



# Sustainable Finance in Europe: The role of Stock Exchanges beyond Regulatory Compliance

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Dissertation written under the supervision of Professor  
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Dissertation submitted in partial fulfilment of requirements for the  
MSc in International Management – Strategy & Consulting, at the  
Universidade Católica Portuguesa, 02.06.2025.

## **Abstract**

Title: Sustainable Finance in Europe: The role of Stock Exchanges beyond Regulatory Compliance

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This dissertation explores how stock exchanges in Europe can actively facilitate sustainable finance beyond the boundaries of regulatory compliance, particularly focusing on the Corporate Sustainability Reporting Directive (CSRD), the Omnibus-package, and the European Sustainability Reporting Standards (ESRS). The main objective is to assess whether stock exchanges can and should act as drivers of Environmental, Social and Governance (ESG) progress, not just neutral infrastructure providers. Through qualitative interviews with sustainability professionals, exchange officials, and academics, paired with institutional analysis of major European exchanges such as Deutsche Börse, Euronext, and the London Stock Exchange, the study identifies both opportunities and challenges. Key findings show that exchanges increasingly promote ESG through financial products, educational tools, and transparency mechanisms. However, overregulation is viewed as a critical obstacle, especially for small and medium-sized enterprises (SMEs), potentially hindering innovation. The research concludes that stock exchanges have a unique dual role: they must provide neutral platforms for capital allocation while also proactively shaping sustainable market behaviour. Their ability to offer ESG indices, sustainability-linked products, and investor education initiatives positions them as essential players in Europe's green transition. Success in this role depends on balancing regulatory frameworks with market-driven innovation and public engagement.

Keywords: Sustainable Finance, Stock Exchanges, ESG, CSRD, Omnibus, Capital Markets, Regulation, Europe

## **Resumo**

Título: Finanças Sustentáveis na Europa: O Papel das Bolsas de Valores para Além da Conformidade Regulatória

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Esta dissertação investiga como as bolsas de valores europeias podem fomentar as finanças sustentáveis para além da conformidade com regulamentos como a CSRD, o pacote Omnibus e as ESRS. O objetivo é avaliar se as bolsas devem ser agentes ativos de progresso em ESG (Ambiental, Social e Governança), e não apenas plataformas neutras. Através de entrevistas com especialistas em sustentabilidade, representantes de bolsas e académicos, bem como da análise de instituições como a Deutsche Börse, Euronext e London Stock Exchange, o estudo identifica oportunidades e desafios. Os resultados mostram que as bolsas promovem ESG através de produtos financeiros, iniciativas educativas e maior transparência. Contudo, a sobre-regulamentação é vista como um entrave, especialmente para PME, podendo limitar a inovação. Conclui-se que as bolsas exercem um papel duplo: facilitar a alocação de capital de forma neutra e, ao mesmo tempo, influenciar ativamente comportamentos sustentáveis no mercado. A sua capacidade de oferecer índices ESG, produtos sustentáveis e ações de educação financeira torna-as elementos centrais na transição verde da Europa. O sucesso dependerá do equilíbrio entre regulação, inovação de mercado e envolvimento público.

Palavras-chave: Finanças Sustentáveis, Bolsas de Valores, ESG, CSRD, Omnibus, Mercados de Capitais, Regulação, Europe

Table of Contents

- Abstract ..... i
- Resumo ..... ii
- Table 1; Abbreviations ..... iv
- 1 Introduction ..... 1
  - 1.1 Problem Statement..... 1
  - 1.2 Research Objectives and Research Questions ..... 2
- 2 Literature Review ..... 2
  - 2.1 Stock exchanges ..... 9
    - 2.1.1 Euronext ..... 10
    - 2.1.2 London Stock Exchange ..... 10
    - 2.1.3 SIX Swiss Exchange ..... 11
    - 2.1.4 Deutsche Börse ..... 11
    - 2.1.5 NASDAQ Nordic and Baltic Exchanges ..... 11
  - 2.2 Regulatory frameworks ..... 12
    - 2.2.1 EU Taxonomy Regulation ..... 12
    - 2.2.2 Sustainability Finance Disclosure Regulation (SFDR)..... 13
    - 2.2.3 CSRD / Omnibus ..... 14
    - 2.2.4 Sustainable Stock Exchange Initiative (SSE) ..... 14
- 3 Methodology ..... 15
  - 3.1 Research Approach..... 15
- 4 Analysis ..... 16
  - 4.1 View on the role of stock exchanges ..... 16
  - 4.2 Beyond Regulatory Compliance..... 17
  - 4.3 European Perspective ..... 19
  - 4.4 Impact of ESG-/Sustainability-/Green-Products ..... 20
  - 4.5 Critique of Regulation ..... 21
  - 4.6 Investor Demand and Market Dynamics ..... 21

4.7 Future Opportunities.....	22
4.8 Role of Regulation v. Market Forces.....	23
4.9 Suggested Key Action for Exchanges .....	24
4.10 Summary of Interviews .....	25
5 Discussion .....	26
5.1 Limitations.....	31
5.2 Future Research .....	31
6 Conclusion.....	33
Bibliography.....	i
Appendix A; Interview partners role and ID.....	ix
Appendix B; Interview guide .....	ix
Figure 1 (Morningstar, 2024).....	7
Figure 2; DAX ESG EUR (Acc), iShares, as of May 12th ~21:00.....	29
Figure 3; Core DAX EUR (Acc), iShares, as of May 12th ~21:00.....	30

**Table 1; Abbreviations**

Carbon Disclosure Project	CDP
Corporate Social Responsibility	CSR
Corporate Sustainability Reporting Directive	CSRD
Environmental, Social, Governance	ESG
EU Taxonomy Regulation	TR
European Sustainability Reporting Standards	ESRS
European Union	EU
Exchange-traded fund	ETF

Financial Times	FT
International Financial Reporting Standards	IFRS
International Sustainable Standards Board	ISSB
Non-Financial Reporting Directive	NFRD
Principles for Responsible Investing	PRI
Sustainability Accounting Standards Board	SASB
Sustainable Development Goals	SDGs
Sustainable Finance Disclosure Regulation	SFDR
Small- and medium-sized enterprises	SMEs
Sustainable, Responsible and Impact Investing	SRI
UN Sustainable Stock Exchanges Initiative	SSE
United Nations	UN

## **1 Introduction**

The main topic of this paper is sustainability, focusing on an in-depth analysis of the largest European stock exchanges and how the exchanges can promote sustainable finance beyond what the EU sustainability regulations, such as Corporate Sustainability Reporting Directive, Omnibus, and European Sustainability Reporting Standards require companies to do.

It is widely agreed upon that sustainability is a very important contemporary theme, as evidenced by the Sustainable Development Goals (SDGs) which the 193 member states of the United Nations (UN) unanimously signed up to in their 2015 September summit (United Nations, n.D.; accessed in 2025). Since 2014, the European Union (EU) separately requires companies located in the EU to report on a wide array of Environmental, Social and Governance (ESG) related issues and topics marking “a key step in the EU’s efforts to enhance ESG transparency, requiring large companies to disclose how they manage ESG challenges.” (Branquart, 2024). Due to “inconsistent reporting standards and a narrow scope” (Branquart, 2024), the Non-Financial Reporting Directive (NFRD) was abolished and the Corporate Sustainability Reporting Directive (CSRD) developed. The CSRD’s key characteristics include a more detailed disclosure in all aspects relevant to ESG impacts (Raa Bamrud & Sandal, 2024), a larger pool of reporting-required companies, and more transparency (PricewaterhouseCoopers LLP, n.D.; accessed in 2025). However, not all companies in the EU are obliged to report. Barriers exist that must be crossed before a company is required to report.

There are a number of stock exchanges, financial institutions and market specialists or Sustainability Officers with whom interviews will be conducted for this Thesis. As the regulatory environment is complex and relatively new, people not working in sustainability or financial markets, might not know about the efforts undertaken by companies and governments. Experts, however, have extensive knowledge and expertise that will prove to be beneficial for the analysis of this topic.

### **1.1 Problem Statement**

Stock exchanges play a crucial role in promoting sustainability by influencing both listed companies and investors. While the CSRD, by now overhauled by the first of two Omnibus-packages (European Commission, 2025), and the European Sustainability Reporting Standards (ESRS), which provide a framework for companies to report on ESG topics (ClimatePartner,

n.D.; accessed in 2025), require companies to disclose their sustainability performance, there is potential for stock exchanges to drive even greater change. Exchanges can go beyond regulatory compliance by offering e.g. services, tolls and sustainability-oriented initiatives, such as ESG indexes, green bonds, sustainability-linked products and stricter listing requirements.

## **1.2 Research Objectives and Research Questions**

The research objectives of this paper follow three key ideas. This paper aims to evaluate how well stock exchanges are currently facilitating sustainable finance in the European market, to assess whether regulatory-driven sustainability disclosures (e.g. CSRD, Omnibus and ESRS) are sufficient or if additional exchange-driven measures are necessary and finally to explore the role stock exchanges play as market regulators as well as catalysts for ESG-oriented investments.

The research questions this paper aims to answer are:

- What role do stock exchanges play in promoting sustainable finance beyond regulatory requirements?
- Are stock exchanges effectively incentivizing sustainable practices among listed firms?
- Can exchanges introduce additional ESG-related listing requirements or voluntary programs to enhance sustainability efforts?

## **2 Literature Review**

Sustainability and ESG have been a geo-political theme for the last decade, if not longer (United Nations - Climate Change, n.D.; accessed in 2025). Especially the environmental aspect (“E”) or climate change, which is often the first association in people’s minds when thinking about sustainability. However, sustainability and especially ESG also include Social (“S”) and Governance (“G”) aspects. This is also mirrored in their respective definitions:

- Sustainability: “The quality of causing little or no damage to the environment and therefore able to continue for a long time.” (Cambridge Dictionary, n.D.; accessed in 2025)

- Environmental in ESG: “takes into account a company’s utilization of natural resources and the effect of their operations on the environment, both in their direct operations and across their supply chains.” (S&P Global, 2019)
- Social in ESG: “factors to consider in sustainable finance include a company’s strengths and weaknesses in dealing with social trends, labour, and politics. A focus on these topics can increase profits and corporate responsibility.” (S&P Global, 2020)
- Governance in ESG: „refers to the governance factors of decision-making, from sovereigns’ policymaking to the disruption of rights and responsibilities among different participants in corporations, including the board of directors, managers, shareholders, and stakeholders.” (S&P Global, 2020)

“E”, “S”, and “G” concern themselves with the following SDGs, which are the United Nations way to combat ESG related issues, respectively:

- “E”: “Clean Water and Sanitation” (SDG 6), “Climate Action” (SDG 13), “Life Below Water” (SDG 14), “Life On Land” (SDG 15) (Deutsche Bank Chief Investment Office, 2020)
- “S”: “No Poverty” (SDG 1), “Zero Hunger” (SDG 2), “Good Health and Well-Being” (SDG 3), “Quality Education” (SDG 4), “Gender Equality” (SDG 5), “Affordable and Clean Energy” (SDG 7), “Decent Work and Economic Growth” (SDG 8), “Sustainable Cities and Communities” (SDG 11) (Deutsche Bank Chief Investment Office, 2020)
- “G”: “Industry, Innovation and Infrastructure” (SDG 9), “Reduced Inequalities” (SDG 10), “Responsible Consumption and Production” (SDG 12), “Peace, Justice and Strong Institutions” (SDG 16), “Partnerships for the Goals” (SDG 17) (Deutsche Bank Chief Investment Office, 2020)

As the title suggests, stock exchanges have a strong responsibility to facilitate sustainable investing practices. They are the marketplace for investors, both private and corporate. They are, per definition:

“a public or private institution that allows the sale and purchase of securities (such as shares and bonds) or certain types of goods. The role of a stock exchange is to bring together those who want to buy and those who want to sell and help determine the price at which those who want to sell are ready to sell and at which those who want to buy are ready to buy. Prices are set according to the rules of supply and demand.” (alfi - Association of the Luxembourg Fund Industry, n.D.; accessed in 2025).

Vijaya and Dr. Sreevinas Reddy claim that:

“Stock exchanges provide a central point for the interaction between investors, companies, policymakers, and regulators. Exchanges have traditionally played a crucial role in building transparent, regulated markets and promoting best practices in financial and corporate governance disclosure among listed companies.” (Vijaya & Dr. Sreevinas Reddy, 2017),

clearly showcasing the importance stock exchanges play in promoting an array of investment practices. They further illustrate that sustainability indices have been developed by various stock exchanges around the world to promote ESG-focused investing. Examples include the S&P 500 Scored & Screen Index (S&P Global, n.D.; accessed in 2025), formerly known as S&P 500 ESG Index (S&P Global, n.D.; accessed in 2025), or the Nasdaq-100 ESG Index (Nasdaq, n.D.; accessed in 2025). There are also initiatives, such as the Sustainable Stock Exchanges Initiative (SSE) (Sustainable Stock Exchanges Initiative, n.D.; accessed in 2025), pushing stock exchanges to adopt sustainable practices and promote them. Vijaya and Dr. Sreevinas Reddy (2017) give advice on what firms can do to foster global partnerships. They advise companies to enhance the dialogue by joining the SSE as a Partner Exchange as well as educating the stock exchanges local market.

Myklebust (2013) claims that stock exchanges influence both corporate and market sustainability by shaping ESG practices, either through regulatory changes or voluntary initiatives. In today’s world, stock exchanges are not public entities anymore, but rather competitive businesses, competing for market share (Myklebust, 2013). This influences their willingness to impose sustainability regulations, which was one of the trending topics of the last decade (CASTUS, 2020) (The CEO Magazine, 2019), being reflected in varying aspects, such as Climate Change or the #MeToo Movement (me too, n.D.; accessed in 2025). Also, in the 2020s, ESG plays a major role in global politics and science, despite popular opponents of the movement in high, powerful positions, such as Donald Trump, claiming it is “an expensive hoax” (Cheung, 2020). Myklebust also identifies three categories in which sustainability-related initiatives by stock exchanges fall (Myklebust, 2013):

1. ESG Indices and Information Products: Stock exchanges create ESG indices to highlight sustainable companies and attract investors. This leads to a higher level of transparency as well as encouraging companies to adopt more ESG practices to gain inclusion into those indices. However, it also increases the risk of greenwashing and inconsistent ESG standards between different indices might arise.

2. Specialist Markets for Sustainability-Related Products: Carbon trading platforms and green bond markets support finance sustainability projects and some exchanges might create a dedicated ESG listing segments for sustainably conscious enterprises. They do however create a dependence on government policies and low trading volumes might occur.
3. ESG Disclosure and Governance Requirements: Many stock exchanges require ESG reporting (or in the EU's case, the Union does), enhancing transparency, whilst simultaneously attracting ESG-focused investment funds. If not for the regulatory frameworks set in place by the EU, stock exchanges only have a weak position to enforce those standards, as more lenient or less-regulated markets can be more attractive for companies to list as the costs of compliance would be lower.

This is further reflected in expert and journalistic opinions. In the Financial Times' article "Can Sustainable Investing Survive Trump 2.0" (Ross, 2025), the author correctly notes that political backlash against ESG measures is growing in the US, especially now with Donald Trump as president of the United States. Despite the US and Europe, or specifically the EU and the UK as major global powers, being separate entities, the influence the US has on global economic decisions cannot be underestimated. Nonetheless, the EU and the UK have yet to change their approach to sustainability.

The CSRD (European Union, 2022) from the EU went into effect in January 2024 (brightest, 2025), just as the ESRS did (European Union, 2023). Recently however the EU overthrew the CSRD and introduced the Omnibus-package which changed the requirements for reporting companies and signalled a step-back in the EU as well, although significantly less than in the US. The ESRS remain intact, despite the regulatory changes to – or abolishment of – the CSRD. The UK, not being part of the EU anymore, has developed its own set of laws and regulations to guarantee sustainable practices and reporting. The UK has defined three so called "Sustainable Investment Labels". The three labels distinguish between products that have a sustainable focus or impact or are sustainable improvers:

"In particular, the regime distinguishes between products according to whether they aim to invest:

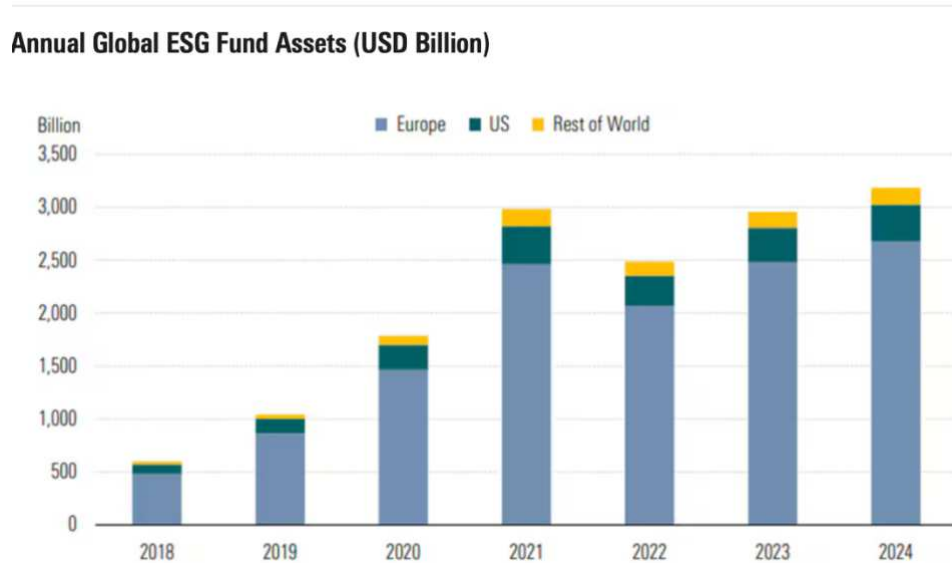
1. in assets that are environmentally and/or socially sustainable ("sustainable focus")
2. to improve the environmental and/or social sustainability of assets over time, including in response to the stewardship influence of the firm ("sustainable improvers")
3. in solutions to environmental or social problems, to achieve positive, real-world impact ("sustainable impact")." (Financial Conduct Authority, 2022).

Although the most recent EU parliamentarians have changed the sustainable reporting framework for companies located in the EU, most changes introduced with the CSRD still apply today. As noted by Baumüller and Grbenic (2021), the new reporting requirements require companies to disclose an array of information on ESG risks and impacts. Reporting must also include future-oriented performance, not just past performance (Baumüller & Grbenic, 2021). Furthermore, the authors point to challenges and implications for companies as well as criticism the CSRD has received. The CSRD increased the compliance and bureaucracy costs for companies. The EU has acknowledged this increased financial burden, and the Omnibus-package promises to “cut red tape and simplify EU rules for citizens and business.” (European Commission, 2025). Further challenges include a lack of global alignment from the EU with other global sustainability frameworks, such as the International Financial Reporting Standards’ (IFRS) sustainability standards, the International Sustainable Standards Board (ISSB) and the Sustainability Accounting Standards Board (SASB).

Stock exchanges are significant players in facilitating a market for sustainable investing and finance, which were mentioned before. They enable investors to invest in sustainable investment vehicles. This falls under the umbrella of “sustainable finance”. Sustainable finance is defined as the practice of integrating ESG principles into banking, investing and financial decision-making. It includes green bonds, ESG-linked loans, and sustainability-focused investment strategies (Mega Holdings, 2023). Corporations and financial institutions, especially in the EU, are under pressure to align themselves with lending, investing, and facilitating with the SDG’s put in place by the UN (United Nations, n.D.; accessed in 2025), as well as the public’s expectations. International frameworks increasing focus on sustainable investing include the likes of the Equator Principles, “A financial industry benchmark for determining, assessing and managing environmental and social risk in projects.”, (Equator Principles, n.D.; accessed in 2025), the Principles for Responsible Investing, “(...) in implementing them, signatories contribute to developing a more sustainable global financial system.” (PRI - Principles for Responsible Investment, n.D.; accessed in 2025) and the aforementioned CSRD. Edmans and Kacperczyk note in their paper “Sustainable Finance” (A. Edmans & M. Kacperczyk, 2022) that “sustainability is no longer an ancillary issue confined to corporate social responsibility departments, but a CEO-level issues fundamental to the core business.”. Moreover, they reiterate the importance of stock exchanges in facilitating a marketplace for transactions:

“Within the investment industry, sustainability used to be the exclusive domain of “socially responsible investors” who had social as well as financial objectives but is now mainstream and includes investors with purely financial goals.” (A. Edmans & M. Kacperczyk, 2022).

They point out that ESG funds are growing rapidly, despite remaining concerns over greenwashing or superficial ESG commitments. Especially in Europe ESG funds have become a noticeable force; the total assets of European ESG funds make up a larger portion of the global assets invested in ESG linked investment funds.



*Figure 1 (Morningstar, 2024)*

Ortas and Moneva (2011) have analysed the impact an inclusion in a sustainability index has on the stock value. Their findings show that the Inclusion in the Dow Jones Sustainability Stoxx Index (DSJI-Stoxx) does not have significant impacts on the stock price. The exclusion of the index also shows no immediate effects. Their findings show that their analysis coincides with results obtained from prior research conducted by Curran and Moran (2007), Becchetti, Di Giacomo, and Pinnaccio (2008), and Consolandi, Jaiswal-Dale, Poggiani, and Vercelli (2009). However, another group of researchers present differing results showing:

“(…) that so-called “do-good” or “green” mutual funds in the USA have not generated competitive returns relative to other mutual funds in the same fund categories over the past 15 years. Green mutual funds do report lower annual turnover rates and lower tax cost ratios, however (...) green investment constraint does not engender more risk.” (Nelson & Witte, 2012).

Contrary to these findings, a pair of European researchers found that European green funds outperform their “brown” counterparts in the long run. Ibikunle and Steffen (2017) analysed fund performance starting in 1991, and initially, green funds did underperform. This however

changed by the early 2010s, when green funds began outperforming especially the brown funds, defined as “a mutual fund investing in carbon intensive equities involved in the exploitation and depletion of our natural resources and natural capital.” (Ibikunle & Steffen, 2017). They suggest that investors may be choosing green funds for ethical and financial reasons. Another pair of researchers support these claims partially. Their findings show that green funds especially outperform more traditional or brown funds in periods of crisis, arguing that investors might favour transparency (Silva & Ceu Cortez, 2016). Further evidence shows that green bonds lead to a positive GDP effect and they conclude that:

“green energy investments reduce emissions and provide positive social spillovers in terms of higher real wages, improved energy and food security on the aggregate EU level (...). They can thus be seen as an attractive investment option with positive sustainability impact.” (Smeets Krátková, et al., 2025).

Although investment in the US cannot be mirrored to how their European counterparts perform, the US stock market is generally considered to “reign(s) supreme” (The Economist, 2024).

In their paper “Corporate social responsibility and sustainability finance: A review of the literature” (Liang & Renneboog, 2020), the authors point out that Corporate Social Responsibility (CSR) integrates ESG into corporate management, finance and investment decisions – topics directly related to the day-to-day business of a stock exchange. They also further point out the importance ESG factors wield in investment strategies. This includes Sustainable, Responsible and Impact Investing (SRI), green bonds, and impact investing. The authors also found different SRI strategies, claiming that:

“The return implications of investing in the stocks of socially responsible firms, the search for an (ESG) factor, as well as the performance of SRI funds are the dominant topics. SR funds apply negative screening (exclusion of ‘sin’ industries), positive screening, as well as activism through proxy voting or direct engagement. In this context, one wonders whether responsible investors are willing to trade off financial returns with a ‘moral’ dividend (...) and on how to foster economic de-carbonization as climate change affects markets and investor behaviour.”.

Liang and Renneboog (2020) also touch on whether and how CSR impacts corporate performance, specifically financially. In his paper, Chava finds that firms with a high exposure to environmental and social concerns must expect higher interest on their bank loans (Chava, 2014). This coincides with findings published in 2016 by a group of researchers (Hoepner, Oikonomou, Scholtens, & Schröder, 2016). Liang and Renneboog continue to reference a paper from Dai, Liang and Ng (2021) as well as Schiller (2018), where the respective authors present evidence on the spillover effect of CSR:

“Our evidence suggests that a key mechanism by which customers exert influence is through a positive assortative matching of CSR attributes. Customers tend to establish relationships with suppliers that are likely to exhibit socially and environmentally responsible behaviour.” (Dai, Liang, & Ng, 2021).

The authors continue to note that “results provide no evidence of CSR spillover from a customer resided in a low CSR country to a supplier in a high CSR country.”. The EU, or Europe in general, is at the front of global ESG and sustainability measures (European Union, n.D.; accessed in 2025), claiming that “EU citizens benefit from some of the highest environmental standards in the world.”. This is also reflected in the finance sector’s efforts in funds (see Figure 1 (Morningstar, 2024)). Stock exchanges are vital in facilitating the trading of so-called Exchange-traded Funds (ETFs). Despite traditionally being used more by passive investors, funds have become more active in ESG issues, specifically by large asset managers, such as BlackRock or Vanguard (Webber, Barzusa, & Curtis, 2020). This growing interest from large asset managers also reflects in corporate behaviour, as companies that lack environmental standards face exclusion from green funds (Heinkel, Kraus, & Zechner, 2001).

## **2.1 Stock exchanges**

For reference, five major stock exchanges in Europe were included to showcase what these exchanges do to drive sustainability forward and enable investing:

1. Euronext (Euronext Group), with a revenue of 1.6bn EUR in 2024, up more than 10% compared to 2023 (Euronext, 2025)
2. London Stock Exchange (London Stock Exchange Group), with a revenue of 8.4bn GBP (~10.01bn EUR as of May 28<sup>th</sup>) (London Stock Exchange Group, 2025)
3. SIX Swiss Exchange (SIX Group), with a revenue of 1.5bn CHF (~1.61bn EUR as of May 28<sup>th</sup> 2025), up more than 4% compared to 2023 (SIX Group, 2025)
4. Deutsche Börse (Deutsche Börse Group), with a revenue of 6bn EUR (Deutsche Börse Group, 2025)
5. NASDAQ Nordic and Baltic Exchanges (NASDAQ Baltic), with a global revenue for all Nasdaq exchanges of 4.6bn USD (~4.07bn EUR as of May 28<sup>th</sup> 2025) (Nasdaq, 2025)

In the following paragraphs readily available information on the respective stock exchanges’ sustainability efforts, both internally and externally, will be presented. The information was collected through the stock exchanges’ sustainability landing page or past Sustainability Reports.

### **2.1.1 Euronext**

Euronext's Headquarters are in Amsterdam, the Netherlands. They have further offices in other European countries including the Netherlands, France, Belgium, Portugal, Ireland, Italy and Norway. (Euronext Group, n.D.; accessed in 2025).

Euronext correctly identifies their leading position in the European stock exchange market. The group "plays a key role in transitioning to a sustainable economy and shaping capital markets for future generations." (Euronext, n.D.; accessed in 2025). The exchange's current strategic cycle "Innovate for Growth 2027", has identified four areas of importance, including "setting Net Zero targets before 2027", making "sustainability the new normal for all operations", growing "the sustainability product portfolio", and fostering "diversity and inclusion as a catalyst for growth". The further identified seven material topics, identified through processes required for the CSRD, in which they believe they can drive meaningful change. These include "Sustainable Products and Services, including Training", "Climate Change", and "Training and Development". The exchange already offers a range of products, such as Climate Indices like the Euronext Europe SBT 1.5 (Euronext, n.D.; accessed in 2025) and the Euronext Low Carbon 100 Europe PAB (Euronext, n.D.; accessed in 2025).

### **2.1.2 London Stock Exchange**

London Stock Exchange Group has their Headquarter in London, United Kingdom. The exchange understands its key position in enabling sustainable economic development globally. They have incorporated this mindset into their purpose: "LSEG's driving financial stability, empowering economies and enabling customers to create sustainable growth." (London Stock Exchange Group, n.D.; accessed in 2025). The Group correctly identifies its central position in the market, putting them in a position to contribute to decarbonisation, growth of green economies and more. The Group claims to have raised £223bn on the Sustainable Bond Market since its inception and it also lists more than 100 companies and funds with the Green Economy Mark (London Stock Exchange Group, 2023), which "identifies companies and funds, admitted to London Stock Exchange's markets, that generate 50% or more of total annual revenues from products and services that contribute to the global green economy (...)." (London Stock Exchange Group, n.D.; accessed in 2025). Furthermore, LSEG offers more than 121 ESG indices, such as the FTSE TPI Index (FTSE Russell, n.D.; accessed in 2025), and is a member of the SSE (United Nations, n.D.; accessed in 2025).

### **2.1.3 SIX Swiss Exchange**

The Swiss Exchange is located in Zurich, Switzerland, and lists global giants like Nestlé (Nestlé, n.D.; accessed in 2025) and Novartis (Novartis, n.D.; accessed in 2025). The exchange “facilitates investments in a wide range of sustainable products including ETFs, Green Bonds, as well as Structured Products and Indices.” (SIX Group, n.D.; accessed in 2025). It offered its first green bonds in 2014, when the European Investment Bank launched the first one on SIX (SIX Group, n.D.; accessed in 2025). The Group also identifies its responsibility in enabling sustainable and responsible cash flows and it also operates various ESG indices, such as the SPI ESG Index (SIX Group, n.D.; accessed in 2025) and the SIX Switzerland Sustainability 25 (SIX Group, n.D.; accessed in 2025).

### **2.1.4 Deutsche Börse**

The Deutsche Börse operates from Frankfurt am Main, Germany. The exchange is home to the DAX and facilitates the leading index for the largest economy in Europe. Oliver Engels, the exchange’s Chief Sustainability Officer and Chief Diversity Officer, claims that:

“We [Deutsche Börse] strive to make meaningful contributions to a sustainable future while building on our public function as a neutral infrastructure provider. Our aim is to enable our customers to participate in the green transformation, to promote transparency and trust throughout our operations and to foster a transparent and inclusive approach to sustainability.” (Deutsche Börse Group, n.D.; accessed in 2025).

In their Annual Report for 2024 (Deutsche Börse Group, 2025), the group write about the importance of anchoring sustainability in capital markets. They see a growing demand in customised ESG-linked index products. “Horizon 2026”, the groups corporate strategy (Deutsche Börse Group, 2025), also mentions the expansion of ESG-related products as well as governance improvements (Deutsche Börse Group, 2025).

### **2.1.5 NASDAQ Nordic and Baltic Exchanges**

The fifth largest European exchange is not solely European, but part of Nasdaq Inc., located in New York City, United States (Nasdaq Inc., n.D.; accessed in 2025). Its European counterpart, NASDAQ Nordic and Baltic Exchanges, is a group of exchanges in northern Europe, with locations in Sweden, Denmark, Finland, Estonia, Latvia, Lithuania, and Iceland, and its headquarter in Stockholm, Sweden’s capital. The exchange not only offers ESG solutions to

corporates, investors, and financial institutions, but also lists green, social, sustainability, and sustainability-linked bonds (Nasdaq Inc., n.D.; accessed in 2025), with Sarah Youngwood, Executive Vice President and Chief Financial Officer stating that “As Nasdaq and our clients navigate the complexity of an evolving ESG ecosystem, we are committed to advancing initiatives that can be upheld for the long-term – and the groundwork we laid in recent years will help us do just that.” (Nasdaq Inc., 2024).

## **2.2 Regulatory frameworks**

There are a range of regulatory frameworks that companies in Europe, including Stock Exchanges, must adhere to and consider in order to correctly label a product or service “sustainable”, “green”, “ESG” or else. Some of the most well-known are the EU Taxonomy Regulation, the Sustainable Finance Disclosure Regulation and the CSRD. There are also initiatives like the SSE that promote sustainable investment, without providing rules, but rather guidance.

### **2.2.1 EU Taxonomy Regulation**

The EU Taxonomy Regulation (TR), or EU Taxonomy in short, is a list that classifies “environmentally sustainable economic activities, to facilitate sustainable investment.” (European Commission, n.D.; accessed in 2025). They claim that something is considered environmentally sustainable if it “makes a substantial contribution” to at least one of six objectives, without causing significant harm to any of the other five objectives:

- Climate change mitigation
- Climate change adaptation
- Sustainable use and protection of water and marine resources
- Transition to a circular economy
- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems.

The EU Taxonomy entered into force in 2020, with the aim to support the EU to meet its climate and energy targets set for 2030. The regulation is also aligned with the net zero trajectory set for 2050 (European Commission, n.D.; accessed in 2025). The EU Taxonomy Regulation is a

legally binding part of the broader EU ESG toolkit (Davrinche, Filbien, & Vigneron, 2025) (Boni & Scheitza, 2025). Both groups point towards the strength of the taxonomy regulations in driving environmental investment, whilst simultaneously being a precise investment metric. Davrinche, Flibien and Vigneron (2025) point towards the importance of market actors, who complement regulatory efforts in driving green investment. They furthermore point out that the taxonomy regulations, as a legally binding framework, offers “a comprehensive, precise and standardized measure of corporate green investment” (Davrinche, Filbien, & Vigneron, 2025). Boni and Lisa argue that “These regulations [TR and SFDR] are interlinked and collectively crucial for redirecting financial flows towards sustainable initiatives and build upon the 2018 EU Action Plan.” (Boni & Scheitza, 2025), highlighting the importance of the framework.

### **2.2.2 Sustainability Finance Disclosure Regulation (SFDR)**

The Sustainability Finance Disclosure Regulation is a transparency framework put in place by the EU in March 2021. Its purpose is to ensure that market participants correctly disclose sustainability information, so “investors who seek to put their money into companies and projects (...) make informed decisions.” (European Commission, n.D.; accessed in 2025). It also allows for sustainability risk assessment, invariably attracting “private funding to help Europe make the shift to a net-zero economy.” (European Commission, n.D.; accessed in 2025). Although it was introduced as a part of the regulatory toolkit by the EU, Boni and Scheitza argue that there is a lack of coherence between the SFDR and other EU regulations claiming, “Substantial concerns regarding misalignments and inconsistencies across EU Action Plan directives (...), and the Corporate Sustainability Reporting Directive.” and that there are “perceptions of an excessive and misaligned disclosure burden.” (Boni & Scheitza, 2025). Nonetheless, the SFDR is vital, as it categorises funds based on three of its articles, Article 6, 8, and 9. The SFDR requires “financial market participants to (self-) classify their products into one of three categories (...).” (Scheitza & Busch, 2024). These three are defined as follows:

- Article 6: “those considering sustainability risks”
- Article 8: “those promoting environmental or social characteristics”
- Article 9: “those with a sustainable investment objective”.

The authors claim that the SFDR must be revised. Scheitza and Busch suggest revisions to more clearly differentiate between ESG and impact funds and possibly an introduction of “Article 9+” funds, for funds that generate impact.

### **2.2.3 CSRD / Omnibus**

The Corporate Sustainability Reporting Directive (European Union, 2022) from the EU went into effect in January 2024 (brightest, 2025). The CSRD’s goal is to “[improve] disclosure and [provide] the data investors need when determining a company’s sustainability.” (Dr. Schmidt & Farbstein, 2025). It required companies in the EU to report on an array of ESG-related points, if they exceed two of three requirements, those being: total assets exceeding €25m, annual revenues exceeding €50m, and having a workforce of more than 250 employees (GrantThornton, 2024). However, with the introduction of the first Omnibus-package, the number of employees has increased to 1.000, with all other requirements remaining in place (on paper) (European Commission, 2025). Omnibus was introduced to slim down the complex nature of sustainability regulation in the EU. The CSRD proved to be a regulatory nightmare, as claimed by a range of interviewed experts, which is discussed under [4.5 Critique of Regulation](#).

### **2.2.4 Sustainable Stock Exchange Initiative (SSE)**

The first Sustainable Stock Exchange Initiative meeting was in 2009, in New York City (Sustainable Stock Exchange Initiative, n.D.; accessed in 2025). Its goal is to enhance performance on ESG matters and encourage sustainable investment (UN environment programme - finance initiative, n.D.; accessed in 2025). The SSE is a collaborative effort between a group of players, including “investors, companies (issuers), regulators, policymakers and relevant international organization” (UN environment programme - finance initiative, n.D.; accessed in 2025).

### **3 Methodology**

The paper will follow two main structures for data collection and analysis that will complement each other. The first part will include a review of the current policy and framework environment in Europe. This part encapsulates an analysis of the current sustainability-related initiatives and guidelines provided by major stock exchanges (e.g. Deutsche Börse) and to compare these initiatives to those of other leading exchanges (e.g. Euronext and London Stock Exchange) to identify best practices.

#### **3.1 Research Approach**

This thesis is focused on a qualitative approach, with information collected through semi-structured expert interviews, allowing for flexibility. Building on the collected data, an analysis of the current regulatory environment and the role of stock exchanges in it will be developed in combination with the literature review that was done beforehand. Experts have the necessary expertise to form an opinion on what stock exchanges do and what the regulatory environment of sustainability and ESG in the EU looks like. Given the specificity of this topic, less, but higher quality information will be more important. The interviews were conducted to gather nuanced insights for professionals from a range of backgrounds, including international stock exchanges, global banks, and professors at leading academic institutions. Interviews are better than surveys when trying to understand complex opinions, personal experiences, and expert perspectives. They are also preferred for exploratory or qualitative research questions (Driscoll, 2011). Driscoll mentions the benefit of asking open questions that allow for follow-ups to dive into deeper detail and that participants can clarify their answers more accurately. Lastly, non-verbal cues such as facial expressions also give insights into what the participant thinks. This observation is also supported by Schilling (2013), who claims that the maximum quality of information is collected in a conversation by also including the attitudes, narratives, and perceptions a participant portrays. She lists the possibility to adapt and personalise questions as an advantage as well as the participants' chance to elaborate instead of being limited by response options in traditional surveys. Mayring claims they are best suited for complex and context-rich topics (Mayring, 2000). These are further supported by Flick (2022) and Kvale and Brinkmann (2009), who mention the importance of interviews when trying to grasp complex and context-bound issues.

The experts were chosen due to their extensive knowledge about sustainability, stock markets, or both, as well as their leading roles at national and international corporations. Before conducting the interviews, a flexible question framework to help guide the interview and gain insights depending on the expertise and background of the respective interviewee was developed. The questions can be found in [Appendix B; Interview guide](#). The interviews were conducted online via video calls between Mid-April and Mid-May 2025, lasting between 25 and 35 minutes. The sessions were recorded and transcribed for later analysis. The participants were informed of the research purpose and were aware that the interviews were being recorded. No identifying information is shared in the analysis. The transcripts were analysed using thematic coding to identify patterns across the interviews.

## **4 Analysis**

The interviewees share a lot of similarities in an array of topics regarding stock exchanges, sustainability and the respective collaboration. The findings however also reveal some differing thoughts on the topic. In the interviews, points that were discussed range from the role a stock exchange should operate in, what they do beyond regulatory compliance, the impact of ESG or sustainable products and services, and future opportunities to critique of the current regulatory environment and the investor demands. This paper will discuss all these points in detail, point out different opinions and highlight what stock exchanges can do in the future to further increase sustainable awareness among the public, investors, and companies in Europe. The interviewees were given an ID to ensure anonymity. A list with the interviewee's position and ID can be found under [Appendix A; Interview partners role and ID](#).

### **4.1 View on the role of stock exchanges**

Interviewee A believes exchanges have a strong responsibility to promote sustainable finance through a range of products and services, including, but not limited to, ESG indices (like the DAX ESG (Société Générale S.A.)) and educating companies, partners and the public more. Expert A believes stock exchanges should act beyond infrastructure that government or regulators provide. Interviewee C shares these thoughts, claiming that stock exchanges should be proactive and not wait for regulatory changes as these can often take a long time to implement. In C's experience, "trends" ebb and flow with time. C noticed a growing interest in

ESG in 2018 – compared to 2015-16, when it was still seen as a “nice-to-have” rather than a “must” –, simultaneous with the start of “Fridays for Future” (Fridays for Future, n.D.; accessed in 2025). However, with the start of the Russia-Ukraine war in early 2022, the relevance of ESG became less important, and the defence sector was trending. Expert C believes that ESG will invariably come back sooner or later, latest when “the next drought or the next heat wave, the next flood” strikes.

Interviewee B argues that exchanges are primarily a neutral infrastructure provider, with direct influence being limited. Exchanges may offer ESG products and services, but customers must ultimately decide what products and services to use. Like B, interviewee D sees a stock exchange’s primary role as being a neutral platform that connects both investors and companies. They are facilitators, rather than drivers, as they provide rules which investors must adhere to. They mainly shape behaviour indirectly. Although interviewee E generally shares the thought of exchanges being an infrastructure provider, E mainly thinks of them as a transparency provider who simultaneously raise liquidity and facilitate capital flows into various industry, such as sustainable technologies. Expert E claims they are vital in helping drive the energy transition.

Interviewee F sees an exchanges role from a corporate point of view. Stock exchanges are key platforms for guaranteeing a fair valuation of listed companies, who, agreeing with E, direct capital into sustainable business models, through various green products and transparency. Interviewee G sees stock exchanges mainly as a way to enable trade between interested buyers and sellers. Without them, a shareholder would have to call hundreds of people to find someone that is willing to buy or sell a specific share. Exchanges furthermore ensure price formation and certify listed companies. Their role in sustainability specifically is to verify sustainable action by companies to investors.

## **4.2 Beyond Regulatory Compliance**

Interviewee C urges stock exchanges to move beyond regulation, believing that sustainable finance is driven and enabled by voluntary innovation, rather than by following regulations. Regulations should provide the framework to operate in and not provide a “correct” path. Interviewee A seconds this and presents Deutsche Börse examples, such as the annual Sustainability Week, where the company involves all locations globally to promote the topic and problems facing forward, and a Climate Working Group, where colleagues discuss the topic

on a regular basis. Expert B notes that not all stock exchanges have the possibilities and capacities to “compete” with global stock exchanges like the Euronext or the Deutsche Börse, pointing out that e.g. the Boerse Stuttgart Group, the second largest exchange in Germany, focuses on a “Follower+”-strategy. The Stuttgart exchange is limited by capacity and operational focus to follow a path lead by larger exchanges, essentially saying they focus more on internal sustainability measures rather than paving the way for others. This however does not mean that smaller exchanges do not fully support sustainability measures and efforts, but rather that they are limited by their size, which limits them to occupying a position and strategy that focuses on following larger exchanges. Interviewee E notes that markets are in a constant state of ebbs and flows, with sustainability currently “flowing”. Expert E, however, believes that exchanges should continuously foster the market for sustainability-related products and proactively driving the topic, disregarding current trends that focus on more pressing concerns and related industries, such as the Ukraine war and the defence sector, sustainability is lingering and will ultimately return to an “ebbing” state.

Exchanges should invariably continue to go beyond regulatory compliance. Interviewee F thinks that the current regulatory framework makes it almost impossible to perform to the highest standard, agreeing with interviewee D, who notes a lack of creativity under regulation as discussed in [4.5 Critique of Regulation](#). According to expert F, regulations are too complex for companies to adhere to, especially small- and medium-sized enterprises, who do not have the capacities to report in due time without increasing their employee count significantly. Expert F claims that reducing regulatory reporting barriers would benefit companies. Not only are companies then able to report in due time, but also actually focus on what is important: being innovative and creating newer, more sustainable technologies, machines and ways of working, coinciding with B, who states that “I have brought zero sustainable products to the market with it [a very, very detailed report framework]”. Interviewee F emphasises multiple times throughout the interview that removing bureaucratic hurdles is the best way forward and that exchanges must support this. Interviewee G is slightly critical of exchanges in this regard, believing that stock exchanges have missed an opportunity in the past to lead on sustainability-related topics, claiming exchanges should not have followed general ESG trends, but rather take a more performance-based approach.

### 4.3 European Perspective

Interviewee B argues that different stock exchanges fulfil different roles, beyond what size they are or what capacities they have. Some exchanges are listing-focused, whereas some are trading-focused. A listing-focused exchange has the possibilities to list ESG-friendly products, whereas a trading-focused exchange would traditionally trade said products, rather than developing these themselves. Expert B also recognises differences in markets across Europe. Luxembourg and the Euronext are traditionally known for listing products, whereas the German market with the Deutsche Börse Group and the Boerse Stuttgart Group are more trading focused. Whereas interviewee A compares the Deutsche Börse, the Euronext and the LSE with regards to sustainability leadership, interviewee E notices fragmentation in the European market, and hints towards an open leadership position, ready to be claimed by one of the larger European stock exchanges. Interviewee D draws comparisons between US and European markets, focused on the impacts the current US administration has on companies and markets. Apart from Trump's "Liberation Day", which sent markets spiralling, D also notes that American companies and markets already feel heavily impacted by the administration's decision to halt DEI and ESG programs. Although this has not yet reached Europe, and maybe never will to this extent, a few niche industries or companies have seen some form of repercussions.

Both interviewees E and F see exchanges and the stock market as part of a global network. With the US retreating in a global network of allies, E sees an opportunity for Europe, alongside China, to move into "the void that the US is leaving.". Exchanges are important in building stronger capital market in Europe, which will ultimately help finance the transition. In addition, expert F goes as far as saying that it is Europe's responsibility to facilitate the transition and enable fairer ESG reporting and investment practices. Expert G agrees with expert F, stating that Europe will continue leading in sustainability-related issues and solutions. The US take major setbacks due to the current administration and China, despite heavy investments, will only continue to do so, if they see that their economy keeps growing, according to expert G. Furthermore, interviewee G adds that the US rollbacks will not influence European behaviour.

All interviewees see that broader, European sustainable finance measures and integration is taking place and note efforts across the board to continue driving sustainable finance.

#### **4.4 Impact of ESG-/Sustainability-/Green-Products**

The experts formulate a range of different impact they see industry facing, likely a result of them having different backgrounds and working for differing companies. Interviewee A showcases that ESG indices support making ESG tangible for stakeholders and improve market transparency and disagrees that ESG usually performs worse than non-ESG, or “traditional” products. The DAX and the ESG DAX perform at almost the same level, differing only slightly and depending on the current market situation. Expert A claims the belief that green products perform worse is a false belief held by most investors. Interviewee C also touched on the ESG DAX, noting that products or indices like these shift corporate behaviour and influence investment flows. Expert C also partly support A’s claims that “green” versions perform just as well, especially pre-2022. Since then, other industries have overperformed comparatively, but expert C also notes that inflation of an energy crisis in Germany has shifted the focus toward “in the moment more important” topics, such as defence.

Although interviewee D generally agrees with the claims made by expert A and C, D notes the limitation of ESG indices. ESG indices are usually exclusion-based, barring brown industries, like tobacco or defence, from entering in the first place, although D simultaneously notes that even the largest fund in the world, the Norwegian Government Pension Fund (Norwegian Government - Ministry of Finance, n.D.; accessed in 2025), considers including the defence industry in the near future. Expert D instead suggests a so called “best-in-class” approach, a suggestions interviewee G also had, which will be further discussed in [4.7 Future Opportunities](#). Interviewee F agrees with C with regards to green indices, like the ESG DAX, influencing corporate behaviour. Companies need to adapt to meet ESG expectations set by investors, as it, especially nowadays, when it is not a niche of nice-to-have, impacts a company’s market value. Expert F adds that the index should be designed in a way that they are simple, rather than complicated, which alienates smaller companies specifically.

Expert C does not see exchanges as creators, but as enablers, that will compete for leading roles in green product trading. Like D, G is critical of generic ESG claiming that by alienating many industries, they become too specific and not diversified enough. Expert G sees a potential risk for investors of these products, as they might lose their money if these specific industries face poor business for a few years. Expert D and G also both suggest a “best-in-class” approach, including the top ESG-performing companies from each industry, adding that this will also appeal to investors that are sceptical of ESG-labelled products.

## **4.5 Critique of Regulation**

The regulatory environment was changed earlier in 2025, with the implementation of the Omnibus-package. Interviewee B claims that companies need more pragmatic and simplified frameworks. Expert B currently sees a risk of bureaucratic effort dominating real sustainability efforts undertaken by companies. Interviewees A and F second this, claiming that the current environment is “incredibly burdensome. [...] there are data points that are simply not relevant.” and “the whole issue has become far too complex [...] we need to bundle it all together and give companies the freedom to decide how they report and then we leave it up to investors to decide whether this is sufficient”. Expert A does however also see a positive side, as “this exercise, even if it is tedious, [...] is quite helpful, in order to really go from department to department through the entire company, [...] in order to find out a little bit what are actually really relevant topics or where do I have starting points?”. Interviewee C shares these opinions, voicing concern about the fragmented and especially complex regulatory environment. Expert C notes that there are multiple frameworks thinking “they will probably all be synchronised. In retrospect, however, the whole thing did not turn out to be the case.”. This leads C to say that real sustainable finance can only progress and succeed when it is driven by investors and exchanges.

Interviewee D has strong concerns about regulation, claiming that, agreeing with B, regulation stifles creativity, innovation, and effectiveness, especially in Germany, where this has been proven correct in the past. Expert D supports voluntary innovation and thinks that exchanges must come up with their own ideas to promote sustainable finance and sustainable behaviour and thinks that incentives should be a point of focus, suggesting exchanges develop indices that give companies with better ESG-scores a larger weighting in a product. Interviewee E claims that, at its current state, regulation is in need to evolve to price externalities better. Moreover, expert E thinks that private action will not be enough unless regulation takes everything into account.

## **4.6 Investor Demand and Market Dynamics**

Interviewees A and C both notice a growing public and investor interest in ESG. Interviewee B also acknowledges this trend, does, however, also advise to be cautious claiming that a sustainable growth must match real market needs and cannot bow to underlying regulatory pressures. Interviewees C and E, as mentioned previously, believe that market trends are

constantly fluctuating and although ESG might not be the most important topic amongst investors, it remains vital and will prove to be more important in the long-term. Expert A also sees long-term growth and notes that media-driven ESG fatigue might stunt current growth. Interviewee D agrees with A that ESG is currently facing an identity crisis. Despite booming as recently as 2022, D notes there is a current fatigue, at least partly driven by the ongoing war in Ukraine. Interviewee D further notes a reclassification of Article 9 funds due to performance pressure claiming that simply too many stocks or ETFs were classified as Article 9, rendering the classification obsolete. Expert E also notes an acceleration in sustainability investments, especially through public-private partnerships. Expert E states that emissions are a big problem now that cannot be disregarded any longer, which was not the case two or three decades ago, when they were just a by-product of operational efforts.

Interviewee F shares that a strong interest in ESG remains and that companies have to ditch their measures simply because it is not as publicly thematised as it was five or six years ago. Expert F continues that investors must clarify what sustainability metrics matter to them most, so governments can accordingly adjust regulations, coinciding with E's claims that regulation must evolve. Also, interviewee G is critical of overly complex bureaucracy, specifically pre-Omnibus, claiming that too much regulation only burdens companies as well as investors. Expert G thinks "no disclosure is much worse than too much disclosure, but too much disclosure is worse than optimal disclosure.". Expert G says that in game theory, one can reach a positive equilibrium, which, in this case, results in companies reporting on a wide range of ESG topics, or a negative equilibrium, in which scenario companies report on no ESG topics and because investors have no company to turn to that report on Sustainability matters, ESG innovation and development will slow down.

#### **4.7 Future Opportunities**

The experts were asked, what they would do if they could change one thing about what stock exchanges do with regards to sustainable finance. Interviewees A and B point towards more educational opportunities and initiatives. Expert A calls for open dialogues in client meetings and more public engagement while exchanges should build platform to guarantee informed investment decisions. Interviewee B believes the focus should not be on ESG directly. A broader financially literacy and building interest in the financial market will invariably lead to the public and potential future investors to concern themselves with ESG-related metrics, as

sustainability has become a growing topic in companies' annual reports and, with CSRD and Omnibus, an annual sustainability report. Interviewee B thinks exchanges should continue driving development for green products and services, especially beyond generic ESG ETFs. Interviewee D suggests a new strategy for ESG indices. Whereas traditional brown industries face almost immediate restriction of entry to green funds, experts D and G suggest a "best-in-class" approach. Instead of barring whole industries, the 2-3 best performing companies in ESG scoring of each industry should be included, setting an example for other players in the industry. This way, all industries are considered, and companies have an incentive to perform well.

Interviewee D importantly notes that companies will only make efforts to change when they see a clear benefit from it, such as being included in certain products or marketing tools. Interviewee E believes in the capitalist system, citing Friedman, who famously said that "the social responsibility of corporations are profits and profits only.". Expert E however adds that this is wishful thinking, as vital factors are missing to adhere completely to Friedman (1970), who famously said that a company's "one and only one social responsibility [...] [is] to increase its profits so long as it stays within the rules of the game". Expert E continues stating that:

"if governments can create the right incentives, then corporations can focus only on profits because the two will be aligned. We don't have that system yet."

Interviewee F once again stresses the importance of streamlining ESG reporting and increase focus on a more pragmatic approach, specifically supporting smaller companies that do not have the means to facilitate extensive sustainability reporting. Apart from "best-in-class" indices, interviewee G suggests that exchanges should integrate less complex and globally oriented reporting standards, agreeing with what F said. An example of these might include the CDP and other decarbonisation metrics. Expert G also suggests that exchanges introduce mandatory emissions disclosures as an entry point to sustainability investing.

#### **4.8 Role of Regulation v. Market Forces**

Interviewee A views regulation as a set of minimum requirements that must be fulfilled. However, exchanges and market must invariably push beyond these measures, as market-driven change is only then going to succeed. Although interviewee B is more pragmatic, B only sees meaningful sustainable change when regulation is seen as a supporting structure and not a driving force, a stance also supported fully by interviewee C. Interviewee D even goes as far as saying that overregulation will prove to be a barrier, not only to ESG momentum, but also its

credibility, seeing regulation simply as a background structure. Interviewee E is less extreme, calling for governments to take meaningful action that considers an array of market forces. Governments must provide a steadfast and efficient framework, and the private sector must continue to drive sustainability forward, as one cannot work without proper initiative by the other. Interviewee F also claims that market roles must play a larger role in this framework. Governments and exchanges should enable, not, as they currently unfortunately are, burden – or even hinder – real success and innovation through excessive regulation. Although interviewee G agrees with expert F in theory, G does see a need for governments to provide a certain amount of regulation, as solely investor-driven regulatory changes could result in a negative equilibrium, as mentioned before. However, once minimum regulation is ensured, investors should take over and decide what regulation should look like going forward, essentially calling for government to push firms to do the minimum, and not more.

#### **4.9 Suggested Key Action for Exchanges**

Interviewee A calls for ESG transparency, suggesting constant dialogue with partners, peers and clients, and visibility in the public eye. Interviewee B also suggests a more public approach, albeit different means. Expert B suggests that you do not have to focus on ESG when educating the public but rather increase financial literacy as such. Nowadays ESG plays a big role in annual reports that the interested public will invariably educate themselves about ESG and sustainability as well. Expert B also calls for more tailored approaches, depending on what business model an exchange follows. Interviewee C suggests that exchanges use their influence over indices and trading systems they provide to embed sustainability into the financial markets more. Sustainability being subject to changes in public interest does not change the importance of the topic and the measures markets, corporations and governments must undertake to ensure sustainable, long-term change.

Interviewee D suggests transparent, “best-in-class” indices that include all industries, including brown industries. Expert D also calls for more transparency rather than control and thinks rewarding positive behaviour will be more beneficial and more successful than expanding regulatory boundaries. Interviewee E asks for externality pricing to be directly integrating in the market economy, believing it will ensure that corporations can seek out profits while simultaneously being aligned with sustainable practice and also calls for exchanges to introduce new trading products and include biodiversity assets, as the current offering is lacklustre.

Interviewee F rounds this off by asking for more flexibility when reporting sustainability measures and efforts undertaken by companies. There are high barriers at the moment, barriers that exchanges can help bridge. Exchanges should promote sustainability without creating unsustainable and counterproductive bureaucratic inefficiencies. Lastly, interviewee G continues on his idea of minimum regulation, asking to make “Scope 1“ emissions (direct greenhouse emissions) (EPA - United States Environmental Protection Agency, n.D.; accessed in 2025) mandatory for all listed companies, as this will be effective in creating transparency and accountability in the stock market.

#### **4.10 Summary of Interviews**

Generally, the experts shared opinions on all matters, with slight differences in how they would approach an issue or their personal feelings towards it. Interviewee A’s stance is that exchanges should foster sustainability finance by leveraging their respective visibility and neutrality as market and platform provider. They should educate investors, promote green products and support a transparent market allowing for informed investment decisions ultimately driving sustainability. Interviewee B underscores an exchange’s role as a neutral player with limited influence and supports that market forces should be the main driver of sustainability, not exchanges themselves. Interviewee C sees exchanges as enablers via their neutrality in facilitating sustainability. Exchanges can help redirecting capital flows towards sustainable businesses, while simultaneously shaping the market, going beyond regulatory requirements. Exchanges should also foster innovation according to C. Expert D agrees, and adds, that exchanges have a chance to develop and innovate, seeing a problem with current green indices, oftentimes alienating brown industries. Expert D suggests a different approach through “best-in-class” indices, taking two or three companies with the highest ESG Rating from a given industry to ensure market wide inclusion, stressing the importance of exchanges to support investor choices without hindering flexibility and creativity. Seconding B, interviewee E underscores the importance of stock exchanges in financial the sustainability transition, importantly noting that the longer it takes, the more expensive it will become. Exchanges must boost transparency, develop markets so they include externalities, and enable capital redirection into green technologies. Interviewee F continues the thought, claiming that only with less complex frameworks to work with, will companies be able to efficiently research and develop more sustainable technologies. Expert F also undermines current regulatory frameworks, stating that

investors should decide what is actually important to report on as government underestimate the effort it takes to collect and report what is currently asked of them. Finally, interviewee G states that exchange are essential to standardize and verify key datapoints, specifically emissions. As exchanges have missed out on the opportunity to lead during the ESG boom in the last decade, they should now refocus on concrete and measurable standards, such as emissions disclosure and improved indices. Agreeing with other interviewees, G calls for a smarter, more specified approach to continue driving sustainable finance.

## **5 Discussion**

The expert's and the literature agree on a wide range of topics, albeit oftentimes focused on "E" in "ESG". Out of the three components, E the easiest to quantify and thus applicable in the financial and mathematical world. Nonetheless, S and G are important. Interviewee B especially touched on these two points, strongly believing that in Germany it is self-evident that companies take care of their employees and are not corrupt. Taking care of employees is the dominant factor in "S" and corruption is one of the main factors in "G", together with corporate behaviour and ethical behaviour. Expert B mentions that they are topics mentioned in the CSRD and the ESRS, however, they are not new innovations but have been around for decades. What all experts agree on is that exchanges operate, or should operate, as neutral infrastructure providers. They do have a unique position to promote sustainability, which coincides with Myklebust (2013), who says that stock exchanges are able to influence market and corporate behaviour. The SSE (Sustainable Stock Exchanges Initiative, n.D.; accessed in 2025) is also a further indication of the position exchanges hold, forming a coalition of international exchanges opting to actively push sustainability and sustainable finance, with both E and F saying that stock exchanges are vital for the sustainable transition and they help drive capital flows towards sustainable businesses. Simultaneously operating as a private, passive platform and active influencer is a unique position. Whereas some exchanges, like the Boerse Stuttgart Group, Germany's second largest exchange, does not do listings, thus focusing more on actively trading or providing other services, like digital platforms for crypto trading, are "limited" to educating and promoting amongst partners, clients, or the public to increase financial knowledge. The Deutsche Börse Group or Euronext also lists and "develops". These exchanges can increase the share of green products that are tradeable by investors. Both types of exchanges have different approaches or possibilities to promote sustainable finance.

The importance of green versions of traditional indices, like an ESG DAX, or green indices right out are powerful tools to direct capital towards sustainable technologies and development. Especially interviewees A and C strongly emphasize the importance of these types of products. ESG indices are able to shape investor decisions. However, they oftentimes lack companies from traditionally brown industries. Experts B and D note this problematic situation. While B correctly states that these companies cannot change their business model from one day to another, both D and G suggest a different approach to these indices. They suggest a “best-in-class” index that includes the best performing companies from a given industry with respects to their ESG Rating. Both E and F talk about the possibility of carbon offset certificates. Both see it as a powerful, but expensive tool, to bridge the gap between current, heavy emission emitting operations, to more sustainable technologies. Especially expert F talks about the importance to give corporations time to develop technologies and machines that perform more environmentally friendly as these machines will be the standard in the future. However, without the right incentive to perform well, such as the inclusion in a green fund, some industries might focus on other technologies and products.

The importance of indices can also be seen in literature and is already very present among European stock exchanges as well. Vijaya and Dr. Sreevinas Reddy (2017), who correctly identify that a wide range of exchanges already offer green product, as these products redirect capital flows to green industries. Exchanges in Europe include the Euronext, that offers climate indices such as the Euronext Europe SBT 1.5, the Stock Exchange in London, that offers more than 100 ESG-related indices and the SIX Swiss Exchange, that offered its first green bond over a decade ago. The exchange in London, traditionally being brown heavy with oil behemoths Shell (Shell plc, n.D.; accessed in 2025) and BP (BP plc, n.D.; accessed in 2025) among others, is in a mismatched position, being stuck between a relatively new trend and traditionally successful industries. The inclusion of a large number of green products is certainly a step in the right direction. Myklebust (2013) classifies ESG-related initiatives by exchanges into three different categories: ESG Indices and Information Products, Specialist Markets for Sustainability-Related Products, and ESG Disclosure and Governance Requirements. While most interviewees focused on the importance of ESG indices, especially expert F noted the importance of manageable regulation, as does G who continues arguing that regulation, as it currently is, is only burdening investors and companies. Interviewee F notes, regulatory barriers are far too high, especially for SMEs that lack the resources to fulfil regulatory requirements. Contrary to Myklebust’s (2013) claims that exchanges have a weak position to enforce

standards if the governments do not set in place regulatory frameworks, expert F thinks that exchanges should side with companies, decreasing sustainability regulation, increasing productivity, listening to what investors deem necessary information and increase creativity, a point also shared by B and D, who both claim regulation stifles creativity and decreases product output.

Another trend identified in the literature that was also noticed in the interviews, is the growing interest in ESG. The interviewees agreed that while sustainability was a niche topic 15-20 years ago, it has gained traction in 2017/18, coinciding with the begin of the Fridays for Future movement (Fridays for Future, n.D.; accessed in 2025). Interviewee D says that initially the sustainability boom was definitely driven by investors and the public, long before governments acted. However, with the ongoing war in Ukraine, the trend has stagnated as another, more pressing concern, or rather industry, has taken over in the defence sector. Nonetheless, the investor trend towards sustainability is well documented and established as seen in Figure 1 (Morningstar, 2024). Edmans and Kacperczyk (2022) also reiterate an existing trend that sustainability is no longer “an ancillary issue”, but a “CEO-level issue”. They continue by showcasing that the matter at hand is pressured from both sides, bottom-up and top-down. Investors clearly show more interest in the topic than 15 years ago. Nowadays not only socially responsible investors seek out sustainably conscious stocks and indices, but also investors with financial goals only as “Customers tend to establish relationships with suppliers that are likely to exhibit socially and environmentally responsible behaviour.” (Dai, Liang, & Ng, 2021). Governments also seek for more transparency and sustainable action, showcased by an increase in frameworks that were introduced in the past few years, such as the CSRD and the ESRS. Governments have also noted existing problems, which is why Omnibus was introduced, highlighting how governments notice an existing problem, but trying to better conditions under which companies must report and operational benefits, which will ultimately lead to more sustainable technologies being produced.

While many people traditionally think that green indices underperform compared to more traditional indices, this is not true anymore. Ibikunle and Steffen noticed that green funds did underperform for a long time, they began outperforming brown funds the 2010s (Ibikunle & Steffen, 2017), suggesting that investors might opt for green funds based on ethical and financial reasons. Silva and Ceu Cortez (2016) have similar findings, arguing that investors might prefer an increased transparency, as well as Smeets Krístkova, who suggests that green options provide “an attractive option with positive sustainability impact.” (Smeets Krístková,

et al., 2025). Interviewee A continues to debunk the myth that green products perform worse than traditional products comparing the DAX and the ESG DAX, showcasing that while sometimes one outperforms the other, long-term, both perform almost equally as strong, which can be seen in a comparison between the two figures shown below. Experts D and E continue A's train of thought, saying that ESG investment undergo cycles, but generally climate-related investments are increasing.



Figure 2; DAX ESG EUR (Acc), iShares, as of May 12th ~21:00



Figure 3; Core DAX EUR (Acc), iShares, as of May 12th ~21:00

Experts A, B and F have strong opinions on regulation, especially too much regulation, with A stating that regulation can be burdensome, B stating that regulation produces no new products and F labelling overregulation as too complex. While all interviewees acknowledge that a regulation is important, it should not overreach and maintain its function as a framework provider, in which companies and exchanges can operate freely. This is also heavily supported by academic researchers. Baumüller and Grbenic point towards challenges that arose with the implementation of the CSRD and other frameworks. Not only has the CSRD increased compliance and bureaucracy costs for companies (Baumüller & Grbenic, 2021), but the frameworks did not reach a cohesive state (Boni & Scheitza, 2025). Navigating the current regulatory environment is too challenging. A further problem is a lack of alignment with international frameworks, such as the IFRS’s sustainability standards, the ISSB, and the SASB. These, and more, reasons are likely why the EU introduced the Omnibus-package earlier this year. Although the repercussions cannot be felt yet, the Omnibus-package will invariably give SMEs more room to breathe. However, a non-coherent state of regulation might have helped, and maybe will help, Europe to keep pushing sustainability. Interviewee D identifies that Trump, and his administration, has stirred a lot of chaos and volatility in the United States, not only with their wave of tariffs, but also his war on so called “anti-woke” and “anti-DEI” efforts.

## **5.1 Limitations**

Some of the limitations faced in this research include the sample size and a potential bias in the interviews. Although all experts provided meaningful insights from leading figures in their respective fields, it was a relatively small pool of experts that are also mainly located in Germany, a country that is leading in the energy transition not only in Europe. Furthermore, many experts hold positions that are sustainability-related, so a certain amount of bias might skew results if the same questions were also asked to non-sustainability-related experts. Furthermore, the timing of the research, shortly after the introduction of the Omnibus-package, was unfortunate. The repercussions of Omnibus have not shown yet, leading to experts' opinions and literature still focusing on its predecessor, the CSRD. Omnibus will definitely take the pressure off of SMEs, but how exactly it will impact larger corporations and reporting standards is still unclear. Moving on, this research was focused solely on European markets, disregarding the Asian market, with India and China as heavy polluters, and the US, with its current presidential administration rolling back many efforts undertaken in the past and ignoring science in large quantities. Without considering global markets, the full picture cannot be fully understood. Lastly, qualitative data with regards to stock market performance of green products is still little, partly also due to sustainability only really gaining traction less than a decade ago, and emissions being considered a serious problem less than two decades ago.

## **5.2 Future Research**

There are a range of potential future research on this topic. One of the more interesting ones will be how governments and regulations will impact the future of sustainable finance and stock exchanges. Omnibus, only being introduced in 2025, will have impacts on how companies will operate and report in the coming years and what requirements they give companies to retain listings. Exchanges prefer more transparency, as companies can be valued more fairly and also predictably. The EU has also informed that Omnibus is only the first or a planned two packages, although they have not yet said, what the second package will include or change on a regulatory level, leaving companies, exchanges, and investors waiting cautiously. Another interested area of future research includes different indices, how they perform and what types spark the most investor interest. As mentioned previously, many indices are green versions or include traditional green industries, barring brown industries from even entering. Experts D and G have suggested so called “best-in-class” indices. The long-term effects of these indices can be

researched, giving the financial market ideas for future product innovation. How would these influence corporate behaviour across industries? Would brown industries be more inclined to increase the speed of their respective sustainability transition? Are there other products that might influence corporate and investor behaviour? Simultaneously, investor perceptions and behaviours towards current trends can be analysed. Both the literature and the interviews show that ESG has gained a lot of traction in the late 2010s but has lost some of its momentum among investors and the public eye with the begin of the Ukraine-war, despite companies not slowing down spending and research and development, as pointed out by expert F.

Furthermore, now that Trump has started his second term as US president, he has begun reversing a lot of sustainability measures and DEI initiatives undertaken in the past, so much so, that US companies are already feeling repercussions. In contrast, to-date Europe has seen very little reversal of sustainability measures which leads us to the next area of interest. This paper has analysed the European market, disregarded the international interplay of exchanges though. Together with the US and Asian markets, Europe is one of the three largest markets globally. The interplay of these three is in a constant state of interaction, as one does not operate smoothly without the other. In a globalised world, decisions made by one party are felt around the world and can influence markets, strongly seen in the 2008/09 market crash. Many exchanges also do not operate in one location anymore as well. One of the largest European stock exchanges, the NASDAQ Nordic and Baltic Exchange is a NASDAQ subsidiary, which is located in the US and Euronext has multiple locations in Europe. Without the support of other, international markets, no single market can finance the sustainable transition. It needs global investments, initiatives, and incentives to successfully perform one of the major problems humanity faces. Another idea expert G floated was the introduction of minimum regulation. Future researchers can look into the effects of this approach, and whether it proves to be successful, compared with heavy regulation, as it is now, or no regulation, only investor-driven, as F suggested. Lastly, another main concern of many people is the performance of ESG indices and industries and stock markets. Although they are certainly limited by volatility and external, uncontrollable factors, an in-depth analysis over a long period of time might give insights into how green products perform compared to more traditional products. Potentially, the general opinion of green version (significantly) underperforming can be disproven, and more investors begin to see realistic and positive returns, instead of a nice alternative to otherwise better performing stocks and indices.

## 6 Conclusion

This thesis demonstrates that stock exchanges are a neutral infrastructure and platform provider, who hold a unique position in the financial market, as they can simultaneously influence and redirect capital flows up to a certain level. Stock exchanges are critical enablers of sustainable finance. Without them, investors would be stuck with investing in their regional or even local markets, not knowing what possibility might lie outside their personal area of expertise. However much governments and global unions or partnerships, like the EU, set regulatory frameworks like the CSRD or Omnibus in-place, stock exchanges are ultimately what drives innovation. Companies aim for better performance at the stock market and want to drive their stock price up. This is achieved by a number of things, with the ESG Rating playing a major role in today's world. Innovation of sustainable technologies is not only appealing to socially conscious investors anymore, but to all investors. Exchanges provide the platform and products in which stocks, indices and more are traded in. Being listed in green indices or products is ethically and financially rewarding nowadays. Exchanges decide what incentives they give companies to operate better, sustainability speaking. This is also shown in the interviews. All experts agree that exchanges offering a wide range of products, such as ESG indices, ESG-linked products and that the promotion of transparency is vital. Despite clarifying the importance of regulation, the same experts also criticize that overregulation will lead to a lack of creativity when developing new products or technologies. Regulation must remain as a background structure, to provide companies and exchanges with the freedom to operate and make deciding and important steps towards more sustainable technologies.

Bureaucracy is what might hinder the growing interest sustainability has gained in the last decade. Despite political tensions, sustainability is one of the major topics, and especially in Europe, people are aware that significant changes to global climate will impact them in the years to come. Without proper incentives, by the market, the costs associated with successfully performing a sustainability transition will increase drastically. The continued interest in the sustainability transition shows that the trend is resilient and important. Another topic exchanges must concern themselves with is the education of the public. At this moment, educational efforts are lacklustre. Financial markets are easily accessible for many people now and especially younger investors. However, education in the area can, and must, be improved, as this will ultimately lead potential future investors to concern themselves with ESG-related issues, further directing eyes and interest on this pressing concern. Furthermore, exchanges have the chance to foster more inclusive sustainability frameworks, like the often mentioned "best-in-class"

indices and more, as well as siding with corporations to foster for smarter and less overbearing regulatory frameworks and barriers. The main focus of regulation should be to build a background structure, not provide companies and exchanges with ideas. The market, with regulatory guidance and investor demands, will come up with their own ideas and approaches that are likely to be more effective and efficient than anything regulators will come up with, also including which points to report on.

Ultimately, stock exchanges have the unique position and the potential to help pave the way and lead Europe's transition toward a greener, more sustainable and resilient economy. They can only achieve this by balancing compliance, innovation and public engagement with the support of proactive industries and structure-providing regulations.

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## Appendix A; Interview partners role and ID

Role	ID
Chief Sustainability Officer Trading and Clearing at Deutsche Börse Group	A
Head of Group Regulatory and Governmental Affairs; Group Sustainability Officer at Boerse Stuttgart Group	B
Sustainable Finance Expert at Union Investment Institutional GmbH	C
Managing Director, Head of Cash Equity Execution at HSBC Continental Europe	D
Professor for Sustainable Finance and Portfolio Management at Católica Lisbon (UCP)	E
Chief Financial Officer at thyssenkrupp Decarbon Technologies	F
Professor at LMU in Munich, Responsible for the Institute for Financial Innovation and Technology	G

## Appendix B; Interview guide

1. What role do Stock exchanges have in facilitating Sustainable Finance in your eyes?
2. Where do you see the greatest opportunity for stock exchanges to innovate in sustainable finance over the next decade? Should they be exchange-driven or regulator-driven?
3. Do you believe that ESG indices and sustainable products offered by stock exchanges influence corporate behaviour?
4. Beyond regulatory requirements, what ESG-related measures or initiatives can stock exchanges make? Are they impactful or just symbolic?
5. How can stock exchanges ensure that ESG claims made by listed firms are credible and not greenwashing?
6. To what extent is investor demand driving stock exchange initiatives in sustainable finance?
7. If you could change one thing about how stock exchanges support sustainability, what would it be?