Listing

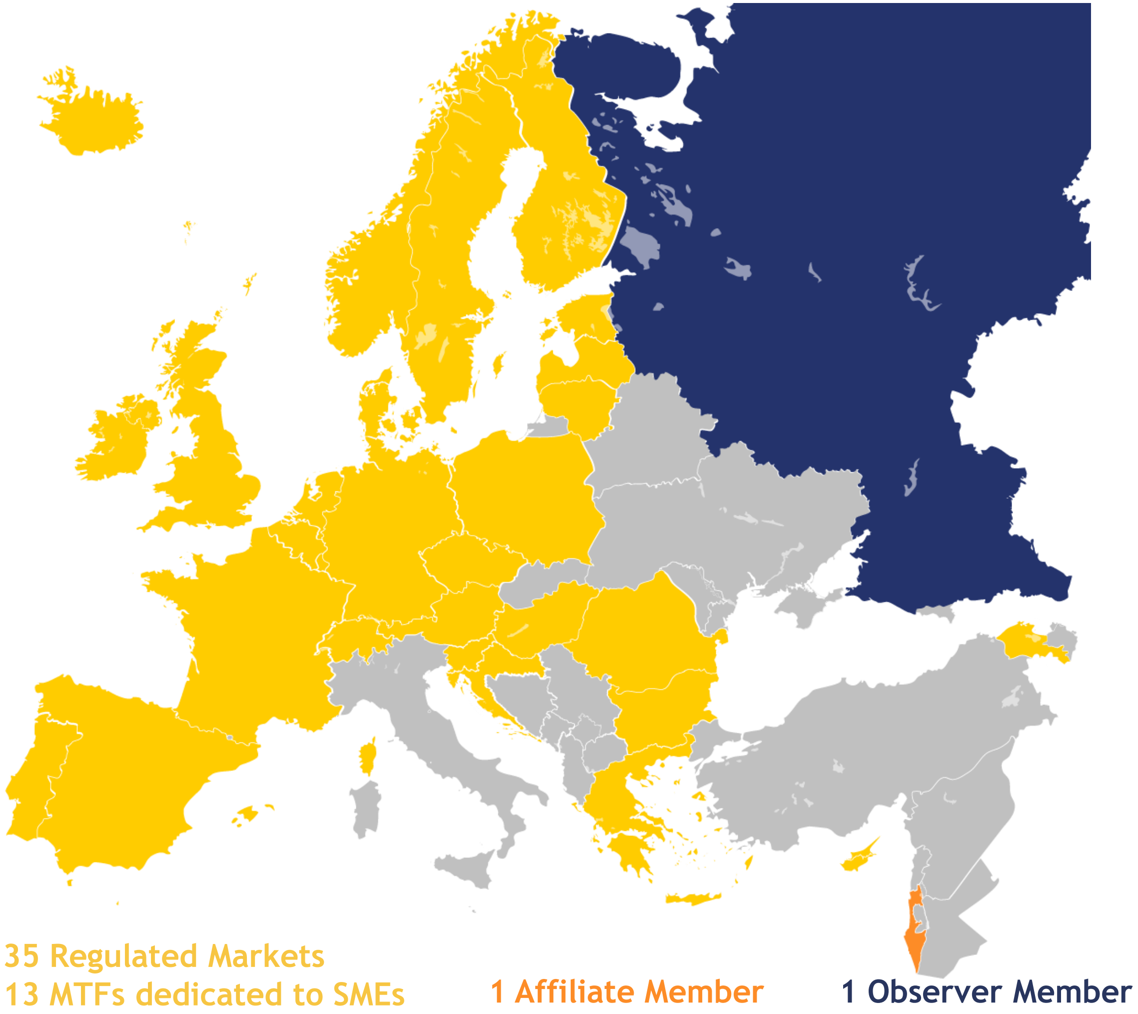
FESE - Federation of European Securities Exchanges

FESE represents **36 Exchanges in equities, bonds, and derivatives**

13 Multilateral Trading Facilities (MTFs) dedicated to listing and trading of SMEs

From **EU member** states as well as **Iceland, Norway and Switzerland**

19 Full Members, **1** Affiliate Member and **1** Observer Member



Key figures on listing in Europe

~11,100 listed companies*

~€13,250bn market cap for listed companies*

77% of listed companies are SMEs*

~1,500 listings since 2013**

~€240bn

money raised at IPO**

~€770bn

money raised in secondary equity offerings**

**Source: FESE and WFE, as of June 30, 2019*
***Source: Euronext, Dealogic, as of June 30, 2019*
See slides 75 and 76 for the dataset composition

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What you will learn today

1. Why and how companies go public

2. Which are the key challenges around listing for SMEs

3. How are debt and funds listed

All topics will be addressed from a functional as well as a policy perspective and there will be a focus on EU regulation.

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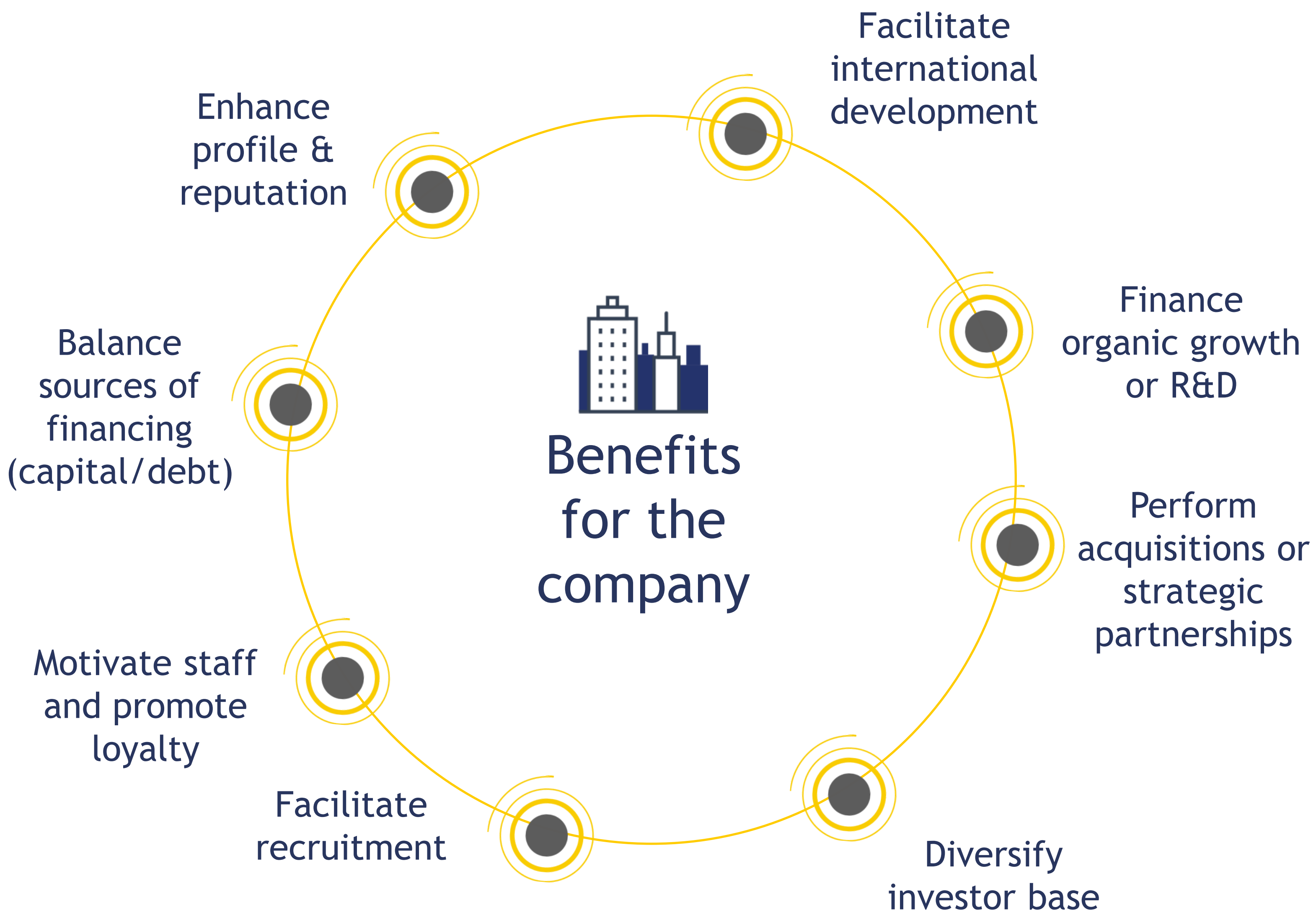
Index

1 Why go public?

Why go public? - Main benefits for the company



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Why go public? - Illustration with 2018 listings (1/2)

SIG Combiblock has raised €1.5bn to reduce its level of debt on the SIX Swiss Exchange

Salmones Camanchaca has raised €86m to enhance its production growth and plant capacity on Oslo Stock Exchange

Benefits for the company

Balance sources of financing (capital/ debt)

Finance organic growth or R&D

Diversify investor base

Better Collective has raised €64m on Nasdaq to diversify its shareholder base

Why go public? - Illustration with 2018 listings (2/2)

Benefits for the company

Enhance profile & reputation

B&S has raised €358m on Euronext to improve its profile & reputation and to get additional financial flexibility

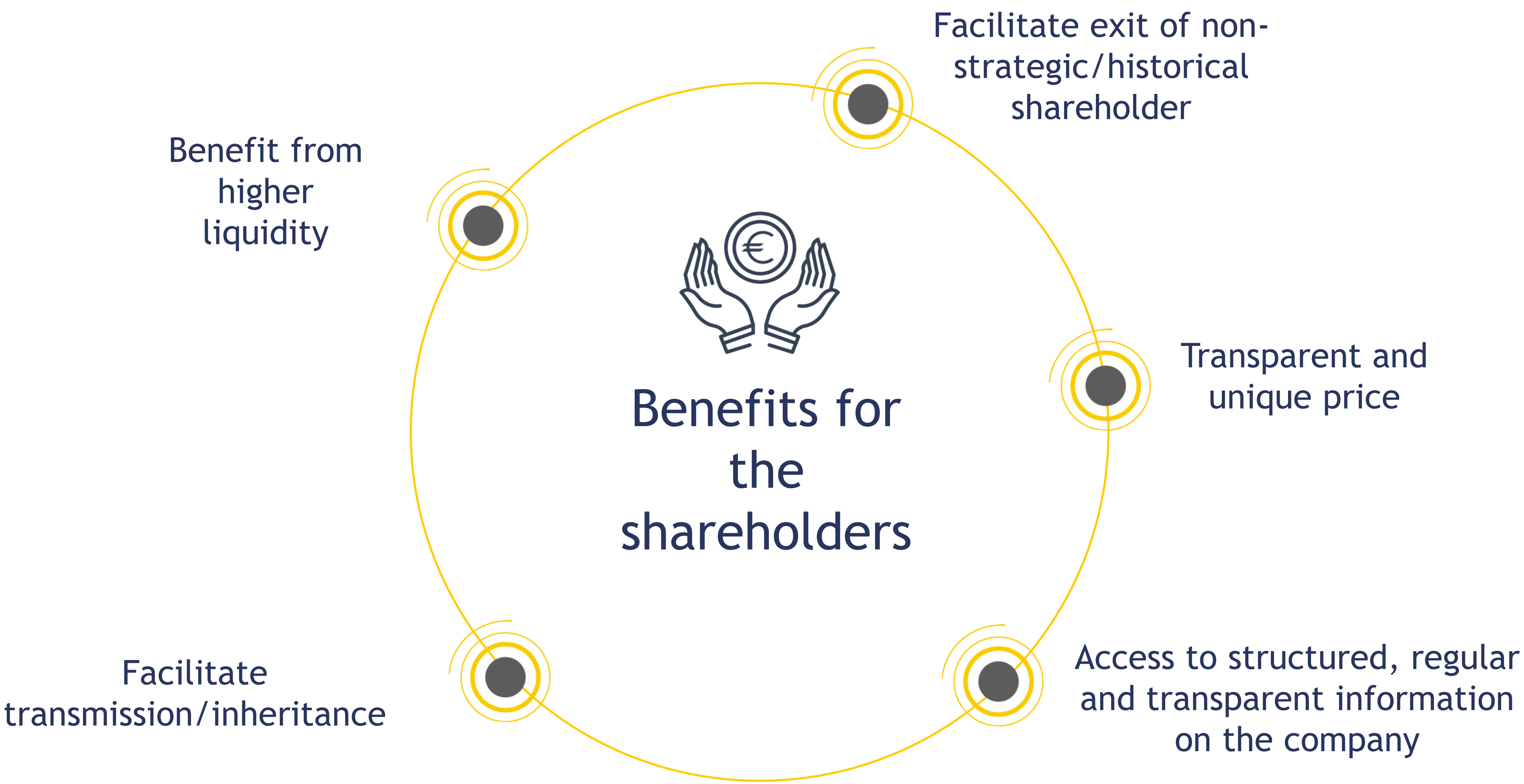
Facilitate international development

Acacia Pharma has raised €40m on Euronext to support the growth of its pharmaceutical treatement in the US

Perform acquisitions or strategic partnerships

Siemens Healthineers has raised €4bn on Deutsche Börse to acquire US start ups

Why go public? - Main benefits for the shareholders (1/2)



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Why go public? - Illustration with 2018 listings (2/2)

Benefits for the shareholders

Facilitate exit of non-strategic / historical shareholder

Facilitate transmission/inheritance

cogelec

Cogelec is a family business which raised ~€40m on Euronext Paris in 2018. Founded in 2000 by Roger Leclerc, Cogelec provides access control systems for buildings. Following the IPO, Roger Leclerc still owns 60% of the company vs. 75%. The IPO will facilitate the development of the company in the future.

ASTON MARTIN

Aston Martin listed on the London Stock Exchange in 2018 as one of the biggest IPO's of the year (~€5bn market cap). Historical shareholders including Italian Investindustrial and Kuwaiti investors Adeem Investments and Primewagon used this opportunity to sell ~25% of the company

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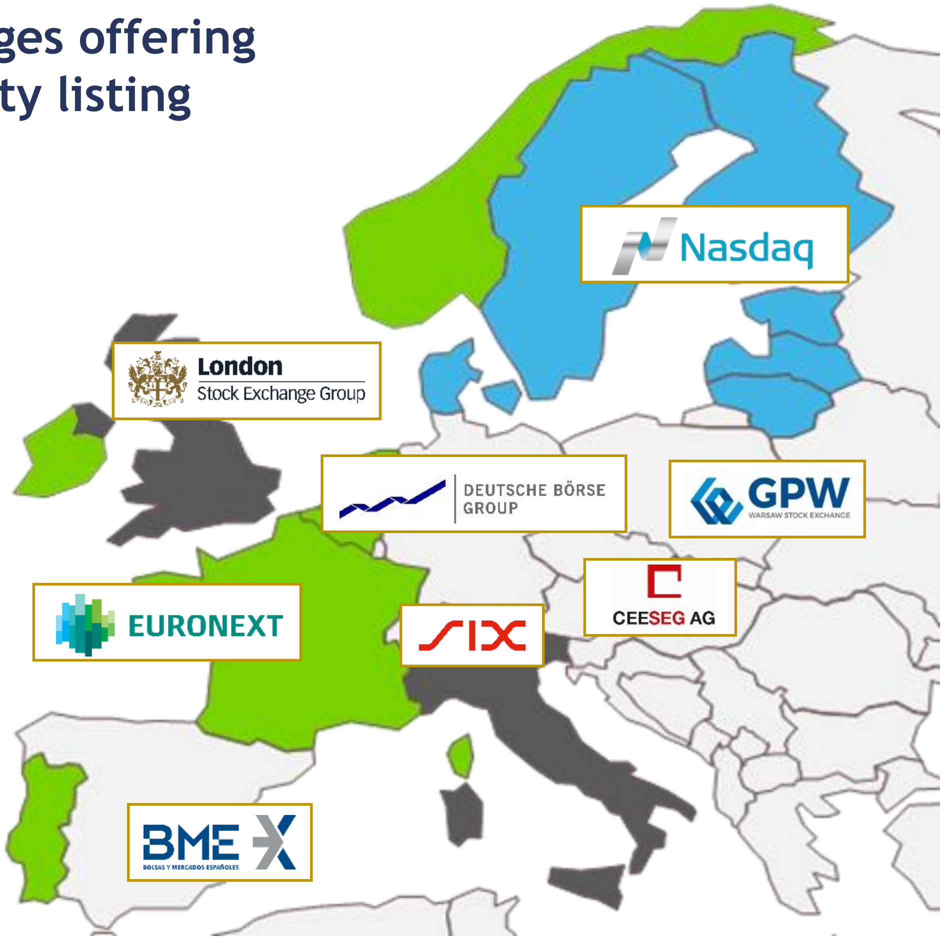
2 Overview of listed companies in Europe

Main listing venues in Europe

European stock exchanges offering an equity listing venue



Three stock exchanges are running multiple listing locations

EURONEXT: Amsterdam, Brussels, Dublin, Lisbon, Oslo, Paris

London Stock Exchange Group: London, Milan

Nasdaq: Helsinki, Stockholm, Copenhagen, Reykjavik, Riga, Tallinn, Vilnius

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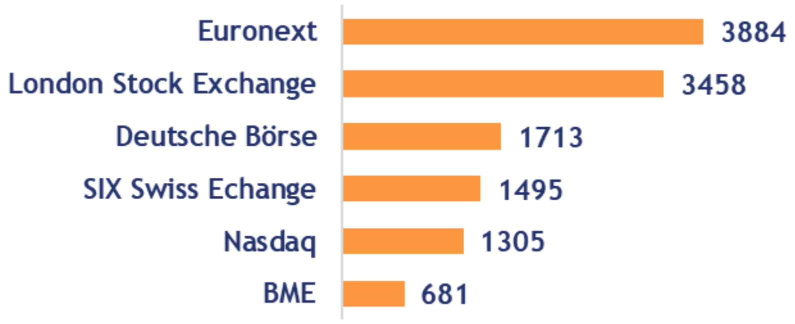
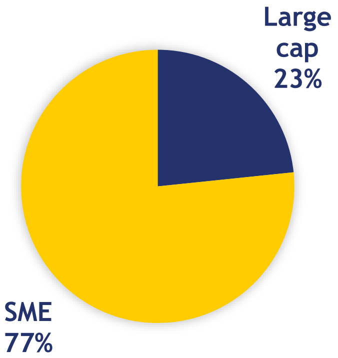
Overview of listed companies in Europe

Split of top 6 stock exchanges in market cap (€bn)



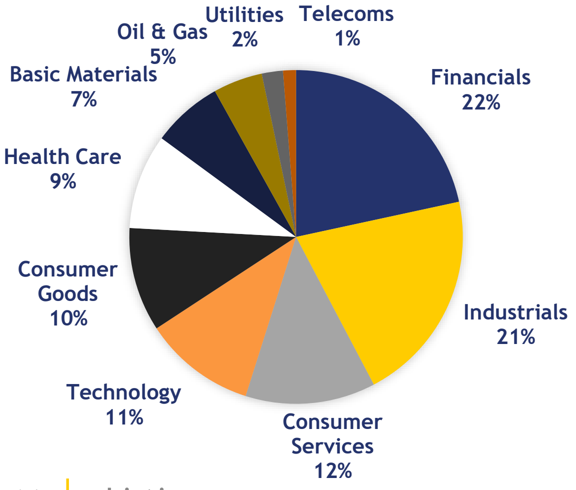
Total market cap amounts €13,250bn for listed companies in Europe

Split large cap/SME in number of companies



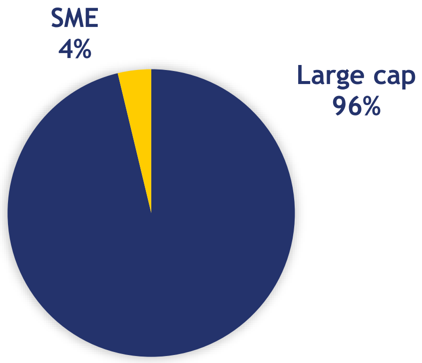
SMEs represent the vast majority of companies listed in Europe - 77% in terms of listing numbers

Split of industries by number of companies



Financials, Industrials & Consumer Services represent more than half of the 10 industries. This trend can be observed both in number of issuers and market cap

Split large cap/SME in market cap



However SMEs constitute only 4% of total market cap

Source: Euronext, ICB classification, as of June 30, 2019

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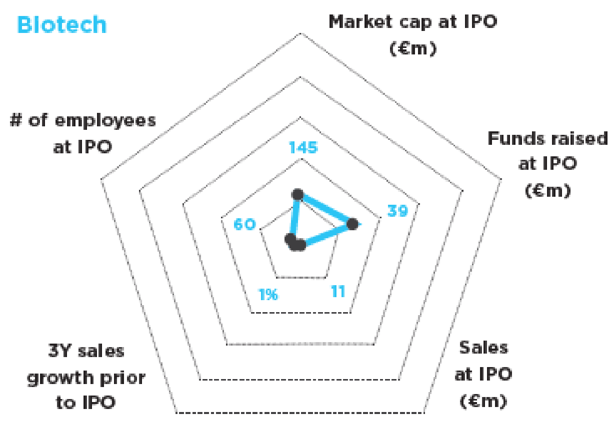
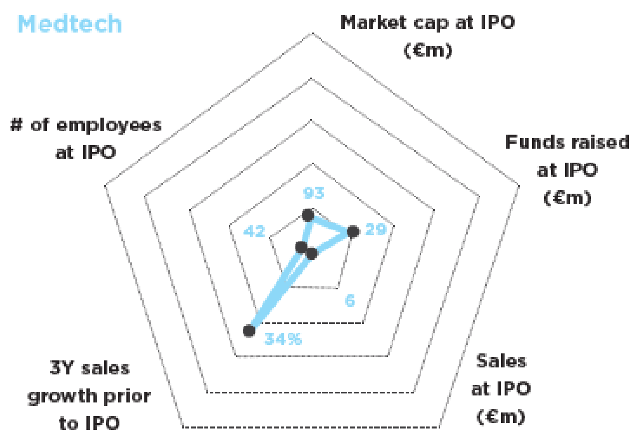
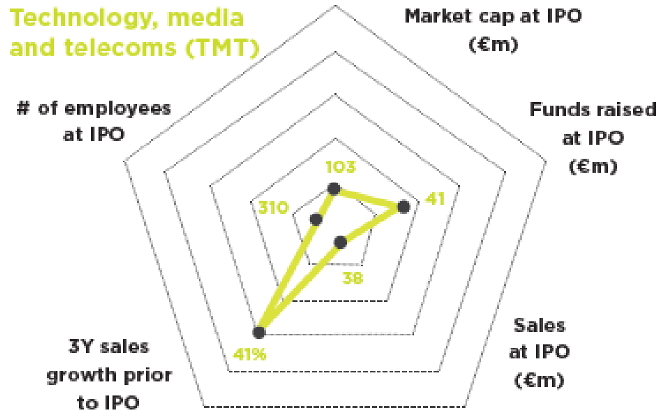
Average profile of IPO candidates (1/2)





TECH COMPANIES

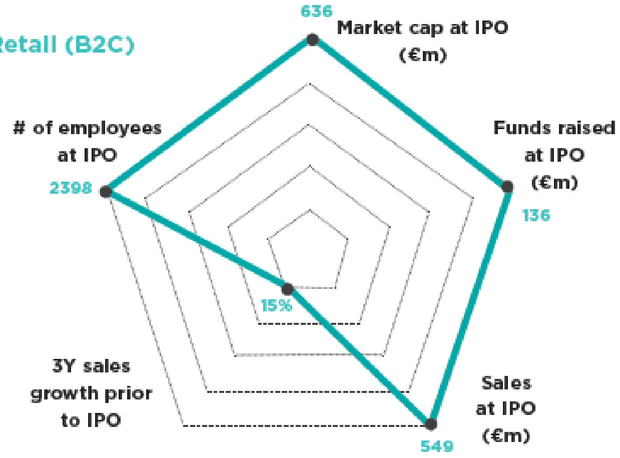


Source: Sample of 143 IPOs since 2012 on Euronext markets

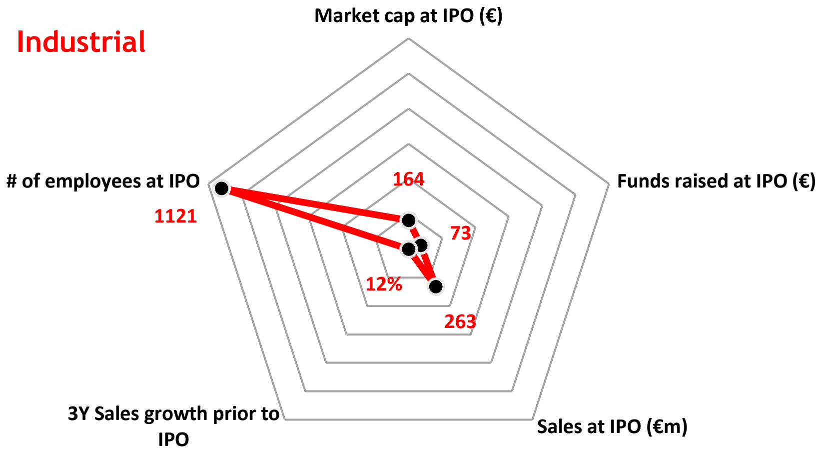
Average profile of IPO candidates (2/2)

RETAIL & INDUSTRIAL COMPANIES

Retail (B2C)

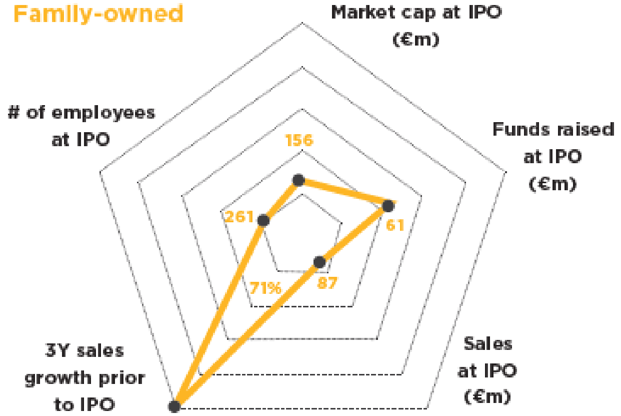


Industrial

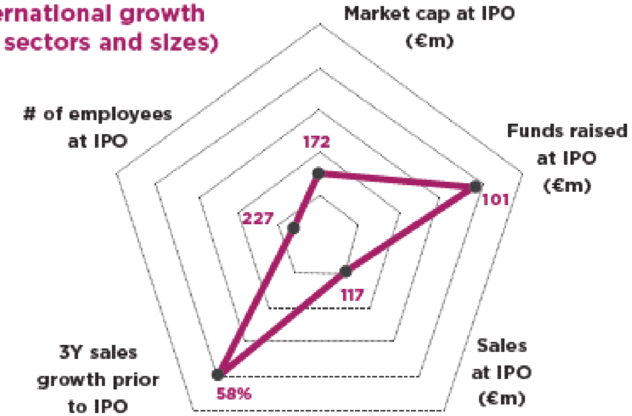


FAMILY BUSINESSES & INTERNATIONAL EXPANSION

Family-owned



International growth (all sectors and sizes)



Source: Sample of 143 IPOs since 2012 on Euronext markets

Common misperception of the different steps before an IPO

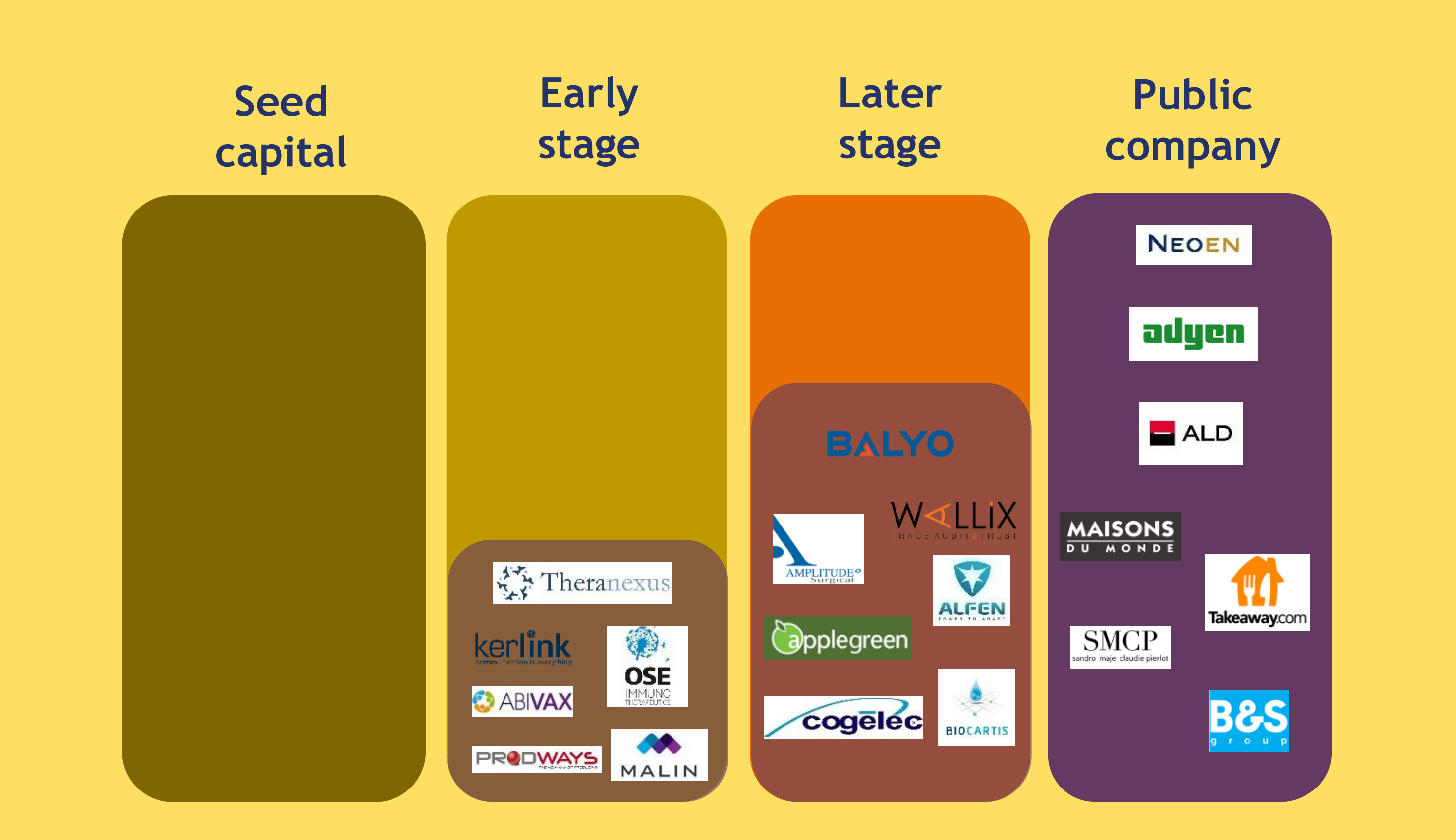
Going public is too often considered at the end of the funding chain for a company…

Development steps	Seed capital	Early stage	Later stage	Public company
Investors	Business angels	Venture Capital, Private Equity, M&A and Strategic alliances		Institutional & retail investors

When a listing can occur at different development steps

An illustration with these companies that have listed on Euronext at different stages of their development

Development steps



EARLY STAGE TECH COMPANIES

FAST GROWING MID CAPS

LARGE CAP COMPANIES

Source: Euronext

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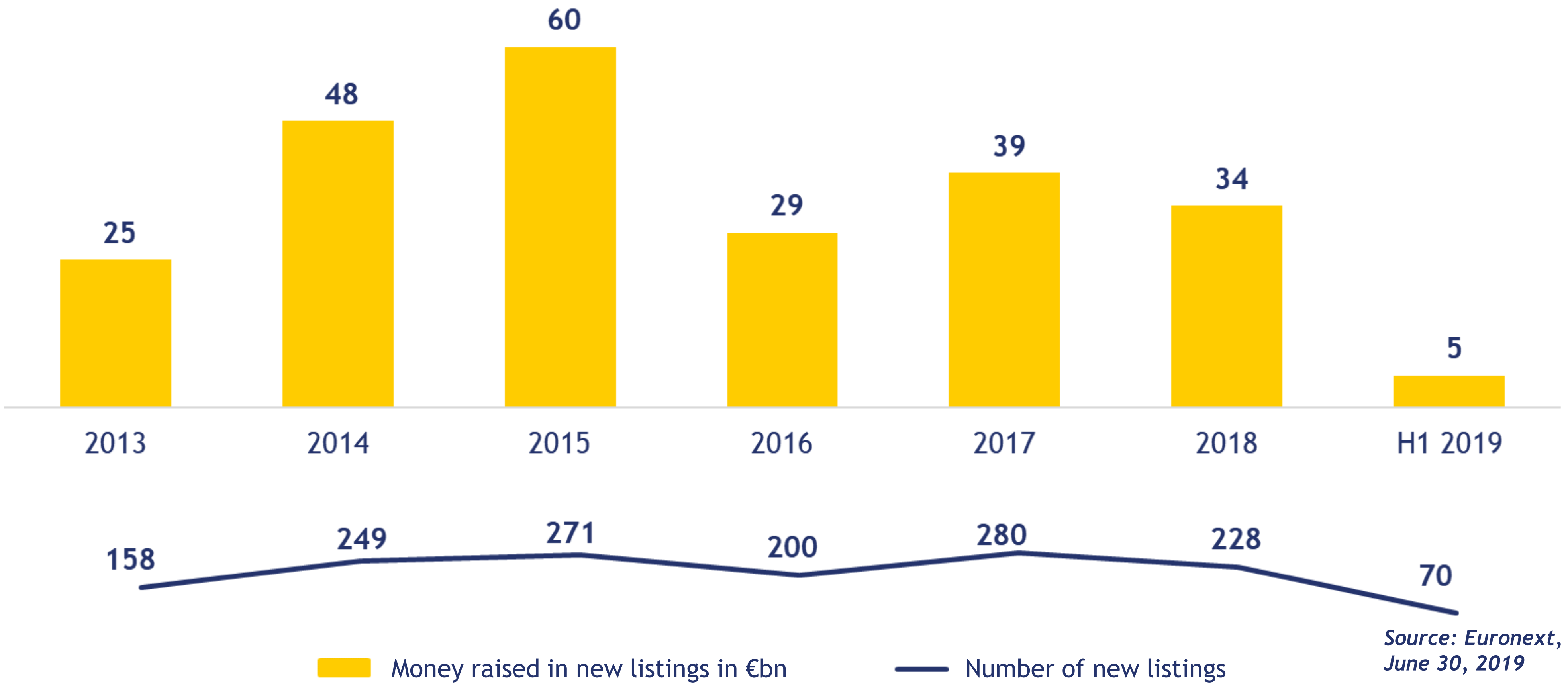
3 Listing activity & recent trends

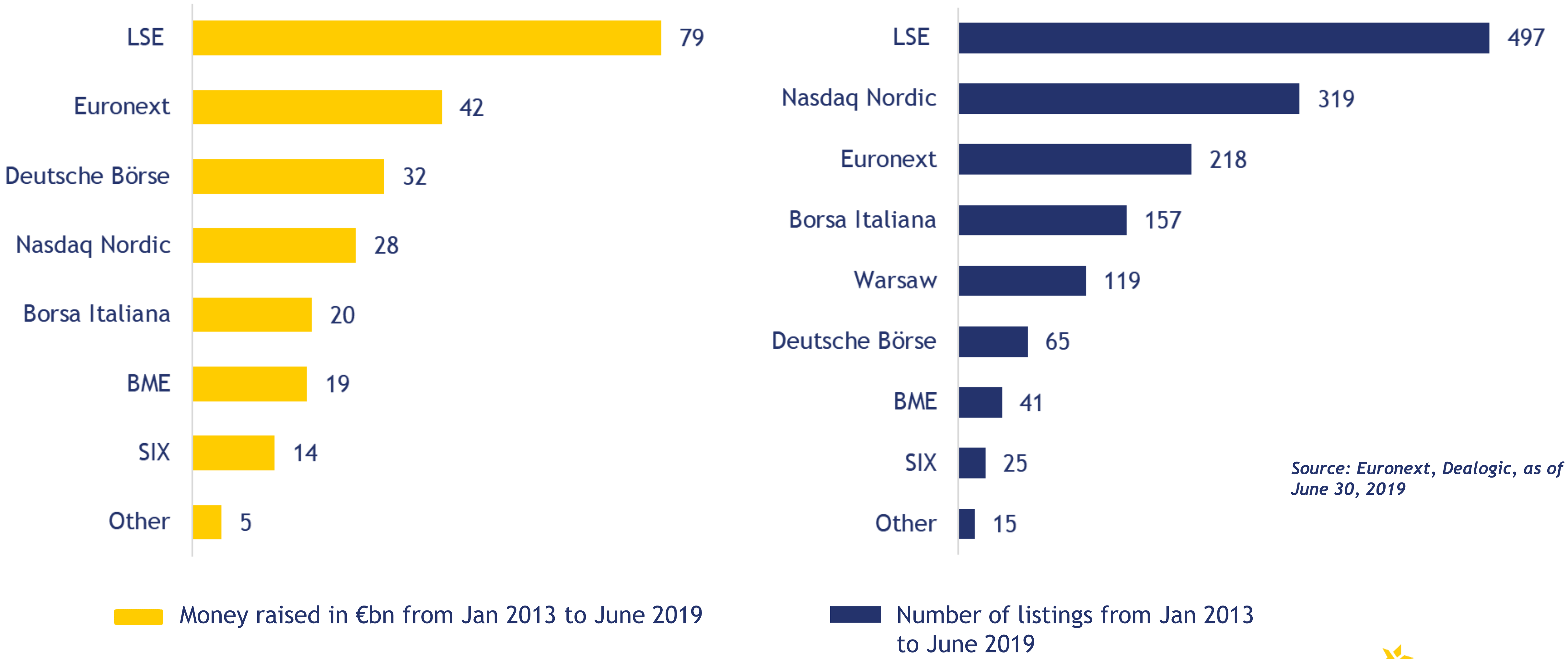
Overview of European listing activity

Between January 2013 and June 2019, close to 1,500 companies listed in Europe
Around €240bn were raised on the primary market



Source: Euronext, Dealogic, as of June 30, 2019

Listing activity by stock exchange since 2013



Source: Euronext, Dealogic, as of June 30, 2019

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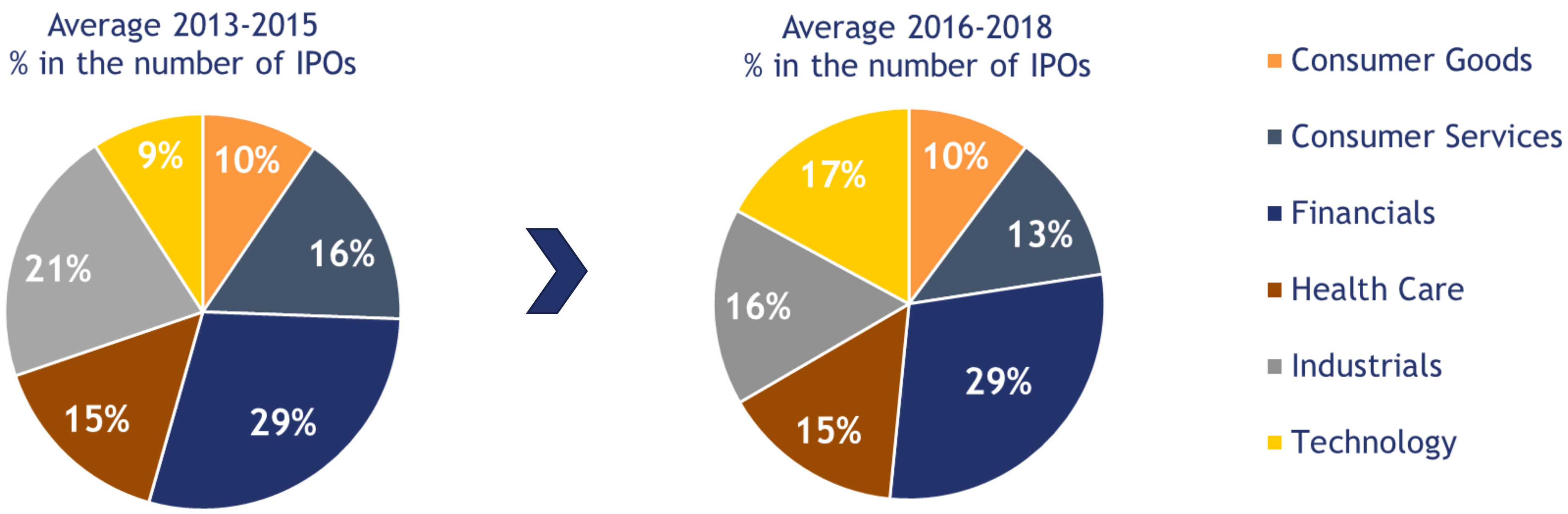
Evolution of the Top 6 industries

Since 2013, Financials has been stable and is the leading sector representing an average of 29% of IPOs. Technology surged by 8% while Industrials and Consumer Services decreased in the same proportion.



Source: Dealogic, Industry Classification Benchmark

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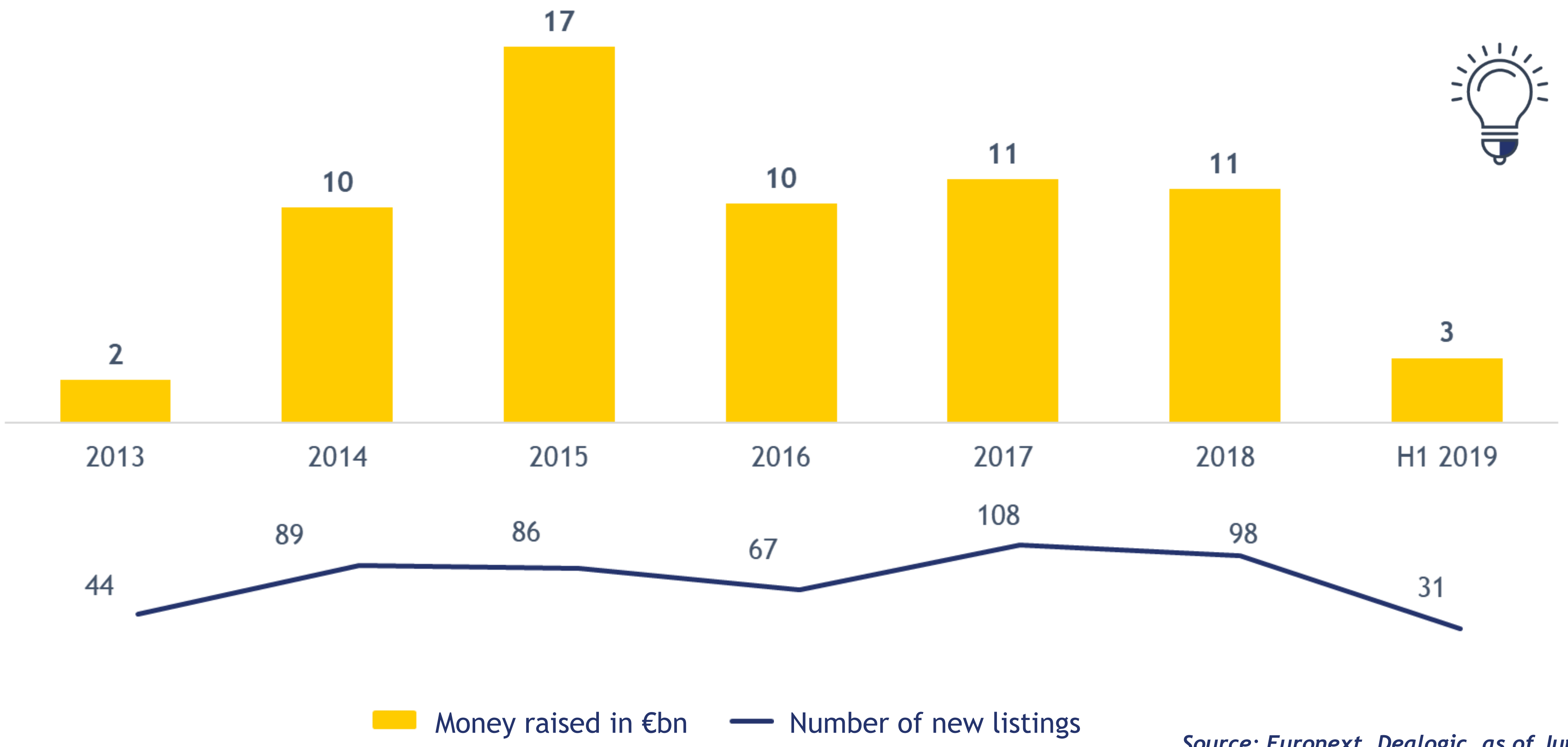
European technology companies raised €64bn on capital markets to finance their growth since 2013



Source: Euronext, Dealogic, as of June 30, 2019

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Top 15 of new listings in Europe in money raised (€m) since 2013

Top 15 represented ~50% of total money raised by tech companies

Source: Euronext, Dealogic, as of June 30, 2019

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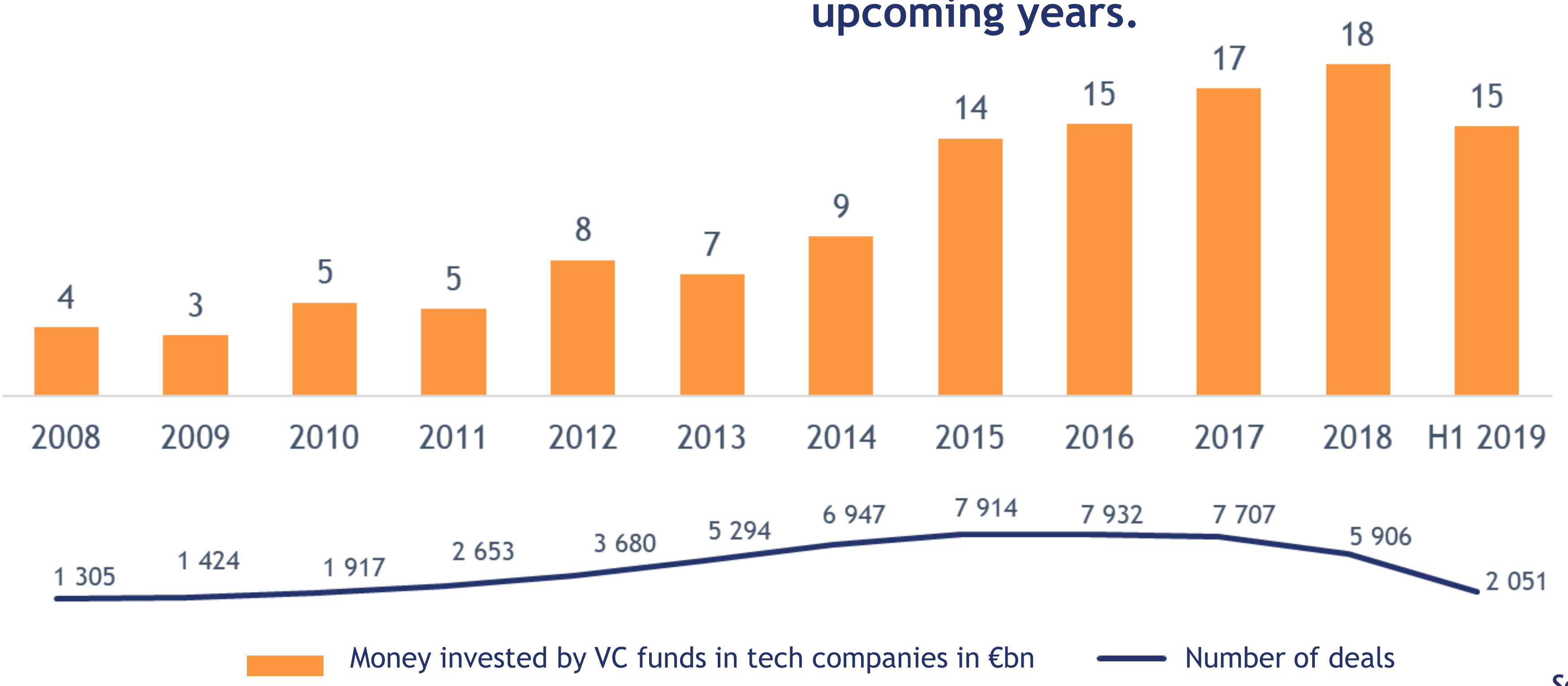
The untapped Technology Sector

Especially considering the fast growth of money invested by Venture Capital in tech companies in Europe over the last 10 years.

Having said that, these massive investments should pave the way for new listings in the upcoming years.



Investments of VC funds have been multiplied by 4 in 10 years

Source: Pitchbook, as of June 30, 2019

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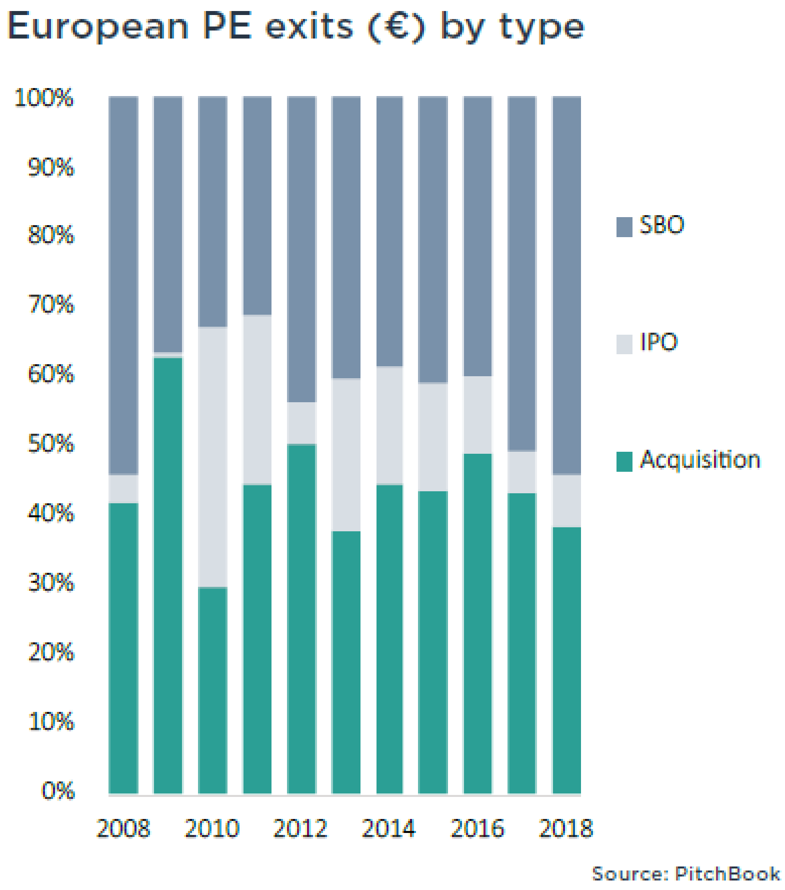
PE funds may not be fueling enough Tech IPO's

Most of the tech companies are backed by a private equity fund.

Private equity funds have 3 options for an exit :

- an IPO
- a trade sale/acquisition (sale of one company to another company)
- or a secondary buyout/SBO (sale of one company to another PE)



IPO has been the less used exit route by Private Equity funds over the last years.

They often think to achieve a better immediate valuation with a trade sale or a secondary buy-out.

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…Using other routes to exit their investment

Trade sale: When a PE fund prefers to sell to a company

Main impact: Companies arrive on the capital markets as part of a larger already listed company

- Before the 1990s, most recent success stories would have gone public on their own rather than accepting an offer from an industry giant.
- Technology is reducing costs and creating incentives to scale. Large Tech companies worldwide are also growing larger and more acquisitive.
- Very large M&A deals in 2018 in Europe such as Essilor/Luxoticca, Comcast/ Sky or Vantiv/Worldpay illustrate this trend

Secondary Buyout: When a PE fund prefers to sell to another PE fund

Main impact: Companies are delaying their listing on the market

- The number of PE secondary buyouts has been increasing sharply over the last years. In 2018, they accounted for over half of European PE exits (source: Pitchbook) marking the first time they comprised the majority. The same thing happened for the first time in the US market in 2018 as well.
- With a secondary buyout, a company arrives then later on the market if not bought by another company in the meantime.

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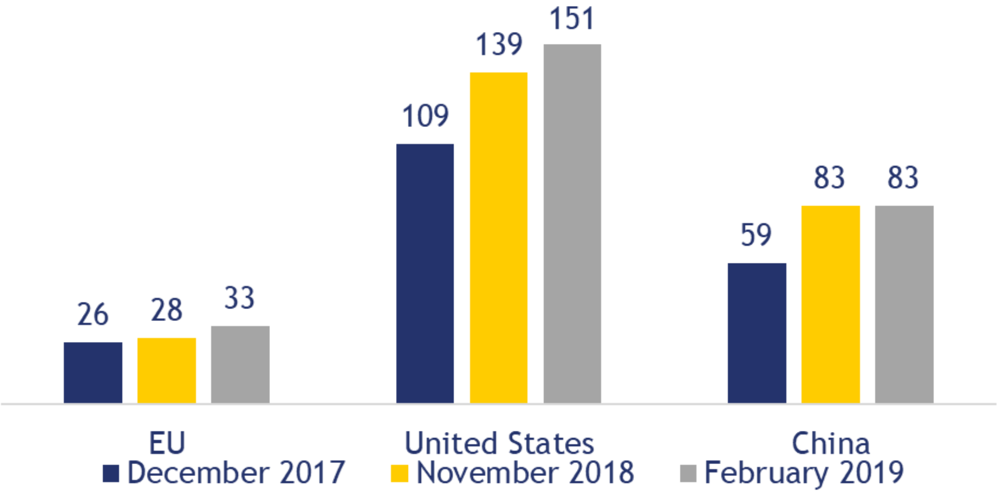
Unicorns are perfect candidates to IPO but they are scarce in Europe

European unicorns - private company with a valuation over €1bn - make up only 11% of the total number of unicorns around the world when the US gathers 50% & China 28%



Source: CBInsight

Delivery Hero
avast
adyen

Tech start-ups in Europe are struggling to reach sufficient scale bringing them to their next stage of growth and to a unicorn status at some point

It can be explained by the fact that:

- Europe is a more fragmented market in term of financing than the US
- Difficulty to raise money post-series B, except with just a few pan-European or US investors

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Adyen, the largest tech unicorn-IPO in Europe in the last 5 years

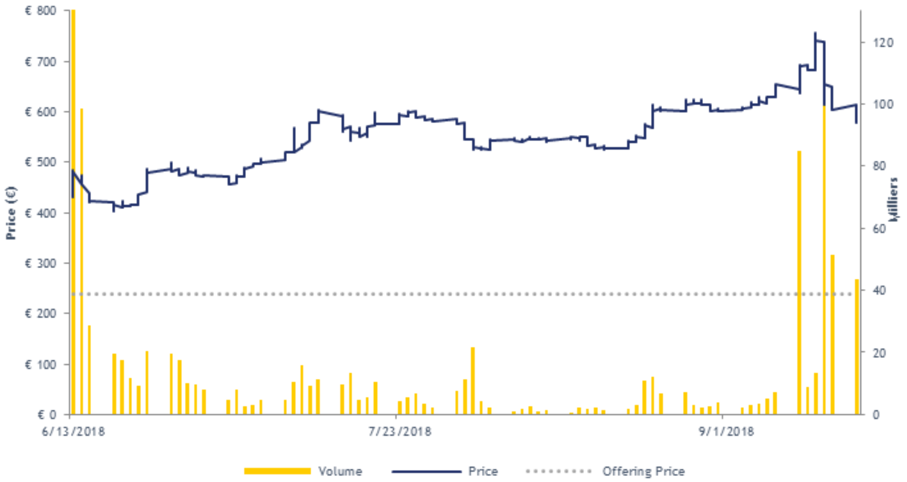
Company profile

- Headquartered in Amsterdam, Adyen has built an efficient single platform that enables the acceptance and processing of cards and local payments globally across it merchants' online, mobile and point of sale (POS) channels
- The company joined Euronext as the largest tech unicorn-IPO in Europe in the last five years, based on market capitalization at opening.

Deal structure

- Start of trading: 13 June 2018
- Listing location: Compartment A, Euronext Amsterdam
- IPO proceeds: €850m
- Market capitalization at IPO: €7.1bn
- Small amount of shares offered during the IPO (12%) resulted in a price increase of 89% on the first day trading.
- Shares were initially targeted towards a handful of specific long term institutional investors who had tracked the deal over an extended period of time. This was extended to roughly 50 institutional investors being considered in the book.

Price & volume



Neoen, the largest cleantech IPO in 2018

Company profile

- Founded in 2008, Neoen is an independent producer of renewable energy that has expanded rapidly in France and on international markets in Europe, Australia, North and South America, and Africa.
- The funds raised were used to finance the Group’s expansion and development strategy.

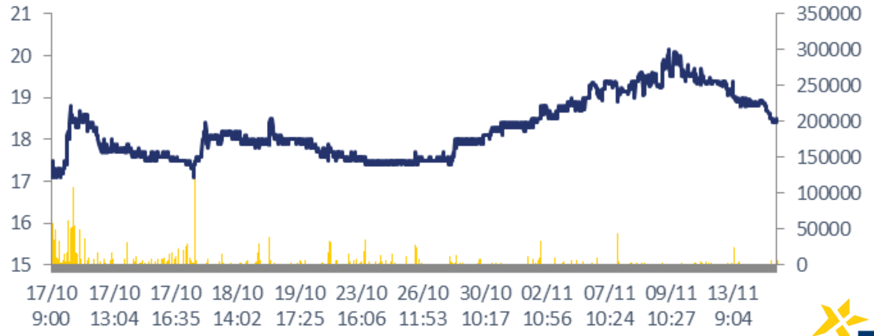
Deal structure

- Start of trading: 17 October 2018
- Listing location: Compartment A, Euronext Paris
- IPO proceeds: €628m (Primary: €450m, Secondary: €178m) – full exercise of the greenshoe takes the deal to a final €697m
- Market capitalization at IPO: €1.4bn
- Subscription & allocation: oversubscription at a rate of 214%, allocated at 90% to institutional investors and 10% retail investors.

Financial results

	2015	2016	2017
Revenues(k€)	56 700	81 300	139 300
Growth YoY	-	*+43%*	*+71%*
Operating Income (k€)	16 200	32 200	53 700
Margin	*28,6%*	*39,6%*	*38,5%*
Net Income (k€)	1 400	1 100	7 400
Margin	*2,5%*	*1,4%*	*5,3%*

Price & volume



4 How to go public?

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3 types of listings

INITIAL PUBLIC OFFERING (IPO)

Most common way to list a company's shares on the stock market.

Concretely, it takes the form of a capital increase or sale of shares currently held by investors. By offering new or existing shares for sale, the company opens its capital to new investors, both institutional and retail.

PRIVATE PLACEMENT

Shares are sold directly to a selected group of professional and qualified investors.

DIRECT LISTING

Shares are simply made available for trading (without increasing capital through an IPO or a private placement).

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Choosing the right market

Regulated Market

Suited to highly structured large and medium companies

- Possible to raise a significant amount of money
- Large & international investor base
- High level of liquidity
- High visibility to media, analysts and investors
- Demanding listing & ongoing requirements (minimum level of free float, IFRS standard, prospectus etc.)
- Inclusion in prestigious European indices

OR

Junior Market / Multilateral Trading Facility (MTF)

Suited to SMEs and fast growth start-ups

- Money available suited to the needs of SMEs
- Tighter & European investor base
- Lower level of liquidity
- Exposure to SME-centric investors
- Lighter listing and ongoing requirements

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Listing requirements at admission

	Example of a regulated market	Example of a junior market
Free float	>25% market cap or €5m	€2.5m
Financial statements	3 years (or 2 for SMEs) (audited)	2 years (audited)
Accounting standards	IFRS	IFRS or local GAAP
Intermediary	Listing Agent	Listing Sponsor
Main document to be provided	EU Prospectus	EU Prospectus for public offers >€8m or >€5m depending on the country Information Document in other cases

Free float: Shares held by investors on the market and available for trading

The IPO journey in 6 key highlights

1 Timing

Completing an IPO takes on average 5-6 months

2 Management

The CEO and CFO of the company are key in the IPO process, conducting meetings with investors (roadshows)

3 Advisors

The first step of an IPO is the selection of IPO partners to create a working group that will support the IPO project and follow the company on the aftermarket: banks, communication agency, legal advisors, auditors etc.

4 Equity Story

Key to a successful listing & defined at the beginning of the IPO process. The equity story is the company’s own rationale on why it should be bought by investors.

5 Prospectus

Main document reviewed by the financial regulator in an IPO, the prospectus is a formal legal document in two major parts, a description of the company and the terms of the transaction.

6 Investors

Marketing deployment is a key step to raise interest around the IPO among institutional and retail investors. Book building is then the process of capturing investor demand at a given price & number of shares.

Main steps of an IPO process

6 months before IPO

FIRST STEPS

- Selection of main advisors: banks, Listing Sponsor, lawyers, communication agency
- Kick-off meeting: management presentation
- Due Diligence & Data Room
- Business Plan
- Validation by the stock exchange

2-3 months before IPO

STRUCTURATION

- Transaction structuring
- Equity Story / Valuation
- Documentation: Prospectus (Registration Document and Securities Note) and International Offering Memorandum
- On-going discussions with regulator on the content of the Prospectus

1-2 months before IPO

PRE-MARKETING

- Slideshow for analysts and investors
- Early-look investor meetings
- Presentation to research analysts and publication of analyst reports
- Pre-deal Analyst Investor Education
- Investor targeting and roadshow program
- Setting of an Initial IPO price range

~2 weeks before IPO

MARKETING

- Regulator visa on the prospectus
- Signing of legal documentation
- Management Roadshow
- Book-building
- Setting of the final IPO price
- Investors' allocations
- Settlement, delivery and shares' admission

After IPO

POST-LISTING

- Stabilisation of price
- Compliance with stock market requirements as defined by local regulator
- Financial communication and investors relations
- Future capital market transactions

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Cost of going public in Europe

The overall cost varies considerably among companies and countries and depends significantly on how complex a business is and the amount of capital it is proposing to raise as part of the IPO.

FESE has estimated the costs to be approximately:

- 10 to 15% of the amount raised from an initial offering of less than EUR 6 million
- 6 to 10% from less than EUR 50 million
- 5 to 8% from between EUR 50 million and EUR 100 million
- 3 to 7.5% from more than EUR 100 million

Costs at admission

Bank fees	Auditing fees
Legal fees	Prospectus & materials
Listing sponsors	Exchange

Higher cost in the US: Total cost in Europe is often the cost of only investment banks in the US

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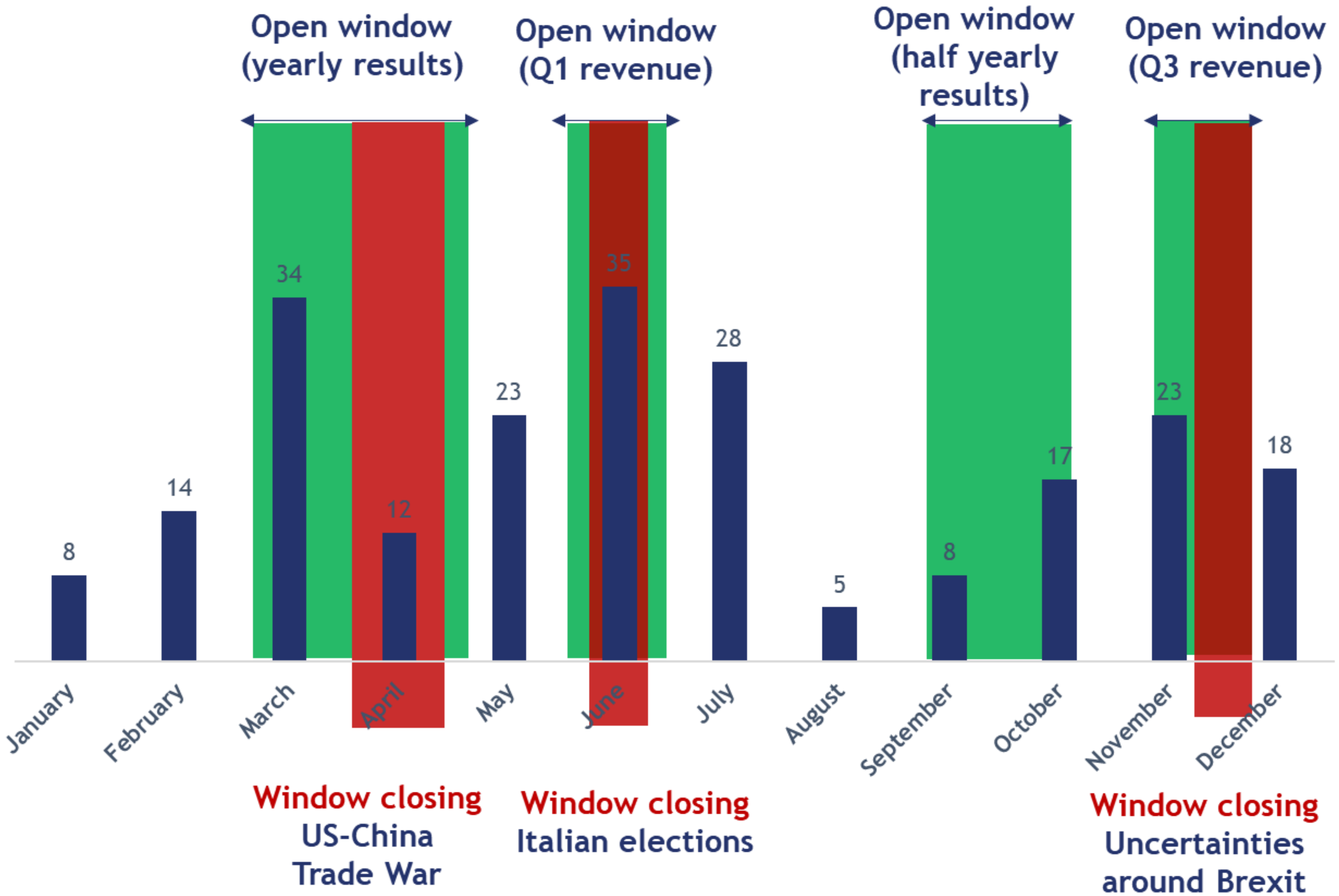
Timing - Illustration with 2018 listings across Europe



- The listing windows are strongly linked to the company's main financial releases
- Key events on the markets in 2018 have narrowed these windows
- Volatility and tough market conditions in 2018 led to many postponed deals: around 70 postponed or withdrawn listings across Europe versus 11 in 2017

Source: Dealogic

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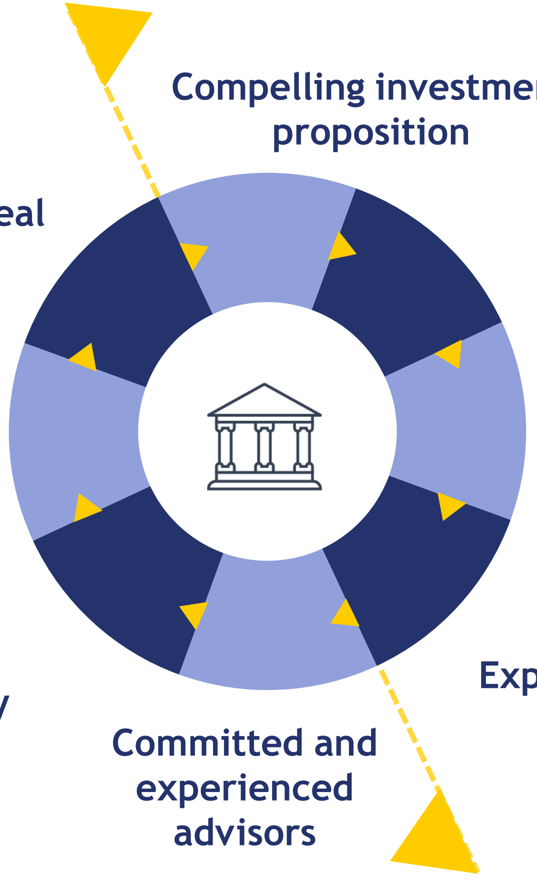
Key success factors of an IPO

The secret of the IPO success: an attractive investment proposition, in the right market environment, with a very well prepared strategy and execution, with the support of a committed and experienced team: company's management and advisors



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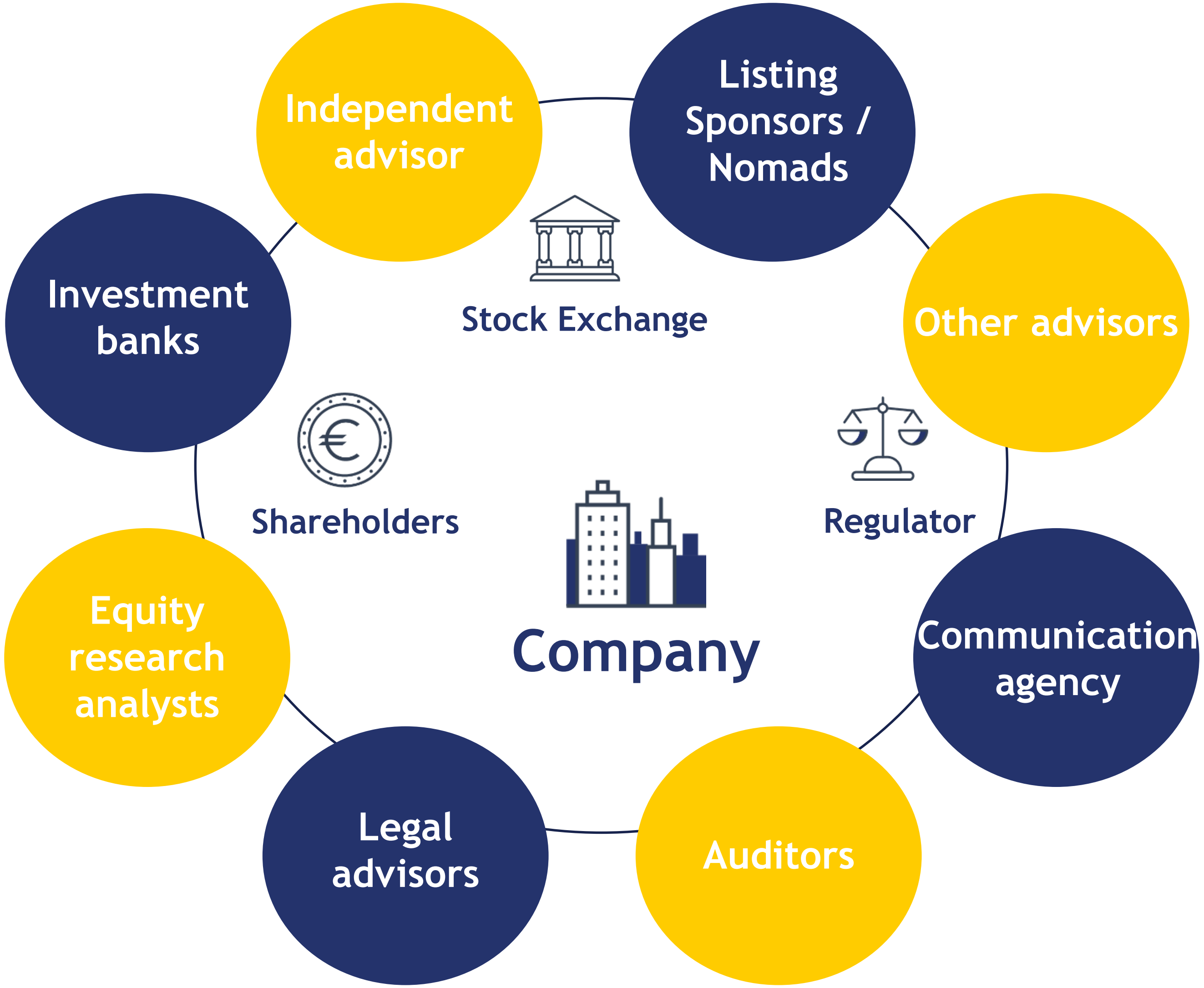
The role of advisors



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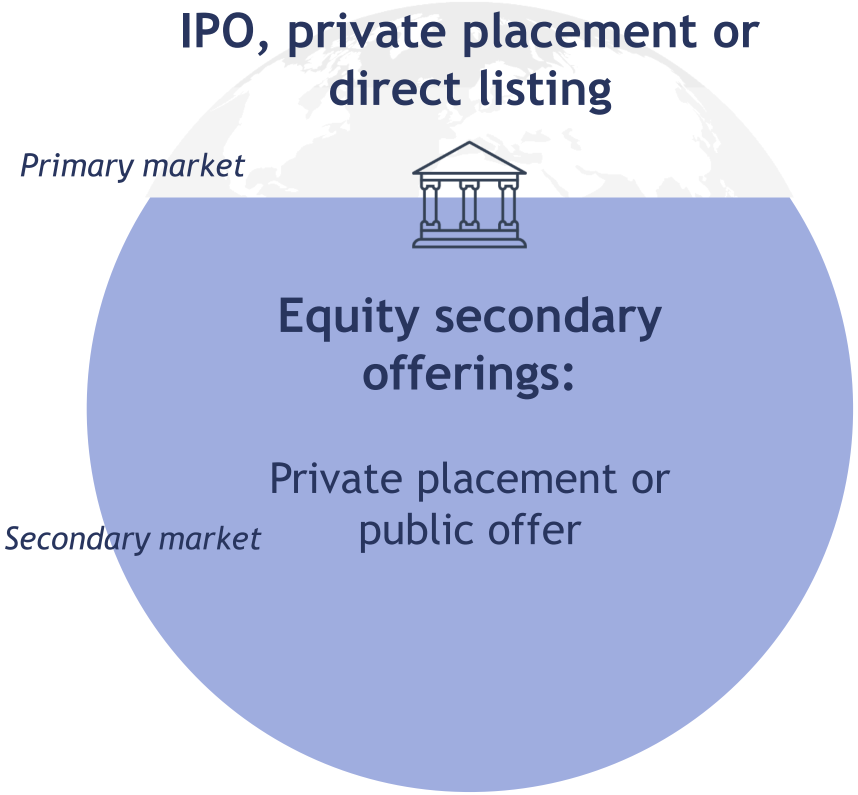
5 Life as a listed company

Using the secondary market (1/2)

A Listing provides an ongoing access to the equity capital market :



Financing growth is most of the time the main reason to raise additional funds on the market:

- Fresh funding for R&D
- Opening to new markets and countries
- M&A projects

Additional rounds of funding can also be used to:

- Strengthen the company’s capital base
- Achieve a better balance of equity and debt
- Offer partners or shareholders an opportunity to raise their stake in the company
- Fund employee shareholding plans

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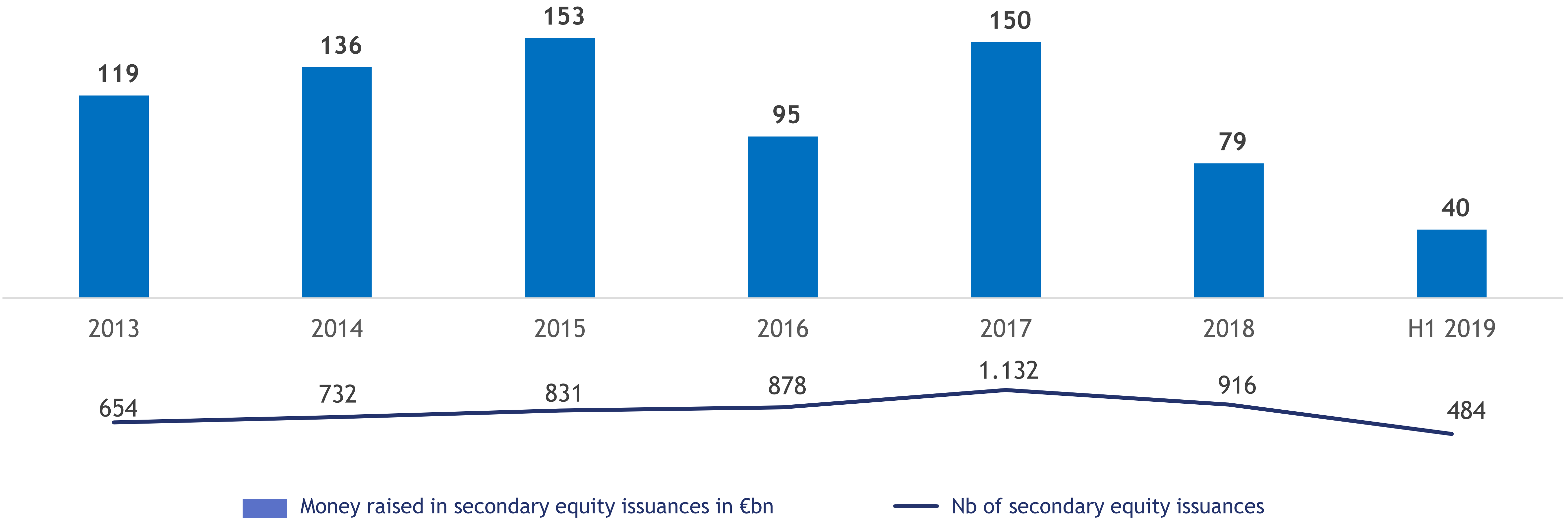
Using the secondary market (2/2)

Between 2013 and H1 2019, around €770bn were raised in equity on the secondary market in Europe



Source: Euronext, Dealogic, as of June 30, 2019

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Relationships with investors and analysts

Maintain relationships with existing shareholders

To deploy a successful investor relations strategy, companies need to keep an accurate list of all existing shareholders. To do so, they should:

- Keep close track of changes in share ownership
- Be aware of new profiles and targets to meet
- Connect with shareholders for roadshows, surveys, etc.

The role of sell-side analysts

Equity sell-side analysts following the stock, play an essential role in the life of a listed company. Companies need to:

- Maintain close ties with analysts, keeping them up on any new developments (new business, M&A, geographic expansion etc.)
- Track analysts consensus: estimates and valuation as a gap between market expectations and reality can have a significant impact on share price

Targeting new investors

Listing gives companies access to multiple individual investors and institutional investors. To target new investors companies must make sure to:

- Keep sufficient analyst coverage
- Make the business model easy-to-understand with clearly identified growth vectors
- Attend a sufficient number of roadshow or one-on-one to meet investors

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Being a public company comes with regulatory requirements after IPO

	Example of a regulated market	Example of a junior market
Financial reporting: annual	Annual financial report (annual financial statements, business report and auditor's report on annual financial statements)	
Financial reporting: semi-annual	Semi-annual financial statements with auditor's limited review, business report	Semi-annual financial statements and business report (unaudited)
Financial/Investor Website	Yes	
Market Abuse Regime	Applicable	
Intermediary	Not required	Listing Sponsor
Disclosure of threshold crossing	Applicable	

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6 Key challenges for SMEs around listing

Small and medium-sized entreprises are facing 3 main challenges to get public

1. Going public has grown more expensive and constraining in terms of requirements

2. Lack of equity research coverage and low level of liquidity on SMEs

3. Local ecosystems able to support SMEs become scarce and under pressure

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1

Going public has grown more expensive and constraining in terms of requirements

Listing and ongoing requirements can be burdensome for SMEs which have limited financial, human resources & time to fulfill them. In particular, the following requirements are considered quite heavy:

Prospectus

- Compulsory in case of a public offer
- More and more long in terms of content (at least ~400 pages)
- Challenge to lighten this constraint: For example, since July 2018, exemption for public offers below €8m which is not applicable yet as the French national law has not been modified (sollicitation prohibited if no prospectus)

IFRS

- IFRS are required for a listing on a regulated market
- Time-consuming and costly process: as a result some companies are asking to be transfered from a regulated market to a MTF
- Implementation of IFRS 15 in 2018 has brought additional complexity and cost (review of the calculation method of revenue)

Market Abuse Regulation

- Keeping up to date the insider list
- Disclosure of insider information
- Disclosure of managers' transactions (thresholds seen as low)

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2

Lack of equity research coverage and low level of liquidity on SMEs

Lack of equity research coverage

- Most of small and mid caps are covered by 0 to 1 analyst when large caps benefit from much wider coverage and better visibility to investors
- Since January 2018, MiFID II has reinforced the gap in equity research between large caps and SMEs:
    - Pre-MiFID II research was supplied as part of a bundled service, paid by execution fees. Research post-MiFID II is required to be unbundled and priced separately from execution of financial instruments.
    - Investment managers have decreased their number of research suppliers focusing on large cap coverage instead of SMEs which bring much lower execution fees
- A growing number of SMEs are paying independent research providers to write research. But situation remains challenging: potential conflict of interests, lack of recognition and coverage limitation due to budget.

Low level of liquidity

- A liquid stock is a stock that can easily be bought or sold on the market. Liquidity is often cited as one of the biggest challenge faced by SMEs.
- Main reasons for this lack of liqudity:
    - SMEs have a lower free float market cap than large caps affecting liquidity and index inclusion
    - Lack of equity research to fuel liquidity
    - Rise of passive investment relying on indices
- On Euronext, 2018 volumes were on average more than 35 times higher for large companies than for SMEs*. It encourages investors to be more present on large cap markets.

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3

Local ecosystems able to support SMEs become scarce and under pressure

Listed SMEs rely strongly on the local environment which supports them on the markets and increases awareness among investors. Across Europe, the ecosystem made of analysts, brokers, and small cap funds specialized in SMEs is shrinking.

Growing concentration of market players & little interest of large institutions

- This phenomenon leads to:
  - A decrease of analyst coverage of SMEs for the sell-side industry
  - A reduction of the number of brokers willing to invest into listed SMEs and SME IPOs for the buy-side industry
- Moreover, large local buy-side institutions appear to have a very low interest in small cap IPOs

Reduction of the number of small cap funds

- Interest of funds investing in SMEs have been decreasing over the last year and is now narrowed to a very small number of institutions
- Over the past 5 years, only ~30 brokers have been active on Euronext markets for SME deals

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7 Challenges facing policy makers?

The EU is committed in strengthening its Capital Markets Union

The Juncker Commission (2014-2019) made it a key priority to:

- Integrate and deepen capital markets
- Increase firms and citizens’ access to capital markets
- Increase EU attractiveness as a destination for foreign investments

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Co-legislators first focused on facilitating SME access to public financing

The Commission proposed legislative measures to provide simpler, clearer and more proportionate rules for entrepreneurs, business and financial institutions under the framework of

SME Growth Markets

2017

The Prospectus Regulation has introduced a lighter regime for financial instruments issued by SMEs

2018

The Commission launched proposals to **promote the use of SME Growth Markets** amending the Prospectus and Market Abuse Regulation, and technical adjustments to MiFID II

2019

The Commission is reforming its **InvestEU** framework to enable programmes that facilitate SMEs' access to public markets.

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However, much remains to be done in order to meet the objectives set by the Juncker Commission

SMEs are faced with several challenges in order list in public markets

1. Weak pipelines of companies seeking a listing due to high compliance costs, making other financing avenues (bank and private equity based) a strong alternative
2. Lack of institutional and retail investors for SME financial instruments due to:
   i) challenges in respect of liquidity

The SME Growth Markets proposals addressed some of these challenges

1. Simplified prospectus and alleviated disclosure requirements for SME issuers, thereby reducing administrative listing costs.
2. i) The creation of an EU liquidity contract and of a transfer prospectus for SME Growth Market issuers

Yet, SMEs face remaining challenges…

ii) visibility deficit on SMEs caused by insufficient research coverage

3. Local ecosystems (smaller brokers, market makers, liquidity providers and boutiques) supporting companies at the IPO stage are under pressure in many Member States

ii) MiFID II inducement rules still impact SMEs' investment research

3. MiFID II appropriateness tests, Solvency II equity capital charges and restrictions in UCITs limit institutional investments in shares and bonds

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…which triggered a new set of initiatives to further reform and deepen local capital markets

The von der Leyen Commission (2019-2024) makes it a key priority to build upon the CMU initiative by linking it to SME, ESG and Fintech strategies.

2019

- Launch of the Next CMU High Level Group
- Agreement on the Taxonomy Regulation
- Launch of consultation on crypto-assets

2020

- Solvency II: Study on supply chain finance
- MiFID II inducement rules: Study to assess the situation of SME research coverage
- Creation of an EU SME IPO Fund
- Commission to undertake review of state aid rules (GBER Refit)

2021 - 2024

- Towards a CMU 3.0

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8 Debts & Funds Listings

Overview of Debts & Funds listings in Europe

Debt
- What is the Debt Capital Market?
- Why list debt?
- Debt listings by stock exchange as at April 2019
- Main legislation applicable to listed debt
- Key regulatory challenges for debt
- Green bonds

Funds
- Overview of listed funds
- Why list an investment fund?
- Investment fund listings by stock exchange as at April 2019
- Main legislation for funds
- European Investment funds 2018 Review
- Listing conversion rate of CBI authorised funds 2010-2018

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9 Debts listings

What is the Debt Capital Market?

Definition

The debt market is the market where debt instruments are traded. Debt instruments are assets that typically require a fixed payment to the holder, usually with interest. Examples of debt instruments include bonds (government or corporate) and mortgages.

“Raising debt” means that an entity borrows funds and then pays interest on those funds – as opposed to equity, where the entity sells a percentage ownership in itself and pays no interest.

Why is it important?

The bond market is vital for economic activity. Bond markets are a stable and reliable source of long-term financing for both governments and corporates globally. From a macroeconomic standpoint, interest rates have an impact on consumer spending and on business investment.

Why issue a bond?

Issuing a bond provides entities with a way to raise capital without diluting shareholders' equity. Often lower interest rates are available compared to the rates available in bank financing. The bond market offers a very efficient way to borrow money.

Main participants in the Debt Capital Market

The principal participants in the debt capital markets are:

- Issuers
- Investors
- Managers and Dealers
- Trustees and Agents
- Trading Infrastructure
- Post-trade Infrastructure

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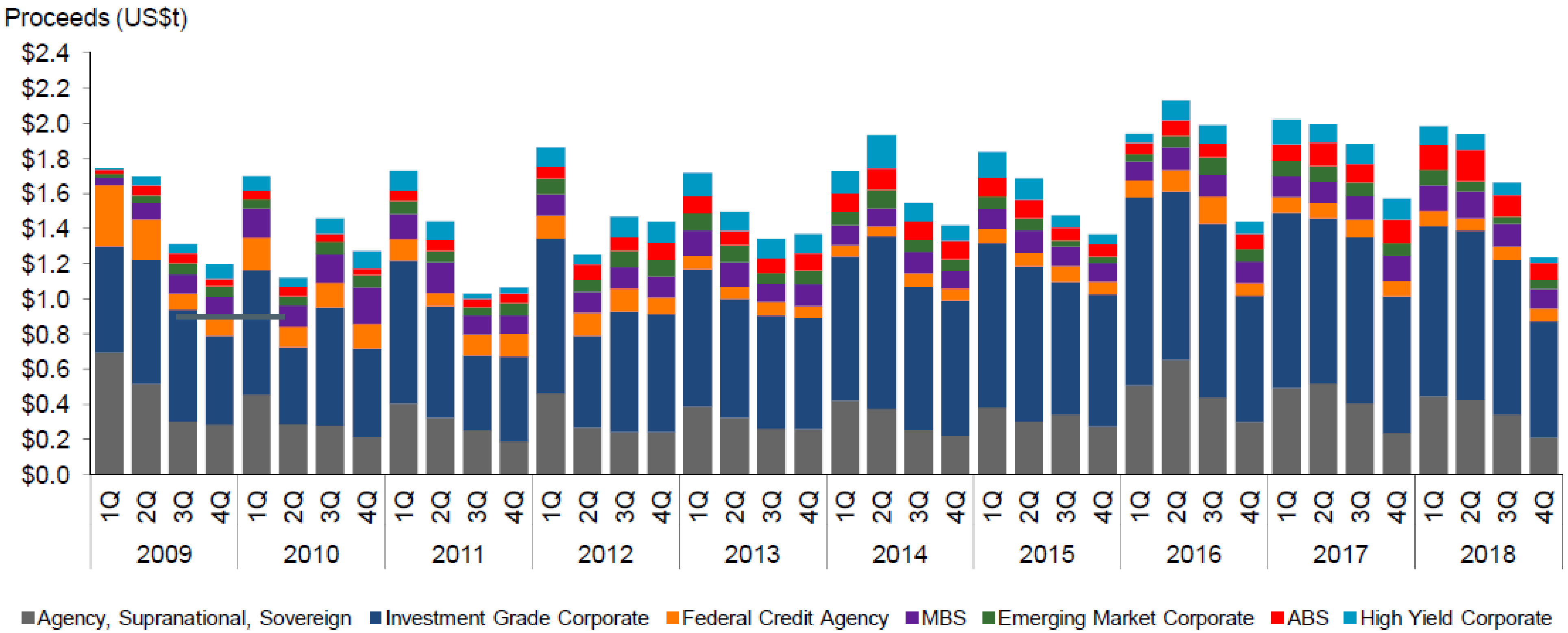
Global Debt Capital Markets 2018 Review



- Global debt capital markets activity totalled US$6.6tn in 2018, an 8% decrease from 2017 and the slowest full year period since 2015.
- Q4 2018 - global debt activity decreased 27% compared to the Q3 of 2018 and marked the slowest fourth quarter for global debt since 2011.

Source: Thomson Reuters Debt Capital Markets Review Full Year 2018

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Debt Capital Market: Issuance volumes EUR & USD markets

EUR market

	Corporate bonds				Financial bonds					SSA bonds				Total
In EUR bn	Investment grade	High yield	Hybrids	Total	Covered bonds	Senior preferred	Senior HoldCo/ SNP	Hybrids	Total	Sovereign	Agency/ Supra	Local authorities	Total	Bonds
2015	220	55	26	**301**	154	160	26	44	**383**	947	164	59	**1 170**	**1 854**
2016	274	50	9	**333**	132	122	56	28	**337**	844	190	52	**1 086**	**1 757**
2017	288	82	12	**382**	117	118	69	41	**346**	930	235	53	**1 217**	**1 945**
2018 Expected	241	58	19	**318**	141	125	68	28	**362**	909	203	56	**1 168**	**1 848**
2019 Forecast	250	53	20	**323**	145	130	90	35	**400**	922	201	52	**1 175**	**1 898**
2019 vs. 2018	+4%	-9%	+4%	**+1%**	+3%	+4%	+32%	+25%	**+10%**	+1%	-1%	-7%	**+1%**	**+3%**

USD market

	Corporate bonds				Financial bonds					SSA bonds					Total
In USD bn	Investment grade	High yield	Hybrids	Total	Covered bonds	Senior preferred	Senior HoldCo/ SNP	Hybrids	Total	US Treasury	Sovereign non-US	Agency non-US/ Supra	Local authorities	Total	Bonds
2015	787	262	8	**1 057**	22	318	144	122	**605**	2 123	84	244	13	**2 464**	**4 126**
2016	747	229	1	**977**	17	330	174	111	**631**	2 070	116	295	29	**2 510**	**4 118**
2017	796	282	2	**1 081**	12	457	176	70	**715**	2 047	158	270	34	**2 509**	**4 305**
2018 Expected	720	190	1	**911**	13	375	190	65	**643**	2 282	122	216	13	**2 633**	**4 187**
2019 Forecast	715	220	2	**937**	15	360	240	70	**685**	2 768	120	222	21	**3 131**	**4 753**
2019 vs. 2018	-1%	+16%	+54%	**+3%**	+15%	-4%	+26%	+8%	**+7%**	+21%	-2%	+3%	+62%	**+19%**	**+14%**

Source: SG CIB Analytics, Dealogic

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Why list debt?*

- Withholding Tax Exemptions
- Investor Requirements
- Badge of Integrity
- Marketing Tool
- Eurosystem Eligibility
- Access to European debt capital markets and wider distribution

*Admission to trading on a regulated market

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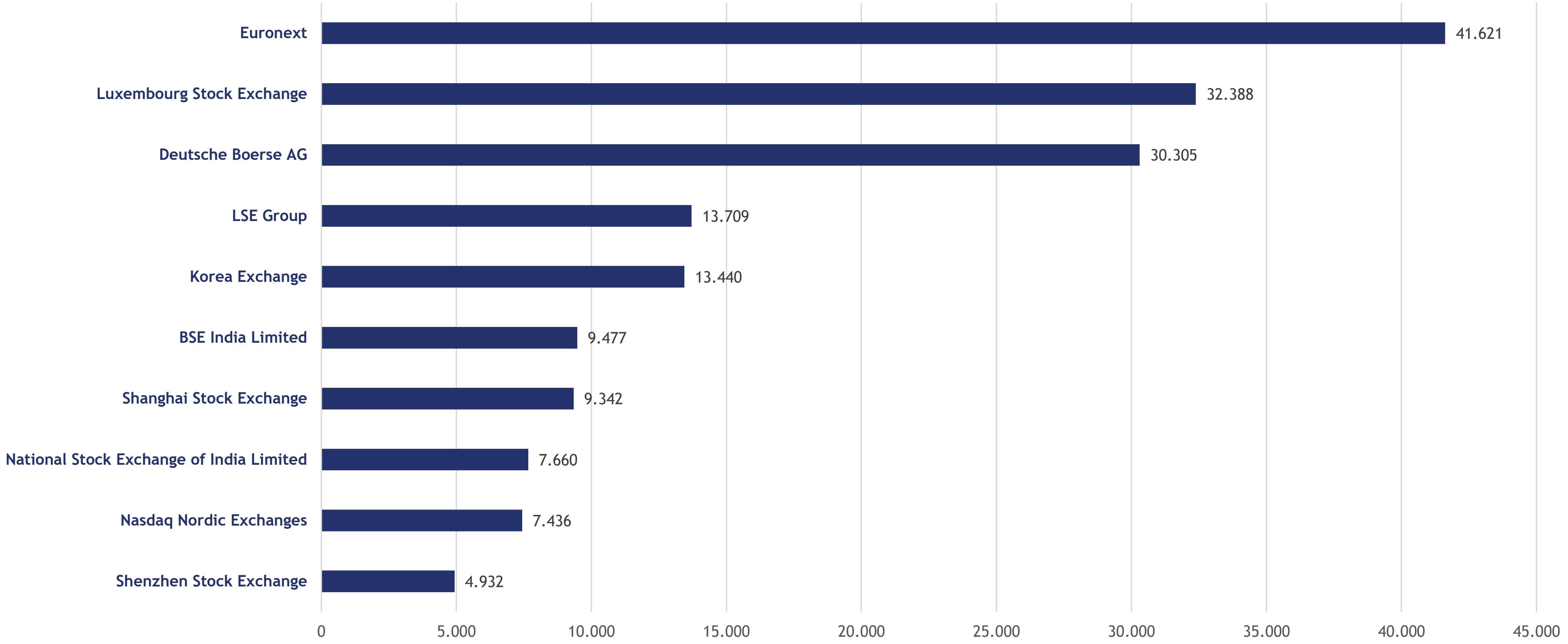
Debt listing by stock exchange as of April 2019



Source: WFE Statistics April 2019

Main legislation applicable to Listed Debt

- **Prospectus Regulation (Regulation (EU) 2017/1129)**
  - Effective from July 2017, however bulk of its provisions were applicable from July 2019
  - Applies to regulated markets and public offers
  - Aims to facilitate access to financial markets across Europe and outlines the disclosure requirement for issuers when securities are offered to the public or admitted to trading on a regulated market

- **Transparency Directive (2004/109/EC), as amended**
  - Effective from June 2007
  - Applies to regulated markets
  - Aims to ensure transparency of information for investors through a regular flow of disclosure of periodic and on-going regulated information and the dissemination of such information to the public

- **Market Abuse Regulation (Regulation (EU) No 596/2014)**
  - Effective from July 2016
  - Applies to both regulated markets and multilateral trading facilities
  - Aims to increase market integrity and investor protection, enhancing the attractiveness of securities markets for capital raising

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Key Regulatory Challenge

- The **key regulatory challenge** is to ensure legislation that applies to debt is:
  - Appropriately tailored for this specific type of security
  - Achieves the right balance between investor protection and obligations that are not too onerous on issuers
  - E.g. in the Prospectus Regulation, the disclosure requirements are specifically tailored to different asset classes which benefits both the issuer and the investor

- However, some argue that other legislation such as MAR is not appropriately tailored for debt markets and compliance is too costly
  - E.g. in determining inside information that needs to be disclosed, the current test required is to determine 'significant effect on the prices of financial instruments' and this is very difficult to apply the less liquid debt market, in contrast to the more liquid equity markets, as over 95% of the market is traded on an OTC(over the counter) basis.

- If certain legislation is seen as too burdensome, there is a risk that issuers, instead of choosing to list on EU exchanges, may choose alternatives such as listing on offshore stock exchanges (non-EU) to avoid these requirements or may choose to not list at all
  - Resulting in less transparency and reducing investment options

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Green bond growth 2018

- Total proceeds from global green bonds reached US$134.5bn in 2018, a 29.3% increase compared to 2017.
- Green Bond issuance by Sovereign borrowers in 2018 increased 117% compared to the 2017, reaching US$16.3bn.
- Sovereign Green Bond transactions included:
  - A fifteen year €4.5bn deal from The Kingdom of Belgium, the second largest green bond on record (following France's €7bn deal in 2017)
  - An inaugural €3bn transaction from The Republic of Ireland
  - Indonesia issued a US$1.25bn five year sukuk, the world's first Islamic green bond from a Sovereign issuer

Source: Thomson Reuters Debt Capital Markets Review Full Year 2018

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Regulatory considerations for Green bonds

- The **Green Bond market** is still in preliminary stages but is gaining momentum and is continuously evolving
- The **key challenge** is to strike the balance between promoting sustainable finance and ensuring the requirements are not so burdensome as to deter issuers from listing Green Bonds
- The **Commission's Sustainable Finance action plan** was published in 2018, and specifically includes work on Green Bonds
- A **Technical Expert Group on Sustainable Finance (TEG)** was established to assist the Commission notably in the development of a unified classification system for sustainable economic activities, an EU green bond standard, methodologies for low-carbon indices, and metrics for climate-related disclosure
- The TEG published its **Final Report on developing an EU Green Bond Standard** on 18 June 2019 which proposes the creation of a voluntary, non-legislative EU Green Bond Standard to enhance effectiveness, transparency and credibility of the green bond market and to encourage market participants to issue and invest in EU green bonds.

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10 Funds Listings

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Overview of Listed Funds

Collective Investment Vehicles

- A collective investment vehicle (CIV), also known as a **fund or investment fund**, is a way of investing money, together with other investors in order to take advantage of an investment manager's expertise as well as benefit from economies of scale and risk diversification.

- Investors do not own specific assets of the CIV but own shares or units in the pooled assets. The shares or units of a CIV can be sold to the public or may be sold only by private placement.

- A CIV may be open ended or closed ended. An open ended CIV allows investors to purchase and redeem shares on an on-going basis in accordance with the CIV's offering document. A closed ended CIV has a fixed term life and investors may not redeem their share or units until the end of the life of the CIV.

- A CIV may be listed on an exchange for transparency purposes but is typically not traded on an exchange; liquidity is achieved by investors purchasing and redeeming their shares at a fixed price (the net assets value per share or unit), through a transfer agent.

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Exchange Traded Funds

- An **Exchange Traded Fund (ETF)** is a CIV that typically tracks a stock index or a basket of assets.
- The fundamental difference between an ETF and a general CIV is that an ETF's shares are traded like common stock on an exchange. The volume of ETF trading has increased significantly in the last ten years. ETF trading takes place both on exchange and over-the-counter.
- The price of the ETF changes throughout the day as shares are bought and sold.
- ETFs have enjoyed a surge in popularity in recent years.
- Large ETFs typically have lower fees than traditional CIVs which make them attractive to investors.
- Although the strategy for the majority of ETFs is to track an index, there are a number of ETFs that are actively managed whereby the investment manager has discretion to buy and sell the assets in the ETF.

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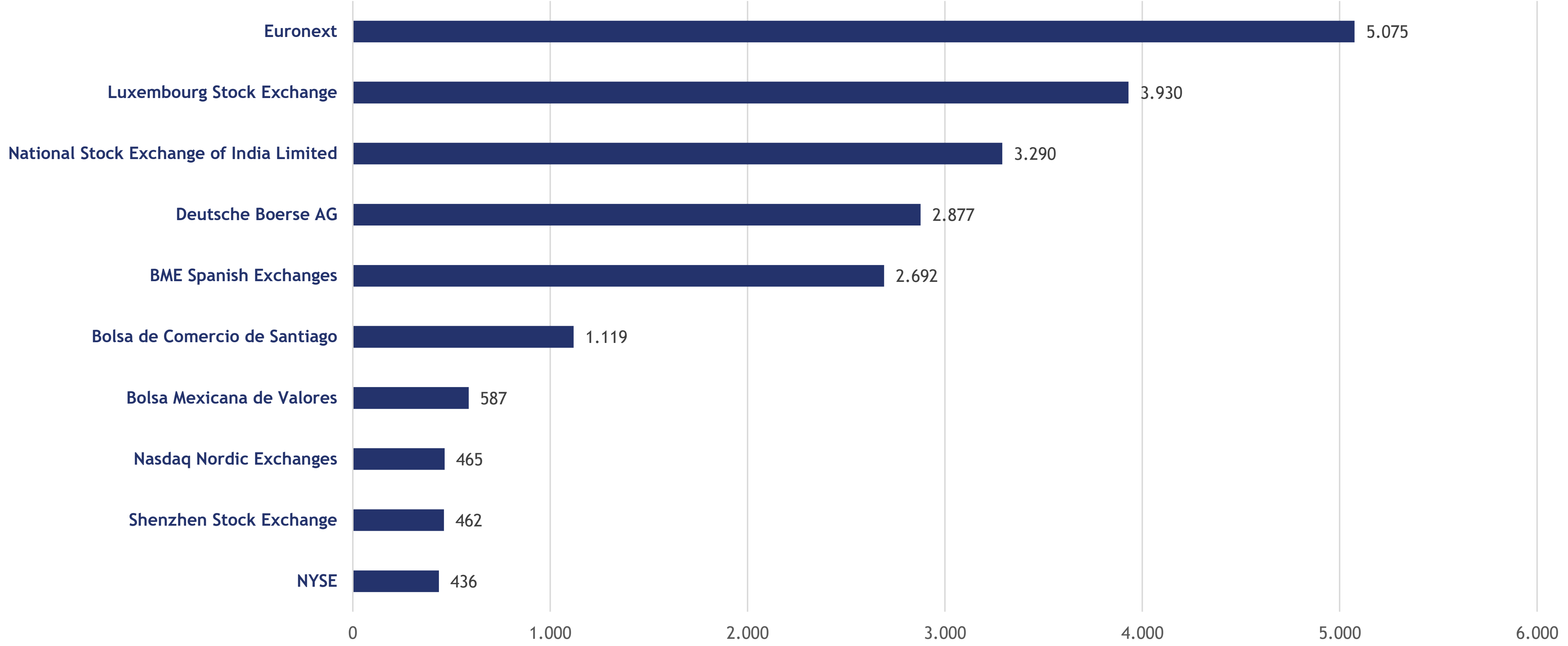
Why list an investment fund?

- Meet investor requirements
- Increase visibility and enhance transparency
- Publish NAVs and announcements
- Increase tax efficiency
- Benefit from third party oversight
- Access ETF trading

Investment fund listings by stock exchange as at April 2019



Source: WFE Statistics April 2019

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Main legislation applicable to funds

- **Undertakings for collective investment in transferable securities (UCITS)** is the main European framework covering collective investment schemes. This category of investment fund accounts for around 75% of all collective investments by small investors in Europe

- **Alternative investment fund managers directive (AIFMD)** covers managers of alternative investment schemes designed for professional investors. Alternative investment funds are funds that are not regulated at EU level by the UCITS directive. They include hedge funds, private equity funds, real estate funds and a wide range of other types of institutional funds

- Funds that are **listed on an exchange** are also subject to other securities legislation, e.g. Prospectus Regulation (for closed end funds), Transparency Directive, Market Abuse, Statutory Audit Directive

- **Key challenge** (similar to debt) is to ensure legislation is tailored for specific asset class:
  - ➢ Risk that funds no longer see listing as an attractive option if requirements too onerous
  - ➢ Numbers of funds listing are decreasing (even though number of funds getting authorized is increasing)
  - ➢ This reduces disclosure and transparency for investors

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European Investment funds 2018 Review

- Investment fund net assets in Europe decreased by 3% in 2018 to €15,157 billion.
- Net assets of UCITS declined by 4.6% to €9,284 billion.
- Net assets of AIF dropped by 0.4% to €5,873 billion.
- UCITS net sales amounted to €117 billion (€740 billion in 2017). Four countries recording net sales larger than €10 billion: **Luxembourg (€61.6 billion), Ireland (€47.4 billion), Switzerland (€12.7 billion) and Spain (€10.3 billion).**
- AIF recorded net sales of €128 billion (€208 billion in 2017). Three countries attracted net sales greater than €10 billion: **Germany (€95.6 billion), Ireland (€46.3 billion) and Luxembourg (EUR 30.8 billion).**
- The total number of UCITS and AIFs increased by 2.7% in 2018 to 61,994 (33,359 UCITS and 28,547 AIFs).

Source: Efama Quarterly Statistics Q4 2018

11 Q&A

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12 Appendix

Stock exchanges taken into account for the stock of listed companies

Athens Exchange
BME
Bucharest Stock Exchange
Budapest Stock Exchange
Bulgarian Stock Exchange
CEESEG - Prague
CEESEG - Vienna
Cyprus Stock Exchange
Deutsche Börse
Euronext
London Stock Exchange Group
Luxembourg Stock Exchange
Malta Stock Exchange
Nasdaq Nordics & Baltics
Oslo Børs
SIX Swiss Exchange
Warsaw Stock Exchange
Zagreb Stock Exchange

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Stock exchanges taken into account for IPOs and secondary equity issuances

Athens Exchange
BME
Borsa Italiana
CEESEG
Deutsche Börse
Euronext
London Stock Exchange
Malta Stock Exchange
Nasdaq Nordics & Baltics
Oslo Børs
SIX Swiss Exchange
Warsaw Stock Exchange

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