Loss.

### Changes made after the preliminary fair value calculation since the Group's Interim Financial Statements of 30 June 2018

As a result of re-assessment of the fair value of the contractual arrangements, the Group recognised *non-current contract liabilities* of €5.4 million, *current contract liabilities* of €7.8 million and related *deferred tax assets* of €1.9 million. In addition, following the identification of an unfavorable contract linked to an early termination of the trading services contract provided by Deutsche Börse AG to the Irish Stock Exchange, the Group recognised €2.2 million in *trade and other payables* related to this unfavorable contract. The impacts were offset as a €13.5 million increase of *Goodwill*.

### 5.2 Acquisition of Commcise Software Ltd. ("Commcise")

On 20 December 2018, the Group acquired 78% of the shares and voting rights of Commcise, a Software as a Service ("SaaS") provider of research evaluation and commission management solutions for financial services firms, for an initial cash consideration of £27 million. Commcise offers a cloud-based research commission management, evaluation and accounting solution built to meet the needs of asset managers, brokers and independent research providers. The Group has acquired Commcise as part of its Agility

for Growth strategic plan, with the goal of serving Euronext's client base through a broader range of services.

Details of the purchase consideration, the preliminary net assets acquired and goodwill are reflected in the tables below.

Purchase consideration:

<i>In thousands of euros</i>	Fair value
Cash paid	30,126
<b>TOTAL PURCHASE CONSIDERATION</b>	<b>30,126</b>

The preliminary purchase price allocation yielded the following results:

<i>In thousands of euros</i>	Preliminary calculation Fair Value
<b>Assets</b>	
Property, plant and equipment	64
Non-current financial assets	37
Trade and other receivables	1,290
Cash and cash equivalents	2,570
<b>Liabilities</b>	
Deferred tax liabilities	(3)
Trade and other payables	(2,009)
<b>Net identifiable assets acquired</b>	<b>1,949</b>
Less: non-controlling interest	(429)
Add: Goodwill	28,606
<b>TOTAL PURCHASE CONSIDERATION</b>	<b>30,126</b>

The goodwill is primarily attributable to the expected synergies and other benefits from combining the assets and activities of Commisce, with those of the Group. The goodwill is not deductible for income tax purposes.

### Acquired receivables

The fair value of trade receivables was €1.3 million, which is not materially different to the gross contractual amount and it is expected that the full contractual amounts can be collected.

### Non-controlling interest

The Group has chosen to recognise the non-controlling interest at the proportionate share of the net assets acquired. As such, non-controlling interest on acquisition amounted to €0.4 million (22% of €1.9 million).

### Revenue and profit contribution

As the acquisition was only finalised on 20 December 2018, the contributed revenue and net profit to the Group was considered not significant in 2018.

### Analysis of cash flows on acquisition

<i>In thousands of euros</i>	2018
Acquisition related costs	(565)
<b>Included in cash flows from operating activities</b>	<b>(565)</b>
Cash consideration	(30,126)
Less: Balances acquired	2,570
<b>Included in cash flows from investing activities</b>	<b>(27,556)</b>
<b>NET CASH FLOW ON ACQUISITION</b>	<b>(28,121)</b>

### Acquisition related costs

Acquisition related costs of €0.6 million have been expensed and are included in professional services in Profit or Loss.

### Related transaction of 22% minority stake

In the period from 30 June 2020 to 31 December 2020, the Group has the right to acquire all of the remaining shares of one of the minority shareholders and in the period from 30 June 2021 to 31 December 2021, the Group has the right to acquire all of the remaining shares of the other minority shareholders. This right to acquire the remaining 22% minority stake by the Group meets the definition of a derivative financial instrument. The exercise price of this call option is based on an EBITDA multiple which also is considered best proxy for fair value. The value of this instrument is therefore zero at initial recognition. The Group will continue to monitor this instrument over its lifetime and will recognise any future change in value through profit or loss.

In addition, if the minority shares are sold to a third party, the Group has the obligation (or the right) to compensate (or to get compensated) for any variance between the price and a lower actual third party price offered. Whenever the value of the expected exercise price is lower than fair value, a negative value for the option will be recorded, for the part that relates to the 'make-good' condition.

## 5.3 Acquisition of InsiderLog AB

On 17 January 2018, the Group acquired 80% of the shares and voting rights of InsiderLog AB, a Stockholm-based leading player in the field of insider list management, for a purchase consideration of €5.8 million, plus a contingent earn-out payment depending on future financial performance. At acquisition date this contingent earn-out payment was valued at €4.2 million and was recognised in *other non-current financial liabilities*, with subsequent measurement through profit or loss (see Note 34). The Group has acquired InsiderLog AB to expand the "Euronext's Corporate Services" offer, into which the InsiderLog solutions will be integrated.

The net assets acquired amounted to €0.1 million and the related goodwill amounted to €9.9 million. The goodwill is primarily attributable to the expected synergies and other benefits from combining the assets and activities of InsiderLog AB with those of the Group. The goodwill is not deductible for income tax purposes. The Group has chosen to recognise the non-controlling interest at the proportionate share of the net assets acquired.

As the acquisition is considered individually immaterial to the Group, no further detailed information required under IFRS 3 is provided.

#### 5.4 Acquisition of additional interest in FastMatch Inc.

On 10 August 2018, the Group acquired 7.52% of additional interest in FastMatch Inc., increasing its ownership to 97.3%. The 1,437,575 shares of common stock of FastMatch Inc. were transferred by the former CEO to Euronext US Inc. for \$.001 per share.

On 1 February 2019, a settlement was reached between FastMatch Inc, Euronext US Inc and the former CEO of FastMatch Inc. Between the parties it was agreed that \$0.8 million would be paid to the former CEO in settlement of claims of alleged breach by FastMatch Inc. of his employment agreement, and an amount of \$8.1 million as additional consideration for the shares transferred on 10 August 2018.

Immediately prior to the purchase, the carrying value of the net assets of FastMatch Inc. (excluding goodwill on the original acquisition) was €47.5 million. The Group recognised a decrease in non-controlling interests of €3.6 million and a decrease in shareholder's equity of €3.6 million.

The effect on the shareholder's equity during the year is summarized as follows:

*In thousands of euros*

Carrying amount of non-controlling interest acquired	3,575
Consideration paid to non-controlling interests	(7,150)
Difference recognised in retained earnings	(3,575)

## NOTE 6 NON-CONTROLLING INTERESTS (NCI)

Financial information of subsidiaries that have material non-controlling interest is provided below.

Proportion of equity interest held by non-controlling interests:

Name of entity	Place of business / country of incorporation	% of ownership interest held by NCI	
		2018	2017
Company Webcast B.V.	The Netherlands	49.00	49.00
iBabs B.V.	The Netherlands	40.00	40.00
FastMatch Inc.	United States	2.70	10.22
Commisce Software Ltd.	United Kingdom	22.00	-

The summarized financial information of these subsidiaries is provided below. This information is based on amounts before inter-company eliminations.

### SUMMARISED BALANCE SHEET

(In thousands of euros)	Company Webcast B.V.		iBabs B.V.		FastMatch Inc.		Commisce Software Ltd.	
	31 Dec 2018	31 Dec 2017	31 Dec 2018	31 Dec 2017	31 Dec 2018	31 Dec 2017	31 Dec 2018	31 Dec 2017
Current assets	2,367	1,708	8,025	4,838	19,282	11,660	3,871	-
Current liabilities	1,985	1,345	4,732	1,300	4,386	3,476	2,016	-
<b>Current net assets</b>	<b>382</b>	<b>363</b>	<b>3,293</b>	<b>3,538</b>	<b>14,896</b>	<b>8,184</b>	<b>1,855</b>	<b>-</b>
Non-current assets	1,269	1,101	22,384	24,333	41,449	43,536	101	-
Non-current liabilities	12	47	4,584	6,059	5,772	6,556	3	-
<b>Non-current net assets</b>	<b>1,257</b>	<b>1,054</b>	<b>17,800</b>	<b>18,274</b>	<b>35,677</b>	<b>36,980</b>	<b>98</b>	<b>-</b>
<b>NET ASSETS</b>	<b>1,639</b>	<b>1,417</b>	<b>21,093</b>	<b>21,812</b>	<b>50,573</b>	<b>45,164</b>	<b>1,953</b>	<b>-</b>
Accumulated NCI	803	694	8,437	8,725	1,365	4,616	430	-

## SUMMARISED STATEMENT OF COMPREHENSIVE INCOME

	Company Webcast B.V.		iBabs B.V.		FastMatch Inc.		Commcise Software Ltd.	
(In thousands of euros)	2018	2017	2018	2017	2018	2017	2018	2017
Revenue	4,547	4,336	9,499	3,867	21,834	7,239	-	-
<b>Profit for the year</b>	<b>223</b>	<b>645</b>	<b>2,981</b>	<b>1,206</b>	<b>2,757</b>	<b>269</b>	-	-
Other comprehensive income	-	-	-	-	45	29	6	-
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>223</b>	<b>645</b>	<b>2,981</b>	<b>1,206</b>	<b>2,802</b>	<b>298</b>	<b>6</b>	-
Profit / (loss) allocated to NCI	109	316	1,193	483	262	30	-	-
Dividends paid to NCI	-	-	1,480	-	-	-	-	-

## SUMMARISED CASH FLOW INFORMATION

	Company Webcast B.V.		iBabs B.V.		FastMatch Inc.		Commcise Software Ltd.	
(In thousands of euros)	2018	2017	2018	2017	2018	2017	2018	2017
Cash flow from operating activities	1,067	715	3,999	878	9,927	4,551	-	-
Cash flow from investing activities	(576)	(31)	(176)	2,270	(3,725)	3,981	2,570	-
Cash flow from financing activities	(34)	(35)	(3,700)	-	566	(162)	8	-
<b>NET INCREASE / (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>457</b>	<b>649</b>	<b>123</b>	<b>3,148</b>	<b>6,768</b>	<b>8,370</b>	<b>2,578</b>	-

## NOTE 7 INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

## 7.1 Interests in associates and joint ventures

Set out below are the associates and joint ventures of the Group as at 31 December 2018. The country of incorporation or registration is also their principal place of business, and the proportion of ownership interest is the same as the proportion of voting rights held.

Name of entity	Place of business / country of Incorporation	% of ownership interest		Nature of relationship	Carrying amount (In thousands of euros)	
		2018	2017		2018	2017
European Central Counterparty N.V.	The Netherlands	20.0	20.0	Associate <sup>(a)</sup>	14,364	14,109
LCH SA	France	11.1	11.1	Associate <sup>(b)</sup>	57,401	57,951
Immaterial joint ventures					920	1,799
Immaterial associates					-	1,145
<b>TOTAL EQUITY ACCOUNTED INVESTMENTS</b>					<b>72,685</b>	<b>75,004</b>

(a) European Central Counterparty N.V. ("EuroCCP") is a CCP for pan-European equity markets providing clearing and settlement services.

(b) LCH SA is a Continental European clearing house, offering clearing services for a diverse range of asset classes. As described in Note 3, the Group has determined that it has significant influence over LCH SA even though it only holds 11.1% of the voting rights.

## 7.2 Commitments and contingent liabilities in respect of associates and joint ventures

The Group has a guarantee given in relation to its investment in joint venture Algonext Ltd. at an amount of \$0.9 million as per 31 December 2018. The Group has no outstanding contingent liabilities with respect to their associates or joint ventures.

## 7.3 Summarised financial information for associates and joint ventures

The tables below provide summarised financial information for those associates and joint ventures that are material to the Group. The information disclosed reflects the amounts presented in the Financial Statements of the relevant associates or joint ventures and not Euronext's share of those amounts. They have been amended to reflect adjustments made by the entity when using the equity method, including fair value adjustments and modifications for differences in accounting policy.

### SUMMARISED BALANCE SHEET

	EuroCCP		LCH SA	
(In thousands of euros)	31 Dec 2018	31 Dec 2017	31 Dec 2018	31 Dec 2017
Non-current assets	1,391	2,216	100,044	102,721
Current assets	613,848	598,189	363,622,700	289,076,000
Non-current liabilities	-	-	6,600	6,400
Current liabilities	570,584	557,024	363,361,000	288,812,000
<b>Net assets</b>	<b>44,655</b>	<b>43,381</b>	<b>355,144</b>	<b>360,321</b>
<b>Reconciliation to carrying amounts:</b>				
Opening net assets 1 January	43,381	40,171	360,321	324,800
Adjustments	-	-	(5,377)	32,621
Profit/(loss) for the year <sup>(a)</sup>	1,277	3,217	44,100	42,600
Other comprehensive income	(3)	(7)	100	300
Dividends paid	-	-	(44,000)	(40,000)
<b>Closing net assets</b>	<b>44,655</b>	<b>43,381</b>	<b>355,144</b>	<b>360,321</b>
Group's share in %	20.0%	20.0%	11.1%	11.1%
Group's share in thousands of euros	8,931	8,676	39,421	39,996
Goodwill	5,433	5,433	17,980	17,955
<b>CARRYING AMOUNT</b>	<b>14,364</b>	<b>14,109</b>	<b>57,401</b>	<b>57,951</b>

(a) The share of profit from EuroCCP and LCH SA recognised in the Group's Statement of Profit or Loss amounted to respectively €0.3 million and €4.3 million in 2018. In 2017 this was respectively €0.6 million and nil, as the share of profit generated by LCH SA was immaterial in 2017, as the acquisition was only finalised on 29 December 2017.

### SUMMARISED STATEMENT OF COMPREHENSIVE INCOME

	EuroCCP		LCH SA	
(In thousands of euros)	2018	2017	2018	2017
Revenue	21,248	22,556	120,800	118,500
<b>Profit from continuing operations</b>	<b>1,277</b>	<b>3,217</b>	<b>44,100</b>	<b>42,600</b>
Profit from discontinued operations	-	-	-	-
<b>Profit for the year</b>	<b>1,277</b>	<b>3,217</b>	<b>44,100</b>	<b>42,600</b>
Other comprehensive income	(3)	(7)	100	300
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>1,274</b>	<b>3,210</b>	<b>44,200</b>	<b>42,900</b>
Dividends received from associates	-	-	4,884	-



#### 7.4 Individually immaterial associates and joint ventures

In addition to the interest in material associates and joint ventures disclosed above, the Group also has interests in an individually immaterial associate and two individually immaterial joint ventures, that are all accounted for using the equity method.

(In thousands of euros)

	2018	2017
Aggregate carrying amount of individually immaterial associates	-	1,145
Aggregate amounts of the group's share of:		
Profit/(loss) from continuing operations	(137)	(175)
Post-tax profit or loss from discontinued operations	-	-
Other comprehensive income	-	-
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>(137)</b>	<b>(175)</b>

#### Individually immaterial joint ventures

The Group (sharing joint control with the other founders) has an interest of 13.57% in LiquidShare, a fintech joint venture with the objective to improve SME's access to capital markets and improving the transparency and security of post-trading operations using blockchain technology.

(In thousands of euros)

	2018	2017
Aggregate carrying amount of individually immaterial joint ventures	920	1,799
Aggregate amounts of the group's share of:		
Profit/(loss) from continuing operations	(1,373)	(181)
Post-tax profit or loss from discontinued operations	-	-
Other comprehensive income	-	-
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>(1,373)</b>	<b>(181)</b>

#### Individually immaterial associate

The Group has an 34.04% interest in Tredzone S.A.S., a low latency software developer, as part of its innovation strategy. As per 31 December 2018, following a review for impairment of its associates and joint ventures, the Group decided to impair its interest in Tredzone S.A.S. by €1.0 million to zero.

The Group also has an interest of 50% in Algonext Ltd. that was incorporated after the Group entered into a 10 year partnership with fixed income technology provider Algomi Ltd., to create a long-term joint venture. As per 31 December 2018, following a review for impairment of its associates and joint ventures, the Group decided to impair its interest in Algonext Ltd. by €0.5 million to zero (see also Note 2).

## NOTE 8 REVENUE FROM CONTRACTS WITH CUSTOMERS

### 8.1 Disaggregated revenue information

Substantially all of the Group's revenues are considered to be revenues from contracts with customers. At 31 December 2018 and 2017, there were no customers that individually exceeded 10% of the Group's revenue.

Set out below is the disaggregation of the Group's revenue from contracts with customers:

Major revenue stream <i>In thousands of euros</i>	Year ended 31 December 2018	Timing of revenue recognition		Year ended 31 December 2017	Timing of revenue recognition	
		Product or service transferred			Product or service transferred	
		at a point in time	over time		at a point in time	over time
Listing	106,490	1,458	105,032	84,247	42,252	41,995
Trading revenue	276,572	276,572	-	237,854	237,854	-
<i>of which</i>						
Cash trading	210,947	210,947	-	190,276	190,276	-
Derivatives trading	43,910	43,910	-	40,339	40,339	-
FX trading	21,715	21,715	-	7,239	7,239	-
Advanced data services	118,298	1,003	117,295	104,673	2,597	102,076
Post-trade	77,381	57,672	19,709	71,698	53,374	18,324
<i>of which</i>						
Clearing	55,331	55,331	-	51,132	51,132	-
Custody & Settlement and other	22,050	2,341	19,709	20,566	2,242	18,324
Euronext Technology Solutions & other revenue	36,063	813	35,250	33,465	752	32,713
Other income	229	229	-	357	357	-
TOTAL REVENUE FROM CONTRACTS WITH CUSTOMERS	615.033	337.747	277.286	532.294	337.186	195.108

Set out below is the geographical information of the Group's revenue from contracts with customers:

<i>In thousands of euros</i>	France	Netherlands	United Kingdom	Belgium	Portugal	Ireland	United States	Sweden	Hong Kong	Total
<b>2018</b>										
Revenue from contracts with customers	328,255	170,990	286	32,874	35,021	24,517	21,835	1,202	53	615,033
<b>2017</b>										
Revenue from contracts with customers	309,617	150,751	266	28,229	36,138	-	7,239	-	54	532,294

Advanced data services revenues are attributed to the country where the exchange is domiciled. Revenues from other categories are attributed to the billing entity.

### 8.2 Contract balances

The Group has recognised the following assets and liabilities related to contracts with customers:

<i>In thousands of euros</i>	31 December 2018	Restated 1 January 2018
Trade receivables (Note 20)	70,815	61,156
Contract receivables (Note 20)	21,996	15,814
Contract liabilities (Note 32)	96,948	76,342

Trade receivables are non-interest bearing and are generally due on terms of 30 to 90 days and represent amounts in respect of billed revenue, for which the Group has an unconditional right to consideration (*i.e.* only the passage of time is required before payment of the consideration is due). Trade receivables increased by €9.7 million, primarily attributable to the acquisitions of new subsidiaries for €4.3 million (see Note 5) and increased Market Data revenue invoicing following growing business activity for €3.9 million.

Contract receivables represent amounts in respect of unbilled revenue, for which the Group has an unconditional right to consideration (*i.e.* only the passage of time is required before payment of the consideration is due). Contract receivables increased by €6.2 million, primarily attributable to the acquisitions of new subsidiaries for €2.6 million (see Note 5) and the timing of invoicing revenue related to FX trading for €1.7 million and connectivity services for €1.8 million. In 2018, €1.5 million (2017: €1.3 million, under IAS 39) was recognised as provision for expected credit losses on trade and contract receivables (see Notes 20 and 36.4).

Contract liabilities primarily relate to received consideration (or an amount of consideration is due) from customers for the initial (or subsequent) listing of equity securities, bond lifetime fees, indices licenses, software maintenance & hosting and corporate services. The increase of €20.6 million in contract liabilities, was primarily attributable to the acquisition of the Irish Stock Exchange Plc (see Note 5), which included contract liabilities related to initial and subsequent listing and bond lifetime fees. Other impacts contributing to the increase in contract liabilities were amounts received or due from customers related to Indices licenses for €3.3 million and

Corporate Services for €3.8 million, following growing activity in those businesses.

Revenue recognised in the reporting period that was included in the contract liability balance at the beginning of the period amounted to €39.3 million. The amount of revenue recognised in the reporting period from performance obligations satisfied (or partially satisfied) in previous periods was considered not significant.

### 8.3 Performance obligations

Information about the Group's performance obligations are described in Note 3 'Significant accounting policies and judgements'.

The transaction price allocated to the remaining performance obligations (unsatisfied or partially unsatisfied) are as follows:

<i>In thousands of euros</i>	31 December 2018
Within one year	57,617
More than one year	63,873
<b>TOTAL</b>	<b>121,490</b>

The remaining performance obligations expected to be recognised in more than one year primarily relate to the initial (or subsequent) listing of equity securities and bond lifetime fees which are recognised over the related listing period. Other performance obligations included in this category are software maintenance & hosting contracts, Indices license contracts and corporate services license contracts.

## NOTE 9 SALARIES AND EMPLOYEE BENEFITS

<i>In thousands of euros</i>	Year ended	
	31 December 2018	31 December 2017
Salaries and other short term benefits	(86,420)	(74,893)
Social security contributions	(24,851)	(23,536)
Share-based payment costs	(3,979)	(3,782)
Pension cost – defined benefit plans	(1,310)	(1,106)
Pension cost – defined contribution plans	(1,928)	(1,046)
<b>TOTAL</b>	<b>(118,488)</b>	<b>(104,363)</b>

At the end of the year, the number of employees, based on full-time equivalents (FTE) stood at 809.1 (2017: 670.8). The increase in FTE was primarily caused by the newly acquired companies during the year.

In 2018, 'Share based payments costs' primarily contain costs related to the LTI Plans 2015, 2016, 2017 and 2018. Details of these plans are disclosed in Note 27.

**NOTE 10 DEPRECIATION AND AMORTIZATION**

<i>In thousands of euros</i>	Year ended	
	31 December 2018	31 December 2017
Depreciation of tangible fixed assets	(7,224)	(6,684)
Amortisation of intangible fixed assets	(16,176)	(10,248)
<b>TOTAL</b>	<b>(23,400)</b>	<b>(16,932)</b>

In 2018, the amortisation of intangible fixed assets included €7.4 million of software and customer relations amortisation from newly acquired companies as from the acquisition date of the subsidiaries starting last year (see Note 17).

**NOTE 11 OTHER OPERATIONAL EXPENSES**

<i>In thousands of euros</i>	Year ended	
	31 December 2018	31 December 2017
Systems and communications	(26,208)	(22,354)
Professional services	(47,011)	(45,545)
Clearing expenses	(29,846)	(27,925)
Accommodation	(10,430)	(9,961)
Other expenses <sup>(a)</sup>	(28,800)	(24,364)
<b>TOTAL</b>	<b>(142,295)</b>	<b>(130,149)</b>

(a) Other expenses include marketing, taxes, insurance, travel, professional membership fees, corporate management and other expenses.

The increase in other operational expenses is primarily caused by the impact from newly acquired company's in 2018.

**NOTE 12 EXCEPTIONAL ITEMS**

<i>In thousands of euros</i>	Year ended	
	31 December 2018	31 December 2017
Restructuring costs	(8,126)	(2,159)
ICE Clear Netherlands termination fee	-	(5,000)
Acquisition costs	(2,088)	(5,280)
DB contract termination	(4,752)	-
Revaluation Algomi related items	(3,226)	-
Termination of sales contract	(2,000)	-
Portuguese pension plan settlement	-	(1,565)
Refund pre-retirement plan Paris	-	2,208
Litigation provisions/settlements	(520)	(388)
Impairment w/o intangible assets	(893)	(2,621)
Other	131	18
<b>TOTAL</b>	<b>(21,474)</b>	<b>(14,787)</b>

In 2018, exceptional items included:

- €8.1 million of restructuring costs mainly related to expenses for employee termination benefits in the various Euronext locations;
- €2.1 million of costs incurred for contemplated acquisitions of major significance to the Group, potentially changing the Group's form or character (transformational acquisitions);
- €4.8 million of impact related to the early termination of the trading services contract provided by Deutsche Börse AG to the Irish Stock Exchange (see Note 2);
- €3.2 million of items related to the revaluation of the investment in Algomi Ltd. (see Note 2), of which €1.5 million related to impaired intangible assets in 2018 (see Note 17);
- €2.0 million of costs related to the termination of contract with a reseller within corporate services business;
- €0.5 million of litigation provisions/settlements attributable to individual legal cases, including the \$0.8 million settlement with former FastMatch CEO as mentioned in Note 2;
- €0.9 million of onerous maintenance contract costs related to the impaired intangible assets that were reflected in last year's exceptional items.

In 2017, exceptional items included:

- €2.2 million of restructuring costs mainly related to expenses for employee termination benefits in the various Euronext locations;
- €5.0 million of breakup fee following the terminated agreement on derivatives clearing signed with ICE Clear Netherlands in 2017;
- €5.3 million of costs incurred for contemplated acquisitions of major significance to the Group, potentially changing the Group's form or character (transformational acquisitions);
- €1.6 million of past service costs recognised as a result of the Portuguese pension plan settlement from defined benefit to defined contribution (see Note 29);
- €2.2 million of benefit, related to the over funding of a pre-retirement plan ended in 2017;
- €0.4 million of litigation provisions/settlements attributable to individual legal cases;
- €2.6 million of costs related to the impairment of intangible assets (see Note 17).

If the exceptional items were presented by nature, salaries and employee benefits would amount to €8.1 million (2017: €0.7 million), depreciation and amortization would amount to €1.7 million (2017: €3.2 million) and other operational items would amount to €11.7 million (2017: €10.9 million). They relate to both income and expenses.

## NOTE 13 NET FINANCING INCOME / (EXPENSE)

<i>In thousands of euros</i>	2018	2017
Interest expense	(5,558)	(2,373)
Other finance costs	77	(1,180)
<b>Finance costs</b>	<b>(5,481)</b>	<b>(3,553)</b>
Contingent liabilities (see Note 34)	(1,200)	-
Redemption liabilities (see Note 34)	(2,000)	-
<b>Change in fair value of financial liabilities</b>	<b>(3,200)</b>	<b>-</b>
Interest income (effective interest method)	487	314
Interest income from interest rate swaps	3,534	-
Hedging result	(638)	-
Gain / (loss) on disposal of treasury investments	(220)	(5)
Net foreign exchange gain/(loss)	258	(356)
<b>Other net financing income/(expense)</b>	<b>3,421</b>	<b>(47)</b>
<b>TOTAL</b>	<b>(5,260)</b>	<b>(3,600)</b>

Interest expenses increased, following the Bond issued in April 2018 (see Note 28). In 2017, the other finance costs relate to a provision made for stamp duty tax on cash-pooling arrangements in Portugal.

In 2018, non-current financial liabilities were remeasured by €3.2 million (see Note 34).

Other net financing income was positively impacted by income from interest rate swaps, as a result of the Group entering into interest rate swap agreements (see Note 22).

Hedging result consists of gains or losses resulting from the ineffective part of the fair value hedge and net investment hedge (see Note 22).



**NOTE 14 RESULTS FROM EQUITY INVESTMENTS**

<i>In thousands of euros</i>	2018	2017
Dividend income	5,984	6,105
Impairment of non-current investments	-	(5)
Gains on disposal of non-current investments	-	42,225
<b>TOTAL</b>	<b>5,984</b>	<b>48,325</b>

In 2018, dividend income relates to dividends received from the Group's non-current equity investments at fair value through other comprehensive income. In 2017, these non-current equity investments were categorised as available-for-sale financial assets (see Note 3).

In 2017, the gains on disposal of non-current investments primarily include: (i) €1.7 million of deferred consideration received from LSE Group, in connection to a partial sale of LCH Group shares in 2013 and (ii) a €40.5 million gain related to the share exchange transaction of the Group's 2.31% interest in LCH Group for an 11.1% interest in LCH SA (see Note 19).

**NOTE 15 INCOME TAX EXPENSE**

<i>In thousands of euros</i>	2018	2017
Current tax expense	(91,974)	(71,127)
Deferred tax expense	(2,110)	2,241
<b>TOTAL</b>	<b>(94,084)</b>	<b>(68,886)</b>

The actual tax charge incurred on the Group's profit before income tax differs from the theoretical amount that would arise using the weighted average tax rates applicable to profit before income tax of the consolidated entities as follows:

**Reconciliation of effective tax charge**

<i>In thousands of euros</i>	2018	2017
Profit before income tax	311,712	311,075
Income tax calculated at domestic tax rates applicable to profits in the respective countries	(93,854)	(96,184)
Tax effects of:		
(De) recognition tax losses	-	(125)
Non-deductible expenses	(3,546)	(2,065)
Other tax exempt income <sup>(a)</sup>	2,520	12,676
Over provided in prior years <sup>(b)</sup>	3,548	22,096
Other <sup>(c)</sup>	(2,752)	(5,284)
<b>TOTAL</b>	<b>(94,084)</b>	<b>(68,886)</b>

(a) Other tax exempt income mainly relates to dividends received and revaluation of Sicovam in 2018, 2017, includes the partially exempt capital gain recognized on the LCH share exchange transaction.

(b) In 2018 and 2017 'over provided in prior years' were positively impacted by the release of €4.0 million respectively €20.4 million tax provisions recognised in 2013 and 2014, as a result of the lapse of statute of limitations.

(c) As from 2014, the Company applies the statutory tax rates without (temporary) surcharges (in Portugal and France) to the profit before income tax to calculate tax at domestic rates. The (temporary) surcharges have been included in the line 'Other'. In 2017, a one off impairment on a tax receivable resulting from the carve out in 2014 was recognized within the line 'Other'.

The Netherlands have decreased the corporate income tax rate from 25% to 22.55% for 2020 and to 20.5% for 2021. The recalculation of deferred tax resulting from these changes in tax rate had a decreasing impact of €0.5 million, which is included in the line *Income tax calculated at domestic tax rates applicable to profits in the respective countries*. Reference is made to Note 18 for more information on the tax rate changes in the Netherlands.

The increase in effective tax rate from 22.1% for the year ended 31 December 2017 to 30.2% for the year ended 31 December 2018 is mainly due to the significant release on uncertain tax provisions recognized in 2017 and the partial exempt capital gain on the LCH share exchange transaction in 2017. The 2018 effective tax rate is in line with the normalized tax rate.

## NOTE 16 PROPERTY, PLANT AND EQUIPMENT

<i>In thousands of euros</i>	Land & Buildings	Hardware & IT	Other Equipment <sup>(a)</sup>	Total
<b>As at 31 December 2016</b>				
Cost	14,776	29,265	47,491	91,532
Accumulated depreciation and impairment	(4,461)	(23,095)	(36,484)	(64,040)
<b>Net book amount</b>	<b>10,315</b>	<b>6,170</b>	<b>11,007</b>	<b>27,492</b>
<b>As at 1 January 2017 net book amount</b>	<b>10,315</b>	<b>6,170</b>	<b>11,007</b>	<b>27,492</b>
Exchange differences	-	(63)	(6)	(69)
Additions	-	4,357	1,746	6,103
Disposals & other	-	31	(64)	(33)
Acquisition of subsidiaries (Note 5)	-	286	697	973
Depreciation charge (Note 10)	(212)	(4,188)	(2,284)	(6,684)
<b>As at 31 December 2017 net book amount</b>	<b>10,103</b>	<b>6,593</b>	<b>11,086</b>	<b>27,782</b>
<b>As at 31 December 2017</b>				
Cost	14,776	24,702	50,204	89,682
Accumulated depreciation and impairment	(4,673)	(18,109)	(39,118)	(61,900)
<b>Net book amount</b>	<b>10,103</b>	<b>6,593</b>	<b>11,086</b>	<b>27,782</b>
<b>As at 1 January 2018 net book amount</b>	<b>10,103</b>	<b>6,593</b>	<b>11,086</b>	<b>27,782</b>
Exchange differences	-	30	8	38
Additions	3,539	6,364	1,055	10,958
Disposals & other	-	23	(338)	(315)
Acquisitions of subsidiaries (Note 5)	6,973	309	363	7,645
Transfers	-	-	-	-
Depreciation charge (Note 10)	(281)	(4,750)	(2,193)	(7,224)
<b>As at 31 December 2018 net book amount</b>	<b>20,334</b>	<b>8,569</b>	<b>9,981</b>	<b>38,884</b>
<b>As at 31 December 2018</b>				
Cost	25,779	34,576	50,564	110,919
Accumulated depreciation and impairment	(5,445)	(26,007)	(40,583)	(72,035)
<b>Net book amount</b>	<b>20,334</b>	<b>8,569</b>	<b>9,981</b>	<b>38,884</b>

(a) Other Equipment includes building fixtures and fitting and lease improvements.

The Company does not hold assets under finance leases.

## NOTE 17 GOODWILL AND OTHER INTANGIBLE ASSETS

<i>In thousands of euros</i>	Goodwill	Internally developed software	Purchased softw. Constr. in Pr. Patents & TrMrk	Intangible assets recognised on acquisition of subsidiaries			Total
				Software	Customer Relations	Brand Names	
<b>As at 31 December 2016</b>							
Cost	354,759	62,013	34,839	-	-	-	451,611
Accumulated amortisation and impairment	(53,341)	(48,183)	(28,931)	-	-	-	(130,455)
<b>Net book amount</b>	<b>301,418</b>	<b>13,830</b>	<b>5,908</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>321,156</b>
<b>As at 1 January 2017 net book amount</b>	<b>301,418</b>	<b>13,830</b>	<b>5,908</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>321,156</b>
Exchange differences	(1,857)	(44)	(71)	(66)	(605)	(110)	(2,753)
Additions	-	13,277	4,497	-	-	-	17,774
Impairment charge	-	(523)	(2,621)	-	-	-	(3,144)
Transfers and other	-	(608)	608	-	-	-	-
Acquisitions of subsidiaries	122,052	2,334	339	7,789	52,826	7,009	192,349
Amortisation charge (Note 10)	-	(5,136)	(2,757)	(1,152)	(1,203)	-	(10,248)
<b>As at 31 December 2017 net book amount</b>	<b>421,613</b>	<b>23,130</b>	<b>5,903</b>	<b>6,571</b>	<b>51,018</b>	<b>6,899</b>	<b>515,134</b>
<b>As at 31 December 2017</b>							
Cost	474,953	80,365	43,689	7,708	52,208	6,899	665,822
Accumulated amortisation and impairment	(53,340)	(57,235)	(37,786)	(1,137)	(1,190)	-	(150,688)
<b>Net book amount</b>	<b>421,613</b>	<b>23,130</b>	<b>5,903</b>	<b>6,571</b>	<b>51,018</b>	<b>6,899</b>	<b>515,134</b>
<b>As at 1 January 2018 net book amount</b>	<b>421,613</b>	<b>23,130</b>	<b>5,903</b>	<b>6,571</b>	<b>51,018</b>	<b>6,899</b>	<b>515,134</b>
Exchange differences	4,497	117	(8)	108	1,496	282	6,492
Additions	-	8,843	2,464	-	-	-	11,307
Impairment charge / write off	-	(65)	(1,514)	-	-	-	(1,579)
Transfers and other	-	30	(14)	-	-	-	16
Acquisitions of subsidiaries (Note 5)	164,848	94	-	4,900	20,600	-	190,442
Amortisation charge (Note 10)	-	(6,026)	(2,717)	(3,465)	(3,968)	-	(16,176)
<b>As at 31 December 2018 net book amount</b>	<b>590,958</b>	<b>26,123</b>	<b>4,114</b>	<b>8,114</b>	<b>69,146</b>	<b>7,181</b>	<b>705,636</b>
<b>As at 31 December 2018</b>							
Cost	644,299	93,503	46,297	12,815	74,393	7,181	878,488
Accumulated amortisation and impairment	(53,341)	(67,380)	(42,183)	(4,701)	(5,247)	-	(172,852)
<b>Net book amount</b>	<b>590,958</b>	<b>26,123</b>	<b>4,114</b>	<b>8,114</b>	<b>69,146</b>	<b>7,181</b>	<b>705,636</b>

## Goodwill impairment test

Goodwill is monitored and tested for impairment at the lowest CGU Group level of the Group to which goodwill acquired in a business combination is allocated (see Note 3). Following the acquisition of FastMatch Inc. in 2017 and the allocation of goodwill from this transaction to the "FX Trading" CGU, the Group tests goodwill at the level of two CGU (Groups): "Euronext" and "FX Trading".

## Euronext CGU (Group)

The recoverable value of the "Euronext" CGU Group is based on its fair value less cost of disposal, applying a discounted cash flow approach, and corroborated by observation of Company's market capitalisation. The fair value measurement uses significant unobservable inputs and is therefore categorised as a Level 3 measurement under IFRS 13.

Cash flow projections are derived from the 2019 budget and the business plan for 2020. Key assumptions used by management include third party revenue growth, which factors future volumes of European equity markets, the Group's market share, average fee per transaction, and the expected impact of new product initiatives. These assumptions are based on past experience, market research and management expectation of market developments.

For the impairment test performed as of 31 December 2018, revenues have been extrapolated using a perpetual growth rate of 2% (2017: 2.3%) after 2019. The weighted average cost of capital applied was 8.6% (2017: 8.6%).

The annual impairment testing of the "Euronext" CGU Group performed at each year-end did not result in any instance where the carrying value of the operating segment exceeded its recoverable amount. Recoverable amount is sensitive to key assumptions.

As of 31 December 2018, a reduction to 0% per year of third party revenue growth during the explicit forecast period, a reduction to 1% per year of perpetual growth rate, or an increase by 1% per year in discount rate, which management believes are individually reasonably possible changes to key assumptions, would not result in a goodwill impairment. The sensitivity test on the key assumptions defined in 2018 would not result in a goodwill impairment. Possible correlations between each of these parameters were not considered.

### FastMatch CGU

The recoverable value of the "FastMatch" CGU is based on its fair value less cost of disposal, applying a discounted cash flow approach. The fair value measurement uses significant unobservable inputs and is therefore categorised as a Level 3 measurement under IFRS 13.

Cash flow projections are derived from the 2019 budget and the business plan for 2020. Key assumptions used by management include third party revenue growth, which factors future volumes on global Foreign Exchange trading markets, the Group's market share,

average fee per transaction, and the expected impact of new product initiatives. These assumptions are based on past experience, market research and management expectation of market developments.

For the impairment test performed as of 31 December 2018, revenues have been extrapolated using a perpetual growth rate of 3% after 2019. The discount rate applied was 8.6%.

The annual impairment testing of the "Fastmatch" CGU performed at each year-end did not result in any instance where the carrying value of the operating segment exceeded its recoverable amount. Recoverable amount is sensitive to key assumptions. As of 31 December 2018, a reduction to 0% per year of third party revenue growth during the explicit forecast period, a reduction to 1% per year of perpetual growth rate, or an increase by 1% per year in discount rate, which management believes are individually reasonably possible changes to key assumptions, would not result in a goodwill impairment. The sensitivity test on the key assumptions defined in 2018 would not result in a goodwill impairment. Possible correlations between each of these parameters were not considered.

## NOTE 18 DEFERRED INCOME TAX

The analysis of deferred tax assets and deferred tax liabilities is as follows:

In thousands of euros	2018	2017
Deferred income tax assets <sup>(a)</sup>	20,932	7,991
Deferred income tax liabilities <sup>(a)</sup>	(21,429)	(19,834)
<b>TOTAL NET DEFERRED TAX ASSETS (LIABILITIES)</b>	<b>(497)</b>	<b>(11,843)</b>

(a) As shown in the balance sheet, after offsetting deferred tax assets and liabilities related to the same taxable entity.

In thousands of euros	2018	2017
<b>Deferred tax assets / (liabilities):</b>		
Property, plant and equipment	(656)	(812)
Intangible assets <sup>(a)</sup>	(17,576)	(16,206)
Investments <sup>(b)</sup>	(14,133)	(7,556)
Provisions and employee benefits	8,577	6,650
Contract liabilities <sup>(c)</sup>	19,007	-
Other	(51)	177
Loss carried forward <sup>(d)</sup>	4,335	5,904
<b>DEFERRED TAX ASSETS (NET)</b>	<b>(497)</b>	<b>(11,843)</b>

(a) The increase mainly relates to the recognition of a deferred tax liability resulting from the intangible assets recognized upon the acquisition of the Irish Stock Exchange Plc.

(b) The increase in investments mainly relates to the increase in the revaluation of assets available for sale (Euroclear S.A. and Sicovam Holding S.A.S.).

(c) The adoption of IFRS 15 resulted in the recognition of contract liabilities (see Note 3).

(d) The decrease relates to the release of losses carry forward of Euronext Technologies Ltd after strike off procedure.

The Netherlands have decreased the corporate income tax rate from 25% to 22.55% for 2020 and to 20.5% for 2021. The deferred tax assets recognised for Contract liabilities in the Dutch entities have been recorded at 22.55% being the average rate for next years

in which the majority of the deferred asset will be realized. Other deferred tax assets/liabilities have been recorded at 20.5% as these are longer term deferred assets/liabilities.

In thousands of euros

	2018	2017
<b>Original balance at beginning of the year</b>	<b>(11,843)</b>	<b>4,421</b>
Change in accounting policy (Note 3)	20,800	-
<b>Restated balance at beginning of the year</b>	<b>8,957</b>	<b>4,421</b>
Recognised in income statement	(2,110)	2,241
Reclassifications and other movements <sup>(a)</sup>	(1,480)	(11,851)
Exchange difference	(268)	2
Charge related to other comprehensive income	(5,596)	(6,656)
<b>BALANCE AT END OF THE YEAR</b>	<b>(497)</b>	<b>(11,843)</b>

(a) «Reclassifications and other movements» in 2018 includes results from the intangible assets recognized upon acquisition of the Irish Stock Exchange Plc in 2018.

As per 31 December 2018, no losses were unrecognised by the Group that can be carried forward against future taxable income. In 2017, no losses were unrecognised by the Group that can be carried forward against future taxable income.

The majority of the net deferred tax asset is expected to be recovered or settled after more than twelve months.

## NOTE 19 FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME (2017: AVAILABLE-FOR-SALE FINANCIAL ASSETS)

In thousands of euros

	2018	2017
Euroclear plc.	133,843	96,159
Sicovam Holding S.A.	54,508	41,696
Oslo Børs VPS Holding ASA	31,684	-
Algomi Ltd.	-	9,583
Other	65	65
<b>TOTAL</b>	<b>220,100</b>	<b>147,503</b>

The Group's financial assets at fair value through other comprehensive income (2017: available-for-sale financial assets) primarily include long-term investments in unlisted equity securities, which the Group has irrevocably elected at initial recognition to recognise in this category.

### Euroclear plc and Sicovam Holding S.A.

As of 31 December 2018, the Group holds a 3.53% ownership interest in Euroclear plc. (31 December 2017: 3.34%), an unlisted company involved in the settlement of securities transaction and related banking services. The increase from 3.34% to 3.53% was due to the acquisition of the Irish Stock Exchange Plc., that holds an 0.19% ownership interest in Euroclear plc. valued at €5.5 million on acquisition (see Note 5). The Group also holds a 9.60% ownership interest in Sicovam Holding S.A. (31 December 2017: 9.60%), resulting in an indirect 1.53% interest in Euroclear plc. (31 December 2017: 1.53%). The common stock of Sicovam Holding S.A. and Euroclear plc are not listed.

The Group established a standardised multicriteria approach valuation for financial institutions based on the Gordon Growth Model valuation technique as its primary valuation method and the regression valuation technique (P/BV and ROE) and trading multiples as control methods in 2017. However it observed two transactions in 2018, implying a valuation of Euroclear of €5.7 billion. The Group

considers the implied valuation from these inputs as "level-2" inputs in the fair-value hierarchy provided by IFRS 13. The Group considered the two observable transactions for the determination of the fair value in addition to its primary valuation technique and applied a weighted approach taking into account a illiquidity discount for the limited number of transactions.

A significant adjustment to a "level 2" input automatically categorizes this input to "level 3" in the fair value hierarchy. The Group decided to combine the adjusted input from transactions observed with the outcome of its standardized approach that provides another "level 3" input, and assign an equal weighting to both inputs. This resulted in a total valuation of Euroclear of €3.8 billion, and to an increase in fair value of Euronext's direct- and indirect investments of €45.0 million in 2018. This revaluation was recorded in Other Comprehensive Income.

### Oslo Børs VPS Holding ASA ("Oslo Børs VPS")

As per 31 December 2018, following share purchases made by the Group at end of 2018, the Group holds a 5.1% ownership interest in Oslo Børs VPS, the Norwegian Stock Exchange and national CSD operator (see Note 2). The Group irrevocably elected to classify the 5.1% investment in Oslo Børs VPS as an equity investment at fair value through other comprehensive income.



The Group considers the purchase price of NOK 145 per share to be best proxy for fair value as per 31 December 2018, supported by recent price of Oslo Børs VPS shares, traded at the end of December 2018 and beginning of 2019.

### Algomi Ltd.

As of 31 December 2018, the Group holds a 7.74% ownership interest in Algomi Ltd. (31 December 2017: 7.74%), a fixed income technology provider and the Group's joint venture partner of Algonext Ltd. The Group acquired this interest in Algomi Ltd. for a purchase consideration of €9.6 million in 2017. A limited number of transactions in 2017 and early 2018 at similar valuation provided "level 2" inputs as per IFRS13's fair value hierarchy.

However, Algomi Ltd decided to change its strategic course of direction in the second half of 2018 (see Note 2). The Group expects that this change in focus will have an adverse impact on Algomi Ltd's financial situation and considers this as new information leading to a change of its valuation technique for this investment.

Based on the companies' going-concern outlook, the Group considers the fair value of its investment in Algomi Ltd to be zero, and decided to revalue this investment downwards by €9.6 million accordingly, as per 31 December 2018.

### LCH Group

In the previous financial period the Group exchanged its 2.31% interest in LCH Group for an 11.1% interest in LCH SA, resulting in a full disposal of the investment in LCH Group. Immediately before this disposal, a revaluation to transaction value of €57.6 million was recorded against Other Comprehensive Income. In accordance with the Group's accounting policy for the prior period (see Note 3) the €40.5 million gain realised with this exchange transaction and the associated tax impact were transferred from Other Comprehensive Income to the Statement of Profit or Loss at the date of the transaction (see Note 14).

The classification of the measurement within the fair value hierarchy is presented in Note 34.

## NOTE 20 TRADE AND OTHER RECEIVABLES

<i>In thousands of euros</i>	2018	2017
Trade receivables	70,815	61,156
Contract receivables <sup>(a)</sup>	21,996	-
Less provision for impairment of trade receivables (IAS 39)	-	(1,256)
Allowance for expected credit losses (IFRS 9)	(1,533)	-
<b>Trade and contract receivables net</b>	<b>91,278</b>	<b>59,900</b>
Tax receivables (excluding income tax)	7,650	7,673
Prepayments and accrued income <sup>(b)</sup>	-	24,492
Other receivables	2,154	2,921
<b>TOTAL</b>	<b>101,082</b>	<b>94,986</b>

(a) Contract receivables were part of accrued income in the comparative period.

(b) As per 1 January 2018, 'Prepayments' were reclassified to 'Other current assets' for an amount of €8.3 million to reflect their different nature (see Note 3).

Trade receivables are non-interest bearing and generally on terms of 30 to 90 days. Contract receivables represent amounts in respect of unbilled revenue, for which the Group has an unconditional right to consideration (i.e. only the passage of time is required before payment of the consideration is due).

The significant changes in trade and contract receivables are disclosed in Note 8.2.

Set out below is the movement in the allowance for expected credit losses of trade and contract receivables:

<i>In thousands of euros</i>	2018
<b>As at 1 January (calculated under IFRS 9)</b>	<b>1,256</b>
Provision for expected credit losses	624
Receivables written off during the year	(347)
<b>AT 31 DECEMBER</b>	<b>1,533</b>

### Prior year information

In 2017, the provision for impairment of trade receivables was calculated under IAS 39. As of 31 December 2017, the total amount of trade receivables that were past due but not impaired was €19.0 million of which €2.3 million was overdue by more than three months. In 2017, the movements in the provision for impaired trade receivables were usages of €0.3 million and accruals of €0.3 million.

Management considers the fair value of the trade and other receivables to approximate their carrying value. The information about the credit exposures of trade and other receivables are disclosed in Note 3 and 36.4.

## NOTE 21 OTHER CURRENT ASSETS

<i>In thousands of euros</i>	2018	2017
Prepayments <sup>(a)</sup>	9,240	-
Other	-	-
<b>TOTAL</b>	<b>9,240</b>	<b>-</b>

(a) As per 1 January 2018, 'Prepayments' were reclassified from 'Trade and other receivables' for an amount of €8.3 million to reflect their different nature (see Note 3).

## NOTE 22 DERIVATIVES FINANCIAL INSTRUMENTS

The Group may use derivative instruments to manage financial risks relating to its financial positions or risks relating to its ongoing business operations. The Group's risk management strategy and how it is applied to manage risk is further explained in Note 36.

### Derivatives designed as hedging instruments

#### Fair value hedge

At 31 December 2018, the Group had three interest rate swap agreements in place with a total notional amount of €500.0 million (2017: nil) whereby the Group receives an annual fixed interest rate of 1% and pays a variable rate of six-month EURIBOR, plus a weighted average spread of 0.3825%. At 31 December 2018, the rate applicable to the floating leg of the swap for the aggregated notional amount of €500.0 million was 0.118%. The swaps are being used to reduce the variability of the fair value of the 1% fixed rate Bond (Senior Unsecured note) attributable to the change in interest rate, allowing it to transform the fixed rate exposure to floating rate.

There is an economic relationship between the hedged item and the hedging instrument as the terms of the interest rate swaps match the terms of the fixed rate Bond (i.e., notional amount, maturity, payment and reset dates). The Group has established a hedge ratio of 1:1 for the hedging relationships as the underlying risk of the interest rate swap is identical to the hedged risk component. To assess the hedge effectiveness, the Group compares the changes in the fair value of the hedging instrument against the changes in fair value of the hedged item attributable to the hedged risk.

The hedge ineffectiveness can arise from:

- different interest rate curve applied to discount the hedged item and hedging instrument;
- differences in timing of cash flows of the hedged item and hedging instrument;
- the counterparties' credit risk differently impacting the fair value movements of the hedging instrument and hedged item.

The impact of the hedging instrument on the balance sheet as at 31 December 2018 was as follows:

<i>In thousands of euros</i>	Notional amount	Carrying amount	Line item in the balance sheet	Change in fair value used for measuring ineffectiveness for the period
Interest rate swaps	500,000	7,361	Derivative financial instruments	7,361

The impact of the hedged item on the balance sheet as at 31 December 2018 was as follows:

<i>In thousands of euros</i>	Carrying amount	Accumulated fair value adjustments	Line item in the balance sheet	Change in fair value used for measuring ineffectiveness for the period
Senior Unsecured note	500,000	7,999	Non-current Borrowings	7,999

As per 31 December 2018, the ineffective part of the hedge was a loss of €0.6 million recognised in 'hedging result' in the Statement of Profit or Loss (see Note 13).

### Hedge of net investment in foreign operations

At 31 December 2018 the Group had a EUR/GBP foreign exchange contract with a notional amount of £26.7 million expiring in six months, which has been designated as a hedge of the investment in Commcise Software Ltd., a Group subsidiary in the United Kingdom that was acquired in 2018 (see Note 5). Gains or losses on this foreign exchange contract are transferred to OCI to offset any gains and losses on translation of the net investment in the subsidiary.

There is an economic relationship between the hedged item and the hedging instrument as the net investment creates a translation risk that will match the foreign exchange risk on the GBP foreign

exchange contract. The Group has established a hedge ratio of 1:1 as the underlying risk of the hedging instrument is identical to the hedged risk component.

There was a difference of £0.42 million between the notional amount of the foreign exchange contract and the amount of net investment hedged at the inception of the hedge. The ineffectiveness caused by this difference was not material as per 31 December 2018. The hedge ineffectiveness will arise when the amount of the investment in the foreign subsidiary becomes significantly different from the notional amount of the hedging instrument. As at 31 December 2018, there was credible evidence that the hedge was effective.

The impact of the hedging instrument on the balance sheet is, as follows:

In thousands of euros	Notional amount	Fair value of derivative financial instruments	
		Assets	Liabilities
Foreign exchange contract	29,441	-	(85)

The impact of the hedged item on the balance sheet is, as follows:

In thousands of euros	Fair value	Change in fair value used for measuring ineffectiveness for the period	Foreign currency translation reserve
Net investment in foreign subsidiaries	30,213	87	87

The hedging gain/(loss) recognised in OCI before tax is equal to the change in fair value used for measuring effectiveness. The tax effect on the change in fair value of the derivative instrument was insignificant as per 31 December 2018.

### Impact of hedging on equity

Set out below is the reconciliation of each component of equity and the analysis of other comprehensive income:

In thousands of euros	Foreign currency translation reserve
<b>As at 1 January 2017</b>	<b>125</b>
Foreign currency revaluation of the net foreign operations <sup>(a)</sup>	(2,674)
<b>As at 1 January 2018</b>	<b>(2,549)</b>
Change in fair value of the hedging instrument	(85)
Foreign exchange forward point excluded from the hedge	(14)
Foreign currency revaluation of the net foreign operations	5,999
Tax effect	-
<b>AS AT 31 DECEMBER 2018</b>	<b>3,351</b>

(a) Hedging of net investment in foreign operations only started in 2018.

**NOTE 23 OTHER CURRENT FINANCIAL ASSETS**

<i>In thousands of euros</i>	2018	2017
Deposits > 3 months	14,160	-
<b>TOTAL</b>	<b>14,160</b>	<b>-</b>

The other current financial assets of the Group consist of short-term deposits with a maturity of more than three months.

**NOTE 24 CASH AND CASH EQUIVALENTS**

Cash and cash equivalents consist of the following:

<i>In thousands of euros</i>	2018	2017
Cash and bank balances	213,314	162,387
Short term investments	184,704	25,398
<b>TOTAL</b>	<b>398,018</b>	<b>187,785</b>

Short-term investments are presented as cash and cash equivalents if they have a maturity of three months or less from the date of acquisition and are repayable with 24 hours' notice with no loss of interest.

**NOTE 25 SHAREHOLDERS' EQUITY**

Under the Articles of Association, the Company's authorised share capital amounts to €200,000,001.60 and is divided into 125,000,000 Ordinary Shares and one Priority Share, each with a nominal value of €1.60 per share. All of Euronext's shares have been or will be created under Dutch law.

As of 31 December 2018, the Company's issued share capital amounts to €112,000,000 and is divided into 70,000,000 Ordinary Shares. The Priority Share is currently not outstanding. The fully paid ordinary shares carry one vote per share and rights to dividends, if declared. The Group's ability to declare dividends is limited to distributable reserves as defined by Dutch law.

Number of shares outstanding:

<i>(in numbers of shares)</i>	2018	2017
<b>Issued shares</b>	<b>70,000,000</b>	<b>70,000,000</b>
<b>Treasury shares</b>		
Treasury shares as at 1 January	(413,320)	(463,799)
Liquidity contract	417	30,691
Share buy back	(105,000)	(45,659)
From share-based payments vesting	131,884	65,447
<b>Treasury shares as at 31 December</b>	<b>(386,019)</b>	<b>(413,320)</b>
<b>OUTSTANDING AS AT 31 DECEMBER</b>	<b>69,613,981</b>	<b>69,586,680</b>

## 25.1 Reserve own shares

Treasury shares are accounted for at trade date and all held by Euronext N.V.

The movement on the line 'acquisitions of own shares' in the Consolidated Statement of Changes in Equity consists of the impact from transactions by the liquidity provider of €0.2 million, minus the impact from transactions under the share repurchase program for €6.0 million. Details of these movements are disclosed below at (i) and (ii).

### (i) Liquidity provider

Part of the movement in the reserve during the reporting period relates to the transactions in Euronext N.V. shares conducted by the liquidity provider on behalf of the Group under the liquidity contract established (€0.2 million in 2018).

The liquidity Agreement (the "Agreement") has been established in accordance with applicable rules, in particular the Regulation (EC) 2273/2003 of the European Commission of 22 December 2003

implementing the directive 2003/6/EC of the European Parliament and Council as regards exemptions for buyback programs and stabilisation of financial instruments, the provisions of article 2:95 of the Book II of Dutch Civil Code, the provisions of the General Regulation of the French Autorité des Marchés Financiers (the "AMF"), the decision of the AMF dated 21 March 2011 updating the Accepted Market Practice n° 2011-07 on liquidity agreements, the code of conduct issued by the French Association Française des Marchés Financiers (AMAFI) on 8<sup>th</sup> March 2011 and approved by the AMF by its aforementioned decision dated 21 March 2011 (the "AMAFI Code") and as the case maybe the relevant Dutch rules applicable to liquidity agreements in particular the regulation on Accepted Market Practices WFT (Regeling gebruikelijke marktpraktijken WFT) dated 4 May 2011 and section 2.6 of the Book II – General Rules for the Euronext Amsterdam Stock Market (the "Dutch Rules").

As at 31 December 2018 Euronext N.V. holds 21,889 shares under the program with a cost of €0.3 million (2017: 22,306 shares, with a cost of €0.5 million).

The movement schedule for the reported years are as follows:

### IN 2017

Transaction date <i>In euro</i>	Buy Euronext N.V. shares	Sell Euronext N.V. shares	Average share price	Total value transaction including commissions
<b>As at 31 December 2016</b>	<b>52,997</b>			<b>1,843,041</b>
Purchases January	40,132		€41.62	1,670,312
Sales January		50,802	€41.93	(2,130,039)
Purchases February	48,882		€40.73	1,990,988
Sales February		53,509	€40.83	(2,184,720)
Purchases March	31,558		€40.55	1,279,792
Sales March		32,677	€40.62	(1,327,439)
Purchases April	24,714		€42.79	1,057,423
Sales April		28,318	€42.92	(1,215,437)
Purchases May	49,451		€47.02	2,325,173
Sales May		66,413	€46.82	(3,109,212)
Purchases June	48,939		€46.39	2,270,157
Sales June		44,908	€46.47	(2,087,073)
Purchases July	35,276		€46.97	1,656,801
Sales July		39,055	€47.17	(1,842,238)
Purchases August	49,270		€48.66	2,397,318
Sales August		48,011	€48.78	(2,342,024)
Purchases September	19,395		€50.37	976,946
Sales September		29,415	€50.52	(1,486,158)
Purchases October	38,346		€52.27	2,004,455
Sales October		30,126	€52.37	(1,577,619)
Purchases November	70,903		€48.99	3,473,558
Sales November		68,850	€49.03	(3,375,474)
Purchases December	33,206		€51.42	1,707,508
Sales December		28,679	€51.48	(1,476,397)
<b>Total buy/sell</b>	<b>490,072</b>	<b>520,763</b>		<b>(1,343,401)</b>
<b>TOTAL AS AT 31 DECEMBER 2017</b>	<b>22,306</b>			<b>499,640</b>



## IN 2018

Transaction date <i>In euro</i>	Buy Euronext N.V. shares	Sell Euronext N.V. shares	Average share price	Total value transaction including commissions
<b>As at 31 December 2017</b>	<b>22,306</b>			<b>499,640</b>
Purchases January	52,254		€53.85	2,814,024
Sales January		52,201	€53.93	(2,814,964)
Purchases February	71,335		€53.93	3,846,741
Sales February		93,694	€53.99	(5,058,389)
Purchases March	54,291		€59.00	3,203,076
Sales March		52,291	€59.09	(3,089,814)
Purchases April	94,005		€59.18	5,562,842
Sales April		96,005	€59.32	(5,694,816)
Purchases May	121,301		€55.71	6,757,334
Sales May		121,301	€55.81	(6,769,425)
Purchases June	75,542		€56.53	4,270,329
Sales June		51,742	€56.50	(2,923,485)
Purchases July	58,952		€53.82	3,172,696
Sales July		70,252	€54.40	(3,822,006)
Purchases August	83,931		€54.45	4,569,869
Sales August		86,431	€54.17	(4,681,873)
Purchases September	46,324		€55.54	2,572,936
Sales September		50,824	€55.78	(2,834,968)
Purchases October	52,899		€54.69	2,893,140
Sales October		53,949	€55.20	(2,977,863)
Purchases November	86,994		€53.71	4,672,557
Sales November		53,944	€54.87	(2,959,753)
Purchases December	47,300		€49.25	2,329,738
Sales December		62,911	€50.95	(3,205,479)
<b>Total buy/sell</b>	<b>845,128</b>	<b>845,545</b>		<b>(167,554)</b>
<b>TOTAL AS AT 31 DECEMBER 2018</b>	<b>21,889</b>			<b>332,087</b>

## (ii) Share Repurchase Program

The Group has entered into a discretionary management agreement with a bank to repurchase Euronext shares within the limits of relevant laws and regulations (in particular EC Regulation 2273/2003) and the Group's Articles of Association to cover the Group's outstanding obligations resulting from employee shares

plans for 2014, 2015, 2016, 2017 and 2018. The share repurchase program aims to hedge price risk arising for granted employee share plans. In 2018 the Group repurchased 105,000 shares for a total consideration of €6.0 million. In 2017 the Group repurchased 45,659 shares for a total consideration of €2.3 million.

The movement schedule for the reported years are as follows:

## IN 2017

Transaction date <i>In euro</i>	Buy Euronext N.V. shares	Average share price	Total value transaction including commissions
<b>As at 31 December 2016</b>	<b>450,279</b>		<b>18,608,353</b>
Purchases September	42,959	€51.04	2,192,627
Purchases October	2,700	€50.69	136,863
<b>Total buy/sell</b>	<b>45,659</b>		<b>2,329,490</b>
<b>TOTAL AS AT 31 DECEMBER 2017</b>	<b>495,938</b>		<b>20,937,843</b>

### IN 2018

Transaction date <i>In euro</i>	Buy Euronext N.V. shares	Average share price	Total value transaction including commissions
<b>As at 31 December 2017</b>	<b>495,938</b>		<b>20,937,843</b>
Purchases June	105,000	€56.71	5,954,550
<b>Total buy/sell</b>	<b>105,000</b>		<b>5,954,550</b>
<b>TOTAL AS AT 31 DECEMBER 2018</b>	<b>600,938</b>		<b>26,892,392</b>

#### (iii) Share-based payments vesting

In 2018, the Group delivered 131,884 shares with a cost of €5.2 million to employees for whom share plans had (early) vested (2017: 65,447 shares with a cost of €2.6 million). This movement is disclosed on the line 'other' in the Consolidated Statement of Changes in Equity.

### 25.2 Legal reserve

Retained earnings are not freely available for distribution for an amount of €9.5 million relating to legal reserves (see Note 52).

### 25.3 Dividend

On 15 May 2018, the Annual General Meeting of shareholders voted for the adoption of the proposed €1.73 dividend per ordinary share. On 24 May 2018, a dividend of €120.4 million has been paid to the shareholders of Euronext N.V.

## NOTE 26 EARNINGS PER SHARE

### Basic

Earnings per share are computed by dividing profit attributable to the shareholders of the Company by the weighted average number of shares outstanding for the period. The number of weighted average shares used for the basic earnings per share calculation for year ended 31 December 2018 was 69,590,114 and 31 December 2017 was 69,580,344.

### Diluted

Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. The impact of share plans is determined by the number of shares that could have been acquired at fair value (determined as the average quarterly market price of Euronext's shares) based on the fair value (measured in accordance with IFRS 2) of any services to be supplied to Euronext in the future under these plans. The number of weighted average shares used for the diluted earnings per share calculation for the year ended 31 December 2018 was 69,860,310 and 31 December 2017 was 69,908,523.

## NOTE 27 SHARE-BASED PAYMENTS

### Euronext Long-Term Incentive Plan 2015 ("LTI Plan 2015")

The Restricted Stock Units ("RSUs") granted under LTI Plan 2015 fully cliff-vested in 2018.

### Euronext Long-Term Incentive Plans ("LTI Plan") 2016, 2017 and 2018

Directors and certain employees of the Group benefited from Restricted Stock Units ("RSUs") granted by Euronext N.V. under the LTI Plans on their applicable grant dates. RSUs granted under LTI Plans cliff-vest after 3 years, subject to continued employment and

a 'positive EBITDA' performance condition. These equity awards are measured by reference to the grant-date market price of Euronext's common share ("grant-date fair value").

In addition to these RSUs granted to all participants in the LTI Plans, Performance RSUs have been awarded to members of the Managing Board and Senior Leadership team. The vesting of these Performance RSUs is subject to two performance conditions:

- 50% of the performance RSUs vests subject to a Total Shareholder Return ("TSR") condition;
- 50% of the performance RSUs vests subject to an EBITDA-based performance condition.

The grant-date fair value of performance shares with a TSR performance condition was adjusted for the possible outcomes of this condition. This has been assessed by applying a Monte Carlo simulation to model possible share prices of Euronext and its peer companies. At the end of each reporting period, the number of vesting performance shares is reconsidered based on the Group's

EBITDA performance relative to budgeted EBITDA and the total cost for the performance RSUs could be adjusted accordingly. Grant-date fair value of RSUs granted under the LTI Plans 2016, 2017 and 2018 reflect the present value of expected dividends over the vesting period.

Movements in the number of shares granted as awards is as follows:

#### IN 2017

Plan	Year of grant	1 January 2017	Granted	Vested	Forfeited	31 December 2017	Fair value at grant date per share (in euro)
LTI, no performance	2014	188,223	-	(185,672)	(2,551)	-	€17.30
LTI, with performance	2015	48,315	-	-	(10,717)	37,598	€48.03
LTI, no performance	2015	77,982	-	-	(12,862)	65,120	€34.23
LTI, with performance	2016	119,019	-	-	(22,566)	96,453	€35.48
LTI, no performance	2016	35,725	-	-	-	35,725	€34.70
LTI, with performance	2017	-	88,468	-	(3,413)	85,055	€45.40
LTI, no performance	2017	-	40,713	-	-	40,713	€42.19
<b>TOTAL</b>		<b>469,264</b>	<b>129,181</b>	<b>(185,672)</b>	<b>(52,109)</b>	<b>360,664</b>	

#### IN 2018

Plan	Year of grant	1 January 2018	Granted	Vested	Forfeited	31 December 2018	Fair value at grant date per share (in euro)
LTI, with performance	2015	37,598	16,981	(45,886)	(8,693)	-	€48.03
LTI, no performance	2015	65,120	-	(54,669)	(10,451)	-	€34.23
LTI, with performance	2016	96,453	-	-	(20,101)	76,352	€35.48
LTI, no performance	2016	35,725	-	-	(5,743)	29,982	€34.70
LTI, with performance	2017	85,055	-	-	(13,721)	71,334	€45.40
LTI, no performance	2017	40,713	-	-	(4,157)	36,556	€42.19
LTI, with performance	2018	-	95,671	-	(7,487)	88,184	€56.55
LTI, no performance	2018	-	47,928	-	(985)	46,943	€49.64
<b>TOTAL</b>		<b>360,664</b>	<b>160,580</b>	<b>(100,555)</b>	<b>(71,338)</b>	<b>349,351</b>	

Euronext has taken into consideration the fact that the employees will not receive dividends during the vesting period of 3 years. The fair value has been adjusted taking into account the financials loss for the participants to not receive the payment of the dividends during the vesting period.

Share-based payment expenses recognised in the income statement for shares granted for all plans to directors and selected employees in 2018 amounted to €4.0 million (2017: €3.8 million), see Note 9.

## NOTE 28 BORROWINGS

<i>In thousands of euros</i>	2018	2017
<b>Non-current</b>		
Borrowings		
Bank Loan facility	-	165,000
Senior Unsecured note <sup>(a)</sup>	507,999	-
Bond discount and issue costs	(3,405)	(438)
Amortisation discount and issue costs	334	73
Other	12	47
<b>TOTAL</b>	<b>504,940</b>	<b>164,682</b>
<b>Current</b>		
Borrowings (accrued interest)	3,745	203
<b>TOTAL</b>	<b>3,745</b>	<b>203</b>

(a) The Senior Unsecured note is carried at amortised cost and adjusted for fair value movements due to the hedged interest rate risk (see Note 22).

On 18 April 2018, the Group issued a €500 million Bond ('Senior Unsecured note') to refinance its 2017 and 2018 acquisitions and diversify its financing mix. The Bond has a seven year maturity, with an annual coupon of 1%. On 18 April 2018 the Bond, rated "A" by Standard & Poor's rating agency, was listed on Euronext Dublin. The Bond issue included €2.9 million of Bond discount and €0.5 million of issue costs. These were capitalised and are amortised over the period of the Bond. Following receipt of the proceeds of the Bond issue, the Group repaid the €165.0 million Bank Loan facility and €173.0 million temporary drawings under the revolving credit facility in connection with the acquisition of the Irish Stock Exchange Plc in 2018.

The existing €250.0 million revolving credit facility ("RCF") agreement remained unchanged and matures on 12 April 2022, with a two times one year extension possibility. The revolving credit facility agreement

allows the Group to apply all amounts borrowed by it towards (i) general corporate and/or working capital purposes of the Group, (ii) satisfaction of the consideration payable for an acquisition and/or (iii) the payment of fees, costs and expense incurred in relation to an acquisition. The revolving credit facility bears an interest rate of EURIBOR plus a margin initially set at 0.25% based on the A rating. It should be noted that as at 31 December 2018, no advances have been drawn under the revolving credit facility.

Euronext is required to maintain compliance with a maximum leverage ratio if the credit rating would drop below BBB+. The maximum leverage ratio measures Euronext total gross debt to EBITDA (as such terms are defined in the Facilities Agreement). Euronext is required to maintain a leverage ratio of no more than 3.5x.

## NOTE 29 POST-EMPLOYMENT BENEFITS

The Group operates defined benefit pension plans for its employees, with the most significant plans being in France and Portugal. The group's plans are funded by contributions from the employees and the relevant Group entities, taking into account applicable government regulations and the recommendations of independent, qualified actuaries. The majority of plans have plan assets held in trusts, foundations or similar entities, governed by local regulations and practice in each country. The assets for these plans are generally held in separate trustee administered funds. The benefits provided to employees under these plans are based primarily on years of service and compensation levels. The French plans relate almost completely to retirement indemnities. French law stipulates that employees are paid retirement indemnities in form of lump sums on the basis of the length of service at the retirement date and the

amount is prescribed by collective bargaining agreements. The Portuguese plan is for both Euronext Lisbon and Interbolsa and is managed by CGD Pensoes – Sociedade Gestora de Fundos de Pensoes SA. The plan was defined benefit based on final pay. The funds covered payment of pensions to employees with a minimum of 5 year service. Annual contributions were based on actuarial calculations. In 2017, the Portuguese defined benefit plan was frozen and replaced by a new defined contribution plan, with an retroactive impact as from 1 January 2017. The old arrangement remains a defined benefit plan, and is disclosed as such in this Note. The one-off service costs related to the frozen defined benefit plan amounted to €1.6 million and were reflected in exceptional items in 2017 (see Note 12). Part of these one-off costs were the past service costs as disclosed in this Note.

The movement in the defined obligation over the years presented is as follows:

<i>In thousands of euros</i>	Present value of obligation	Fair value of plan assets	Total
<b>As at 31 December 2016</b>	<b>33,462</b>	<b>(20,213)</b>	<b>13,249</b>
<b>(Income) / expense:</b>			
Current service cost	636	-	636
Past service cost	1,396	-	1,396
Interest expense / (income)	618	(367)	251
	<b>2,650</b>	<b>(367)</b>	<b>2,283</b>
<b>Remeasurements:</b>			
■ Return on plan assets, excluding amounts included in interest expense / (income)	-	(641)	(641)
■ (Gain) / loss from change in financial assumptions	(2,186)	-	(2,186)
■ Experience (gains) / losses	(802)	-	(802)
	<b>(2,988)</b>	<b>(641)</b>	<b>(3,629)</b>
<b>Payments:</b>			
■ Employer contributions	(58)	(132)	(190)
■ Benefit payments	(140)	140	-
■ Settlement payments from plan assets	(50)	50	-
<b>As at 31 December 2017</b>	<b>32,876</b>	<b>(21,163)</b>	<b>11,713</b>
<b>(Income) / expense:</b>			
Current service cost	636	-	636
Interest expense / (income)	688	(448)	240
	<b>1,324</b>	<b>(448)</b>	<b>876</b>
<b>Remeasurements:</b>			
■ Return on plan assets, excluding amounts included in interest expense / (income)	-	1,457	1,457
■ (Gain) / loss from change in financial assumptions	(2,738)	-	(2,738)
■ Experience (gains) / losses	(396)	-	(396)
	<b>(3,134)</b>	<b>1,457</b>	<b>(1,677)</b>
<b>Payments:</b>			
■ Employer contributions	(9)	(237)	(246)
■ Benefit payments	(150)	150	-
■ Settlement payments from plan assets	(188)	188	-
<b>AS AT 31 DECEMBER 2018</b>	<b>30,719</b>	<b>(20,053)</b>	<b>10,666</b>

The defined benefit obligation and plan assets are composed by country as follows:

	2018			
<i>In thousands of euros</i>	Belgium	Portugal	France	Total
Present value of obligation	50	20,965	9,704	30,719
Fair value of plan assets	-	(16,515)	(3,538)	(20,053)
<b>TOTAL</b>	<b>50</b>	<b>4,450</b>	<b>6,166</b>	<b>10,666</b>



	2017			
<i>In thousands of euros</i>	Belgium	Portugal	France	Total
Present value of obligation	54	23,755	9,067	32,876
Fair value of plan assets	-	(17,720)	(3,443)	(21,163)
<b>TOTAL</b>	<b>54</b>	<b>6,035</b>	<b>5,624</b>	<b>11,713</b>

The significant actuarial assumptions were as follows:

	2018		
	Belgium	Portugal	France
Discount rate	0.8%	2.3%	1.9%
Salary growth rate	0.0%	1.5%	1.8%
Pension growth rate	0.0%	1.5%	0.0%

	2017		
	Belgium	Portugal	France
Discount rate	0.5%	2.2%	1.9%
Salary growth rate	0.0%	2.0%	1.8%
Pension growth rate	0.0%	2.0%	0.0%

The Group derives the discount rate used to determine the defined benefit obligation from yields on high quality corporate bonds of the duration corresponding to the liabilities.

As of 31 December 2018, the sensitivity of the defined benefit obligation to changes in the weighted principal assumptions were:

	Impact on defined benefit obligation		
	Change in assumption	Increase in assumption	Decrease in assumption
Discount rate	0.25%	-4.3%	4.6%
Salary growth rate	0.50%	2.2%	-2.0%
Pension growth rate	0.50%	3.8%	-3.6%

The pension plan assets allocation differs per plan. On a weighted average basis, the allocation was as follows:

	2018		2017	
	Fair value of plan assets <i>in thousands of euros</i>	Fair value of plan assets <i>in percent</i>	Fair value of plan assets <i>in thousands of euros</i>	Fair value of plan assets <i>in percent</i>
<b>Plan assets</b>				
Equity securities	5,419	27.1%	6,005	28.4%
Debt securities	12,200	60.8%	12,487	59.0%
Property	464	2.3%	648	3.1%
Investment funds	1,633	8.1%	1,694	8.0%
Cash	337	1.7%	329	1.5%
<b>TOTAL</b>	<b>20,053</b>	<b>100%</b>	<b>21,163</b>	<b>100%</b>

The maturity of expected benefit payments over the next ten years is as follows:

As at 31 December 2018	Less than a year	Between 1-2 year	Between 2-5 years	Between 5-10 years	Total
Pension benefits	247	842	1,418	5,434	7,941

The weighted average duration of the defined benefit obligation for retirement plans is nineteen years at 31 December 2018.

For 2018, the expected obligations contributions are approximately €0.2 million.

**NOTE 30 PROVISIONS***In thousands of euros*

	Restructuring	Building	Jubilee	Legal claims	Plan Agents	Others	Total
<b>Changes in provisions</b>							
<b>As at 1 January 2018</b>	<b>242</b>	<b>521</b>	<b>2,195</b>	<b>919</b>	<b>1,368</b>	<b>1,180</b>	<b>6,425</b>
Additional provisions charged to income statement	49	203	170	561	5	734	1,722
Used during the year	(177)	-	(72)	-	-	-	(249)
Unused amounts reversed	(33)	-	-	(24)	(75)	(372)	(504)
Other	(26)	-	-	-	-	-	(26)
Exchange differences	-	-	-	-	-	-	-
<b>AS AT 31 DECEMBER 2018</b>	<b>55</b>	<b>724</b>	<b>2,293</b>	<b>1,456</b>	<b>1,298</b>	<b>1,542</b>	<b>7,368</b>
<b>Composition of provisions</b>							
Current	55	724	-	155	-	440	1,374
Non Current	-	-	2,293	1,301	1,298	1,102	5,994
<b>TOTAL</b>	<b>55</b>	<b>724</b>	<b>2,293</b>	<b>1,456</b>	<b>1,298</b>	<b>1,542</b>	<b>7,368</b>

**Restructuring**

The restructuring provision relates to employee termination benefits that have an uncertain character. Due to usages, the French restructuring provision decreased in 2018.

**Building**

The increase in building provision fully relates to the Praetorium building in Paris.

**Jubilee**

The Jubilee provision increased, mainly due to the decrease in discount rates.

**Legal claims**

The legal claims provision relates to individual litigation settlement cases.

**Plan Agents**

The provision for Plan Agents relates to a retirement allowance for retired stockbrokers in Belgium, which is determined using actuarial assumptions. No cash outflows are expected for 2019.

**Others**

The increase in 'Others' provision was primarily due to the recognition of onerous maintenance contract costs that were recorded in exceptional items (see Note 12). The other item included in the yearend balance of Others provision relates to stamp duty tax on cash-pooling arrangements in Portugal.

**NOTE 31 TRADE AND OTHER PAYABLES***In thousands of euros*

	2018	2017
Trade payables	2,585	3,539
Social security and other taxes (excluding income tax)	22,659	21,290
Employees' entitlements and other payables <sup>(a)</sup>	44,200	40,315
Accrued expenses	45,888	28,772
Other	-	5,245
<b>TOTAL</b>	<b>115,332</b>	<b>99,161</b>

(a) Amounts include salaries payable, bonus accruals, severance (signed contracts) and vacation accruals.

On 1 January 2018, the deferred revenue balance previously recognised in the line 'Other' was reclassified to contract liabilities following the adoption of IFRS 15 (see Note 3).

The carrying values of current trade and other payables are reasonable approximations of their fair values. These balances do not bear interest.

**NOTE 32 CONTRACT LIABILITIES**

<i>In thousands of euros</i>	2018	2017
Listing admission fees	75,323	-
Bond lifetime fees	11,140	-
Other <sup>(a)</sup>	10,485	-
<b>TOTAL</b>	<b>96,948</b>	<b>-</b>
Current	55,487	-
Non Current	41,461	-
<b>TOTAL</b>	<b>96,948</b>	<b>-</b>

(a) Includes contract liabilities related to Indices licenses, software maintenance & hosting and corporate services.

The contract liabilities primarily relate to received consideration (or an amount of consideration is due) from customers for the initial (or subsequent) listing of equity securities and bond lifetime fees. Contract liabilities are recognised as revenue when the Group performs under the contract.

The significant changes in contract liabilities are disclosed in Note 8.2.

**NOTE 33 GEOGRAPHICAL INFORMATION**

<i>In thousands of euros</i>	France	Netherlands	United Kingdom	Belgium	Portugal	Ireland	United States	Sweden	Hong Kong	Total
<b>2018</b>										
Revenue from contracts with customers <sup>(a)</sup>	328,255	170,990	286	32,874	35,021	24,517	21,835	1,202	53	615,033
Property, plant and equipment	10,018	12,809	230	278	3,845	10,907	797	-	-	38,884
Intangible assets other than Goodwill <sup>(b)</sup>	1,563	45,264	178	-	1,054	24,116	42,438	65	-	114,678
<b>2017</b>										
Revenue <sup>(a)</sup>	309,617	150,751	266	28,229	36,138	-	7,239	-	54	532,294
Property, plant and equipment	8,715	12,898	81	300	5,245	-	543	-	-	27,782
Intangible assets other than Goodwill <sup>(b)</sup>	1,806	45,738	907	-	2,209	-	42,861	-	-	93,521

(a) Trading, listing and advanced data services revenue is attributed to the country where the exchange is domiciled. Other revenue is attributed to the billing entity.

(b) Goodwill is monitored at the Group level and therefore not allocated by country.

## NOTE 34 FINANCIAL INSTRUMENTS

### 34.1 Financial instruments by category

The financial instruments held by the Group are set out below. As explained in Note 3, the Group adopted IFRS 9 without restating comparative information. As a result, the comparative information follows the requirements of IAS 39.

In thousands of euros	As at 31 December 2018			
	Amortised cost	FVOCI equity instruments	FVPL	Total
<b>Financial assets</b>				
Financial assets at fair value through other comprehensive income	-	220,100	-	220,100
Financial assets at amortised cost	7,021	-	-	7,021
Trade and other receivables	101,082	-	-	101,082
Derivative financial instruments	-	-	7,361	7,361
Other current financial assets	14,160	-	-	14,160
Cash and cash equivalents	398,018	-	-	398,018
<b>TOTAL</b>	<b>520,281</b>	<b>220,100</b>	<b>7,361</b>	<b>747,742</b>
<b>Financial liabilities</b>				
Borrowings (non-current)	504,940	-	-	504,940
Other non-current financial liabilities <sup>(a)</sup>	-	-	17,400	17,400
Derivative financial instruments	-	-	85	85
Other current financial liabilities <sup>(b)</sup>	-	-	6,986	6,986
Trade and other payables	115,332	-	-	115,332
<b>TOTAL</b>	<b>620,272</b>	<b>-</b>	<b>24,471</b>	<b>644,743</b>

(a) Consists of (i) contingent consideration payable of €2.6 million and redemption liability of €10.2 million, both related to Company Webcast B.V., and (ii) contingent consideration payable of €4.6 million (including €0.4 million of revaluation) related to the acquisition of InsiderLog AB (see Note 5).

(b) Reflects the FastMatch Inc. contingent consideration payable including foreign exchange impacts after acquisition date.

In thousands of euros	As at 31 December 2017			
	Loans and receivables / payables	Available-for-sale	FVTPL	Total
<b>Financial assets</b>				
Available-for-sale financial assets	-	147,503	-	147,503
Trade and other receivables excluding prepayments	70,494	-	-	70,494
Cash and cash equivalents	187,785	-	-	187,785
<b>TOTAL</b>	<b>258,279</b>	<b>147,503</b>	<b>-</b>	<b>405,782</b>
<b>Financial liabilities</b>				
Borrowings (non-current)	164,682	-	-	164,682
Other non-current financial liabilities <sup>(a)</sup>	-	-	10,000	10,000
Other current financial liabilities <sup>(b)</sup>	-	-	6,654	6,654
Trade and other payables	99,161	-	-	99,161
<b>TOTAL</b>	<b>263,843</b>	<b>-</b>	<b>16,654</b>	<b>280,497</b>

(a) Consists of (i) contingent consideration payable of €1.8 million and redemption liability of €8.2 million, both related to Company Webcast B.V.

(b) Reflects the FastMatch Inc. contingent consideration payable including foreign exchange impacts after acquisition date.

The Group's exposure to various risks associated with the financial instruments is discussed in Note 36. The maximum exposure to credit risk at the end of the reporting period is the carrying amount of each class of financial assets mentioned above.

## 34.2 Recognised fair value measurement

### 34.2.1 Fair value hierarchy

The table below analyses financial instrument carried at fair value, by valuation method. The different levels have been defined as follows:

- Level 1: quoted prices in active markets for identical assets or liabilities;
- Level 2: inputs that are based on observable market data, directly or indirectly;
- Level 3: unobservable inputs.

<i>In thousands of euros</i>	Level 1	Level 2	Level 3
<b>As at 31 December 2018</b>			
<b>Assets</b>			
Financial assets at FVOCI			
Unlisted equity securities	-	31,684	188,416
Financial assets at FVPL			
Hedging derivatives – interest rate swaps	-	7,361	-
<b>TOTAL ASSETS</b>	<b>-</b>	<b>39,045</b>	<b>188,416</b>
<b>Liabilities</b>			
Financial liabilities at FVPL			
Hedging derivatives – foreign exchange forward contract – GBP	-	85	-
Contingent consideration payables	-	-	14,186
Redemption liability	-	-	10,200
<b>TOTAL LIABILITIES</b>	<b>-</b>	<b>85</b>	<b>24,386</b>
<b>As at 31 December 2017</b>			
<b>Assets</b>			
Available-for-sale financial assets			
Unlisted equity securities	-	-	147,503
<b>TOTAL ASSETS</b>	<b>-</b>	<b>-</b>	<b>147,503</b>
<b>Liabilities</b>			
Financial liabilities at FVPL			
Contingent consideration payables	-	-	8,454
Redemption liability	-	-	8,200
<b>TOTAL LIABILITIES</b>	<b>-</b>	<b>-</b>	<b>16,654</b>

The Group's policy is to recognise transfers into and transfers out of fair value hierarchy levels at the end of the reporting period. There were no transfers between the levels of fair value hierarchy in 2018 and 2017. The Group did not measure any financial assets or financial liabilities at fair value on a non-recurring basis as at 31 December 2018.

### 34.2.2 Fair value measurements using observable market data, directly or indirectly (level 2)

The fair value of the investment in unlisted equity securities in Oslo Børs VPS is based on the observable purchase price of NOK 145 per share, supported by recent prices of Oslo Børs VPS shares traded at the end of December 2018 and beginning of 2019.

The fair value of interest rate swaps is calculated as the present value of the estimated future net cash flows based on observable yield curves at the reporting date.



### 34.2.3 Fair value measurements using unobservable inputs (level 3)

The following table presents the changes in level 3 instruments for the period ended 31 December 2018:

<i>In thousands of euros</i>	Unlisted equity securities	Contingent consideration payables	Redemption liability	Total
<b>As at 31 December 2016</b>	<b>117,060</b>	-	-	<b>117,060</b>
Revaluation recognised in OCI	78,635	-	-	78,635
Gains/(losses) recognised in OCI	(40,534)	-	-	(40,534)
Disposals	(17,241)	-	-	(17,241)
Acquisitions / (incurrences)	9,583	(8,454)	(8,200)	(7,071)
<b>As at 31 December 2017</b>	<b>147,503</b>	<b>(8,454)</b>	<b>(8,200)</b>	<b>130,849</b>
Revaluations recognised in OCI	35,399	-	-	35,399
Revaluations recognised in P&L	-	(1,200)	(2,000)	(3,200)
Acquisitions / (incurrences)	5,514	(4,200)	-	1,314
Exchange differences	-	(332)	-	(332)
<b>As at 31 December 2018</b>	<b>188,416</b>	<b>(14,186)</b>	<b>(10,200)</b>	<b>164,030</b>

#### Valuation process

Concerning the valuation process for fair value measurement categorised within level 3 of the fair value hierarchy, the Group's central treasury department collects and validates the available level 3 inputs and performs the valuation according to the Group's valuation methodology for each reporting period. The fair value estimates are discussed with-, and challenged by the Group Financial Controller and the Chief Financial Officer. Periodically the values of investments categorized in "level 3" are validated by staff with extensive knowledge of the industry in which the invested companies operate. Although valuation techniques are applied consistently as a principle, Management, upon advice from the Group's valuation experts, may decide to replace a valuation technique if such a change would improve the quality or the reliability of the valuation process.

#### Unlisted equity securities in Euroclear plc and Sicovam Holding S.A.

For measuring fair value of its long-term investments in unlisted equity securities in Euroclear plc and Sicovam Holding S.A., the Group applies the Gordon valuation technique as its primary valuation method with return on equity and expected dividend growth rate as key non-observable parameters. In 2018, the Group considered also two observable transactions as part of fair value estimation of those investments. In addition, for measuring the fair value of Sicovam Holding S.A., the Group applied an illiquidity discount as an unobservable input for which a sensitivity impact of +10%/(-10%) would amount to a decrease or (increase) of €6.0 million in the fair value. More information on the investments is further disclosed in Note 19.

The key assumptions used in the Gordon valuation model were as follows:

#### 2018

<i>In thousands of euros</i>	Fair value at 31 December 2018	Unobservable inputs <sup>(a)</sup>	Range of inputs (probability-weighted average)	Relationship of unobservable inputs to fair value	
				Increase	decrease
Euroclear Plc	133,843	Return on equity	7.5% - 8.5% (8%)	5,914	(6,653)
		Expected dividend growth rate	1% - 2% (1.5%)		
Sicovam Holding S.A.	54,508	Return on equity	7.5% - 8.5% (8%)	2,214	(2,674)
		Expected dividend growth rate	1% - 2% (1.5%)		

(a) There were no significant inter-relationships between unobservable inputs that materially affect fair value.

## 2017

In thousands of euros	Fair value at 31 December 2017	Unobservable inputs <sup>(a)</sup>	Range of inputs (probability- weighted average)	Relationship of unobservable inputs to fair value	
				Increase	decrease
Euroclear Plc	96,159	Return on equity	7.9% - 8.9% (8.4%)		
		Expected dividend growth rate	0.83% - 1.83% (1.33%)	10,131	(6,321)
Sicovam Holding S.A.	41,696	Return on equity	7.9% - 8.9% (8.4%)		
		Expected dividend growth rate	0.83% - 1.83% (1.33%)	4,386	(2,374)

(a) There were no significant inter-relationships between unobservable inputs that materially affect fair value.

The sensitivity analysis shows the impact on fair value using the most favorable combination (increase), or least favorable combination (decrease) of the unobservable inputs per investment in unlisted equity securities.

#### Unlisted equity securities in Algomi Ltd.

The long-term investment in unlisted equity securities of Algomi Ltd. was acquired in 2017, for a consideration of €9.6 million (see Note 19). For the valuation of the long-term investment in unlisted equity securities of Algomi Ltd. the Group determined the purchase price to be best proxy for fair value as per 31 December 2017.

Algomi Ltd. decided to change its strategic course of direction in the second half of 2018 (see Note 2). The Group expects that this change in focus will have an adverse impact on Algomi Ltd's financial situation and considers this as new information leading to a change of its valuation technique for this investment.

Based on the companies' going-concern outlook, the Group considers the fair value of its investment in Algomi Ltd to be zero, and decided to revalue this investment downwards by €9.6 million accordingly, as per 31 December 2018.

#### Contingent consideration payables and redemption liability

The fair value of the contingent consideration payable of €2.6 million related to Company Webcast B.V. (including a revaluation of €0.8 million in 2018) was estimated based on a multiple of earnings and the average of actual 2016- and forecasted 2019 EBITDA. The fair value of the contingent consideration payable of €4.6 million related to InsiderLog AB (including a revaluation of €0.4 million in 2018) was estimated based on EBITDA multiple. The fair value of the contingent consideration payable of €7.0 million related to FastMatch Inc. was estimated based on EBITDA multiple. The fair value of the redemption liability of €10.2 million related to Company Webcast B.V. (including a revaluation of €2.0 million in 2018) was estimated based on a multiple of earnings and the forecasted 2019 EBITDA. Management considers the impact of changes of these unobservable inputs not material for the total level 3 portfolio.

#### 34.2.4 Fair values of other financial instruments

The Group also has a number of financial instruments which are not measured at fair value in the balance sheet. For these instruments the fair values approximate their carrying amounts.

## NOTE 35 RELATED PARTIES

### 35.1 Transactions with related parties

Euronext has related party relationships with its associates and joint ventures (as described in Note 7). Transactions with associates and joint ventures are generally conducted with terms equivalent

to arm's length transactions. Transactions between subsidiaries are not included in the description as these are eliminated in the Consolidated Financial Statements. The interests in Group Companies are set out in Note 4.

The transactions with related parties and outstanding year-end balances are reported in the tables below:

In thousands of euros	2018	2017
Sales to related parties	55,668	3
Purchases from related parties	30,208	9

*In thousands of euros*

	As at 31 December 2018	As at 31 December 2017
Receivables from related parties	3,172	2,809
Payables to related parties	-	113

## 35.2 Key management remuneration

The other related parties disclosure relates entirely to the key management of Euronext, being represented by the company's Managing Board and Supervisory Board.

The compensation expense recognised for key management is as follows:

<i>In thousands of euros</i>	2018		
	Managing Board	Supervisory Board	Total
Short term benefits	(4,601)	(642)	(5,243)
Share-based payment costs <sup>(a)</sup>	(1,374)	-	(1,374)
Post-employment benefits	(120)	-	(120)
Termination benefits	-	-	-
<b>TOTAL BENEFITS</b>	<b>(6,095)</b>	<b>(642)</b>	<b>(6,737)</b>

(a) Share based payments costs are recognised in accordance with IFRS 2.

<i>In thousands of euros</i>	2017		
	Managing Board	Supervisory Board	Total
Short term benefits	(4,302)	(529)	(4,831)
Share-based payment costs <sup>(a)</sup>	(1,511)	-	(1,511)
Post-employment benefits	(123)	-	(123)
Termination benefits	(218)	-	(218)
<b>TOTAL BENEFITS</b>	<b>(6,154)</b>	<b>(529)</b>	<b>(6,683)</b>

(a) Share based payments costs are recognised in accordance with IFRS 2.

## NOTE 36 FINANCIAL RISK MANAGEMENT

As a result of its operating and financing activities, the Group is exposed to market risks such as interest rate risk, currency risk and credit risk. The Group has implemented policies and procedures designed to measure, manage, monitor and report risk exposures, which are regularly reviewed by the appropriate management and supervisory bodies. The Group's central treasury team is charged with identifying risk exposures and monitoring and managing such risks on a daily basis. To the extent necessary and permitted by local regulation, the Group's subsidiaries centralise their cash

investments, report their risks and hedge their exposures in coordination with the Group's central treasury team. The Group performs sensitivity analyses to determine the effects that may result from market risk exposures. The Group uses derivative instruments solely to hedge financial risks related to its financial position or risks that are otherwise incurred in the normal course of its commercial activities. The Group does not use derivative instruments for speculative purposes.

### 36.1 Liquidity risk

The Group would be exposed to a liquidity risk in the case where its short-term liabilities become, at any date, higher than its cash, cash equivalents, short-term financial investments and available bank facilities and in the case where the Group is not able to refinance this liquidity deficit, for example, through new banking lines.

Cash, cash equivalents and short-term financial investments are managed as a global treasury portfolio invested in non-speculative

financial instruments, readily convertible to cash, such as bank balances, money market funds, overnight deposits, term deposits and other money market instruments, thus ensuring a very high liquidity of the financial assets. The Group's policy is to ensure that cash, cash equivalents and available bank facilities allow the Group to repay its financial liabilities at all maturities, even disregarding incoming cash flows generated by operational activities, excluding the related party loans granted by the Group's subsidiaries to its Parent.

The net position of current financial assets, financial liabilities and available credit facilities, excluding working capital items, as of 31 December, 2018 and 2017 is described in the table below:

<i>In thousands of euros</i>	2018	2017
Cash, cash equivalents and short term financial investments	398,018	187,785
Available credit facilities	250,000	250,000
Financial debt	(508,685)	(164,885)
<b>NET POSITION</b>	<b>139,333</b>	<b>272,900</b>

The movement in financial debt primarily relates to the issuing of a €500 million Bond ("Senior Unsecured note"), partly offset by the repayment of an existing syndicated bank loan facility ("the Bank Loan") of €165.0 million. Both transactions occurred in April

2018. Further details on the available credit facilities, the issued Bond and the repayment of the Bank Loan are provided in Note 28 "Borrowings". Further details on cash and cash equivalents and short term financial investments are provided in Notes 23 and 24.

The table below summarises the maturity profile of the Group's financial liabilities based on contractual undiscounted payments:

<i>In thousands of euros</i>	Maturity < 1 year	Maturity between 1 and 5 years	Maturity > 5 years	Total
<b>2018</b>				
Trade and other payables	115,332	-	-	115,332
Other current financial liabilities	6,986	-	-	6,986
Borrowings	5,000	20,000	510,000	535,000
Other non-current financial liabilities	-	17,400	-	17,400
<b>2017</b>				
Trade and other payables	99,161	-	-	99,161
Other current financial liabilities	6,654	-	-	6,654
Borrowings	753	166,165	-	166,918
Other non-current financial liabilities	-	10,000	-	10,000

### 36.2 Interest rate risk

Substantially all interest-bearing financial assets and liabilities of the Group are either based on floating rates or based on fixed rates with an interest term of less than one year, except for the €500 million fixed rate Bond which has a maturity of seven years. The Group entered into interest rate swap contracts in order to hedge

the interest rate risk inherent to the fixed rate Bond. As a result, the Group is not exposed to significant fair value risk affecting fixed-rate financial assets and liabilities. As at 31 December 2018, the Group had an aggregated notional of €500 million fixed-to-floating interest rate swaps outstanding in relation to the fair value hedge of the €500 million Bond.

As at 31 December, 2018 and 2017 the interest rate exposure of the Company was as follows:

Currency	Position in Euros		Positions in Pound Sterling		Positions in Dollar	
Type of rate and maturity <i>In thousands of euros</i>	Floating rate with maturity < 1 year	Floating rate with maturity > 1 year	Floating rate with maturity < 1 year	Floating rate with maturity > 1 year	Floating rate with maturity < 1 year	Floating rate with maturity > 1 year
<b>2018</b>						
Interest bearing financial assets <sup>(a)</sup>	238,777	6,000	13,043	-	12,793	-
Interest bearing financial liabilities	(126)	-	-	-	-	-
Net position before hedging	238,650	6,000	13,043	-	12,793	-
Net position after hedging	238,650	(494,000)	13,043	-	12,793	-
<b>2017</b>						
Interest bearing financial assets <sup>(a)</sup>	155,137	6,000	7,704	-	9,319	-
Interest bearing financial liabilities	(109)	(165,047)	-	-	-	-
Net position before hedging	155,028	(159,047)	7,704	-	9,319	-
Net position after hedging	155,028	(159,047)	7,704	-	9,319	-

Currency	Position in Euros		Positions in Pound Sterling		Positions in Dollar	
Type of rate and maturity <i>In thousands of euros</i>	Fixed rate with maturity < 1 year	Fixed rate with maturity > 1 year	Fixed rate with maturity < 1 year	Fixed rate with maturity > 1 year	Fixed rate with maturity < 1 year	Fixed rate with maturity > 1 year
<b>2018</b>						
Interest bearing financial assets <sup>(a)</sup>	135,888	-	5,568	-	13,471	-
Interest bearing financial liabilities	(3,704)	(504,940)	-	-	-	-
Net position before hedging	132,184	(504,940)	5,568	-	13,471	-
Net position after hedging	132,184	(4,940)	5,568	-	13,471	-
<b>2017</b>						
Interest bearing financial assets <sup>(a)</sup>	10,000	-	5,625	-	-	-
Interest bearing financial liabilities	(94)	365	-	-	-	-
Net position before hedging	9,906	365	5,625	-	-	-
Net position after hedging	9,906	365	5,625	-	-	-

<sup>(a)</sup> Includes cash and cash equivalents and non-current financial assets at amortised cost (2017: non-current other receivables).

The Group is exposed to cash-flow risk arising from net floating-rate positions. The Group was a net borrower in Euros at 31 December 2018 and a net lender as per 31 December 2017. The sensitivity of net interest income to a parallel shift in the interest curves is that a 0.5% increase/decrease of the rate would have resulted in an increase/decrease of net interest income of €1.3 million based on the positions at 31 December 2018 (2017: no material impact).

The Group was a net lender in Pound Sterling at 31 December, 2018 and 2017. The sensitivity of net interest income to a parallel shift in the interest curves is that a 0.5% increase/decrease of the rate would not have had a material impact on the net interest income based on the positions at 31 December, 2018 and 2017.

The Group was a net lender in US Dollar at 31 December, 2018 and 2017. The sensitivity of net interest income to a parallel shift in the interest curves is that a 0.5% increase/decrease of the rate would not have had a material impact on net interest income based on the positions at 31 December, 2018 and 2017.



### 36.3 Currency risk

#### Foreign currency translation risk:

The Group's net assets are exposed to the foreign currency risk arising from the translation of assets and liabilities of subsidiaries with functional currencies other than the euro. The following table summarises the assets and liabilities recorded in respectively GBP and USD functional currency and the related impact of a 10% in/decrease in the currency exchange rate on balance sheet:

<i>In thousands</i>	2018	2017
Assets	£46,911	£17,975
Liabilities	£(5,141)	£(3,310)
<b>Net currency position</b>	<b>£41,770</b>	<b>£14,665</b>
<b>ABSOLUTE IMPACT ON EQUITY OF 10% IN/DECREASE IN THE CURRENCY EXCHANGE RATE</b>	<b>€4,649</b>	<b>€1,650</b>

<i>In thousands</i>	2018	2017
Assets	\$196,579	\$182,147
Liabilities	\$(20,087)	\$(20,207)
<b>Net currency position</b>	<b>\$176,492</b>	<b>\$161,940</b>
<b>ABSOLUTE IMPACT ON EQUITY OF 10% IN/DECREASE IN THE CURRENCY EXCHANGE RATE</b>	<b>€15,411</b>	<b>€13,470</b>

Most operating revenue and expenses in the various subsidiaries of the Group are denominated in the functional currency of each relevant subsidiary. The Group's consolidated income statement is exposed to foreign currency risk arising from receivables and payables denominated in currencies different from the functional currency of the related entity.

The Group may use derivatives instruments designated as hedge of net investment or foreign denominated debt to manage its net investment exposures. The decision to hedge the exposure is considered on a case by case basis since the Group is generally exposed to major, well established and liquid currencies. The Group would, by the same token, hedge transaction risk arising from cash flows paid or received in a currency different from the functional currency of the group contracting entity on a case by case basis. As at 31 December 2018, the Group had a EUR/GBP foreign exchange contract with a notional amount of £26.7 million expiring in six months, which has been designated as a hedge of the net investment in the acquired subsidiary Commcise Software Ltd. (see Note 5).

### 36.4 Credit risk

The Group is exposed to credit risk in the event of a counterparty's default. The Group is exposed to credit risk from its operating activities (primarily trade receivables) and from its financing activities, including the investment of cash equivalents and short-term financial investments. The Group limits its exposure to credit risk by rigorously selecting the counterparties with which it executes agreements. Credit risk is monitored by using exposure limits depending on ratings assigned by rating agencies as well as the nature and maturity of transactions. Most customers of the Group are leading financial institutions that are highly rated. Investments of cash and cash equivalents in bank current accounts and money market instruments, such as short-term fixed and floating rate interest deposits, are strictly restricted by rules

aimed at reducing credit risk: maturity of deposits is lower than six months, counterparties' credit ratings are permanently monitored and individual counterparty limits are reviewed on a regular basis. In addition to the intrinsic creditworthiness of counterparties, the Group's policies also prescribe the diversification of counterparties (banks, financial institutions, funds) so as to avoid a concentration of risk. Derivatives are negotiated with leading high-grade banks.

#### 36.4.1 Impairment of financial assets

The Group's trade and contract receivables and other debt financial assets at amortised cost are subject to the expected credit loss model. While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, the identified impairment loss was considered immaterial.

#### Trade and contract receivables

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade and contract receivables.

To measure expected credit losses, trade and contract receivables have been grouped based on shared credit risk characteristics and the days past due. The historical loss rates are based on the payment profiles of the sales over a period of 24 months before reporting date and the corresponding historical credit losses experience within this period. The historical loss rates are adjusted to reflect current and forward-looking factors specific to the debtors and economic environment. Generally trade receivables are written-off if past due more than one year, or when there is no reasonable expectation of recovery. The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets disclosed in Note 20. The Group evaluates the concentration of credit risk with respect to trade and contract receivables as low, as most of its customers are leading financial institutions that are highly rated.

Set out below is the information about the credit risk exposure on the Group's trade and contract receivables using a provision matrix:

### 31 DECEMBER 2018

<i>In thousands of euros</i>	Contract Receivables	Trade receivables				Total
		Current	30-60 days past due	61-90 days past due	> 91 days past due	
Expected credit loss rate	0.41%	0.41%	1.32%	3.89%	17.40%	
Estimated total gross carrying amount at default	21,996	45,267	14,505	6,337	4,706	92,811
<b>EXPECTED CREDIT LOSS</b>	<b>91</b>	<b>185</b>	<b>192</b>	<b>246</b>	<b>819</b>	<b>1,533</b>

#### Other debt financial assets at amortised cost

The other debt financial assets at amortised cost consist of:

- non-current financial assets at amortised costs, which include two loans in the total amount of €6.0 million. The loans will mature on 1 December 2019 and 6 July 2020 respectively, and bear an interest rate of Euribor 6 months plus an average margin of 4.5%. In 2017, these loans were recognised as non-current other receivables;
- other current financial assets, which include short-term deposits with a maturity over three months.

All of the entity's other debt financial assets at amortised cost are considered to have low credit risk, as the issuers of the instruments have a low risk of default evidenced by their strong capacity to meet their contractual cash flow obligations in the near term. The loss allowance recognised during the period was therefore limited to 12 months expected credit losses. The Group did not recognise any material provision for expected credit losses on its other debt financial assets at amortised cost as per 31 December 2018. The amount of credit-impaired financial assets is considered not significant.

### 36.5 Equity Market risk

The Group's investment in publicly-traded equity securities on exchanges was insignificant in 2018 and 2017.

### 36.6 Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern, to comply with regulatory requirements and to maintain an optimal capital structure to reduce the cost of capital and provide return to shareholders.

Certain entities of the Group are regulated as exchanges or as Central Securities Depository ("CSD") and are subject to certain statutory regulatory requirements based on their local statutory Financial Statements. Euronext Amsterdam N.V. is subject to a minimum statutory capital requirement of €730 thousand, shall have a regulatory capital in the amount of 50% of the direct fixed cost of Euronext Amsterdam N.V. during the preceding financial year and in addition the cash and cash equivalents shall be higher than the required minimum regulatory capital to operate as an exchange in the Netherlands. As a Marker Operator, Euronext Dublin (also known as the Irish Stock Exchange Plc) shall at all time holds a minimum level of capital based on the Basic Capital Requirement and the Systematic Capital Add-on and maintain liquid financial assets at least equal to the sum these two amounts of required capital. Euronext London Ltd. shall maintain a minimum level of financial resources to be able to properly perform its exchange functions. Euronext Paris S.A. shall maintain statutory regulatory equity at no less than 50% of its yearly expenses and a solvency ratio on operational risks at no less than 8%. Euronext Lisbon S.A. and Interbolsa shall maintain minimum statutory share capital of €3.0 million and €2.75 million, respectively, and shall maintain minimum statutory equity of €6.0 million and €5.5 million, respectively. In addition, as a CSD, Interbolsa shall hold an amount of capital, including retained earnings and reserves, higher or equal to the sum of CSD'S capital requirements.

### 36.7 Changes in liabilities arising from financing activities

The changes in liabilities arising from the Group's financing activities in 2018 and 2017 were as follows:

#### CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

<i>In thousands of euros</i>	Borrowings due within 1 year	Borrowings due after 1 year	Total liabilities from financing activity
<b>As at 1 January 2017</b>	<b>95</b>	<b>69,005</b>	<b>69,100</b>
Cash flows	(712)	93,850	93,138
Accrued interest	820	-	820
Amortisation and transfer of issue costs	-	1,827	1,827
<b>As at 31 December 2017</b>	<b>203</b>	<b>164,682</b>	<b>164,885</b>
Cash flows	(643)	331,595	330,952
Fair Value adjustments	-	7,999	7,999
Accrued interest	4,185	-	4,185
Amortisation and transfer of issue costs	-	665	665
<b>AS AT 31 DECEMBER 2018</b>	<b>3,745</b>	<b>504,940</b>	<b>508,686</b>

### NOTE 37 CONTINGENCIES

The Group is involved in a number of legal proceedings that have arisen in the ordinary course of our business. Other than as discussed below, management does not expect these pending or threatening legal proceedings to have a significant effect on the Group's financial position or profitability. The outcome of legal proceedings, however, can be extremely difficult to predict and the final outcome may be materially different from managements' expectation.

#### Euronext Amsterdam Pension Fund

Approximately 120 retired and/or former Euronext Amsterdam employees, united in an association, served summons on Euronext Amsterdam on 3 April 2014. The claim is based on the fact that Euronext Amsterdam terminated its pension agreement with the pension fund Mercurius ("PMA") and transferred the pension of the current employees of Euronext Amsterdam to Delta Lloyd Asset Management ("Delta Lloyd"). The pension entitlements of the retired and/or former employees of Euronext Amsterdam have also been transferred by PMA to Delta Lloyd. The retired and/or former employees have been informed by PMA that the transfer of their entitlements to Delta Lloyd will result in a nominal pension entitlement without indexation in the future. The association claims that Euronext Amsterdam should guarantee the same pension entitlements of the retired Euronext Amsterdam employees under the same or similar conditions as those in the agreement between Euronext Amsterdam and PMA with the consideration that (i) the administration fee will be covered, (ii) the liability ratio will be covered and (iii) the loyalty and solidarity between retired and current employees is provided for. The amount will need to be calculated by an actuary.

After Euronext Amsterdam filed a statement of defence on 27 June 2014, the Subdistrict (Kanton) Division of the Court of Amsterdam on 11 July 2014 granted the retired and/or former employees of

Euronext Amsterdam a term until 8 August 2014 in order to file a rejoinder. On that date the counterparty was granted a postponement until 5 September 2014 for its statement of reply. Both parties have filed all documents and statements and an oral hearing took place on 11 June 2015. The judge asked both parties to explore a settlement and Euronext assessed the costs of potential out of court solutions. The Court has been informed that no arrangement on such settlement could be reached.

On 24 June 2016 the judge delivered a decision. The claim that Euronext Amsterdam should guarantee the same pension entitlements of the retired Euronext Amsterdam employees under the same or similar conditions as those in the agreement between Euronext Amsterdam and PMA is rejected. However, the judge did hold that there has been an attributable breach by Euronext Amsterdam in the performance of the pension agreements with the members of the association. Euronext Amsterdam is ordered to pay for damages resulting from the loss of indexation perspective incurred by the claimants other than the association. The association is not eligible to claim damages. The amount of the damages needs to be determined in a separate procedure (a "schadestaatprocedure"). Management believes that the decision is insufficiently motivated. On 21 September 2016, Euronext Amsterdam has filed for appeal against the decision. The grounds for appeal were filed on 6 December 2016. On 14 February 2017 claimants filed their responses and also filed for appeal against certain parts of the decision of 24 June 2016. Euronext Amsterdam has responded to the grounds for appeal raised by claimants on 25 April 2017. An oral hearing took place on 24 November 2017. A decision is expected on 14 May 2019. No provision has been booked in connection with this case.

## NOTE 38 COMMITMENTS

### 38.1 Capital commitments

As of 31 December, capital expenditures contracted but not yet incurred were as follows:

<i>In thousands of euros</i>	2018	2017
No later than one year	380	662
Later than 1 year and no later than 5 years	1,002	500
Later than 5 years	-	-
<b>TOTAL</b>	<b>1,382</b>	<b>1,162</b>

### 38.2 Non-cancellable operating leases

As of 31 December, minimum lease payments due under non-cancellable operating leases were as follows:

<i>In thousands of euros</i>	2018	2017
No later than one year	23,249	17,078
Later than 1 year and no later than 5 years	44,364	34,171
Later than 5 years	6,875	10,113
<b>TOTAL</b>	<b>74,488</b>	<b>61,362</b>

Expenses in 2018 for operating leases were €29.4 million (2017: €18.8 million).

### 38.3 Guarantees given

Euronext N.V. has a guarantee given in relation to its investment in joint venture Algonext Ltd. at an amount of \$0.9 million as per 31 December 2018.

### 38.4 Securities held as custodian

In Portugal, the Group acts as a National Central Securities Depository and manages the National Settlement Securities System, operated by Interbolsa.

As at 31 December 2018, the value of securities kept in custody by Interbolsa amounted to €337 billion (2017: €338 billion) based on the market value of shares and the nominal value of bonds. The procedures of this National Central Securities Depository are focused on the provision of notary services, central maintenance services and settlement securities services, according to the CSDR (Central Securities Depository Regulation). The settlement services, provided through T2S platform, have its risks mitigated mainly by early warning systems. The reconciliation procedures in place mitigate the major risks related to the registration of securities.

## NOTE 39 EVENTS AFTER THE REPORTING PERIOD

Contemplated acquisition of Oslo Børs VPS:

On 24 December 2018, Euronext announced it had approached the Board of Directors of Oslo Børs VPS Holding ASA ("Oslo Børs VPS") to seek its support for a €625m cash tender offer for all the outstanding shares of Oslo Børs VPS, the Norwegian Stock Exchange and national CSD operator, headquartered in Oslo. On 14 January 2019, Euronext published the offer document for its previously announced all-cash tender offer to acquire all issued and outstanding shares of Oslo Børs VPS for NOK 6.24 billion (€625m Based on an exchange rate of EUR 1.00 = NOK 9.97 as of December 23, 2018.). The offer document is available on Euronext's website, [www.euronext.com](http://www.euronext.com) <https://www.euronext.com/listview/investor-financial-events/862111>.

Following an invitation to consider an acquisition of shares in Oslo Børs VPS organized by a group of its shareholders, Euronext has already secured support for the offer from Oslo Børs VPS shareholders representing the majority of the total number of outstanding shares through irrevocable binding pre-commitments to tender shares in the context of the offer, and share purchases. These irrevocable undertakings remain valid regardless of any competing offer that has been or may be made in the context of this transaction until 31 August 2019. In addition, 22 shareholders decided on 11 February 2019 to strengthen their commitment to support Euronext's Offer by extending the deadline for their irrevocable pre-commitments to the end of December 2019. As of 1 April 2019, Euronext has secured 53.1% of the share capital

of Oslo Børs VPS through a combination of 8.1% of shares owned directly and 45.0% of shares committed to Euronext in the form of irrevocable pre-commitments and tendered shares.

The original offer price of NOK145 per share, i.e. NOK6.24 billion (€625m Based on an exchange rate of EUR 1.00 = NOK 9.97 as of December 23, 2018.) for all outstanding shares of Oslo Børs VPS, has been amended to NOK158 per share, i.e. NOK6.79 billion (€695 million 9.77 EUR/NOK FX rate as of 8 February 2019; before additional interest payment) on 11 February 2019, in order to demonstrate its willingness to share the benefits of this transaction with Oslo Børs VPS shareholders, the majority of whom supports Euronext's offer and to continue the dialogue with the minority of Oslo Børs VPS' shareholders who have not yet committed their shares for Euronext. The acceptance period of the tender offer commenced on 14 January 2019 and has been amended on 11 March 2019 and on 1 April 2019 so that Euronext will continue to receive and accept acceptances of the Offer up to 6 May 2019 at 18:00 Central European Time. Euronext has announced on 1 April 2019 that Tom Vidar Rygh, Senior Advisor at international private equity fund Nordic Capital and previous Chair and Member of the Board of Oslo Børs, has accepted to join the board of Oslo Børs VPS as an independent board member when the contemplated transaction is completed, subject to the usual regulatory approval. His strong profile and connection with the Norwegian ecosystem will support Euronext's growth ambitions in the Nordics. On 4 March 2019, Euronext noted that the Oslo Børs VPS Board of Directors has considered Euronext's increased offer announced on 11 February 2019 as equal to the updated Nasdaq offer from a purely financial point of view. Euronext also noted that, following Nasdaq's announced decision to match Euronext's offer, the Board of Directors has upheld its recommendation of Nasdaq as the preferred bidder in line with its commitment to do so under

any circumstances. Euronext reiterated that it has already secured a majority of the Oslo Børs VPS's shares, that its minimum ownership condition has therefore been fulfilled and that it will complete the transaction once regulatory clearance has been obtained, after the meeting of the other conditions stated below.

The offer is subject to fulfilment or waiver of certain conditions, including but not limited to minimum acceptance level of at least 50.01 % of Oslo Børs VPS outstanding shares (including shares already held by Euronext), condition which is already met, regulatory approvals, short confirmatory due diligence, a favourable vote from a majority of Euronext shareholders and completion of the transaction before 31 December 2019. On 1 April 2019, Euronext announced it has received the declaration of non objection from its College of Regulators for the contemplated acquisition of up to 100% of the capital of Oslo Børs VPS, meeting one of the condition precedents of its offer.

Euronext submitted its suitability application to Finanstilsynet concurrently to the launch of its Offer and has regular dialogue with all relevant parties. Euronext is authorised to operate regulated markets in Belgium, France, Ireland, the Netherlands, Portugal and the United Kingdom, and believes that its strategic ambition would preserve and strengthen the Norwegian financial market ecosystem.

Euronext is confident that the transaction can be completed during the course of Q2 2019 within the customary regulatory approval period in Norway according to applicable laws and regulations.

Euronext is determined to acquire Oslo Børs VPS and remains committed to a constructive and continuous dialogue with Oslo Børs VPS shareholders, Board and management as well as the wider Norwegian ecosystem. Euronext's Reference Shareholders have also confirmed their joint support to Euronext for this transaction.

## Authorisation of Consolidated Financial Statements

Amsterdam, 3 April 2019

### Supervisory Board

Dick Sluimers (*Chairman*)  
Ramon Fernandez  
Manuel Ferreira da Silva  
Jim Gollan  
Kerstin Günther  
Lieve Mostrey  
Franck Silvent  
Luc Keuleneer  
Padraic O'Connor

### Managing Board

Stéphane Boujnah (*CEO and Chairman*)  
Anthony Attia  
Maurice van Tilburg  
Vincent van Dessel  
Daryl Byrne  
Chris Toppie



## 6.7 Company Financial Statements for the year ended 31 December 2018

### COMPANY INCOME STATEMENT

<i>In thousands of euros</i>	Note	Year ended	
		31 December 2018	31 December 2017
<b>Net turnover</b>	41	-	-
Other operating expenses	42	(13,725)	(12,143)
<b>Total operating (loss)</b>		<b>(13,725)</b>	<b>(12,143)</b>
Income from equity investments	43	4,101	3,891
Other interest income and similar income	43	7,292	1,478
Interest expenses and similar charges	43	(2,427)	(4,695)
<b>Result before tax</b>		<b>(4,759)</b>	<b>(11,469)</b>
Tax	44	488	3,213
Share in result of participations	45	220,239	249,553
<b>NET RESULT FOR THE YEAR</b>		<b>215,968</b>	<b>241,297</b>

The above Company Income Statement should be read in conjunction with the accompanying notes.

## COMPANY BALANCE SHEET

(Before appropriation of profit)

<i>In thousands of euros</i>	Note	As at 31 December 2018	As at 31 December 2017
<b>Assets</b>			
<b>Fixed assets</b>			
Goodwill and other intangible assets		-	1,513
Investments in consolidated subsidiaries	45	1,202,896	1,251,109
Investments in associates and joint ventures	45	72,685	73,860
Related party loans	45	118,678	91,715
Financial assets at fair value through OCI	46	158,268	-
Available-for-sale financial assets	46	-	105,742
Other non-current financial and other assets	47	6,463	6,605
<b>Total financial fixed assets</b>		<b>1,558,990</b>	<b>1,530,544</b>
<b>Total fixed assets</b>		<b>1,558,990</b>	<b>1,530,544</b>
<b>Current assets</b>			
Trade and other receivables	48	99,178	42,200
Income tax receivable		18,542	20,102
Related party loans	49	46,446	34,974
<b>Total receivables</b>		<b>164,166</b>	<b>97,276</b>
Derivative financial instruments	50	7,361	-
Other current financial assets	51	9,860	-
<b>Total securities</b>		<b>17,221</b>	<b>-</b>
<b>Cash</b>		<b>16,755</b>	<b>2,866</b>
<b>Total current assets</b>		<b>198,142</b>	<b>100,142</b>
<b>TOTAL ASSETS</b>		<b>1,757,132</b>	<b>1,630,686</b>
<b>Shareholders' equity and liabilities</b>			
<b>Shareholders' equity</b>			
Issued capital		112,000	112,000
Share premium		107,562	107,562
Reserve for own shares		(17,816)	(17,269)
Retained earnings		329,842	249,931
Legal reserves and other		43,537	21,748
Profit for the year		215,968	241,297
<b>Total shareholders' equity</b>	52	<b>791,093</b>	<b>715,269</b>
<b>Long-term liabilities</b>			
Borrowings	53	504,928	164,635
Deferred tax liabilities		11,956	6,551
<b>Total long-term liabilities</b>		<b>516,884</b>	<b>171,186</b>
<b>Short-term liabilities</b>			
Borrowings	53	3,706	159
Related party borrowings	54	427,446	427,398
Derivative financial instruments	50	85	-
Trade and other payables	55	17,918	316,674
<b>Total short-term liabilities</b>		<b>449,155</b>	<b>744,231</b>
<b>TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES</b>		<b>1,757,132</b>	<b>1,630,686</b>

The above Company Balance Sheet should be read in conjunction with the accompanying notes.

## 6.8 Notes to the Company Financial Statements

### NOTE 40 BASIS OF PREPARATION

Euronext N.V. is a Dutch public company with limited liability (*naamloze vennootschap*) which has its registered office in Amsterdam under Chamber of Commerce number 60234520.

The company Financial Statements of Euronext N.V. (hereafter: the Company) have been prepared in accordance with Part 9, Book 2 of the Dutch Civil Code. In accordance with sub 8 of article 362, Book 2 of the Dutch Civil Code, the company's Financial Statements are prepared based on the accounting principles of recognition, measurement and determination of profit, as applied in the Consolidated Financial Statements. These principles also include the classification and presentation of financial instruments, being equity instruments or financial liabilities.

In case no other policies are mentioned, refer to the accounting policies as described in the accounting policies in the Consolidated Financial Statements of this annual report. For an appropriate interpretation, the Company Financial Statements of Euronext N.V. should be read in conjunction with the Consolidated Financial Statements.

#### Valuation of investments in consolidated subsidiaries

Investments in consolidated subsidiaries are presented at net asset value. Net asset value is based on the measurement of assets, provisions and liabilities and determination of profit based on the principles applied in the Consolidated Financial Statements.

If the valuation of an consolidated subsidiary based on the net asset value is negative, it will be stated at nil. If and insofar the Company can be held fully or partially liable for the debts of the consolidated subsidiary, or has the firm intention of enabling the consolidated subsidiary to settle its debts, a provision is recognised for this. In determining the value of consolidated subsidiaries with a negative equity, any non-current loans, issued to the consolidated subsidiary, that should be seen as part of the net investment are taken into account. Non-current loans are considered to be part of the net investment if these loans are not expected to be settled in the near future nor planned to be settled in the near future.

#### Implication of new and amended standards and interpretations

As disclosed in Note 3 of the Consolidated Financial Statements, a number of new standards and amendments became applicable for the first time for annual reporting periods commencing 1 January 2018. In general, IFRS 9 "Financial Instruments" and IFRS 15 "Revenue from Contracts with Customers" generate the most significant impacts.

In accordance with the transitional provision in IFRS 9 and IFRS 15, both standards were adopted without restating comparative information by the Company. For further information on the new standards please refer to Note 3 of the Consolidated Financial Statements. This note explains the impact of the adoption of IFRS 9 and IFRS 15 on the Company Financial Statements.

#### IFRS 15 "Revenue from Contracts with Customers"

As under previous standards, the Company invoices and receives market data revenues on behalf of its subsidiaries, which it subsequently recharges to its subsidiaries. The Company does not recognise a margin on the sales.

The adoption of IFRS 15 had no significant impact on the Company Financial Statements. The new standard did not lead to changes in timing of revenue recognition or determination of transaction prices of performance obligations. For more information on the performance obligations and timing of revenue recognition of Market Data revenues, reference is made to Note 3 of the Consolidated Financial Statements.

#### IFRS 9 "Financial Instruments"

The Company has not restated comparative information, which continues to be reported under IAS 39.

The nature of the impact and changes made to the Company Financial Statements as per 1 January 2018 are described below.

#### Classification and measurement

The classification and measurement requirements of IFRS 9 did not have a significant impact on the Company Financial Statements. The Company classified its trade and other receivables, other debt financial assets and equity investments in non-listed companies on the same basis as described in Note 3 of the Consolidated Financial Statements. The accounting for the Company's financial liabilities remains largely the same as it was under IAS 39.

Consequently upon the adoption of IFRS 9, the Company had the following required or elected reclassifications as at 1 January 2018:

	IFRS 9 measurement category			
		Fair Value through profit or loss	Amortised Cost	Fair Value through OCI
In thousands of euros				
IAS 39 measurement category				
Loans and receivables				
Non-current related party loans	91,715	-	91,715	-
Other non-current loans	6,000	-	6,000	-
Trade and other receivables	42,200	-	42,200	-
Current related party loans	34,974	-	34,974	-
Available-for-sale				
Unlisted equity investments	105,742	-	-	105,742
	-	-	174,889	105,742

### Impairment

The adoption of IFRS 9 has changed the Company's accounting for impairment losses for financial assets by replacing IAS 39's incurred loss approach with a forward-looking expected credit loss (ECL) approach. IFRS 9 requires the Company to recognise an allowance for ECLs for all debt instruments not held at fair value through profit or loss and contract assets.

As the identified impact on the existing loss allowance on transition to IFRS 9 was considered insignificant, the Company determined not to adjust the opening balance sheet as per 1 January 2018.

Consequently, the reconciliation of the ending impairment allowances in accordance with IAS 39 to the opening loss allowances determined in accordance with IFRS 9 was as follows:

	Allowance for impairment under IAS 39 as at 31 December 2017	Remeasurement	ECL under IFRS 9 as at 1 January 2018
<i>In thousands of euros</i>			
Loans and receivables under IAS 39/ Financial assets at amortised cost under IFRS 9	22	-	22

### Hedge accounting

The adoption of the hedge accounting requirements of IFRS 9 had no significant impact on the Company Financial Statements, as the Company did not apply hedge accounting prior to 1 January 2018. As

from adoption date, the Company will apply the new general hedge accounting model of IFRS 9.

## NOTE 41 NET TURNOVER

	2018	2017
<i>In thousands of euros</i>		
Market Data revenues	109,043	97,186
Recharge of Market Data revenues	(109,043)	(97,186)
<b>TOTAL</b>	<b>-</b>	<b>-</b>

Euronext N.V. receives market data revenues on behalf of its subsidiaries, which is subsequently recharged to these subsidiaries. Euronext N.V. does not charge its subsidiaries a fee for its role of

administering the sale of market data to third parties and as such does not recognise a margin on the sales.

**NOTE 42 OTHER OPERATING EXPENSES**

<i>In thousands of euros</i>	2018	2017
Systems and communications	(148)	(116)
Professional Services	(7,390)	(10,937)
Other expenses	(6,187)	(1,090)
<b>TOTAL</b>	<b>(13,725)</b>	<b>(12,143)</b>

In 2018, professional services expenses contained €2.1 million (2016: €4.6 million) of acquisition costs which qualify as exceptional item (see Note 12 of the Consolidated Financial Statements).

The increase in other expenses is primarily due to €3.0 million of items that relate to the revaluation of the investment in Algomi Ltd. and the impairment of the investment in joint venture Algonext Ltd. (see Note 2 of the Consolidated Financial Statements). As stated in Note 12 of the Consolidated Financial Statements, these items qualify as exceptional items and contain, among others, the impairment of Algomi exclusivity rights that were recognised as intangible assets for €1.5 million.

In addition, the increase in other expenses contains €1.8 of stamp duty taxes which were recognised at acquisition of the Irish Stock Exchange Plc. in 2018.

**Number of employees**

Euronext N.V. had no employees during 2018 and 2017. The remuneration of the Supervisory Board is included in other expenses.

**NOTE 43 FINANCIAL INCOME AND EXPENSES**

<i>In thousands of euros</i>	2018	2017
Income from equity investments	4,101	3,891
Interest and similar income	7,292	1,478
Interest and similar expenses	(6,788)	(2,695)
Exchange differences	4,361	(2,000)
<b>TOTAL</b>	<b>8,966</b>	<b>674</b>

The income from equity investments reflects the dividend received from Euroclear plc.

Interest and similar income was positively impacted by income from interest rate swaps of €3.5 million, as a result of the Group entering into interest rate swap agreements (see Note 22 of the Consolidated Financial Statements) and increased interest income on related party loans for €2.2 million in 2018.

Interest and similar expenses increased, following the Bond issued in April 2018 (see Note 28 of the Consolidated Financial Statements).

The increase in exchange differences related to foreign exchange impacts resulting from the revaluation of the \$110 million non-current related party loan with Euronext US Inc. (see Note 45).

**NOTE 44 TAX**

<i>In thousands of euros</i>	2018	2017
Result before tax	(4,759)	(11,469)
Corporate income tax current financial year	753	2,276
Corporate income tax previous financial years	(265)	937
<b>TOTAL</b>	<b>488</b>	<b>3,213</b>



In 2018, the effective tax rate mainly deviates from the applicable tax rate as a result of the non-deductible expenses recognised in 2017 becoming deductible as the contemplated 2017 acquisition was terminated. This resulted in the costs becoming tax deductible positively effecting the tax rate in 2018. The Netherlands have decreased the corporate income tax rate from 25% to 22.55% for 2020 and to 20.5% for 2021. Reference is made to Notes 15 and 18

of the Consolidated Financial Statements for more information on the tax rate changes.

In 2017, the effective tax rate mainly deviates from the applicable tax rate as a result of acquisition costs not being tax deductible in 2016, becoming tax deductible in 2017 as contemplated acquisition was not closed.

	2018	2017
Effective tax rate	10%	28%
Applicable tax rate	25%	25%

#### NOTE 45 INVESTMENTS IN CONSOLIDATED SUBSIDIARIES, ASSOCIATES, JOINT VENTURES AND NON-CURRENT RELATED PARTY LOANS

<i>In thousands of euros</i>	Investments in consolidated subsidiaries	Investments in associates and joint ventures	Related party loans	Total
<b>Net book amount as at 31 December 2016</b>	<b>1,040,796</b>	<b>14,638</b>	<b>0</b>	<b>1,055,434</b>
Investments	38,307	58,901	91,715	188,923
Redemption liability	(8,200)	-	-	(8,200)
Exchange differences	(2,534)	(140)	-	(2,674)
Share-based payments, subsidiaries	3,778	-	-	3,778
Actuarial gains/ losses IAS 19	3,374	-	-	3,374
Revaluation available-for-sale financial assets	10,301	-	-	10,301
Share in result of participations	249,092	461	-	249,553
Dividend received	(76,548)	-	-	(76,548)
Other	(7,257)	-	-	(7,257)
<b>Total movements in book value</b>	<b>210,313</b>	<b>59,222</b>	<b>91,715</b>	<b>361,250</b>
<b>NET BOOK AMOUNT AS AT 31 DECEMBER 2017</b>	<b>1,251,109</b>	<b>73,860</b>	<b>91,715</b>	<b>1,416,684</b>
Change in accounting policy	(50,297)	-	-	(50,297)
Investments	199,566	-	26,963	226,529
Capital contributions / (settlements)	(4,769)	853	-	(3,915)
Impairments in subsidiaries	(1,007)	-	-	(1,007)
Exchange differences	5,872	99	-	5,971
Share-based payments, subsidiaries	3,979	-	-	3,979
Actuarial gains/ losses IAS 19	1,610	-	-	1,610
Revaluation financial assets at FVOCI	13,981	-	-	13,981
Share in result of participations	217,482	2,757	-	220,239
Dividend received	(428,752)	(4,884)	-	(433,636)
Other	(5,878)	-	-	(5,878)
<b>Total movements in book value</b>	<b>(48,213)</b>	<b>(1,175)</b>	<b>26,963</b>	<b>(22,425)</b>
<b>NET BOOK AMOUNT AS AT 31 DECEMBER 2018</b>	<b>1,202,896</b>	<b>72,685</b>	<b>118,678</b>	<b>1,394,258</b>

**Investments in consolidated subsidiaries**

In 2018, Euronext N.V. acquired the interests in the Irish Stock Exchange Plc., Euronext UK Holdings Ltd. and Euronext US Inc. (representing the additional interest in FastMatch Inc.) for a total of €199.6 million. In 2017, Euronext N.V. acquired the interests in Euronext Corporate Services B.V. and Euronext US Inc. for a total of €38.3 million. For additional information on these acquired interests please refer to Notes 4 and 5 of the Consolidated Financial Statements.

**Investments in associates and joint ventures**

In 2018, Euronext N.V. impaired its investment in joint venture Algonext Ltd. (see Notes 2 and 7 of the Consolidated Financial Statements). In 2017, Euronext N.V. acquired interests in LiquidShare S.A. and LCH S.A. for a total of €58.9 million. For additional information on the interest in associates and joint ventures, see Notes 4 and 7 of the Consolidated Financial Statements.

**Amounts due from subsidiaries**

On 19 December 2018, Euronext N.V. entered into a loan agreement of £16.3 million with Euronext UK Holdings Ltd. to enable the acquisition of Commcise Software Ltd. The loan has a maturity of ten years and bears an interest rate of LIBOR UK 1 month plus 0.125%. The interest amount is received monthly and is recognised in Note 49.

In 2018, two new loan agreements were entered into with Euronext US Inc. at a total amount of \$5.2 million. Both loans have a maturity of ten years with a fixed interest rate of 3.25% and 3.84% respectively. In 2017, Euronext N.V. entered into a loan agreement of \$110 million with Euronext US Inc. to enable the acquisition of FastMatch Inc. The loan has a maturity of ten years with a fixed interest rate of 3.36%. The interest amounts of these loans are received annually and are recognised in Note 49.

**NOTE 46 FINANCIAL ASSETS AT FAIR VALUE THROUGH OCI (2017: AVAILABLE-FOR-SALE FINANCIAL ASSETS)**

The financial assets at fair value through OCI (2017: available-for-sale financial assets) of €158.3 million represent the direct investments in Euroclear plc., Oslo Børs VPS and Algomi Ltd. For additional information on these investments, reference is made to Note 19 of the Consolidated Financial Statements.

**NOTE 47 OTHER NON-CURRENT FINANCIAL AND OTHER ASSETS (2017: OTHER RECEIVABLES)**

The other non-current financial and other assets (2017: other receivables) primarily consist of two loans granted in the total amount of €6.0 million. For additional information of these positions and their credit exposure, reference is made to Note 36.4 of the Consolidated Financial Statements.

**NOTE 48 TRADE AND OTHER RECEIVABLES**

<i>In thousands of euros</i>	As at 31 December 2018	As at 31 December 2017
Trade receivables	15,240	11,382
Contract receivables <sup>(a)</sup>	8,511	-
Less provision for impairment of trade receivables (IAS 39)	-	(22)
Allowance for expected credit losses (IFRS 9)	(34)	-
<b>Trade and contract receivables net</b>	<b>23,717</b>	<b>11,360</b>
Related party receivables	71,616	20,089
Tax receivables (excluding income tax)	1,954	2,838
Prepayments and accrued income <sup>(a)</sup>	152	7,913
Other receivables	1,739	-
<b>TOTAL</b>	<b>99,178</b>	<b>42,200</b>

(a) Contract receivables were part of accrued income in the comparative period at the amount of €7.8 million.

Trade receivables are non-interest bearing and generally on terms of 30 to 90 days. Contract receivables represent amounts in respect of unbilled revenue, for which the Group has an unconditional right to consideration (i.e. only the passage of time is required before payment of the consideration is due).

The receipt of dividends from Euronext Paris S.A. changed the significant payable position with this subsidiary into a receivable

position of €63.2 million (2017: €10.0 million) as per 31 December 2018 (see also Note 55).

Other receivables relate to transactions in own shares by the liquidity provider, which were settled right after the reporting date.

The fair value of the receivables approximates the book value, due to their short-term character.

Set out below is the movement in the allowance for expected credit losses of trade and contract receivables:

<i>In thousands of euros</i>	2018	2017
<b>As at 1 January (calculated under IFRS 9)</b>	22	-
Provision for expected credit losses	12	-
Receivables written off during the year	-	-
<b>AT 31 DECEMBER</b>	<b>34</b>	-

The Company applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for its trade and contract receivables. Reference is made to Notes

3 and 36.4 of the Consolidated Financial Statements on the inputs used in establishing the provision matrix used to calculate the loss allowance provision.

Set out below is the information about the credit risk exposure on the Company's trade and contract receivables using a provision matrix:

<i>In thousands of euros</i>	Contract Receivables	Trade receivables				Total
		Current	30-60 days past due	61-90 days past due	> 91 days past due	
Expected credit loss rate	0.04%	0.04%	0.11%	0.49%	1.28%	
Estimated total gross carrying amount at default	8,511	9,069	3,387	1,553	1,231	23,751
<b>EXPECTED CREDIT LOSS</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>8</b>	<b>16</b>	<b>34</b>

### Prior year information

In 2017, the provision for impairment of trade receivables was calculated under IAS 39. As of 31 December 2017, the total amount of trade receivables that were past due but not impaired

was €3.2 million (2016: €2.2 million) of which €0.3 million (2016: €0.7 million) was overdue more than three months.

## NOTE 49 CURRENT RELATED PARTY LOANS

<i>In thousands of euros</i>	As at 1 January 2018	Loans advanced	Interest accrued	As at 31 December 2018
<b>Current</b>				
Euronext Corporate Services B.V.	33,784	8,058	-	41,842
Interest receivable on non current intercompany loans	1,180	-	3,407	4,587
Interest receivable on current intercompany loans	10	-	8	17
<b>TOTAL</b>	<b>34,974</b>	<b>8,058</b>	<b>3,415</b>	<b>46,446</b>

*In thousands of euros*

	As at 1 January 2017	Loans advanced	Interest accrued	As at 31 December 2017
<b>Current</b>				
Euronext Corporate Services B.V.	-	33,784	-	33,784
Interest receivable on non current intercompany loans	-	-	1,180	1,180
Interest receivable on current intercompany loans	-	-	10	10
<b>TOTAL</b>	<b>-</b>	<b>33,784</b>	<b>1,190</b>	<b>34,974</b>

The fair value of the related party loans receivable approximate their carrying values.

The €41.8 million loan receivable from Euronext Corporate Services B.V. has no maturity and is repayable at lender's or borrower's

request upon 48 hours' notice. The interest amount is paid, received and based on EONIA OIS and EURIBOR 3 months as reference rates plus 0.125%.

## NOTE 50 DERIVATIVE FINANCIAL INSTRUMENTS

The derivative financial instruments recognised by the Company are resulting from hedging activities, which are further disclosed in Note 22 of the Consolidated Financial Statements.

## NOTE 51 OTHER CURRENT FINANCIAL ASSETS

The other current financial assets consist of short-term deposits with a maturity of more than three months. Reference is made to Notes 23 and 34 of the Consolidated Financial Statements for more

information on the other current financial assets. For additional information on the credit exposure of these positions, reference is made to Note 36.4 of the Consolidated Financial Statements.

## NOTE 52 SHAREHOLDERS' EQUITY

The movements in shareholder's equity were as follows:

In thousands of euros	Issued capital	Share premium	Reserve for own shares	Retained earnings	Profit for the year	Legal reserves and other			Total
						Non-distributable profits and other gains regarding subsidiaries	Revaluation reserve	Reserve for translation differences	
<b>As at 31 December 2016</b>	<b>112 000</b>	<b>107 562</b>	<b>(18 883)</b>	<b>124 790</b>	<b>197 013</b>	<b>23 652</b>	<b>3 345</b>	<b>(1 461)</b>	<b>548 018</b>
Share based payments	-	-	-	3 778	-	-	-	-	3 778
Appropriation of the result of preceding year	-	-	-	98 204	(197 013)	-	-	-	(98 809)
Net result for the period	-	-	-	-	241 297	-	-	-	241 297
Redemption liability subsidiaries	-	-	-	(8 200)	-	-	-	-	(8 200)
Transfers within equity	-	-	-	22 513	-	(22 513)	-	-	-
Exchange rate differences	-	-	-	-	-	-	-	(2 674)	(2 674)
Revaluation subsidiaries	-	-	-	13 675	-	-	-	-	13 675
Other revaluations	-	-	-	-	-	-	21 399	-	21 399
Purchase of shares	-	-	(986)	-	-	-	-	-	(986)
Other movements	-	-	2 600	(4 829)	-	-	-	-	(2 229)
<b>As at 31 December 2017</b>	<b>112 000</b>	<b>107 562</b>	<b>(17 269)</b>	<b>249 931</b>	<b>241 297</b>	<b>1 139</b>	<b>24 744</b>	<b>(4 135)</b>	<b>715 269</b>
Change in accounting policy subsidiaries	-	-	-	(50 297)	-	-	-	-	(50 297)
Share based payments	-	-	-	3 979	-	-	-	-	3 979
Appropriation of the result of preceding year	-	-	-	120 856	(241 297)	-	-	-	(120 441)
Net result for the period	-	-	-	-	215 968	-	-	-	215 968
Transfers within equity	-	-	-	(8 402)	-	8 402	-	-	-
Exchange rate differences	-	-	-	-	-	-	-	5 900	5 900
Revaluation subsidiaries	-	-	-	15 591	-	-	-	-	15 591
Other revaluations	-	-	-	-	-	-	15 889	-	15 889
Acquisition of NCI subsidiaries	-	-	-	(3 575)	-	-	-	-	(3 575)
Purchase of shares	-	-	(5 787)	-	-	-	-	-	(5 787)
Other movements	-	-	5 240	(6 644)	-	-	-	-	(1 404)
<b>AS AT 31 DECEMBER 2018</b>	<b>112 000</b>	<b>107 562</b>	<b>(17 816)</b>	<b>321 440</b>	<b>215 968</b>	<b>9 541</b>	<b>40 633</b>	<b>1 765</b>	<b>791 093</b>

For further information to the shareholder's equity, see Note 25 of the Consolidated Financial Statements.

The movements in the shareholder's equity are before the proposed profit appropriation (see Note 53). The proposed profit appropriation includes the addition to retained earnings (€99.6 million), legal reserves (€8.4 million) and dividends (€108.0 million).

#### Non-distributable profits and other gains regarding subsidiaries

As per 31 December 2018, profits and other gains from subsidiaries are not freely available for distribution for an amount of €9.5 million relating to legal reserves (2017: €1.1 million). In 2018, the increase in the reserve related to new distribution restrictions applicable to Euronext Paris. In 2017, an amount of €22.5 million was transferred to retained earnings, because distribution restrictions that were remaining from the preceding years were lifted for Euronext Paris.



**Revaluation reserve**

The revaluation reserve is maintained for the revaluation for the financial assets at FVOCI (2017: available-for-sale financial assets), net of tax. This reserve is a non-distributable legal reserve.

**Reserve for translation differences**

The reserve for translation differences concerns all exchange rate differences arising from the translation of the net investment in foreign entities and the related goodwill. This reserve is a non-distributable legal reserve.

**NOTE 53 BORROWINGS**

For additional information on the borrowings positions, a reference is made to Note 28 of the Consolidated Financial Statements.

**NOTE 54 RELATED PARTY BORROWINGS**

<i>In thousands of euros</i>	As at 1 January 2018	Loan settlements made	Loans advanced	Interest accrued/ (paid)	As at 31 December 2018
<b>Current</b>					
Euronext Paris S.A.	257,639	-	-	-	257,639
Euronext IP & IT Holding B.V.	84,686	-	-	-	84,686
Euronext Amsterdam N.V.	25,000	-	-	-	25,000
Euronext Brussels S.A./N.V.	60,000	-	-	-	60,000
Interest payable on intercompany loan	73	-	-	48	121
<b>TOTAL</b>	<b>427,398</b>	<b>-</b>	<b>-</b>	<b>48</b>	<b>427,446</b>

<i>In thousands of euros</i>	As at 1 January 2017	Loan settlements made	Loans advanced	Interest accrued/ (paid)	As at 31 December 2017
<b>Current</b>					
Euronext Paris S.A.	200,000	-	57,639	-	257,639
Euronext Technologies Holding S.A.S.	84,686	-	-	-	84,686
Euronext Amsterdam N.V.	25,000	-	-	-	25,000
Euronext Brussels S.A./N.V.	60,000	-	-	-	60,000
Interest payable on intercompany loan	74	-	-	(1)	73
<b>TOTAL</b>	<b>369,760</b>	<b>-</b>	<b>57,639</b>	<b>(1)</b>	<b>427,398</b>

The fair value of the related party loans payable approximate their carrying values.

The €257.6 million loan payable to Euronext Paris S.A. has no maturity and is repayable at lender's or borrower's request upon 48 hours' notice. The interest is EONIA OIS plus 0.125% payable annually on one loan. The sensitivity of the related party loan payables to changes in the EONIA interest rate is that a 0.5% increase/decrease of the interest rate will result in an increase/decrease of the interest income by €1.3 million (2017: €1.3 million).

The €84.7 million loan payable to Euronext IP & IT Holding B.V. has no maturity and is repayable at lender's or borrower's request upon 48 hours' notice. The interest is Euribor 3 months plus 0.125% payable annually on two loans. The sensitivity of the related party loan payables to changes in the Euribor interest rate is that a 0.5% increase/decrease of the interest rate will result in an increase/decrease of the interest income by €0.4 million (2017: €0.4 million). These loans were previously held by Euronext Technologies Holding S.A.S. This subsidiary merged with Euronext Technologies S.A.S. in December 2018.

The €25.0 million loan payable to Euronext Amsterdam N.V. has no maturity and is repayable at lender's or borrower's request upon 48 hours' notice. The interest is EONIA plus 0.125% payable annually on one loan. The sensitivity of the related party loan payables to changes in the EONIA interest rate is that a 0.5% increase/decrease of the interest rate will result in an increase/decrease of the interest income by €0.1 million (2017: €0.1 million).

The €60.0 million loan payable to Euronext Brussels S.A./N.V. has no maturity and is repayable at lender's or borrower's request upon 48 hours' notice. The interest is Euribor 3 months plus 0.125% payable annually on one loan. The sensitivity of the related party loan payables to changes in the EONIA interest rate is that a 0.5% increase/decrease of the interest rate will result in an increase/decrease of the interest income by €0.3 million (2017: €0.3 million).

## NOTE 55 TRADE AND OTHER PAYABLES

<i>In thousands of euros</i>	As at 31 December 2018	As at 31 December 2017
Trade payables	181	510
Amounts due to subsidiaries	12,658	308,018
Other	5,079	8,146
<b>TOTAL</b>	<b>17,918</b>	<b>316,674</b>

The amounts due to subsidiaries in the comparative period contained a €298.9 million payable position with Euronext Paris S.A., which changed to a receivable position following dividends received from Euronext Paris S.A. in 2018 (see Note 48).

The carrying values of current trade and other payables are reasonable approximations of their fair values. These balances do not bear interest.

**NOTE 56 MANAGING BOARD AND SUPERVISORY BOARD REMUNERATION****56.1 Managing Board remuneration**

<i>In thousands of euros</i>	2018					
	Fixed Benefits	Variable Benefits	Share-based payment costs	Post-employment benefits	Termination payments	Total Benefits
Stéphane Boujnah	776	1 015	533	-	-	2 324
Anthony Attia	357	270	353	-	-	980
Vincent van Dessel	356	110	182	35	-	682
Maurice van Tilburg	329	190	281	17	-	816
Chris Topple <sup>(a)</sup>	78	356	19	5	-	459
Daryl Byrne <sup>(b)</sup>	58	100	6	7	-	171
Paulo Rodrigues da Silva <sup>(c)</sup>	280	140	-	35	-	455
Deirdre Somers <sup>(d)</sup>	86	-	-	13	-	99
Lee Hodgkinson <sup>(e)</sup>	101	-	-	9	-	110
<b>TOTAL</b>	<b>2 420</b>	<b>2 181</b>	<b>1 374</b>	<b>120</b>	<b>-</b>	<b>6 095</b>

<i>In thousands of euros</i>	2017					
	Fixed Benefits	Variable Benefits	Share-based payment costs	Post-employment benefits	Termination payments	Total Benefits
Stéphane Boujnah	776	816	291	-	-	1,883
Anthony Attia	356	265	258	-	-	879
Jos Dijsselhof <sup>(f)</sup>	265	-	311	10	204	790
Lee Hodgkinson	384	137	421	28	-	970
Vincent van Dessel	298	110	157	34	-	599
Maurice van Tilburg	325	190	72	17	-	604
Paulo Rodrigues da Silva <sup>(g)</sup>	201	138	-	29	-	368
Maria João Carioca <sup>(h)</sup>	41	-	1	5	14	61
<b>TOTAL</b>	<b>2,646</b>	<b>1,656</b>	<b>1,511</b>	<b>123</b>	<b>218</b>	<b>6,154</b>

(a) Chris Topple was formally appointed to the Managing Board with effect from 24 October 2018.

(b) Daryl Byrne was formally appointed to the Managing Board with effect from 24 October 2018.

(c) With effect from 31 December 2018, Paulo Rodrigues da Silva resigned from the Managing Board.

(d) Deirdre Somers was formally appointed to the Managing Board with effect from 6 June 2018. On 19 September 2018 she resigned from the Managing Board.

(e) On 19 March 2018, Lee Hodgkinson resigned from the Managing Board.

(f) Jos Dijsselhof resigned from the Managing Board on 30 June 2017.

(g) Paulo Rodrigues da Silva was formally appointed to the Managing Board at the Annual General Meeting on 19 May 2017.

(h) On 1 March 2017, Maria João Carioca resigned from the Managing Board.

The Company has not granted any loans, advanced payments and guarantees to the members of the Managing Board and Supervisory Board.

The fixed compensation components consist of base salary and other benefits in kind like company car and health care insurance, if applicable. These components are linked to the overall job responsibilities of the individual Managing Board member and reflect internal consistency.

The variable salary consists of an annual performance compensation component as a percentage of base salary. The percentages are target percentages of the annual base salary, which are only payable if all objectives are met. Performance criteria are set and reviewed on an annual basis by the Remuneration Committee and the Supervisory Board. For 2018 all bonus targets have been met by the Managing Board.

## 56.2 Euronext Share plans

2018

<i>in number of RSU</i>	Plan	Year of Granting	Outstanding as at 1 January 2018	Granted	Forfeited	Vested	Outstanding as at 31 December 2018
Stéphane Boujnah	LTI	2016	18,518	-	-	-	18,518
	LTI	2017	15,469	-	-	-	15,469
	LTI	2018	-	14,798	-	-	14,798
Anthony Attia	LTI	2015	6,028	3,541	-	(9,569)	-
	LTI	2016	5,747	-	-	-	5,747
	LTI	2017	4,801	-	-	-	4,801
	LTI	2018	-	4,035	-	-	4,035
Lee Hodgkinson	LTI	2015	8,693	-	(8,693)	-	-
	LTI	2016	9,886	-	(9,886)	-	-
	LTI	2017	6,042	-	(6,042)	-	-
Vincent van Dessel	LTI	2015	3,530	2,074	-	(5,604)	-
	LTI	2016	3,381	-	-	-	3,381
	LTI	2017	2,856	-	-	-	2,856
	LTI	2018	-	2,472	-	-	2,472
Maurice van Tilburg	LTI	2015	4,421	2,597	-	(7,018)	-
	LTI	2016	5,172	-	-	-	5,172
	LTI	2017	4,320	-	-	-	4,320
	LTI	2018	-	3,632	-	-	3,632
Paulo Rodrigues da Silva	LTI	2017	-	-	-	-	-
	LTI	2018	-	2,062	(2,062)	-	-
Chris Topple	LTI	2018	-	13,760	-	-	13,760
Daryl Byrne	LTI	2018	-	717	-	-	717
Deirdre Somers	LTI	2018	-	3,632	(3,632)	-	-

## 2017

<i>in number of RSU</i>	Plan	Year of Granting	Outstanding as at 1 January 2017	Granted	Forfeited	Vested	Outstanding as at 31 December 2017
Stéphane Boujnah	LTI	2016	18,518	-	-	-	18,518
	LTI	2017	-	15,469	-	-	15,469
Anthony Attia	LTI	2014	18,367	-	-	(18,367)	-
	LTI	2015	6,028	-	-	-	6,028
	LTI	2016	5,747	-	-	-	5,747
	LTI	2017	-	4,801	-	-	4,801
Jos Dijsselhof	LTI	2014	24,490	-	-	(24,490)	-
	LTI	2015	8,038	-	(8,038)	-	-
	LTI	2016	9,159	-	(9,159)	-	-
Lee Hodgkinson	LTI	2014	19,765	-	-	(19,765)	-
	LTI	2015	8,693	-	-	-	8,693
	LTI	2016	9,886	-	-	-	9,886
	LTI	2017	-	6,042	-	-	6,042
Vincent van Dessel	LTI	2014	6,723	-	-	(6,723)	-
	LTI	2015	3,530	-	-	-	3,530
	LTI	2016	3,381	-	-	-	3,381
	LTI	2017	-	2,856	-	-	2,856
Maurice van Tilburg	LTI	2014	5,102	-	-	(5,102)	-
	LTI	2015	4,421	-	-	-	4,421
	LTI	2016	5,172	-	-	-	5,172
	LTI	2017	-	4,320	-	-	4,320
Paulo Rodrigues da Silva	LTI	2017	-	-	-	-	-
Maria João Carioca	LTI	2016	2,937	-	(2,937)	-	-

For additional information on the value of awards granted to the Managing Board reference is made to Note 27 of the Consolidated Financial Statements.



## 56.3 Supervisory Board Remuneration

<i>In thousands of euros</i>	2018	2017
Dick Sluimers	113	81
Ramon Fernandez	70	61
Manuel Ferreira da Silva	72	67
Jim Gollan	106	99
Kerstin Günther	66	58
Lieve Mostrey	-	-
Franck Silvent	64	9
Luc Keuleneer	50	-
Padraic O'Connor	42	-
Rijnhard van Tets	36	93
Koenraad Dom	23	61
Dominique Aubernon	-	-
Arnoud de Pret	-	-
Jan-Michel Hessels	-	-
Andre Bergen	-	-
Philippe Oddo	-	-
<b>TOTAL</b>	<b>642</b>	<b>529</b>

Immediately after the AGM held on 15 May 2018, Rijnhard van Tets (former Chairman) and Koenraad Dom stepped down from the Supervisory Board. The Supervisory Board elected Dick Sluimers as its next Chairman. At the same meeting, Luc Keuleneer and Padraic O'Connor were appointed as new members of the Supervisory Board. Their appointments took effect on 6 June 2018.

During the comparative period, Dominique Aubernon retired immediately after the Extraordinary General Meeting that was held on 19 October 2017. Franck Silvent was appointed on 19 October 2017 subject to regulatory approval. His appointment became effective on 3 November 2017, the date on which the regulatory approval was granted.

## NOTE 57 AUDIT FEES

<i>In thousands of euros</i>	EY Accountants 2018	EY Accountants 2017
Audit services – group and statutory	1,340	1,018
Other assurance services	218	125
Tax services	-	-
Other non-audit services	-	-
<b>TOTAL</b>	<b>1,558</b>	<b>1,143</b>

The audit services relate to the financial year to which the Financial Statements relate, regardless of whether the activities were performed by the external auditor and the audit firm during the financial year. In addition to the performance of the statutory audit of the Group Financial Statements and other (statutory) Financial Statements of Euronext N.V. and its subsidiaries, EY provides a number of other assurance services. These other assurance services consist of the review of the half year interim Financial Statements

and work related to the Registration Document. The comparative figures have been adjusted accordingly, in line with the relevant EU Regulation.

The total fees of EY Netherlands, charged to Euronext N.V. and its consolidated group entities amounted to €0.6 million in 2018 (2017: €0.4 million).

**NOTE 58 COMMITMENTS AND CONTINGENCIES NOT INCLUDED IN THE BALANCE SHEET****Tax group**

The company is the head of a fiscal unity with Euronext Amsterdam N.V., Euronext IP & IT B.V. and Euronext Corporate Services B.V. Under the standard conditions, the members of the tax group are jointly and severally liable for any taxes payable by the fiscal unity. Each company within the fiscal unity recognises its own tax position on its company balance sheet.

The Financial Statements of Euronext N.V., Euronext Amsterdam N.V., Euronext IP & IT B.V., and Euronext Corporate Services B.V. recognise a tax liability based on their taxable profit.

**Guarantees**

The company participates in a number of guarantees within the Group, the Company act in the guarantor for certain liabilities of its subsidiary up to an amount of €9.3 million. It should be noted that the Group consistently waives guarantee fees for intergroup guarantees, meaning these transactions are not at arm's length.

**NOTE 59 APPROPRIATION OF PROFIT****Proposed profit appropriation**

The Management Board proposes to appropriate the profit of €216.0 million as follows:

<i>In thousands of euros</i>	2018	2017
Addition to legal reserves	8,402	-
Addition to retained earnings	99,582	120,649
At the disposal of the Annual General Meeting of Shareholders (Dividend)	107,984	120,648
<b>TOTAL</b>	<b>215,968</b>	<b>241,297</b>

A dividend in respect of the year ended 31 December 2018 of €1.54 per share (2017: €1.73 per share), amounting to a total dividend of €108.0 million, representing a 50% pay-out ratio of net profit, is to be proposed at the Annual General Meeting on 16 May 2019. These Financial Statements do not reflect the dividend payable of the result 2018.

In 2018, a total of €8.4 million was added to the legal reserves, which was due to new distribution restrictions applicable to Euronext Paris.

In 2017, there were no additions to the legal reserve. Instead, an amount of €22.5 million was transferred to retained earnings, because distribution restrictions that were remaining from the preceding years were lifted for Euronext Paris S.A. (see Note 52).

**NOTE 60 EVENTS AFTER THE REPORTING PERIOD**

The events occurred between 31 December 2018 and the date of this report that could have a material impact on the economic decisions made based on these Financial Statements, are described in Note 39 of the Consolidated Financial Statements.

**Authorisation of Company Financial Statements**

Amsterdam, 3 April 2019

**Supervisory Board**

Dick Sluimers (*Chairman*)  
 Ramon Fernandez  
 Manuel Ferreira da Silva  
 Jim Gollan  
 Kerstin Günther  
 Lieve Mostrey  
 Franck Silvent  
 Luc Keuleneer  
 Padraic O'Connor

**Managing Board**

Stéphane Boujnah (*CEO and Chairman*)  
 Anthony Attia  
 Maurice van Tilburg  
 Vincent van Dessel  
 Daryl Byrne  
 Chris Topple









## OTHER INFORMATION

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## 7.1 Profit Appropriation Section

Provisions in the Articles of Association relating to profit appropriation

Article 28.2 of the Articles of Association states that from the profits, as they appear from the adopted annual accounts, first, in the event that the priority share has been issued and is held by a party other than the Company, a dividend of ten per cent (10%) of the par value of the priority share will be paid to the holder of the priority share. The profits which remain after application of the first sentence of

this Article 28.2 shall be at the free disposal of the General Meeting, provided that there shall be no further distribution on the priority share, and provided that the General Meeting may only resolve on any reservation or distribution of profits pursuant to and in accordance with a proposal thereto of the Supervisory Board or a proposal of the Managing Board, which proposal has been approved by the Supervisory Board.

## 7.2 Independent Auditor's Report

To: the shareholders and Supervisory Board of Euronext N.V.

### REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS 2018 INCLUDED IN THE REGISTRATION DOCUMENT

#### Our opinion

We have audited the financial statements 2018 of Euronext N.V. ('the company'), based in Amsterdam. The financial statements include the consolidated financial statements and the company financial statements.

In our opinion:

- the accompanying consolidated financial statements give a true and fair view of the financial position of Euronext N.V. as at 31 December 2018, and of its result and its cash flows for 2018 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code;
- the accompanying company financial statements give a true and fair view of the financial position of Euronext N.V. as at 31 December 2018, and of its result for 2018 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

- the consolidated balance sheet as at 31 December 2018;
- the consolidated statements of profit or loss, comprehensive income, changes in equity and cash flows for 2018;
- the notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

- the company balance sheet as at 31 December 2018;
- the company income statement for 2018;
- the notes comprising a summary of the accounting policies and other explanatory information.

#### Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the financial statements' section of our report.

We are independent of Euronext N.V. in accordance with the EU Regulation on specific requirements regarding statutory audit of public-interest entities, the Wet toezicht accountantsorganisaties (Wta, Audit firms supervision act), the Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore we have complied with the Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics).

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Materiality

<b>Materiality</b>	EUR 15.5 million (2017: EUR 15.5 million)
<b>Benchmark applied</b>	5% of the profit before income tax (2017: 5%)
<b>Explanation</b>	Based on our professional judgement we consider profit before income tax as the most appropriate basis to determine materiality as it is the key performance measure for the users of the financial statements.

We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We have agreed with the supervisory board that misstatements in excess of EUR 1 million, which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

## Scope of the group audit

Euronext N.V. is the parent company of a group of entities. The financial information of this group is included in the consolidated financial statements of Euronext N.V.

Based on significance and risk characteristics of the group components, six components have been subject to a full scope audit as those components are individually significant to the Group. These components comprise Euronext Paris SA, Euronext Technologies SAS, Euronext Amsterdam N.V., Euronext Dublin plc, Fastmatch Inc, and Euronext N.V. One component, Interbolsa SA, was subject to specific risk-focused audit procedures as they include significant risk areas. In total these procedures represent approximately 80% of the group's total assets and 92% of profit before income tax. For the remaining entities we performed, among others, analytical procedures to corroborate our assessment that there were no significant risks of material misstatements within those components.

We applied a central combined approach on the audit of revenue, trade receivables, trade payables, cash and cash equivalents, property, plant and equipment and the IT general controls for the French and Dutch group components. The group consolidation and financial statement disclosures are audited by the engagement team in the Netherlands. We also used component auditors, who are familiar with the local laws and regulations, for the full scope and for the specific risk-focused audit procedures. Where the work was performed by component auditors, we determined the level of involvement we needed to have in their audit work to be able to conclude whether sufficient appropriate audit evidence has been obtained.

By performing the procedures mentioned above at group entities, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion about the consolidated financial statements as a whole.

## Our key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements. We have communicated the key audit matters to the supervisory board. The key audit matters are not a comprehensive reflection of all matters discussed. These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Compared to the audit of the financial statements 2017 of Euronext N.V. the following changes have been made in the key audit matters. We identified the implementation of IFRS 15 Revenue Recognition as a key audit matter for our 2018 audit given the impact on the opening balance and disclosures. The key audit matter related to accounting for the acquisition of business specifically addresses the Irish Stock Exchange. The key audit matter on reliability and continuity of the information technology and systems focusses on the implementation in 2018 of the new trading platform OPTIQ.



### ACCOUNTING FOR THE ACQUISITION OF BUSINESSES

<b>Key audit matter</b>	<p>During 2018 Euronext acquired all shares of the Irish Stock Exchange plc and major stakes in Commcise Ltd and InsiderLog AB. As disclosed in notes 2 and 5 to the financial statements total considerations were EUR 215 million, of which EUR 4 million contingent earn-out payment. The acquisitions have been included in the consolidated financial position and results of Euronext from the moment control was obtained. Based on the purchase price allocations performed, with the support of valuation experts, separately identifiable intangible assets of € 26 million and goodwill of € 165 million have been recognized.</p> <p>Accounting for business combinations involve a number of judgments concerning, such as the identification of intangible assets, the choice of valuation techniques and underlying assumptions, as well as the allocation to cash generating units. The use of different techniques and assumptions could produce significantly different estimates. Given the relative size of the amounts involved and the inherent complexity, we consider this as a key audit matter.</p>
<b>Our audit approach</b>	<p>We gained an understanding of the material business acquisitions and made an assessment of the process that management has undertaken to determine the allocation of the purchase price, including but not limited to understanding the scope of work, assessing the qualifications and competence of the valuation experts and evaluating whether the correct accounting treatment has been applied in line with IFRS 3.</p> <p>We tested the considerations paid and the identification and valuation of the identifiable tangible and intangible assets acquired, as well as the liabilities and non-controlling interests resulting from the acquired majority stakes. We have audited the fair value measurements prepared by management and their valuation experts including assessing the key valuation assumptions used and engaged our valuation specialists to evaluate the methodology and assumptions applied by Euronext in the valuation of the separately identifiable intangible assets, in particular the customer relations. Furthermore, we benchmarked key data inputs used in the valuation model such as longevity of acquired customer relationships and reviewed the reasonableness of the amortization period applied.</p> <p>Finally, we have evaluated the appropriateness of the disclosure related to business combinations, included in notes 5 and 20 to the financial statements, to assess compliance with the disclosure requirements, as included in EU-IFRS.</p>
<b>Key observations</b>	<p>We found the identification and measurement of the goodwill, identifiable assets, liabilities and non-controlling interests related to the 2018 acquisitions reasonable. The disclosures on the business combinations are in line with the requirements under EU-IFRS.</p>

### FAIR VALUE MEASUREMENT OF FINANCIAL INVESTMENTS

<b>Key audit matter</b>	<p>Euronext holds a direct and an indirect minority interest in Euroclear plc. As described in note 19 to the financial statements this interest is classified as a financial asset at fair value through other comprehensive income.</p> <p>As Euroclear is a non-listed company, Euronext applies an internally developed model to estimate the fair value, which since early 2017 is based on valuation techniques that are driven by return on equity and dividend growth rates of comparable regulated entities and regression approaches and trading multiples as control methods. In 2018 the valuation method was amended to a weighted approach, that takes into account the outcome of the internal model and recent market observable transfers of Euroclear shares, less a discount for illiquidity. As a result Euronext revalued its interest by EUR 45 million, increasing the fair value to EUR 188 million per 31 December 2018.</p> <p>The determination of the fair value of the interest in this company involves significant management judgement and assumptions as the shares are not traded on an active market and certain unobservable inputs are used. The use of different valuation techniques and assumptions could produce significantly different estimate of fair value. Given the inherent subjectivity we determined this to be a key matter for our audit.</p>
<b>Our audit approach</b>	<p>Our audit procedures comprised, among others, an assessment of the methodology and the appropriateness of the valuation model against generally accepted market practice and inputs used to value the investments. Further, we used our valuation specialists to independently assess the valuation performed. As part of these audit procedures we assessed the accuracy of key inputs used in the valuation such as the market observable transfers, the return on equity and expected dividend growth rates.</p> <p>Finally, we evaluated the completeness and appropriateness of the disclosure related to financial assets at fair value through other comprehensive income as included in note 19 to the financial statements, to assess compliance with the disclosure requirements, as included in EU-IFRS.</p>
<b>Key observations</b>	<p>We assessed the valuation techniques used to be adequate and the key inputs reasonable. We have not identified any material misstatements regarding the measurement of the fair value of financial investments as at 31 December 2018. We found the disclosures on the financial assets at fair value through other comprehensive income in accordance with EU-IFRS.</p>

**RELIABILITY AND CONTINUITY OF THE INFORMATION TECHNOLOGY AND SYSTEMS AND IT TRANSFORMATION**

<b>Key audit matter</b>	<p>A proper IT infrastructure ensures the reliability and continuity of Euronext's business processes and financial reporting. Euronext continuously makes investments to further improve its IT environment and IT systems. As described in the other information under the section operational risk, Euronext upgraded its core trading platform with a new enhanced, multi-market system OPTIQ. In April and June 2018, the OPTIQ trading engine went live for fixed income and cash markets.</p> <p>The role of external reports and the increased granularity of financial and non-financial data are important to stakeholders and supervisors, and require high quality data and an adequate IT environment. For our 2018 audit the implementation of OPTIQ is important as this core system captures transactions and ultimately feeds the financial reporting systems. We therefore consider this as a key audit matter.</p>
<b>Our audit approach</b>	<p>We tested the IT general controls at Euronext related to logical access and change management and application controls as embedded in the automated data processing systems, where we relied upon for financial reporting. In some areas we performed additional procedures on access management for the related systems. We also assessed the reliability and continuity of the IT environment and the possible impact of changes during the year resulting from the internal transformation activities. In addition, our audit procedures consisted of assessing the developments in the IT infrastructure and analyzing the impact on the IT organization. Specifically for the implementation of OPTIQ we analysed and reviewed the project governance. Furthermore, we tested the design and operating effectiveness of the new business and IT controls related to the completeness and integrity of the feed of dataflows into the fee calculation system and reviewed the post migration analyses of incidents.</p> <p>We assessed the reliability and continuity of automated data processing only to the extent necessary within the scope of the audit of the financial statements.</p>
<b>Key observations</b>	<p>For the audit of the financial statements we found the reliability and continuity of the automated data processing systems adequate and noted no significant operational or financial internal control exceptions caused by the OPTIQ migration process.</p>

**IMPLEMENTATION IFRS 15 REVENUE RECOGNITION**

<b>Key audit matter</b>	<p>On 1 January 2018, a new accounting standard for revenue recognition (IFRS 15) became effective. It requires the recognition of fees for initial and ongoing listing services over time, whereas previously those fees were recognized at a point in time. Euronext applied the modified retrospective approach under IFRS 15 and adjusted opening equity by EUR 50 million (net of tax) and included a transitional disclosure on the first time adoption as part of note 3 'Changes in accounting policies and disclosures' to the annual financial statements. As permitted under the transition provisions, the 2017 comparative information has not been restated to comply with IFRS 15.</p> <p>As part of the implementation process, Euronext updated its processes and methodologies to report under the new accounting standard.</p> <p>The new standard requires judgment and the implementation resulted in a significant impact on the opening equity as at 1 January 2018. Therefore we considered this area a key audit matter for our 2018 audit.</p>
<b>Our audit approach</b>	<p>As IFRS 15 was adopted at the start of the year, we performed audit procedures on the opening balances to gain assurance on the transition from the previous standard. This included evaluating the accounting interpretations for compliance with IFRS 15 and testing the adjustments and disclosures made with regard to the implementation. An impact assessment was executed by Euronext to determine the impact of the new standard on each of the distinctive revenue streams and the related amortization periods.</p> <p>We assessed the result of these procedures to ensure the adequacy of the first time adoption of IFRS 15.</p> <p>We also performed substantive procedures over data and calculations in which we specifically validated the appropriateness of the applied amortization periods for listing revenues.</p> <p>Finally, we assessed the accuracy of the IFRS 15 transitional disclosures in note 3 'Changes in accounting policies and disclosures' and whether these are in compliance with requirements of EU-IFRS.</p>
<b>Key observations</b>	<p>Overall, we assess that the impact of the adoption of IFRS 15 in the 2018 opening balance sheet is fairly stated and that the related disclosures meet the requirements of EU-IFRS.</p>

### REPORT ON OTHER INFORMATION INCLUDED IN THE REGISTRATION DOCUMENT

In addition to the financial statements and our auditor's report thereon, the registration document contains other information that consists of:

- The section Risks and the chapters 1, 2, (excluding 2.3 and 2.4), 3, 4 and 5 concern the managing board report within the meaning of 2:391 of the Dutch Civil Code.
- The section 2.3 report of the Supervisory Board and the section 2.4 Remuneration report.
- The other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

Based on the following procedures performed, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements;
- contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements. By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

The managing board is responsible for the preparation of the other information, including the managing board report and other information as required by Part 9 of Book 2 of the Dutch Civil Code.

### REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

#### Engagement

We were engaged by the general meeting of shareholders of Euronext N.V. on 19 May 2017, as of the audit for the year 2017 and have operated as statutory auditor since that date.

#### No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audit of public-interest entities.

### DESCRIPTION OF RESPONSIBILITIES FOR THE FINANCIAL STATEMENTS

Responsibilities of the managing board and the supervisory board for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, management is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, management should prepare the financial statements using the going concern basis of accounting unless management either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so. Management should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the financial statements.

The supervisory board is responsible for overseeing the company's financial reporting process.

#### Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgment and have maintained professional skepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included among others:

- identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

- obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control;
- evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the managing board;
- concluding on the appropriateness of the management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause an company to cease to continue as a going concern;
- evaluating the overall presentation, structure and content of the financial statements, including the disclosures;
- evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and

extent of the audit procedures to be carried out for group entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identify during our audit. In this respect we also submit an additional report to the audit committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the supervisory board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the supervisory board, we determine the key audit matters: those matters that were of most significance in the audit of the financial statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Amsterdam, 3 April 2019

Ernst & Young Accountants LLP

signed by A.B Roeders







# GLOSSARY



<b>ACPR</b>	The French Prudential Supervision and Resolution Authority ( <i>Autorité de Contrôle Prudentiel et de Résolution</i> )
<b>AFM</b>	<i>Stichting Autoriteit Financiële Markten</i> , the Netherlands Authority for the Financial Markets
<b>Alternext</b>	Multilateral trading facilities operated by the Company in Paris, Brussels and Lisbon
<b>AMF</b>	French Authority for the Financial Markets ( <i>Autorité des Marchés Financiers</i> )
<b>Articles of Association</b>	The Articles of Association ( <i>statuten</i> ) of the Company
<b>Brexit</b>	British exit, referring to the UK's decision in a referendum on 23 June 2016 to leave the European Union
<b>CAGR</b>	Compounded annual growth rate
<b>Cash Clearing Agreement</b>	The Cash Clearing Agreement entered into between Euronext and certain of its affiliates and LCH SA S.A. and LCH SA Group Limited on 22 January 2013
<b>CCPs</b>	Central counterparties
<b>CDP</b>	<i>Carbon Disclosure Project</i> : CDP is a not-for-profit organization that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.
<b>CEO</b>	Chief Executive Officer
<b>CFO</b>	Chief Financial Officer
<b>Clearing Services</b>	Clearing Services is the procedure by which an organisation (CCP) acts as an intermediary and assumes the role of a buyer and seller in a transaction through the process of novation in order to reconcile orders between transacting parties.
<b>CMVM</b>	<i>Comissão do Mercado de Valores Mobiliários</i> , the Portuguese Securities Markets Commission
<b>Code of conduct and ethics</b>	Code that reaffirms the Euronext N.V.'s commitment to high standards of ethical conduct and reinforces its business ethics, policies and procedures
<b>Company</b>	Euronext N.V. and its consolidated subsidiaries, unless otherwise indicated
<b>Compliance department</b>	The Compliance department of Euronext N.V.
<b>COO</b>	Chief Operating Officer
<b>Core Items</b>	The intellectual property in the UTP and other trading technology, including core software and technology
<b>CSD</b>	Central Securities Depositories
<b>CSD Regulation</b>	EU Regulation on securities settlement and central securities depositories ( published on the Official Journal of the European Union on 23 July 2014)
<b>DBAG</b>	Deutsche Börse AG
<b>DMA</b>	Direct market access
<b>Derivatives Clearing Agreement</b>	The Derivatives Clearing Agreement entered into between Euronext and certain of its affiliates and LCH SA S.A. and LCH SA Group Limited on 14 October 2013. The revenue sharing agreement became effective as of 1 April 2014
<b>Code</b>	The Dutch Corporate Governance Code
<b>Dutch Financial Supervision Act</b>	The Dutch Financial Supervision Act ( <i>Wet op het Financieel Toezicht</i> ) and the rules promulgated thereunder
<b>EBITDA</b>	Operating Profit Before Exceptional Items and Depreciation and Amortisation
<b>ECB</b>	European Central Bank
<b>EEA</b>	European Economic Area
<b>EMEA</b>	Europe, Middle East and Africa
<b>EMIR</b>	The EU Regulation on OTC derivative transactions, central counterparties and trade repositories (Regulation 648/2012)
<b>ESG</b>	Environmental, Social and Governance
<b>ESMA</b>	European Securities and Markets Authority
<b>ETF or ETFs</b>	Exchange traded funds
<b>ETPs</b>	Exchange traded products
<b>EU</b>	European Union
<b>EU Market Abuse Rules</b>	The EU Market Abuse Regulation 596/2014/EU, providing for specific rules that intend to prevent market abuse, such as the prohibitions on insider trading, divulging inside information and tipping, and market manipulation
<b>€, Euro</b>	The lawful currency of the Member states of the European Union that have adopted it
<b>Euroclear</b>	Euroclear Bank S.A./N.V.
<b>Euronext</b>	Euronext N.V. and its consolidated subsidiaries, unless otherwise indicated
<b>Euronext Amsterdam</b>	Euronext Amsterdam N.V. and/or the Regulated Market of the Company in Amsterdam
<b>Euronext Brussels</b>	Euronext Brussels S.A./N.V. and/or the Regulated Market of the Company in Brussels




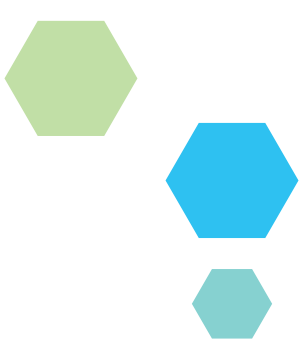
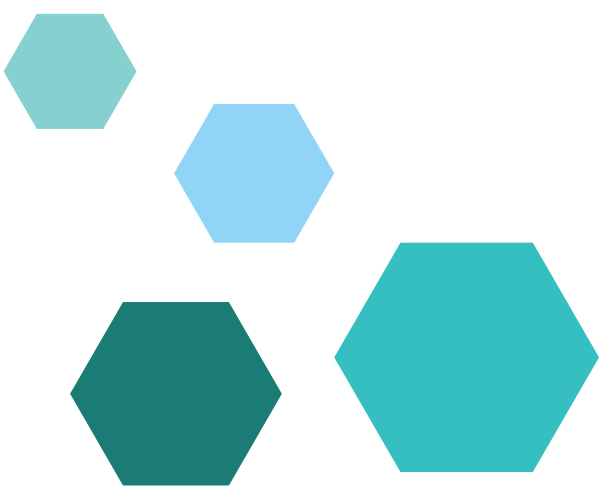
<b>Euronext College of Regulators</b>	The parties to a Memorandum of Understanding between the competent authorities regarding the co-ordinated regulation and supervision of Euronext being the FCA, the AMF, the AFM, the FSMA and the CMVM
<b>Euronext Dublin</b>	Irish Stock Exchange Plc and/or the Regulated Market of the Company in Dublin
<b>Euronext Lisbon</b>	Euronext Lisboa-Sociedade Gestora de Mercados Regulamentados and/or the Regulated Market of the Company in Lisbon
<b>Euronext London</b>	Euronext London Ltd. and/or the Regulated Market of the Company in London
<b>Market Operator</b>	The operator of a Regulated Market
<b>Euronext Market Subsidiary or Subsidiaries</b>	(A) each and any of (1) Euronext Paris S.A., (2) Euronext Amsterdam N.V., (3) Euronext Brussels S.A./N.V., (4) Euronext Lisbon S.A., (5) Euronext London Ltd and (6) any other Subsidiary of the Company operating a Regulated Market, and (B) any other Subsidiary that is subject to regulatory supervision controlled, directly or indirectly, by any of the entities listed in sub-paragraph (A), including without limitation Interbolsa S.A.
<b>Euronext Paris</b>	Euronext Paris S.A. and/or the Regulated Market of the Company in Paris
<b>Euronext Rulebooks</b>	The Euronext Rulebook containing the rules applicable to the Euronext Market Operators (Rulebook I) and the various non-harmonised Euronext Rulebooks containing local exchange-specific rules (Rulebook II)
<b>Exchange Licence</b>	(A) each declaration of no-objection or approval granted by or on behalf of the College of European Regulators to the Company in relation to the operation or holding of one or more Regulated Markets and/or the operation of one or more multilateral trading facilities by the Company or any of the Euronext Market Subsidiaries, (B) each licence granted by or on behalf of the Minister of Finance of the Netherlands to the Company in relation to the operation or holding of one or more Regulated Markets, as well as (C) each declaration of no-objection granted by or on behalf of the Minister of Finance of the Netherlands to any person holding a qualifying participation in the Company and/or any of its Euronext Market Subsidiaries in the Netherlands within the meaning of section 1 of the Act, in each case such licence, approval or declaration of no-objection (i) as granted pursuant to the Act or other applicable law implementing Directive 2004/39/EC or the relevant memorandum of understanding constituting the College of European Regulators and (ii) as in force and as amended at the relevant time
<b>Facilities Agreement</b>	The Facilities Agreement relates to a term loan facilities and a revolving loan facilities entered into between Euronext N.V. and Bank syndicates
<b>FCA</b>	The UK Financial Conduct Authority
<b>FCPE</b>	Fonds Commun de Placement d'Entreprise "Euronext group"
<b>FICC</b>	Fixed Income, Currencies and Commodities
<b>Finanstilsynet</b>	Financial Supervisory Authority of Norway
<b>FinTech or fintech</b>	Abbreviation for Financial Technology
<b>FRSA</b>	The Dutch Financial Reporting Supervision Act ( <i>Wet toezicht financiële verslaggeving</i> )
<b>FSMA</b>	Belgian Authority for the Financial Markets (Financial Services and Markets Authority)
<b>FTEs</b>	Full-time employee equivalents
<b>FTT</b>	The Financial Transaction Tax proposed by the European Union
<b>General Meeting</b>	The general meeting of shareholders ( <i>algemene vergadering van aandeelhouders</i> ) of Euronext N.V.
<b>GHG</b>	Green House Gaz
<b>GOA</b>	The further amended and restated governance and option agreement, to which ICE, the <i>stichting</i> and the Company are parties
<b>Group</b>	The Company and its consolidated subsidiaries
<b>ICE</b>	Intercontinental Exchange, Inc. (formerly named Intercontinental Exchange Group, Inc.), together with its consolidated subsidiaries
<b>IFRS</b>	International Financial Reporting Standards as adopted by the European Union
<b>IOI</b>	Indication of interest
<b>IPO</b>	Initial public offering
<b>IT</b>	Information technology
<b>Interbolsa</b>	The CSD in Portugal for the Portuguese market
<b>JV SPV</b>	Joint Venture Special Purpose Vehicle
<b>LCH SA</b>	Banque Centrale de Compensation, trading as LCH SA
<b>LCH SA Agreements</b>	The Cash Clearing Agreement and the Derivatives Clearing Agreement
<b>LIFFE</b>	LIFFE Administration and Management
<b>LTI</b>	Long Term Incentive
<b>LSEG</b>	London Stock Exchange Group plc,
<b>MAD</b>	The EU Market Abuse Directive (2003/6/EC), now superseded by MAR
<b>Managing Board</b>	The Managing Board ( <i>bestuur</i> ) of Euronext N.V.

<b>MAR</b>	EU Regulation on insider dealing and market manipulation (published on the Official Journal of the European Union on 16 April 2014) which replaces MAD since its entry into force on 3 July 2016
<b>MiFID I</b>	The EU Markets in Financial Instruments Directive (2004/39/EC)
<b>MiFID II</b>	The revised EU Directive on MiFID (published on the Official Journal of the European Union on 12 June 2014)
<b>MiFID II / MiFIR legislation</b>	MiFID II and MiFIR
<b>MiFIR</b>	EU Regulation on Markets in Financial Instruments (published on the Official Journal of the European Union on 12 June 2014)
<b>MTFs</b>	Multilateral trading facilities designated under MiFID and MiFID II
<b>NYSE Euronext</b>	The Parent through 13 November 2013
<b>Offering</b>	The offering of Ordinary Shares as that took place on 20 June 2014
<b>Optiq®</b>	New enhanced multi-market trading platform
<b>Ordinary Shares</b>	Issued and outstanding ordinary shares in the share capital of the Company
<b>OTC</b>	Over-the-counter
<b>Parent</b>	NYSE Euronext, through 13 November 2013, and ICE, from 13 November 2013 until 20 June 2014
<b>Priority Share</b>	Priority share in the share capital of the Company
<b>Prospectus Directive</b>	Directive 2003/71/EC of the European Union, and any amendments thereto, including Directive 2010/73/EU
<b>Qualifying Participation</b>	Direct or indirect interest of 10% or more of the share capital or voting rights
<b>Quantitative Easing</b>	Quantitative easing is a monetary policy in which a central bank purchases government securities or other securities from the market in order to lower interest rates and increase the money supply
<b>Reference Shareholders</b>	A group of institutional investors comprised of Novo Banco, an affiliate of Banco Espírito Santo, S.A., BNP Paribas S.A., BNP Paribas Fortis S.A./N.V., ABN AMRO Bank N.V. through its subsidiary ABN AMRO Participaties Fund I B.V., ASR Levensverzekering N.V. (a company of the ASR Nederland group), Caisse des Dépôts et Consignations, Bpifrance Participations, Euroclear S.A./N.V., Société Fédérale de Participations et d'Investissement/Federale Participatie- en Investeringsmaatschappij, Société Générale and BancoBPI Pension Fund represented by BPI Vida e Pensões – Companhia de Seguros, S.A.
<b>Reference Shareholders Agreement</b>	The agreement entered into by the Reference Shareholders dated 3 June 2014
<b>Regulated Market</b>	A multi-lateral system or trading venue designated to be a “regulated market” under MiFID and MiFID II
<b>RIE</b>	Recognised investment exchange
<b>Selling Shareholder</b>	ICE Europe Parent Ltd
<b>Separation</b>	Establishment of Euronext as an independent, publicly traded company by means of an initial public offering
<b>SFTI®</b>	Secure Financial Transactions Infrastructure
<b>Shareholder</b>	Any shareholder of the Company at any time
<b>Share Purchase Agreement</b>	The sale and purchase agreement of Ordinary Shares in Euronext N.V. entered into between ICE, the Selling Shareholder and the Reference Shareholders dated 27 May 2014
<b>Single Order Book</b>	Single Order Book for Euronext Paris, Euronext Amsterdam, Euronext Brussels and Euronext London which unites trading, clearing and settlement across the exchanges in France, Belgium, the Netherlands and the United Kingdom, which results in one single trading line for all listed securities, including those listed currently on more than one Euronext markets for which the Single Order Book executes trades on the designated market of reference
<b>SLAs</b>	Transitional services agreements and related agreements
<b>SMEs</b>	Small and medium enterprises
<b>SRI</b>	Socially Responsible Investing refers to investment strategies that seek to maximise financial return while maximising social good and minimizing environmental footprint
<b>Subsidiary</b>	Has the meaning as referred to in section 2: 24a of the Dutch Civil Code
<b>Supervisory Board</b>	The Supervisory Board of Euronext N.V.
<b>Support Items</b>	Related support items to the Core Items
<b>Tech or tech</b>	abbreviation for technology
<b>Transparency Directive</b>	The EU Transparency Directive 2004/109/EC, as amended by Directive 2013/50/EU with respect to transparency and disclosure obligations
<b>T2S</b>	TARGET2-Securities, the European technical platform set up and operated by the Eurosystem that allow core, neutral and borderless settlement of securities transactions on a DvP (delivery-versus-payment) basis in Central Bank Money
<b>UK FSMA</b>	UK Financial Services and Markets Act 2000
<b>UTP or Euronext UTP</b>	Universal Trading Platform or Euronext Universal Trading Platform



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