



**DEPARTMENT OF INTERNATIONAL AND
EUROPEAN ECONOMIC STUDIES**

ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

INTEGRATING SDGs IN ESGs AND THE SUSTAINABILITY TRANSFORMATION OF THE EU BUSINESS SECTOR

PHOEBE KOUNDOURI

CONRAD FELIX MICHEL LANDIS

KONSTANTINOS DELLIS

ANGELOS PLATANIOTIS

Working Paper Series

24-01

January 2024

Integrating SDGs in ESGs and the Sustainability Transformation of the EU Business Sector

Phoebe Koundouri*, Conrad Felix Michel Landis**, Konstantinos Dellis*** and Angelos Plataniotis****

* School of Economics and ReSEES Research Laboratory, Athens University of Economics and Business; Department of Technology, Management and Economics, Denmark Technical University (DTU); Sustainable Development Unit, Athena RC; UN SDSN (Global Climate Hub, European Hub, Greek Hub); phoundouri@aueb.gr

** ReSEES Research Laboratory, Athens University of Economics and Business; Visiting Faculty, India Institute of Management Rohtak; Sustainable Development Unit, ATHENA Research Centre; conrad@aueb.gr

*** ReSEES Research Laboratory, Athens University of Economics and Business; Sustainable Development Unit, ATHENA Research Centre; kdellis@aueb.gr

**** Sustainable Development Unit, ATHENA Research Centre; angplat@athenarc.gr

Abstract

The paper consists of a review of the Environmental, Social and Governance Criteria (ESGs) and Sustainable Development Goals (SDGs) Frameworks with a focus on the EU policy context. Based on the most recent Literature, the integration of the SDGs in the ESG framework is discussed and we underline the need for more interdisciplinary and holistic frameworks to incorporate the long-term SDG targets into the Corporate Sustainability reporting framework in order to accelerate the transition of the EU business sector.

KEYWORDS: ESG, Sustainable Development Goals, SDG, CSRD, Sustainability Reporting

Introduction

The concept of Environmental, Social, and Governance (ESG) factors has evolved significantly over the years, reflecting a growing recognition of the interconnectedness between business operations and broader societal and environmental issues. ESG grew out of investment philosophies clustered around sustainability and, thereafter, socially responsible investing. The “E” captures environmental issues including energy efficiency, carbon footprints, greenhouse gas emissions, deforestation, biodiversity impact, waste management and water usage. The “S” covers pressing social aspects such as labour standards, wages and benefits, workplace and board diversity, racial justice, pay equity, human rights, talent management, community relations, privacy and data protection, health and safety, supply-chain management and other human capital and social justice issues. The “G” refers to the governing of the other two categories. This entails firm performance in the areas of corporate board composition and structure, strategic sustainability oversight and compliance, executive compensation, political contributions and lobbying, and bribery and corruption. The evolution of ESG has been marked by an increasing focus on integrating sustainability and responsible business practices into corporate strategies. Initially, ESG was primarily associated with the screening of firms to promote ethical investing, that is investors abstained from certain industries or companies deemed socially or environmentally harmful. Over time, the concept has matured to encompass broader sustainability considerations and includes proactive measures such as positive screening, active engagement with companies, and the development of global standards and reporting frameworks.

In the absence of international consensus regarding ESG disclosures, a large number of frameworks and indices have emerged to guide company disclosures and inform investors. Given the fact that there are numerous attributes to be considered in the ESG context, a common framework is necessary to avoid bad practices, endure harmonization across industries and countries, and protect investors from adverse investment selection. After the turn of the century, a bevy of initiatives and projects have attempted to establish universal and nuanced frameworks for ESG reporting (Figure 1).

The first coordinated effort to establish a framework for ESG reporting was undertaken by the Global Reporting Initiative (GRI) in 2000 (the initiative was founded in 1997). The GRI Standards are widely recognized and utilized by businesses, governments, and non-profit organizations to scientifically assess their performance in key issues in the realm of sustainability (GRI, 2023). The aim is to bolster the initiative for transparency and accountability, which in turn promote sustainable investment and provide vigor to the ESG framework. The current structure of the GRI framework includes three types of frameworks (Dianeosis, 2023):

- i. Universal Standards, which refer to generic guidelines for reporting irrespective of the sector or scope of the reporting firm
- ii. Sector Standards, which are tailored to the specific industry and sector in which the firm operates
- iii. Topic Standards, which refer to the specific thematic areas in sustainability where the company’s operations apply

The Carbon Disclosure Project (CDP) is a global non-profit organization founded in 2000, which specializes in corporate reporting on environmental impacts (CDP, 2023). The collects and analyzes data related to climate change, such as GHG emissions, deforestation, water security, and impact on ecosystem services from thousands of companies across many sectors and countries. The results are published in the form of annual reports which facilitates the flow of information from the corporations to investors and stakeholders. The organization's standardized reporting system has grown into a broadly accepted benchmark for corporate environmental disclosure (the "E" of the ESG framework), incentivizing private companies to integrate climate-related considerations into their business strategies. A similar approach is taken by the Climate Disclosure Standards Board (CDSB), which focuses on the inclusion of meaningful information regarding the companies' environmental impacts in the sustainability reports (Dianeosis, 2023).

The Principles for Sustainable Investment (PRI), launched in 2006 by a group of institutional investors and the United Nations, is functioning according to six core principles (PRI, 2023):

- i. Incorporating ESG issues into investment decision-making processes.
- ii. Inclusion of ESG issues into our ownership policies and practices.
- iii. Seeking appropriate disclosure of ESG issues by the entities in which they invest.
- iv. Promoting acceptance and implementation of the Principles within the investment industry.
- v. Collaboration to enhance the effectiveness in implementing the Principles.
- vi. Reporting on the activities and progress towards implementing the Principles.

The International Integrated Reporting Committee (IIRC) promotes the development of the *Integrated Reporting* (IR) framework as the holistic approach to sustainability reporting. It was introduced by the International Integrated Reporting Council (IIRC) in 2010 to encourage companies to move beyond traditional financial reporting. It acknowledges six types of capital: financial, manufactured, intellectual, human, social and relationship, and natural capital. Since corporations combine these capital sources to create value, this should be reflected in their reporting according to the framework, thus acknowledging the core tenets of the ESG notion. The IIRC was merged with SASB in 2021 to create the Value Reporting Foundation (VRF)¹. The Sustainability Standards Accounting Board (SASB) is a non-profit organization founded in 2011, which focuses on developing industry-specific sustainability accounting standards to assist companies in disclosing financially material information related to ESG factors (SASB, 2023). This approach diverts from the others discussed as it is based on the notion of "financial materiality", that is emphasizing on the sustainability tenets that mostly affect the firm's financial performance. As such the SASB framework monitors indicators like resource efficiency, employee engagement, product safety, and business ethics, tailored to the specifics of each industry. Under this framework, the standards proposed are treated as complementary to the financial reporting requirements of each company in order to shape an integrated risk profile for stakeholders and investors.

The Task Force on Climate-related Financial Disclosures (TCFD) was established in 2015 by the Financial Stability Board (FSB) and is also working on incorporating climate impacts in corporate reporting. The TCFD framework is built on four core elements that guide organizations in disclosing climate-related financial information (TCFD, 2023; Dianeosis, 2023):

¹ <https://www.valuereportingfoundation.org/>

i. Governance

This pillar monitors how a company's board and senior management oversee and manage climate-related risks and opportunities. It includes disclosure on the governance structure, the role of the board in climate-related decision-making, and how responsibilities are assigned within the organization to address climate-related issues.

ii. Strategy:

This element refers to the degree of integration of climate impact assessment and threats arising from climate change into the company's strategy.

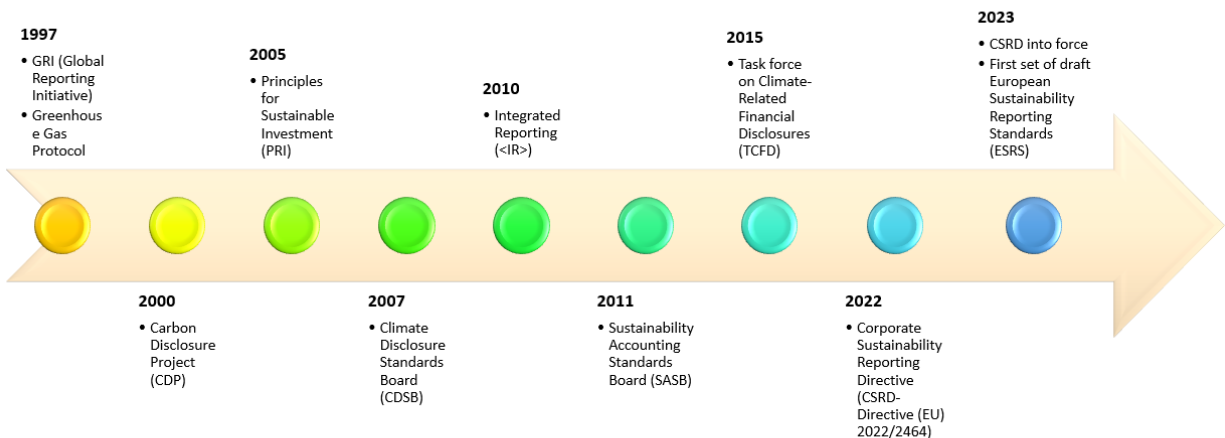
iii. Risk Management:

This tenet focuses on incentivizing companies to gauge and disclose the climate-related risks in coherent and holistic fashion. It refers to the acknowledgment and measurement of risks both related to the firm's operations as well as the adverse potential impact of climate change and extreme catastrophic events.

iv. Metrics and Targets:

Following the process described under the Risk Management element, the risks and impacts have to be quantified in order to convey information for the company's sustainability reporting process. In the case this is practically impossible, qualitative metrics and targets are imposed and reported to assess environmental performance.

Figure 1: Evolution of Sustainability Framework



Source: Authors' Elaborations

To validate the strengthening of its efforts in the front of sustainable finance and corporate responsibility, the European Commission launched the renewed Corporate Sustainability Reporting Directive (CSRD) in 2023. According to this directive, a growing set of large companies will be required to report on sustainability, as will all listed SMEs in the EU². In conjecture to the policies underpinning the European Green Deal and in line with the documentation of the EU taxonomy, this initiative will usher investors and authorities with access to the necessary information to assess the environmental and social impact of companies and gauge financial risks and opportunities concomitant to sustainability issues. The first set of companies are expected to provide all relevant information and data regarding the 2024 financial year in their 2025 reports. The European Sustainability Reporting Standards (ESRS), adopted in July 2023, is a significant milestone, as these standards aim to enhance the quality and comparability of sustainability reporting for all companies' subject to the CSRD, across the EU. Applicable to large companies, listed entities, and significant financial institutions, the ESRS encompasses 12 topic standards addressing comprehensive ESG issues. This facilitates improved transparency and accountability, enabling investors and stakeholders to make more informed decisions based on standardized sustainability performance indicators.

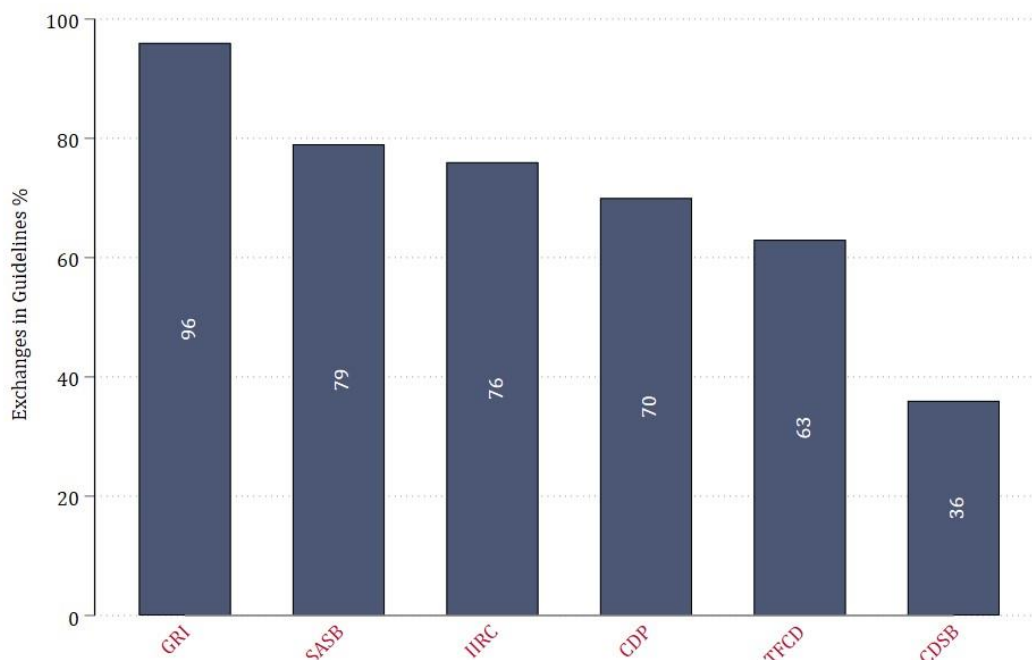
These developments aim to enhance the forward-looking aspect of sustainability reporting by connecting the ESG concepts to the Agenda 2030, the Sustainable Development Goals and the Fit-for-55 package (Dianeosis, 2023).

According to the UN Sustainable Stock Exchanges (SSE) Initiative, 96% of stock exchanges covered refer to the Global reporting Initiative (GRI) in their guidance documents, followed by 79% for SASB and 70% for CDP³ (Figure 2). As described in Figures 1 and 2, material progress has been recorded in the field of ESG frameworks in a global effort to establish a common ground for sustainability reporting. However, according to Boffo and Patalano (2020) "In this regard, while ESG methodologies are improving and becoming more transparent, scoring remains in a state of transition, with some rating providers still in the way of refining their methodology through the inclusion of factors such as materiality". Not all of the frameworks assess both financial and impact materiality or assign the same analytical weights. Having said that, the overall sustainability assessment process is hindered by profound divergence and controversy over the ratings provided by different organizations after the ESG reports have been finalized (Boffo and Patalano, 2020; Berg et al., 2022). The latter goes to show that harmonization transcends the field of reporting frameworks, however the fruitful dialogue emerging can only improve the integration and relevance of ESG metrics and sustainability reporting.

² Details on the most recent developments can be found in https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en.

³ <https://sseinitiative.org/esg-guidance-database/>

Figure 2: ESG Standards in Exchange Guidance Documents



Source: UN SSE Initiative

The EU Sustainable Finance Framework

Sustainable finance plays a pivotal role in the European Union's (EU) quest for a resilient, low-carbon, and socially inclusive economy. As the EU strives to achieve its ambitious environmental and climate targets outlined in the European Green Deal and the 2030 Climate Target Plan (European Commission, 2020; 2021), sustainable finance serves as a linchpin in funneling capital towards environmentally sound and socially responsible investments. The importance of sustainable finance in the EU extends beyond mitigating environmental risks; it aligns financial institutions and corporations with the principles of responsible business, fostering long-term resilience and contributing to the overall stability of the financial system. The harmonization of piecemeal regulations and practices towards a holistic EU sustainability framework is aligned with the validation of ESG standards and the connection of ESG indicators with concrete outcomes that promote corporate responsibility.

The EU sustainable finance framework is based on the following building blocks⁴.

⁴ The categorization is based on official EU documentation (see https://single-market-economy.ec.europa.eu/industry/sustainability/corporate-sustainability-and-responsibility/sustainable-finance_en)

Corporate disclosure of climate-related information

The guidelines on reporting climate-related information were disclosed in March 2018 and were built on the recommendations of the technical expert group on sustainable finance (TEG). The EU has issued specific guidance for companies on how to report holistically on the environmental impact of their business across the value chain and the effects of climate change on their business. The EC (2019) underlines that all climate-related information should be reported in accordance with the Non-Financial Reporting Directive and should address the issue of double materiality. The latter refers to the acknowledgement of the feedback loop between the environmental impact of the companies' financial operation and environmental degradation, which adversely affects them.

EU labels for benchmarks (climate, ESG) and benchmarks' ESG disclosures

Labels and benchmarks on products traded in the Single Market promote more transparent transactions when it comes to ESG criteria and put forward standards for the methodology of low-carbon and ESG benchmarks in EU. The overarching aim of the European Commission is to establish a new label which encompasses all ESG pillars. The challenges for the initiative are very relevant to the discussion over the divergence across ESG metrics and ratings (Berg et al, 2022), however the promotion of this strategy is pivotal for increasing awareness across consumers, policymakers, and investors in the EU.

Sustainability-related disclosure in the financial services sector (SDFR):

This regulation was adopted in 2019 and outlines sustainability disclosure obligations for manufacturers of financial products and financial advisers with the overarching aim of protecting investors. It aims to redirect capital flows considering sustainability issues and integrate ESG factors into risk management processes (E&Y, 2023). The regulation⁵ aims to contribute to the establishment of harmonized transparency rules for all stakeholders in financial markets including investors, intermediaries, and advisers on how they integrate ESG factors into their investment transactions. Moreover, it addresses the pressing issue of *greenwashing* regarding financial products by setting a level playing field for environmental reporting across the financial sector. The SFDR entails a nuanced approach as it “distinguishes between disclosures regarding sustainability risks and those concerning sustainability factors and distinguishes between regular financial products, financial products that promote, among other characteristics, environmental or social characteristics, and financial products that have sustainable investment as their objective” (Busch et al., 2021 p.33). More specifically, all financial market participants must disclose online clear information regarding the potential adverse impacts of investment decisions or financial advice on ESG sustainability and the assessment of potential risks concomitant to sustainability issues in their operations.

European green bond standard

A green bond is differentiated from a regular bond by its label, which signifies a commitment to exclusively use the funds raised to finance or re-finance “green” projects, assets, or business activities

⁵ EU 2019/2088: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R2088>

(ICMA, 2015). Despite the growing interest in sustainable finance, the lack of harmonized environmental data impedes investors in making informed decisions that encompass environmental sustainability concerns (Anyfantaki et al., 2022). EU leads the world in terms of green bonds issuance, accounting for more than half of global volume in 2021, whereas it only accounts for 3% to 3.5% of the overall bond market⁶.

The European green bond standard (EUGBS) is an EU-wide standard to encourage market participants to issue and invest in EU green bonds and improve the effectiveness, transparency, comparability, and credibility of the market. The political agreement was reached in March 2023 following the TEG Report in 2019 and the consultation process commencing in 2020. This voluntary standard is intertwined with the EU Taxonomy insofar as the latter defines green economic activities which are eligible for financing through the green bond scheme to safeguard transparency in financial transactions and contribute to environmentally sustainable investment. All companies and public entities aiming to finance green projects by tapping capital markets are eligible to use the EUGBS on the premise that at least 85% of the funds raised by the bond are allocated to economic activities that align with the EU Taxonomy Regulation.

EU Taxonomy

The EU taxonomy is a classification system, establishing a list of environmentally sustainable economic activities. It could play an important role in helping the EU scale up sustainable investment and implement the European Green Deal. In its all-encompassing capacity, the EU taxonomy is the cornerstone of the EU sustainable finance framework as it underpins all financial transactions and aims to establish common ground across all stakeholders in the EU financial system. Taxonomy enhances market transparency by establishing criteria according to which financial activities will be labeled sustainable. The broad set of activities that are included in the green finance framework according to the EU Taxonomy are⁷:

- 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 ongoing procedure also aims to tackle the pressing issue of greenwashing in concordance with the other EU initiatives described in this section. According to the European Commission (2022) the EU taxonomy is “a transparency tool based on a classification system translating the EU’s climate and environmental objectives into criteria for specific economic activities for private investment purposes”. Nonetheless, it does not provide investors with a list of activities they are obliged to invest in, nor does it impose restrictions to government bodies and regional authorities regarding their investment decisions.

⁶ <https://www.reuters.com/sustainability/eu-gives-nod-worlds-first-green-bond-standards-2023-10-05/>

⁷ Details can be found in https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en

The Sustainable Development Goals Framework

Since the Late 2000's ESG integration focused primarily on assessing the ESG policies and processes of companies to evaluate the companies best managing these issues, and which issues were material to the financial prospects of the company, then overweighting or underweighting the companies accordingly.

With the launch of the United Nations SDGs in 2015, this started to change. Endorsed by 193 countries, the SDGs address topics including poverty, hunger, health, education, climate change, gender equality, water, sanitation, energy, environment, and social justice. Achieving the goals requires an estimated investment of USD 5 trillion to USD 7 trillion per year until 2030. For every year that passes, the investment needed to fulfil these goals increases, highlighting the urgency of mobilizing capital. Since 2015, the SDGs are gaining ground as a reference point for investors to align investments and impact goals. This has not only added an additional layer of analysis on top of the traditional exclusion and ESG but underline the need for the creation of a suite of additional attractive investment opportunities that are 'impact-aligned' to the SDGs. Agenda 2030 and the Sustainable Development Goals (SDGs), adopted by all member states of the United Nations in 2015, describe a universal agenda that applies to and must be implemented by all countries and all stakeholders at a local level and in any instance of economic activities. Sound metrics and data are critical for turning the SDGs into practical tools for problem solving. UN SDSN partners with a variety of organizations to assess progress towards SDG achievement at the national level and the local level. Both official and unofficial metrics are used to measure distance to targets for each of the SDGs to identify priorities for action, understand key implementation challenges, track progress, ensure accountability, and identify gaps that must be closed in order to achieve the SDGs by 2030. The SDSN methodology (Sachs et al., 2020) was audited by the EU JRC in July 2019.

Sachs et al (2019) suggests an approach of making the SDGs operational for governments and policymakers, based on Six Transformational themes, while Koundouri et al. (2021, 2022) propose a methodology to map European Green Deal policy documents to the SDGs. Further, Koundouri et al. (2022) present a methodology to assess the degree that the National Recovery and Resilience Plans (NRRPs) of NextGenerationEU program, support the SDGs, and apply it on the NRRPs of 7 European countries.

ESGs, SDGs and Corporate Sustainability Reporting

In the contemporary business environment, corporate sustainability reporting is an emergent concern, especially given the global shift towards sustainable practices. Tam et al. (2022) highlight the increasing prominence of corporate sustainability reporting, albeit noting a research gap when it comes to SMEs and financial institutions in Europe. This assertion underscores the significance of sustainability reporting, driven not just by societal pressures but also by global imperatives to promote sustainable business operations.

One of the potential benefits of sustainability reporting is its positive impact on the quality of financial reporting. Krista and Pogurecka (2023) assert that such reporting is instrumental in enhancing financial reporting's quality. Consequently, they argue that boards should set a strategic direction for sustainability reporting. This implies that companies need to integrate sustainability reporting into their corporate governance strategies to remain aligned with global standards and expectations.

A major development in this realm is the European Commission's revision of the directive on corporate sustainability reporting. As of 2024, it will become mandatory for companies to report on their business activities from the year 2023. However, Patrick and Metzger (2022), have shown that many companies might be underprepared for these evolving requirements, indicating potential challenges in the immediate future. In examining these developments, Halkos & Nomikos (2021) provided a trend analysis on the diffusion of the Global Reporting Initiative worldwide, identifying notable trends from 1999 to 2017 across continents. Their findings, especially regarding Europe transitioning from a full-grown to a downturn stage in recent years, offer valuable insights into the current landscape and trajectory of corporate sustainability reporting. Moreover, Oleh et al. (2022) provided a comprehensive overview of the historical shifts in the interplay between sustainability reporting and corporate governance. By analyzing a massive dataset of 935 articles, they identified dominant trends, leading journals, and major thematic occurrences, shedding light on the evolution and focal areas in this domain.

The holistic nature of sustainability reporting integrates several dimensions of corporate performance, including financial, environmental, and social aspects. Such a comprehensive approach is crucial to address the needs of diverse stakeholders (GRI, 2021). The convergence between sustainability reporting and corporate governance is evident and expected to be an area of increasing research interest, particularly with a focus on ESG, disclosures, and governance performance (Pasko, A., & Stolowy, H., 2022). Nonetheless, despite the growing number of sustainability reports, Gunawardana (2023) questions their quality. To enhance their credibility and transparency, there is a pressing need for external assurance.

The impact of good or bad performance in relation to the Environmental, Social, and Governance (ESG) criteria on the financial performance of the company has also drawn more attention from academics, financial investors, and asset owners over the past ten years. This interest has been demonstrated by the Cost of Capital (Bauer and Hann, 2010; Schneider, 2011), Stock Valuation (Jiao, 2010), and Stock Returns (Gerhart et al, 2015; Kahn et al., 2016; Henriksson et al., 2018).

Using data from MSCI ESG database, Nagy et al. (2015), document the presence of an ESG momentum. In the same direction, Koundouri and Landis (2023) using data from Thomson Reuters Refinitive, document a strong ESG momentum in international stock returns and markets.

While there are numerous studies that link strong corporate ESG performance to increased financial performance, Whelan et al. (2021) found that, in part, a meta-analysis of the literature states that only:

“26% of studies that focused on disclosure alone found a positive correlation with financial performance compared to 53% for performance based ESG measures (e.g., assessing a firm’s performance on issues such as greenhouse gas emission reductions). This result holds in a regression analysis that controls for several factors simultaneously”.

The Sustainable Development Goals have also been studied in the context of the corporate sustainability reporting. Using company specific SDG related scores⁸, Bekaert et. al (2023) find a strong linkage between ESGs, SDGs and portfolio Alphas. Moreover, Van Zanten and Huij (2022) show that unlike ESG ratings, an SDG score captures investors’ revealed sustainability preferences; aligns with the EU taxonomy regulation; and supports climate change mitigation. Focusing on the ASEAN countries, Ngan et al (2022) find a positive relation between ESG performance of companies and countries SDG performance and economic growth. Pastun et al. (2020) find that ESG disclosure regulation influences the position of the country in SDGI and 50 largest economies rankings. The more country complies with ESG disclosure

⁸ Global AI Corp.’s (GAI) SDG scores.

criteria, the better position in rankings is. Incorporation of ESG criteria is an important evolutionary step in economic development of the country.

Integrate SDGs to the ESG frameworks

Apart from the studies indirectly linking the need to integrate the SDGs in the ESG analyses, there is little research on frameworks that directly integrate the SDG into the ESG metrics and frameworks.

In collaboration with partners and stakeholders, GRI and the UN Global Compact created guidelines to help businesses successfully incorporate the Sustainable Development Goals (SDGs) into their reporting procedures. Companies can utilise this database to find pertinent disclosures so they can report on their work towards the SDGs⁹.

Consolandi et al (2018) develops a framework, which maps the material ESG issues for each of SASB's 79 industries to the SDGs and to their targets. For each sector, there are particular SDGs where it has high impact and for each SDG there are particular sectors that have a high impact on it, and some sectors are more important to the SDGs in aggregate than others.

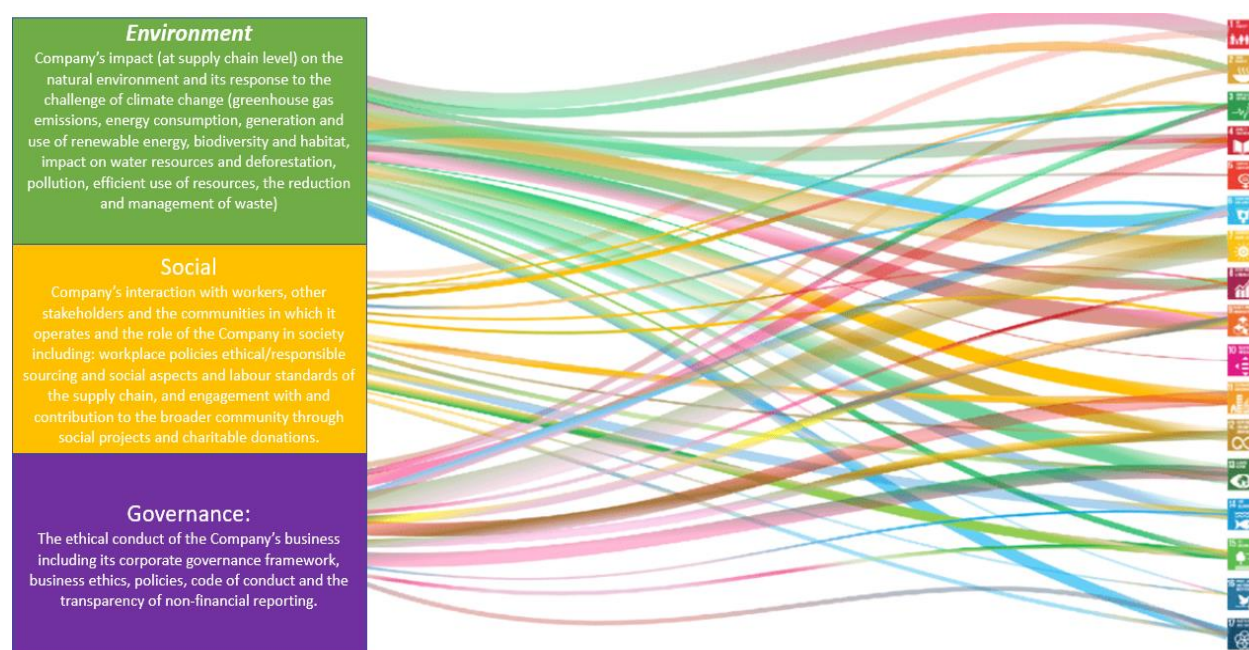
In this direction, Koundouri et al. (2023) introduces a novel framework which consists of a three-step approach that downscales the UN SDSN SDG framework at the company level. The framework includes:

- the mapping of the company's value chain
- a double materiality assessment with the definition of quantitative ESG Key Performance Indicators (KPIs) at various scales (e.g. generic – applies to all companies -, sector specific – applies to companies incorporating in a specific sector – and unit specific – applies to different units across the companies' value chain)
- setting of KPI specific targets to 2030 and 2050. The Long List of KPIs is compatible and in line with the Corporate Sustainability Reporting Directive (CRSD) and the all currently commonly applied frameworks discussed in the first sections of this study (GRI, SASB, IIRC, CDP etc.).

The corporate sustainability assessment framework dynamically maps the ESG material issues (categories) and ESG KPIs to the SDG Indicators (Figure 4).

⁹ <https://www.globalreporting.org/goals-and-targets-database/>

Figure 4: Koundouri et al. (2023) Corporate Sustainability Assessment Framework



Source: Authors Elaboration

This novel model is more holistic than the ESGs and reveal the complex interdependencies between the ESG KPIs in the implementation of the SDGs.

Conclusion

This paper discusses the evolution of the Corporate Sustainability Reporting frameworks and the relevant EU policy context. The environmental, social, and governance (ESG) framework, which is used to assess a company's sustainability and performance, has developed over time from a niche concept to a mainstream consideration for businesses.

In light of these developments, the European Union introduced the Corporate Sustainability Reporting Directive (CSRD) on January 5, 2023. This directive mandates larger and listed companies, including SMEs, to provide comprehensive reports detailing their impact on societal and environmental aspects. The first batch of these reports under the new directive will emerge in 2025, capturing activities of the financial year 2024. In addition to the CSRD, the development of the European Sustainability Reporting Standards (ESRS) by the European Financial Reporting Advisory Group (EFRAG) is a crucial initiative, too. These standards, in alignment with EU policies, also contribute to the global movement towards standardized sustainability reporting. The CSRD is part of the wider EU action plan for sustainable finance along with the EU Taxonomy, launched in 2020, the recently launched EU Green Bond Standard, and the Non-Financial Reporting Directive (NFRD). Until the CSRD becomes fully operational, the NFRD remains the primary guiding regulation. This directive requires large public-interest companies

to disclose a wide range of non-financial information, emphasizing transparency and accountability (Corporate sustainability reporting, 2023).

Moreover, recently, sustainable development goals (SDGs) have become an international requirement that needs to be achieved and requires the focus of recent literature and regulation authorities. This paper underlines the need that there is a relative gap in the literature in relation to frameworks which further mainstream the SDGs in the ESG reporting of companies, which are expected to further accelerate the transition of companies and the EU business sector. The integration of SDGs and the Agenda 2030 in the ESG framework through relevant metrics and monitoring is a material issue for promoting sustainable development.

In conclusion, the recent developments in ESG frameworks and their integration in EU policy have marked a paradigm shift in corporate and investor priorities, emphasizing the integration of sustainability considerations into decision-making processes. As stakeholders in the private sector acknowledge the salience of ESG factors, a more holistic approach is taken in the process of corporate financial reporting. In addition, ESG material issues are considered more than ever in investment decisions and gain traction in the functioning of the financial sector. Considering the process ongoing, a moderate degree of harmonization of framework has been achieved over the past twenty years, paving the way for the harmonization of practices in the realm of corporate sustainability.

References

- Anyfantaki, S., Migiakis, P. M., & Paisiou, K. (2022). Green finance in Europe: actors and challenges. *Bank of Greece Economic Bulletin*, (55).
- Bauer, R., and Hann, D. (2010). Corporate Environmental Management and Credit Risk. ECCE Working Paper. University Maastricht, The European Centre for Corporate Engagement.
- Bekaert, G., Rothenberg, R., V. and Noguier, M. (2020). Sustainable Investment - Exploring the Linkage between Alpha, ESG, and SDG's. *Econometric Modeling*. <https://api.semanticscholar.org/CorpusID:225799329>
- Berg, F., Koelbel, J. F., & Rigobon, R. (2022). Aggregate confusion: The divergence of ESG ratings. *Review of Finance*, 26(6), 1315-1344.
- Betti, G., Consolandi, C. and Eccles, R., G. (2018). The Relationship between Investor Materiality and the Sustainable Development Goals. A Methodological Framework. *Sustainability*. <https://api.semanticscholar.org/CorpusID:169131310>
- Boffo, R., and R. Patalano (2020), “ESG Investing: Practices, Progress and Challenges”, OECD Paris, www.oecd.org/finance/ESG-Investing-Practices-Progress-and-Challenges.pdf
- Busch, D. (2021). Sustainability disclosure in the EU financial sector. *Sustainable Finance in Europe: Corporate Governance, Financial Stability and Financial Markets*, 397-443.
- Carbon Disclosure Project. (2023). About Us. Retrieved from <https://www.cdp.net/en/info/about-us>
- DIANEOSIS (2023). Υιοθέτηση κριτηρίων ESG στη λήψη επενδυτικών αποφάσεων: Τάσεις και προοπτικές. Retrieved from <https://www.dianeosis.org/2023/12/ta-esg-kritiria-stin-ellada-kai-ston-kosmo/>
- European Commission. (2019). Guidelines on reporting climate-related information.
- European Commission. (2020). A European Green Deal: Striving to be the first climate-neutral continent. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/actions-being-taken_en
- European Commission. (2021). Communication on the 2030 Climate Target Plan. https://ec.europa.eu/clima/sites/clima/files/deforestation/docs/2030_en.pdf
- European Commission. (2022). EU Taxonomy: Accelerating sustainable investments. Retrieved from https://finance.ec.europa.eu/system/files/2022-02/sustainable-finance-taxonomy-complementary-climate-delegated-act-factsheet_en.pdf
- EU Technical Expert Group (TEG) on Sustainable Finance (2019). Report on EU Green Bond Standard.
- Earnst & Young (2023). Sustainable Finance Disclosure Regulation: getting ready for “level II” application. Retrieved from https://www.ey.com/en_lu/sustainability-financial-services/sustainable-finance-disclosure-regulation--getting-ready-for--le, accessed on 22/12/2023

Global Reporting Initiative. (2023). About GRI. Retrieved from <https://www.globalreporting.org/about-gri/>

Gunawardana. (2023). A systematic review of sustainability reporting assurance: current practices and issues for future. doi: 10.57075/jaf922sp03

Halkos, G., & Nomikos, S. (2021). Corporate social responsibility: Trends in global reporting initiative standards. *Economic Analysis and Policy*, 69, 106-117.

International Integrated Reporting Council. (2023). The International <IR> Framework. Retrieved from <https://integratedreporting.org/resource/international-ir-framework/>

Principles for Responsible Investment. (2023). About the PRI. Retrieved from <https://www.unpri.org/pri/about-the-pri>

Sustainability Accounting Standards Board. (2023). About SASB. Retrieved from <https://www.sasb.org/about/>

Task Force on Climate-related Financial Disclosures. (2023). About the TCFD. Retrieved from <https://www.fsb-tcfd.org/about/>

Corporate sustainability reporting. (2023). Finance. https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

Global Reporting Initiative (GRI). (2021). Sustainability Reporting Standards. Retrieved from <https://www.globalreporting.org/standards/gri-standards-download-center/>

Henriksson, R., Livnat, J., Pfeifer P. and Stumpp, M. (2019). Integrating ESG in Portfolio Construction. *Journal of Portfolio Management*

Koundouri, P., Devves, S., & Plataniotis, A. (2021). Alignment of the European Green Deal, the Sustainable Development Goals and the European Semester Process: Method and Application. *Theoretical Economics Letters*, 11(4), 743-770.

Koundouri, P and Landis, C. (2023). ESG and SDG Momentum in International Stock Returns, AE4RIA, UN SDSN Global Climate Hub, Athens University of Economics and Business, Working Paper.

Koundouri, P., Landis, C., & Plataniotis, A. (2023). ESGs & SDGs Quantification and Acceleration, AE4RIA, UN SDSN Global Climate Hub, Athens University of Economics and Business, Working Paper.

Jiao, Y. (2010). Stakeholder Welfare and Firm Value. *Journal of Banking and Finance*, 34, 2549-2561.

Lafortune, G., Cortés Puch, M., Mosnier, A., Fuller, G., Diaz, M., Riccaboni, A., Kloke-Lesch, A., Zachariadis, T., Carli, E. Oger, A., (2021): Europe Sustainable Development Report 2021: Transforming the European Union to achieve the Sustainable Development Goals. SDSN, SDSN Europe and IEEP. France: Paris.

Lafortune, G., Zoeteman, K., Fuller, G., Mulder, R., Dagevos, J. and Schmidt-Traub, G. (2019): The 2019 SDG Index and Dashboards Report for European Cities (prototype version). Sustainable Development Solutions Network (SDSN) and the Brabant Center for Sustainable Development (Telos).

- Myshko, D. (2012). R&D: Regulatory. PharmaVoice. <https://www.pharmavoices.com/news/pharmaceutical-regulations/613678/>.
- Nagy, Z., Kassam, A. and Lee, L. E. (2015). Can ESG add Alpha?, *The Journal of Investing*, 25(2), 113-124. [10.3905/joi.2016.25.2.113](https://doi.org/10.3905/joi.2016.25.2.113).
- Pasko, O., Zhong, F., Tetyana, C., Kuts, Inna, Sharko, N., N., Ryzhikova. (2022). Sustainability reporting nexus to corporate governance in scholarly literature. *Environmental Economics*, doi: [10.21511/ee.13\(1\).2022.06](https://doi.org/10.21511/ee.13(1).2022.06)
- Pasko, A., & Stolowy, H. (2022). Sustainability reporting nexus to corporate governance in scholarly literature. *Business Perspectives*, 26(1), 3-17.
- Plastun, A., Makarenko, I., Khomutenko, L., Osetrova, O. and Shcherbakov, P. (2020). SDGs and ESG disclosure regulation: is there an impact? Evidence from Top-50 world economies. *Problems and Perspectives in Management*. <https://api.semanticscholar.org/CorpusID:225662523>
- Pogurecka, K. (2023). Corporate governance and sustainability reporting in latvia. *Indivīds. Sabiedrība. Valsts*, doi: [10.17770/iss2022.7023](https://doi.org/10.17770/iss2022.7023)
- Sachs J., Koundouri P., Becchetti L., Brunnhuber S., Chioatto E., Cordella M., Devves S., Halkos G., Hansmeyer C., Landis C., Morone P., Patel K., Plataniotis A., Romani I., Spani R., Stavridis C., Tessari F., Theodossiou N., Wetzel D., Zachariadis T., (2022), Financing the Transformations for the Joint Implementation of Agenda 2030 for Sustainable Development and the European Green Deal
- Sachs, J. D., Schmidt-Traub, G., Mazzucato, M., Messner, D., Nakicenovic, N., & Rockström, J. (2019). Six transformations to achieve the sustainable development goals. *Nature sustainability*, 2(9), 805-814.
- Sadiq, M., Ngo, T., Q., Pantamee, A., A., Khudoykulov, K., Ngan, T., T. and Phan Tan, L. (2022). The role of environmental social and governance in achieving sustainable development goals: evidence from ASEAN countries. *Economic Research-Ekonomiska Istra ivanja*. <https://api.semanticscholar.org/CorpusID:248898817>.
- Schneider, T. E. (2011). Is Environmental Performance a Determinant of Bond Pricing? Evidence from the U.S. Pulp and Paper and Chemical Industries. *Contemporary Accounting Research*, 28(5), 1537-1561.
- Tam, Duc, Dinh., Ann, Husmann., Gaia, Melloni. (2022). Corporate Sustainability Reporting in Europe: A Scoping Review. *Accounting in Europe*, doi: [10.1080/17449480.2022.2149345](https://doi.org/10.1080/17449480.2022.2149345)
- Whelan, T., Atz, U., Van Holt, T. and Clark C. (2021). ESG and Financial Performance, NYU STERN, <https://www.stern.nyu.edu/sites/default/files/assets/documents/ESG%20Paper%20Aug%202021.pdf>, Assessed 20/6/2023.
- Van Zanten, J.A. and Huij, J. (2022). ESG to SDG: Do Sustainable Investing Ratings Align with the Sustainability Preferences of Investors, Regulators, and Scientists?. Available at SSRN: <https://ssrn.com/abstract=4186680> or <http://dx.doi.org/10.2139/ssrn.4186680>
- Ulrich, P., Metzger, J. (2022). Sustainability reporting: The way to standardized reporting according to the Corporate Sustainability Reporting Directive in Germany. doi: [10.22495/cgtapp14](https://doi.org/10.22495/cgtapp14)
- Utz, S. and Wimmer, M. (2014). Are They Any Good at All? A Financial and Ethical Analysis of Socially Responsible Mutual Funds. *Journal of Asset Management*, 15. [10.1057/jam.2014.8](https://doi.org/10.1057/jam.2014.8).