

ESG in Fintech: An Overview

Cancan Wang
Qiuyu Jiang
Yvonne Dittrich
Carsten Østerlund

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Copies may be obtained by contacting:

IT University of Copenhagen
Rued Langgaards Vej 7
DK – 2300 Copenhagen S
Denmark

Telephone: +45 72 18 50 00
Telefax: +45 72 18 50 01
Web: www.itu.dk

ESG IN FINTECH: AN OVERVIEW

Project Team: CAREinFintech

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EXECUTIVE SUMMARY

Environmental, social, and governance (ESG) performance evaluation criteria have become increasingly important for Fintech as tools to assess a company's ability to generate environmental and societal value.

On the one hand, Fintech is well-positioned to take advantage of ESG in their business models. The application of digital technology to financial services generates a significant amount of financial data that can be both shared with and analysed by governments and investors to inform the development of ESG guidelines. On the other hand, Fintech businesses are also under compliance pressure to integrate ESG in their own financial reporting and operations, as well as to adapt to new performance assessment criteria. ESG becomes even more important as customers and investors in Fintech businesses pay increasing attention to ESG performance, and talent and founders focus more and more on being sustainability-conscious and impact-driven.

This report provides an overview of the current ESG reporting status of Fintech businesses in Denmark and the European Union (EU). We focus on startups as they tend to be disproportionately burdened by compliance and investment pressure due to their limited resources. Our goal is to take a first step towards developing a collective ESG reporting model for Fintech startups that enhances their competitive advantage despite a volatile economic and regulatory environment.

This report presents the current state of ESG reporting in the Danish Fintech sector as informed by wider international discussions within the sector. In it, we map out the five forces that shape the Fintech ESG landscape: 1) policy and regulatory authorities; 2) capital providers; 3) clients and customers; 4) talent; and 5) knowledge communities. We focus on ESG reporting needs, practices, and challenges from different stakeholders' perspectives. Building on these insights, we suggest a collective approach to ESG reporting in Fintech that is adaptive to the dynamic nature of developments in both ESG and Fintech.

The findings and insights are based on a series of interviews with various practitioners in the Fintech ESG sector conducted from February to August 2022 alongside an analysis of relevant documents. The document analysis includes both existing ESG regulations and venture specific ESG frameworks. Our findings are organized into five sections:

- Policy landscape
- Capital landscape
- Current status and challenges of ESG reporting among Fintech startups in Denmark
- Exploring why ESG data quality and ESG reporting is poorly implemented in Fintech
- Recommendations

The key takeaways from each of these sections include:

Policy Landscape

- Current regulatory targets in Denmark and the EU require Fintech startups in the scale-up or IPO phase to not only report on their ESG performance, but also to validate the accuracy of the sustainability information they provide.
- The introduction of recent EU sustainability regulations has a trickle-down effect on Fintech startups due to their focus on the value chain and portfolio companies.

- While current regulations help to make sense of mandatory disclosure requirements, the breadth of the requirements also makes it difficult to understand what requirements are relevant specifically for Fintech businesses.
- The first mandatory regulatory ESG reporting requirements for small Fintech businesses in Denmark can be expected by 2028.

Capital Landscape

- Though there is currently no standardized ESG reporting method, there are five common ESG reporting processes currently being deployed by investors, including: ESG screening; due diligence interviewing; ESG training; employing ESG checklists; and ESG storytelling.
- We use Blue Future Partners as a case study to illustrate how ESG reporting processes can be implemented in practice.

Current Status of ESG reporting among Fintech Startups in Denmark

- Overall, there is very little ESG data accumulation and reporting among Fintech startups in Denmark, despite the recognized importance of ESG reporting among regulators, investors, and the cluster organization.
- There is a high awareness of the importance of ESG reporting, but many startups fail to understand the relevance of ESG reporting to their specific products and operations.
- Many startups also lack resources and know-how to implement ESG reporting effectively.
- There is a waiting game between different actors in the Fintech ecosystem. Market players are waiting for signals from national financial regulators, and national regulators are waiting for directives from the EU. Startups are waiting for both investor expectations and regulator ESG requirements to crystalize.

Why are ESG data quality and ESG reporting poorly implemented in Fintech

- ESG Expectations: ESG reporting may appear to some as a single, discrete issue, but stakeholders have divergent ESG expectations and emphases.
- ESG Governance: Current ESG governance mechanisms create a sense of urgency but do not make clear to startups the relevance of implementing ESG reporting.
- ESG Data Scheme: Current ESG frameworks used by investors are comprehensive and generic, but rarely address industry-specific parameters.
- ESG Reporting: A diverse range of ESG reporting formats are used to reduce the reporting burden among startups, through startups still contend with overlapping, non-financial reporting requirements.

Recommendations

- Fintech companies need to build sustainability into their growth mindset from their inception.
- How to build sustainability into the growth mindset of startups?
 - Capturing the incentives of startups and venture capital funds is important.
 - Startups should specify their sustainability foci across the business cycle.

- o Connecting sustainability and the startups' business operations is key to making ESG an area of voluntary self-governance.
- o Seeing the benefits of ESG reporting can help motivate startups too.

- Who should drive the ESG discussion and implementation in Fintech?
 - o A combination of bottom-up nurturing and top-down push is needed.
 - o Clusters can take a lead role in filling gaps between government- and market-led approaches to ESG by mediating between startup communities, investors, and regulators.

- What ESG data should be collected? Where should Fintech startups begin?
 - o ESG frameworks should be customized for a specific context yet remain comparable across contexts.
 - o An openness among investors and regulators to what companies consider important for their business nurtures companies' willingness to engage in voluntary ESG reporting activities.

- A way forward with the cluster-based approach
 - o A cluster-based approach can bring benefits such as benchmarking, establishing pre-selection criteria for early startups, and value co-creation.
 - o The challenges of a cluster-based approach include: the cluster may lack the authority to motivate startups to engage in ESG reporting; cluster-level reporting results in distributed accountability that is hard to address; and cluster-based reporting may still require significant work by startups and the cluster organization.

Based on our findings, we advocate for a sustainable and democratic venture in Fintech, where a cluster represents the voices of both startups and the emerging Fintech industry. We hope this report provides much needed background knowledge and tools to help Fintech startups, clusters, investors, and regulators jointly shape the development of ESG in Fintech.

CAREinFintech research team

May 2023

INTRODUCTION

This report explores the current state of ESG reporting in the Fintech ecosystem in Denmark and the EU.

The report provides an overview of the drivers of and approaches to ESG implementation, as well as highlights significant barriers to implementation. It also provides recommendations for a range of stakeholders (i.e., Fintech startups, clusters, venture capitals, regulators) on overcoming challenges to increase readiness and widen the adoption of ESG reporting in the Danish Fintech sector.

The project CAREinFintech commenced in February 2022. Based on our research since, we propose that current ESG reporting challenges in the Fintech industry may be solved through internal sector efforts that take into consideration the interests of regulators, investors, Fintech clusters, and startups. As outlined in this report, we developed a Collaborative Data Analytics (CDA) model that utilises a data-drive economy of scale approach associated with a cluster. The CDA method tackles ESG reporting from three connected angles: data, organization, and governance. The CDA method is inspired by the concept of data commons, which focuses on creating common good (e.g., climate action) by pooling and utilizing available data (Wang et al. 2022). In developing the CDA we used a co-design approach, working with startups, limited partners (LPs), and venture capital (VC) funds interested in ESG reporting for the Fintech sector.

The CAREinFintech team is composed of researchers from IT University of Copenhagen and Syracuse University. We incorporate insights from impact investing practitioners such as Denmark's Export & Investment Fund (formerly Vækstfonden), sustainability data technology provider Tekudo, and the Fintech cluster Copenhagen Fintech. The project team also interviewed a range of venture capital investment managers, asset owners, regulators, startups, and clusters in Danish Fintech investment as part of the research for this report.

The project team includes:

Cancan Wang, Associate Professor, REFLECT research group, Business IT, ITU

Qiuyu Jiang, Ph.D, Research Assistant, REFLECT research group, Business IT, ITU

Yvonne Dittrich, Professor, Software Engineering, Computer Science, ITU

Carsten Østerlund, Professor, School of Information Studies, Syracuse University

To our knowledge, despite increasing awareness of the importance of Fintech startups in shaping global sustainability agendas, there is no previously published research that details the specific ESG reporting challenges Fintech startups, nor offers an evidence-informed road map for enhancing ESG reporting within the sector. This report, therefore, is the first of its kind to:

- map the sector-specific status and norms of ESG reporting in Danish Fintech;
- make transparent implementation approaches from both government regulators and market participants; and
- expand toolkits for Fintech startups to engage meaningfully with ESG reporting and data.

The next section, section 1, gives an overview of stakeholders in Fintech reporting. Section 2 briefly outlines our research methods and the data collected. Section 3 presents the regulatory environment that Fintech startups and investors need to navigate. Section 4 offers an analysis of the primary ESG reporting processes among investors. Section 5 presents the state of ESG reporting practices among Fintech startups and the challenges they face. Section 6 concludes the report with a set of recommendations for different Fintech stakeholders.

We welcome all questions and feedback. Please contact careinfintech@itu.dk or visit our [LinkedIn page](#) to contribute to the discussion.

1 WHY IS ESG IMPORTANT FOR FINTECH?

HIGHLIGHTS

- **Why is ESG important for Fintech?**
 - o Increasing pressure to integrate ESG metrics into mandatory reporting for businesses;
 - o Available financial resources directed towards ESG-transparent businesses;
 - o Client ESG reporting needs trickle down to supplier reporting requirements;
 - o Talent and founders are sustainability-conscious and impact-driven; and
 - o ESG helps Fintech startups conceptualize business development holistically.
- **The Fintech ESG landscape is shaped by five main forces:**
 - o Policy and regulatory authorities;
 - o Capital providers;
 - o Clients and customers;
 - o Talent; and
 - o Knowledge communities

Environmental, social, and governance (ESG) refers to “a collection of corporate performance evaluation criteria that assess the robustness of a company’s governance mechanisms and its ability to effectively manage its environmental and social impacts” (Gartner n.d.). As corporate performance evaluation criteria, ESG encompasses a large number of topics, ranging from greenhouse gas emissions to responsible service design to financial inclusion.

ESG is a set of standards used to measure the sustainability of a business or an investment. At the EU level, ESG is considered critical to promoting “economic growth while reducing pressures on the environment and taking into account social and governance aspects” (European Commission n.d.). A commitment to ESG requires businesses to demonstrate that they generate value for society, not just for shareholders or owners (Hogan Lovells 2021). With respect to Fintech, we have identified five groups of actors for whom ESG reporting is relevant: policy and regulatory authorities; capital providers; clients and customers; talent; and knowledge communities. In this section, we look at these actors and their relationships to Fintech in both a European and a national context. In sections 3 and 4, we explore in greater depth the perspectives of legislators and investors.

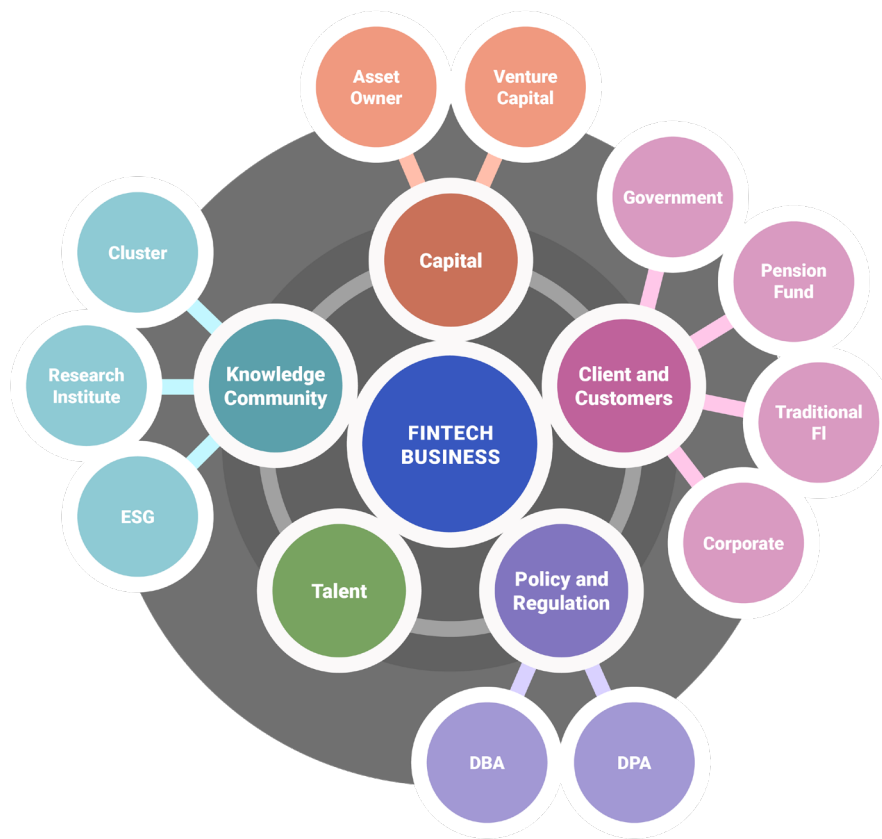


FIGURE 1: ESG ACTORS IN THE FINTECH DOMAIN

Policy and Regulatory Authorities

ESG has become prominent in laws, regulations, and corporate reporting initiatives in both Denmark and the EU. More specifically, a renewed focus on ESG has become integrated into financial regulations such as the Sustainable Finance Disclosure Regulation (SFDR), corporate regulations such as the Corporate Sustainability Reporting Directive (CSRD), and procurement regulations such as the EU Green Public Procurement for data centers, server rooms and cloud services (EU-GPP). ESG is also relevant to data regulations such as the General Data Protection Regulation (GDPR). Collectively, these regulations influence the ability of Fintech businesses to obtain licenses to operate as legal corporate entities and/or as digital service providers. In addition, the incorporation of ESG into government policy across regulatory, taxation, and growth initiatives has impacted Fintech as a sector (Schultz, Laustsen, and Møller 2021). ESG reporting is expected to be mandatory for small and medium-sized enterprises (SME)s and startups within the next five years in Denmark.

The regulatory authorities in Denmark that are most relevant for the Fintech sector are the Danish Financial Supervisory Authority (DFSA), the Danish Business Authority (DBA), and the Agency for Digital Government (DIGST), with the first two operating under the Ministry of Industry, Business and Financial Affairs, and the latter under the Ministry of Finance. These agencies interpret and implement EU ESG-related regulations such as SFDR, CSRD, and EU-GPP in the Danish context. They are also responsible for ESG integration in regulation, as well as sector growth initiatives for financial services, digital public infrastructure, and Fintech.

Chapter 3, “Policy Landscape: Existing policies and ESG data systems,” explores Fintech regulation and reporting in greater detail.

Capital providers

The pressing need to solve social and planetary issues has opened a multitrillion-dollar market for businesses (*Harvard Business Review* 2021). An increasing amount of venture capital funds are being earmarked for impact-driven work, and VCs are today more willing to invest in sustainable businesses. Moreover, there is also a growing amount of ESG-focused funding available for Fintech startups and scaleups. Institutional investors like sovereign funds and pension funds are using ESG as a framework for evaluating financial risks and opportunities (Geczy, Mitchell, and Henisz 2021). Lenders are issuing more sustainability-linked loans than ever before, where the interest rate is linked to the borrower's ESG performance (Marsh & McLennan Advantage 2020). An increasing number of retail investors believe investing is a way to make positive change in the world (Mottola et al. 2022).

The main capital drivers in Denmark are asset owners and managers, including LPs, pension funds, sovereign funds, banks, and VC funds. They provide financial resources for startups and scale-ups and encourage ESG transparency.

In principle, asset owners such as LPs and sovereign funds can play particularly important roles in driving the ESG agenda, as they can to a large extent influence the investment direction of their capital. Namely, while asset managers such as general partners (GPs) and VCs implement the demands of asset owners, but they can also in most cases voluntarily adopt ESG requirements without pressure from asset owners. In practice, asset managers may not push an ESG agenda if there is no direct pressure from asset owners. In return, asset owners may also be unwilling to put pressure on asset managers if they perceive investment decisions as solely the managers' responsibility. Responsibility for ESG can vary a lot between organizations/funds, depending on the structure of the individual fund, ESG can be the responsibility of a specialized organizational unit, the fund's communication team, its startup operation, or even a student position within the organization.

Chapter 4, "Capital landscape: Existing ESG reporting processes and initiatives," explores in more depth the investor's perspective on ESG reporting.

Clients and Customers

Demands across corporate customers, financial institutions, and government lead these end-clients to gravitate towards ESG-transparent service providers. The clients and customers of Fintech companies can include pension funds, financial institutions, government, corporations, and individuals. Due to a growing focus on ESG within supply chains, clients increasingly aim to account for the entire footprint of their operations, including where and how their services are sourced. Individual customers' purchasing decisions are also increasingly affected by an organization's ESG agenda and performance (Causon 2022). This creates a demand for ESG-compliant Fintech service providers with ethical and transparent business practices.

The merits of this growing trend towards ESG is also supported by economic research, as a strong ESG policy has been found to correlate with higher returns (McKinsey&Company 2019). Indeed, a commitment to ESG can help safeguard a startup's long-term success by highlighting potential risks in business development. Prioritizing ESG can also lead to sound business management strategies such as aligning business operations with the needs of value chain, or securing competitive advantage in the Fintech market by appealing to ESG-oriented customers (World Economic Forum 2022; Nasdaq 2020).

Talent

The technical, financial, and entrepreneurial talent needed for the development of Fintech is increasingly concerned with the ESG performance of the companies they work for. ESG performance, therefore, will play a significant role in solving the current talent shortage in Danish Fintech (Kjær 2021). Young talent, including millennials and members of Gen Z, are more attracted to companies that demonstrate higher overall ESG scores, low carbon emissions, and have a diverse leadership (Marsh & McLennan Advantage 2020; Napoletano 2021). Fintech founders are likewise increasingly driven by their ambition to make positive impacts in the area of sustainability.

Knowledge Communities

Organizations such as clusters, research institutes, and consultancies synthesize experiences, disseminate knowledge, and shape discourses around ESG in Fintech. These knowledge communities are important mediators and translators between different implementation experiences of ESG from the market and policy perspectives.

ESG data, score providers, and consultancies each support organizations in their transitions to prioritize ESG in their operations. ESG service providers can prepare organizations with expertise and technologies to break down the transition process and operationalise it through manageable phases. Similar to knowledge organizations and communities, ESG service providers play an important role in educating the financial market about the value and importance of ESG.

2 WHAT DID WE DO? - RESEARCH METHODS

HIGHLIGHTS

- This report presents findings and insights based on a series of interviews conducted between March and August 2022, and an analysis of industry reports and regulations on ESG reporting in Fintech.
- Findings relate to the current state of ESG reporting in the Danish Fintech industry and are informed by international discussions within the FinTech sector.
- Interviews focused on ESG reporting practices, challenges and needs from different stakeholder perspectives, and a data commons approach to ESG reporting.
- Document analysis included both existing ESG regulations and venture-specific ESG frameworks.
- The trustworthiness of the research was ensured through triangulation methods, saturation, member checking, and rich description.

2.1 INTERVIEW PREPARATION AND ANALYSIS

To identify interview participants we used a snowball approach. We started by brainstorming relevant stakeholders and actors. The project members' professional networks allowed us to identify specific persons for a first round of interviews. In the interviews, we asked participants to correct and expand a map of relationships between Fintech startups, clusters, venture capital, government, and relevant data objects. These findings resulted in Figure 1.

The interviews sought to understand current ESG reporting practices, as well as pain points and needs from different stakeholder perspectives. We developed the interview guidelines and stakeholder specific questions together with the industrial members of the project team.

Table 1 shows that we interviewed 11 individuals representing a diverse group of relevant actors.

Organization Type	Stakeholder/Role	Duration (mins)
Fintech Startup 01	Founder/CEO	47
Fintech Startup 02	Co-founder/CEO	32
Fintech Startup 03	Founder/Co-CEO	25
ESG Data Provider	Co-Founder	65
ESG Knowledge Provider	Assistant Manager	28
Limited Partnership	Senior Investment Associate	50
Venture Funds	Investment Manager	82
Venture Funds	Senior ESG Advisor	42
Venture Funds	General Partner	25
Cluster	Head of Development	33
Public Authority	Head of ESG supervision	60

TABLE 1. OVERVIEW OF CONDUCTED INTERVIEWS

The interviews also explored the concept of data commons (Wang et al. 2022), which we introduced to our interlocutors at the beginning of each interview. As noted above, the project sought to examine a bottom-up approach to ESG reporting based on the idea of data commons (Grossman et al. 2016) as a complement to top-down approaches from government and the EU, which for most part have centered on developing and maintaining industry specific benchmarks.

In the interviews, data commons turned out to serve as a conceptual probe (Brandt et al. 2012). As the concept offers an alternative to top-down ESG reporting practices, focusing on it invited our interview participants to envision an ESG reporting model that enabled the Fintech sector to more suitably describe and report on sustainability. In this sense, discussions about the data commons approach enabled our interview participants to address in an open-ended way what they see as primary issues related ESG reporting from each of their own positions and perspectives.

All interviews were audio recorded and transcribed. We applied a thematic analysis approach to our interview data.

2.2 DOCUMENT ANALYSIS

In addition to conducting interviews, the research team obtained ESG regulations and venture-specific ESG frameworks from different actors in the ESG reporting space (i.e. venture capital funds, ESG regulators, ESG data and service providers, ESG knowledge providers). The purpose of the document analysis was to gain a solid understanding of how ESG reporting is described in written documents across different stakeholders. We identified the common denominators across these ESG frameworks and used them to tease out black-boxed data practices among our participants in the interviews.

2.3 TRUSTWORTHINESS OF THE RESEARCH

We here describe the measures we applied to assure the trustworthiness (Robson & MacCartan, 2016) of the research.

TRIANGULATION

Method Triangulation.

We used the document analysis to both deepen our understanding of the state of ESG reporting and to validate the interviewees' presentation of the state of ESG reporting in the FinTech sector.

Data Triangulation.

We elicited perspectives from different stakeholders in the Danish FinTech sector. Table 1 shows that we interviewed several representatives in each stakeholder category.

Researcher Triangulation.

Each interview and subsequent analysis was conducted by at least two research team members. Disagreements in interpretation were resolved through discussion and joint deliberation.

SATURATION

The interviews continued until the issues raised became repetitive and no new facts, perspectives, or challenges could be elicited.

MEMBER CHECKING

We discussed preliminary findings with our industry partners, and presented preliminary findings to Finanstyrelsen in June 2022. We used feedback to gain additional perspectives on our findings. We were also able to present preliminary findings to the Danish Financial Agency and Copenhagen Fintech in June 2022. Discussions at these venues served as additional expert feedback and confirmed our analysis.

RICH DESCRIPTIONS

We have strived to present a rich description of data collection, including quotations from interviews, to allow the reader to better understand and contextualize our research.

3 POLICY LANDSCAPE: ESG LEGAL INSTRUMENTS AND INITIATIVES IN DENMARK AND THE EU¹

HIGHLIGHTS

- This chapter introduces four ESG legal instruments relevant to the Danish and EU Fintech contexts. We introduce these legal instruments by the following dimensions for cross-comparison:
 - o Regulatory focus
 - o Legal status
 - o Scope
 - o Parameter of reporting requirements
 - o Flexibility for non-disclosure
 - o Reporting format
 - o Timeline and development
- This chapter also introduces ESG data initiatives in Denmark and the EU to provide an overall understanding of upcoming sustainability foci. These initiatives include:
 - o ESG rating market studies;
 - o Guidelines on the use of ESG- or Sustainability-related terms in fund names; and
 - o ESG or carbon data portals.
- We explain the implications of relevant ESG legal instruments and initiatives for Fintech business in Denmark. Findings include:
 - o The current regulatory targets in Denmark and the EU require Fintech startups that are scaling up or entering IPO to not only report on their ESG performance, but also to validate the accuracy of the sustainability information they provide.
 - o The introduction of recent EU regulations on sustainability trickles down to Fintech startups due to their focus on value chain and portfolio companies
 - o While current regulations help make sense of mandatory disclosure requirements, the breadth of the requirements also makes it difficult to understand which are most relevant for Fintech businesses.
 - o The next round of ESG reporting requirements for small Fintech businesses in Denmark can be expected by 2028.

3.1 ESG LEGAL INSTRUMENTS AND INITIATIVES AT THE EU-LEVEL

With the accelerating impact of the global climate crisis, the EU has created the **European Green Deal**, a framework of rules and guidelines that aim to “transform the EU into a modern, resource-efficient and competitive economy” (European Commission n.d.). The deal is designed to make sure that:

- There are no net emissions of greenhouse gases by 2050 – with an ambition to become the first climate-neutral continent;
- Economic growth is ‘decoupled’ from the use of resources; and
- No people or places on the continent are left behind in the coming energy transition.

¹ This chapter aims to help readers to make sense of the existing ESG legal instruments in Denmark and the EU. For guidance on implementation, please consult legal experts.

To advance the European Green New Deal, the European Commission adopted the **EU Action Plan on Financing Sustainable Growth** in March 2018, which is part of the implementation plan of Article 2(1) (c) of the Paris Agreement and the UN 2030 Agenda for Sustainable Development. The EU Action Plan on Financing Sustainable Growth has three objectives:

- To reorient capital flows towards a more sustainable economy;
- To link sustainability with risk management; and
- To foster transparency and long-termism in financial and economic activity in order to achieve sustainable and inclusive growth.

The EU Action Plan is carried out through a series of instruments and initiatives that centre on relevant, comparable, and reliable sustainability information as a prerequisite for meeting these objectives. Four of these legal instruments require specific attention in the Danish and EU contexts (Rasche 2021): the Non-Financial Reporting Directive (NFRD); the Corporate Sustainability Reporting Directive (CSRD); the Sustainable Finance Disclosure Regulation (SFDR); and the EU Taxonomy regulation. Figure 2 shows how the four legal instruments connect to wider regulations and policies in the EU.

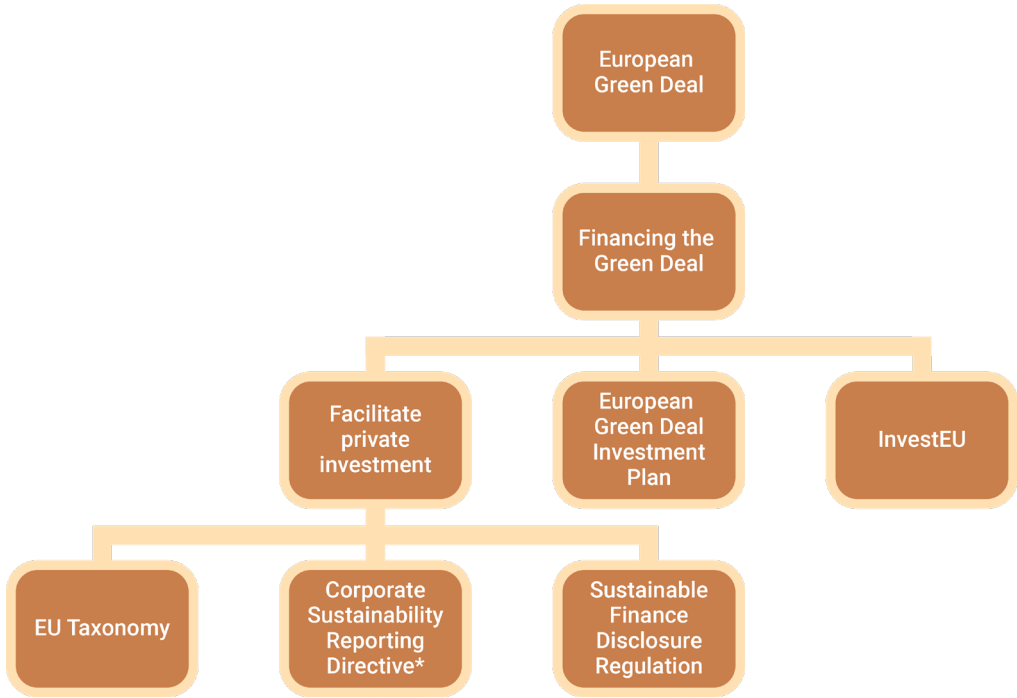


FIGURE 2: EU SUSTAINABILITY REGULATIONS AND DIRECTIVES

* The Corporate Sustainability Reporting Directive replaced the Non-Financial Reporting Directive on January 5, 2023

A) The Non-Financial Reporting Directive (NFRD) is the current (2018 - present) EU legal framework for regulating the disclosure of non-financial information by corporations.

- **Legal status:** The NFRD is an [EU Directive](#), which means it sets out a target that all EU countries must achieve. However, an EU Directive requires EU member states to translate the broad legal requirements into national regulations in order to become enforceable.
- **Scope:** The NFRD applies only to “public interest entities,” that is, corporations that have over 500 employees.
- **Parameters:** The reporting requirements noted in the NFRD include:
 - o Environmental responsibility
 - o Social responsibility
 - o Human rights
 - o Anti-corruption and bribery
 - o Board diversity

Organizations whose non-financial reporting is guided by the NFRD are allowed to follow any available framework, including those provided by GRI, ISO 26000, OECD, and SASB.

- **Flexibility for non-disclosure:** The NFRD contains “comply-or-explain” clauses that allow for non-disclosure of information if the decision is made transparent and reasons are provided. It does not require companies to involve auditors.
- **Reporting format:** Reporting on non-financial information may be done as part of a larger management report online.
- **Timeline:** The NFRD was adopted in 2014. Corporations to whom the NFRD applies have had to report on ESG information since 2018.

B) The Corporate Sustainability Reporting Directive (CSRD) is the EU legal framework for regulating the disclosure of non-financial information by corporations. The CSRD will strengthen existing rules in the NFRD on non-financial reporting. It replaced the NFRD, which has been deemed by the European Parliament as inadequate for realizing the EU’s ambitions to transition to a more sustainable economy (European Parliament 2021).

- **Legal status:** The CSRD is an [EU Directive](#), and sets out a target that all EU countries must achieve. However, it requires EU member states to translate the broad requirements into national regulation in order for it to become enforceable.
- **Scope and flexibility for non-disclosure:** The CSRD will require mandatory reporting with limited-level assurance (involving key audit partners and the integration of sustainability reporting in an auditor’s report). The CSRD will apply to:
 - o All listed companies on regulated markets except listed micro undertakings, and all large companies. CSRD extends the scope of NFRD (above 500 employees) by including companies that meet at least two out of the following three criteria:
 - ◆ More than 250 employees;
 - ◆ Turnover that exceeds 40 million euros annually; and
 - ◆ Total assets that exceed 20 million euros.

These companies will also need to collect and assemble information from their subsidiaries.

- o All listed SMEs. However, during a transitional period, there is an opt-out option for listed SMEs, exempting them from having to abide by the CSRD until 2028.
- o Non-EU companies that:
 - ◆ Already fall within the purview of the NFRD; or
 - ◆ Are listed on regulated markets that meet at least two out of the following three criteria: have more than 250 employees; have annual turnover that exceeds 40 million euros; and have total assets that exceed 20 million euros; or
 - ◆ Fall under the category of SME, and with securities listed in the EU; and
 - ◆ Has a net turnover of €150 million in the EU, and at least one subsidiary in the EU exceeding a certain turnover threshold.
- **Parameters of reporting requirements:** The CSRD requires:
 - o A “double materiality” perspective (European Commission 2019), which refers to both financial materiality (i.e. the sustainability risks affecting a business’ performance) and environmental and social materiality (i.e. a business’ impact on people and the environment);
 - o Forward-looking qualitative and quantitative information, including targets and progress milestones;
 - o Information relating to intangibles such as social, human, and intellectual capital;
 - o Reporting alignment with the Sustainable Finance Disclosure Regulation (SFDR) and the EU Taxonomy; and
 - o Five areas of reporting: 1) business model; 2) policies (including related to the implementation of due diligence processes); 3) the outcome of these policies; 4) risks and risk management; and 5) key performance indicators relevant to the specific business.
- **Reporting format:** Reporting on non-financial information must be done as part of a larger management report in an electronic, digitally-tagged format.
- **Timeline:** The CSRD entered into force on January 5, 2023 following final approval from the Council of the EU. The CSRD will be rolled out in four phases beginning in 2024 (source: [Council of the EU](#)):
 - o Reporting in 2025 on the financial year 2024 for companies already subject to the NFRD;
 - o Reporting in 2026 on the financial year 2025 for large companies not currently subject to the NFRD;
 - o Reporting in 2027 on the financial year 2026 for listed SMEs (except micro undertakings), small and non-complex credit institutions, and captive insurance undertakings; and
 - o Reporting in 2029 on the financial year 2028 for third-country undertakings with net turnover above 150 million in the EU if they have at least one subsidiary or branch in the EU exceeding a certain turnover threshold.

The new rules will need to be implemented by member states 18 months after their publication in the Official Journal of the European Union.

The Danish government has taken a strong stance on strengthening the quality and value-creation of non-financial reporting. The Danish government also has an ambition to enhance ESG reporting among SMEs in order to steer SME attention toward new sustainable business models, as well as attract investment and capital to sustainable SMEs.

C) *The Sustainable Finance Disclosure Regulation (SFDR)* is the EU regulation that introduces obligations and rules to financial market participants and financial advisers pertaining to how they account for and report on sustainability risks.

- **Legal status:** The SFDR is a [European regulation](#), and is therefore immediately enforceable without transposition into national law.
- **Scope:** The SFDR applies at both the “entity level” and the “product level”. At the entity level, it requires financial firms to report on how the whole organization deals with sustainability risks. At the product level, the SFDR requires firms to report on how their financial products are affected by such risks.

The SFDR asks all financial market participants and financial advisers to report on sustainability risks even if they do not offer ESG-related products. If an entity offers ESG-related products, SFDR requires additional disclosures depending on how “green” the product is considered to be.

- **Flexibility for non-disclosure:** The SFDR contains comply-or-explain clauses, where, for example, financial firms with fewer than 500 employees can opt out of reporting on due diligence processes.
- **Reporting Format:** Reporting on non-financial information consists of three components: prospectus updates, website disclosures, and the updating or preparation of a sustainability risk policy.
- **Timeline:** The SFDR came into effect in March 2021.

D) *The EU Taxonomy regulation* is the EU regulation that lays out a common European classification system for environmentally sustainable activities. The taxonomy regulation establishes an economic activity as environmentally sustainable if it meets four overarching conditions: 1) sustainably contributing to one or more of [six established environmental objectives](#)²; 2) not causing significant harm to any of the other environmental objectives; 3) being carried out in compliance with minimum social and governance safeguards; and 4) complying with technical screening criteria, which the [EU Taxonomy Climate Delegated Acts](#) set out in relation to the environmental objectives.

- **Legal status:** The EU Taxonomy regulation is a European regulation, and is therefore immediately enforceable across the EU without transposition into national law.
- **Scope:** The scope of the EU Taxonomy regulation is defined through the NFRD, SFDR, and CSRD. This means that if an organization is affected by the NFRD, SFDR, and/or CSRD, the EU Taxonomy Regulation will also be relevant for its disclosure practices.

The EU Taxonomy regulation defines further mandatory disclosures in addition to those laid

² The taxonomy established 6 environmental objectives, including: 1) climate change mitigation; 2) climate change adaptation; 3) the sustainable use and protection of water and marine resources; 4) the transition to a circular economy; 5) pollution prevention and control; and 6) the protection and restoration of biodiversity and ecosystems.

out by the NFRD, CSRD, and SFDR. Specifically, it asks companies (including asset managers) to report the percentage of their turnover and capital as well as operational expenditures that are aligned with the EU Taxonomy. It also asks asset managers to report the percentage of their portfolio which is invested in economic activities that are aligned with the EU Taxonomy.

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- **Timeline:** The EU Taxonomy came into effect on July 12, 2020.

ESG Data Status Quo and Relevant EU Initiatives

ESG Rating Market Status Quo: In June 2022, the European Securities and Markets Authority (ESMA) – the EU’s financial markets regulator and supervisor – published its findings on the market structure for ESG rating providers in the EU. The findings indicate an immature but growing market, with the following characteristics:

- **ESG rating providers:** There is a small number of very large ESG rating providers which operate within the EU but are not owned by companies based in the EU. Many significantly smaller EU entities also provide ESG ratings.
- **Users of ESG ratings:** Users typically select multiple providers to increase coverage (by asset class or geography), or to receive different types of ESG assessments. The most common shortcomings identified by users include:
 - o A lack of coverage of a specific industry or type of entity;
 - o Insufficient granularity of data; and
 - o A lack of transparency around methodologies used by ESG rating providers.
- **Organizations covered by ESG ratings:** The organizations covered by ESG ratings dedicate at least some level of resourcing to their interactions with ESG rating providers, although the extent largely depends on the size of the organization. The covered organizations have raised concerns over their interactions with the rating providers, including:
 - o Their level of transparency around how they determine ratings;
 - o The basis for their ratings;
 - o The timing of feedback; and
 - o The correction of errors.

According to the [ESMA's Sustainable Finance Roadmap \(2022 - 2024\)](#), there is a growing demand for ESG investments in the EU. This demand, however, is not matched by adequate transparency and comparability in relation to the real sustainability impact of the financial products available in the market, the underlying sustainability profile of issuers, or the methodologies underpinning ESG ratings and data in general.

Guidelines for the use of ESG- or sustainability-related terms in fund names: To avoid the risk of misrepresentation, wrongful disclosure, and misleading users of ESG-labelled products, in November 2022 the ESMA launched a series of consultations to inform their [guidelines for the use of ESG or sustainability-related terms in funds' names](#).

- **Goal:** To promote transparency and tackle greenwashing by reducing the misleading use of ESG- or sustainability-related terms in fund names as a marketing tool.
- **Scope:** The ESMA consultation process employed:
 - o a quantitative threshold (80%) for the use of ESG-related words;
 - o an additional threshold (50%) for the use of “sustainable” or any sustainability-related terms only, as part of the 80% threshold;
 - o the application of minimum safeguards for all investments in funds using such terms (exclusion criteria); and
 - o additional considerations for specific types of funds (such as index and impact funds).
- **Timeline:** The ESMA guidelines were finalised after the consultation period ended in February 2023. The responses are published [online](#).

European Single Access Point: The European Commission has also proposed to establish a European single access point (ESAP) for “companies’ financial and sustainable investment-related information [to be] made public pursuant to EU legislation.” The ESAP will be owned and operated by the ESMA with input from several other European agencies.

- **Scope:** The ESAP will provide unified access to information relevant to investors of all sizes. It is projected to cover the regulated activities of up to 150,000 companies, including public companies, investment funds, insurance companies, banks, ratings agencies, and some 45,000 large private companies that will disclose a range of sustainability information on the platform. These datasets will be made public through the ESAP and include, for example, an entity’s financial performance, select ESG metrics, and the products and services it provides.
- **Goal:** The goal of the ESAP is to further increase transparency in both financial and ESG reporting and reduce asymmetry of information as laid out in EU financial services legislation.
- **Timeline:** Although the ESAP has not reached final approval, it already has implications for the sustainability disclosures made under the CSRD in terms of its reporting format.

3.2 RELEVANT DANISH ESG POLICIES AND INITIATIVES

Climate Compass (Klimakompasset): [The climate compass](#) is an online self-reporting system for companies to report their CO2 emissions based on their business activities. It was developed by the Danish Business Authority in collaboration with the Danish Energy Agency.

- **Scope:** The Climate Compass is targeted at Danish SMEs, and was created to assist Danish companies to:
 - o Calculate their carbon footprint. The calculation model is based on the internationally recognised standard for reporting Greenhouse Gas (GHG) – the GHG protocol. The GHG protocol was also adopted by the EU Taxonomy Regulation. In the Climate Compass, companies can view how their carbon footprint is distributed across the range of categories (Scope 1, 2, and 3)³ of the GHG protocol;
 - o Develop a strategy for reducing their carbon footprint; and
 - o Prepare an overall statement of their climate impact as part of an annual climate statement.
- **Goal:** According to the [Danish National Strategy for Digitalisation 2022-2026](#), the goal of the Climate Compass is to:
 - o make climate footprint reporting and sustainable transitioning more accessible for SMEs and green companies; and
 - o create a baseline for Danish companies with regards to their carbon footprints.
- **Timeline:** The Climate Compass was made available in 2021. The factors used to calculate carbon emissions are expected to be updated annually.

Pension Fund ESG Database for Funds and Unlisted Companies: In 2020, Denmark’s largest pension company and administration house, ATP, developed both a comprehensive questionnaire and an ESG database targeting the unlisted areas of its investments. ATP was joined in 2022 by the Danish pension funds Industriens Pension and Pensam which distributed the questionnaire to their respective portfolios.

- **Scope:** The pension fund ESG database utilises the same questionnaire to obtain ESG data about unlisted investments from the three pension funds’ portfolios. All three pension funds also receive the aggregated data from the other investors in anonymized form.
- **Goal:** The goal of the database is to gain additional knowledge about the sustainability of unlisted companies, and to deliver on the ambition of value-creating ESG integration. It is also expected to be used as a basis for dialog between pension funds and companies on how to improve ESG in the future. Further, it will provide a basis for benchmarking and comparisons in the unlisted areas.

³ Scope 1 refers to direct emissions from the activities that the companies control themselves.

Scope 2 refers to indirect emissions from supplied energy.

Scope 3 is the indirect emissions from the company’s value chain, both upstream and downstream.

3.3 IMPLICATIONS FOR FINTECH BUSINESSES IN DENMARK

The current regulatory targets in Denmark and the EU are large, listed companies. For these companies, the CSRD coming into force means an increased emphasis on validating the accuracy of the sustainability information they provide. Together with requirements for integrating sustainability reporting into companies' management reports, this means that large, listed companies will be pushed towards deeper transitioning of business models, operational activities, and performance indicators towards sustainability goals.

With that said, the introduction of the CSRD and the SFDR is also likely to have a trickle-down effect on SMEs and startups, due to the CSRD's focus on reporting on value chain and the SFDR's focus on portfolio companies. This means that Fintech startups will face reporting pressure both at a product level and an entity level, presenting reporting challenges to smaller companies in particular.

Under these circumstances, the EU Taxonomy regulation serves as an instrument for SMEs and startups to make sense of mandatory disclosure requirements in addition to what is included in the NFRD, the CSRD, and the SFDR. However, the extent to which companies must follow these disclosure requirements is dependent on the actual materiality of the industry and the services that businesses provide. In Fintech, this means Fintech startups need to have a clear picture of the financial services they are providing before they decide on the parameters of their sustainability reporting.

Given the ambition of the Danish government to enable SMEs to report on ESG matters, steer SMEs to new business models, and automat ESG data collection and analytics, Danish SMEs and startups should prepare for an all-around sustainable transition of their business operations by 2028.

4 CAPITAL LANDSCAPE: EXISTING ESG REPORTING PROCESSES AND INITIATIVES

HIGHLIGHTS

- In the capital landscape, there are five common ESG reporting processes being deployed in investment: ESG screening; due diligence interviewing; ESG training; ESG checklisting; and ESG storytelling.
- Lacking a standardized ESG reporting method, startups sometime use storytelling to engage with ESG qualitatively.
- We use Blue Future Partners' ESG approaches to illustrate how ESG reporting processes can be implemented in practice.

ESG screening (VC, ex-ante)

The venture arms of sovereign funds, such as Denmark's Export & Investment Fund (formerly Vækstfonden), have incorporated ESG in their investment screening process. During the screening process, for instance, the investment team can check three lists: an activity-based exclusion list; an internal observation list; and the EU's non-cooperative tax haven list. The activity-based exclusion list can include supporting businesses in the oil industry. Companies that conduct activities on the exclusion list are not invested in. The internal observation list can include, for instance, companies that provide quick loans that can lead consumers to become overindebted. Companies that conduct activities similar to those of companies that appear on the international observation list may be invested in, but only with caution.

Due diligence interviewing on ESG (VC, ex-ante)

The venture funds can also conduct interviews, such as "green conversations," with startups during their due diligence process to review companies' ESG plans and performance prior to investment. The goal of the interviews is to put the ESG topics on the startups' agenda and to ensure the founders reflect on these topics.

The interview covers topics from governance to social responsibility, making sure that, for instance, a company's leadership has understood and will be compliant with Denmark's Export & Investment Fund (formerly Vækstfonden)'s ESG policy, and that no employees are ill-treated. This is followed by a discussion about how a company can do better in terms of green transition.

ESG training (VC, ex-post)

VCs such as PreSeed Ventures invite teams to an ESG workshop after investment to learn about how the founding teams developed the company with an integrated ESG angle.

ESG checklisting (VC, ex-post)

ESG reporting occurs after a Fintech company has been invested in. VCs such as Seed Capital send a checklist quarterly to their portfolio companies to learn about their ESG performances. When the research was conducted in 2022 on the Fintech sector, these lists primarily focused on gender composition in a business' teams, management, and board. Given the narrow focus of the checklists provided, some startups also reportedly added their own categories that they believed to be relevant in order to make reporting more meaningful.

ESG storytelling

Given that available ESG reporting metrics do not always fit the needs of Fintech companies, many startups use storytelling as a way to share their ESG commitment and performance. For instance, a startup may highlight on its website or tell its investors directly how their solution helped finance greener projects.

CASE EXAMPLE: BLUE FUTURE PARTNERS' APPROACHES TO ESG

Blue Future Partners (BFP) is a VC fund of funds and private equity firm based in Munich, Germany. The firm specializes in backing VC managers in the United States, Europe, Israel, Greater China, and Southeast Asia who invest in the technology sector. Here, we look at the frameworks BFP uses in screening venture capital managers prior to investment and evaluating their investment afterwards as an example of current ESG reporting processes and initiatives deployed on the capital side.

BFP uses triple-bottom-line – i.e., people, planet, profit – as a starting point for screening and evaluating their investment in VC managers. While it places emphasis on financial return (profit) as a promise to stakeholders, in principle BFP considers people and planet as equally important.

Derived from the triple-bottom-line, BFP has developed a scoring system called Net Impact Positive. Through the scoring system, BFP aims to realise the goal of net positivity – a concept recently defined by Paul Poman and Andrew Winston as a business that “improves well-being for everyone it impacts and at all scales—every product, every operation, every region and country, and for every stakeholder, including employees, suppliers, communities, customers, and even future generations and the planet itself” (2021).

The scoring system consists of several grades (i.e., -1, 0, +1, -2). For instance, if the general partners (GPs) of an investment company have past or future investments in new energy or climate- or mobility-related tech, then they are awarded a +1 grade. If the GPs recently had a big scandal, they are given a -2 grade. In such cases, the GPs or an individual GP is also red flagged, which means BFP will not invest in their company. According to BFP’s experience, many GPs are between 0 and +1. BFP’s goal to become net positive requires the sum of all the portfolios to add up to above 0. In this sense, the scoring system also functions as a screening tool prior to investment, eliminating negative investment companies from consideration.

In addition, BFP also has its own operation checklist and investing checklist. Its operation checklist is used in the process of deciding whether to invest in a company by checking factors such as whether the incentive of the company is enough to warrant investment, whether its return is satisfactory, whether the company has an anti-racism policy or any other anti-discrimination policy, whether it has a separate document/policy related to governance, and its future hiring and policy agendas. Many of these items on the checklist fall broadly into the ‘people’ category of ESG.

BFP’s Investing checklist assesses the investment focus of an investment company. For instance, some investment companies invest in blockchains, cryptos, or gaming or addictive gaming, which are not always considered by BFP as contributing to social development. In order to understand the focus of an investment company, significant attention is paid to the company’s past investments

to predict its future preferences. In addition, BFP also interviews GPs about their visions, the kind of projects they want to invest in the future, their investment interests, and their perspectives on critical issues such as data privacy.

When deploying these ex-ante processes, one of the general principles BFP adheres to is, don't over engineer it. The motivation, simply put by a BFP analyst, is: "the more complicated you make a lot of things, the more difficult it may be for you to operate. It's like, when we see a startup which aims to help others, but one startup can't solve all the problems. If it has breakthroughs on one or two important points, it's well done."

This also means, in the post-ante process of monitoring the investment, that BFP often focuses on a select few metrics and themes that stand out as worthy of follow up. Before BFP reinvests in the next phase of a company, it closely examines and assesses progress related to these points. If progress has been made, it is a good indicator for reinvestment. Otherwise, BFP will investigate and evaluate problems that might account for insufficient performance. For instance, if an investment company has a low retention rate – that is, many employees have left an investment company without replacement levels being attracted – then BFP will evaluate the reasons for this trend and check on other fundamentals before making a reinvestment decision.

These reporting processes and initiatives from BFP may have a trickle-down effect on the portfolio companies that investment companies invest in. For instance, VCs may send an Excel sheet quarterly to their portfolio companies and request the portfolio companies to populate the sheet with their data. VCs then turn these reported data into a report and send it to LPs.

5 CURRENT STATUS AND CHALLENGES OF ESG REPORTING AMONG FINTECH STARTUPS

HIGHLIGHTS

- **The current status quo of ESG data and reporting in Denmark is characterised by:**
 - Very little reporting of or support for ESG data among Fintech startups, despite an emphasis on ESG reporting among regulators, investors, and clusters;
 - A high awareness of ESG reporting among startups, but a general lack of understanding of how ESG reporting is relevant to their products and operations;
 - A lack of resources and know-how among startups to implement ESG reporting effectively; and
 - A waiting game between different actors in the Fintech ecosystem. As market players wait for signals from national financial regulators, national regulators wait for directives from the EU. Startups are waiting for both investor and regulator ESG requirements to crystallise.
- **ESG data quality and reporting are poorly implemented in Fintech because of:**
 - ESG Expectations: ESG reporting may appear to some as a single issue, but stakeholders have divergent ESG emphases and do not always know actual reporting requirements.
 - ESG Governance: Current ESG governance mechanisms create urgency but do not show startups the relevance of implementing ESG reporting;
 - ESG Data Scheme: Current ESG frameworks used by investors are comprehensive but generic, failing to address industry-specific parameters; and
 - ESG Reporting Process: A diverse range of ESG reporting formats are used to reduce the burden of ESG reporting among startups, but other overlapping, non-financial reporting structures still present challenges.

5.1 ESG REPORTING: CURRENT STATUS

There's no golden standard on how to do [ESG reporting] yet. It will come... [But] I think it is still maturing... We're still in the process of finding the right level of reporting.

(Interview 04, April 8)

ESG reporting is playing an increasingly important role in the due diligence that goes into investment decisions. Yet it is still at a nascent stage due to: varying ESG ambitions among investors and regulators; insufficient understanding of the materiality of Fintech as an emerging sector; a lack of motivation, understanding, and resources for ESG reporting among the early-stage startups; confusion across available ESG frameworks; overlap with other mandatory reporting systems; and the absence of ESG assurance.

Despite a high interest among the different actors in the Fintech sector in understanding ESG reporting, our interviewees in the regulatory and venture landscapes report that both the quantity and quality of ESG data among early-stage startups are insufficient. There was a general sentiment that existing ESG frameworks are mostly irrelevant for Fintech, and that ESG reporting constitutes a “new activity” with the attendant administrative and financial burdens. Such sentiment was primarily due to the

broad span of ESG categories enforced through EU regulations on sustainability reporting, financial regulations, and various venture capital's own ESG frameworks.

In this section, we examine the status of four specific aspects of ESG reporting in the Fintech ecosystem in Denmark: ESG expectations; ESG governance; ESG data schemes; and ESG reporting processes.

ESG expectations: From a regulatory point of view, ESG reporting may appear as a single issue consisting of the disclosure of non-financial and/or sustainability information. In practice, stakeholders in the Fintech ecosystem – such as venture investors, clusters, and startups – often have multiple expectations of what ESG and ESG reporting are about. Stemming from a general awareness of ESG and its importance, stakeholders develop assumptions of what ESG entails and what it takes to do ESG reporting based on their existing understandings of the relationship between sustainability and business.

For example, among our interviewees, one Fintech startup founder envisioned ESG reporting as involving an “automated platform” for collecting data from companies' information systems, which would not require allocating company resources or employee time. Staff from a Fintech cluster and an ESG consultant envisioned ESG reporting as consisting of a one-pager summarizing information pertaining to an investor's most requested ESG data categories and those requiring continuous tracking.

Concerns about ESG data can emerge from these incongruent expectations. For instance, one startup expressed concern about information leakage risks when aggregating data at a cluster level, as startups are often in competition with each other for financial resources. Another raised the question of the legitimacy of distributed accountability that occurs in aggregated ESG reporting at a cluster level.

Stakeholders also ranked different ESG authorities depending on their positions in the Fintech ecosystem. In the regulatory space, Fintech startups prioritise regulations from the Danish Business Authority (DBA) and the Danish Financial Supervisory Authority (DFSA) over those from the European Commission and the United Nations. In the market space, the Fintech startups prioritise venture capital over LPs. This is because the DBA directly controls a company's business operations, the DFSA's regulations and requirements directly influence the licensing of financial services, and the decisions of venture capital funds directly give startups the resources to grow.

Overall, these divergences in ESG emphases, concerns, and authorities paint a picture of ESG reporting that must balance various demands. There are no easy solutions that fully satisfy the needs of all stakeholders.

ESG governance: Market incentives and regulatory compliance are the two primary governance mechanisms that drive early-stage startups to initiate ESG reporting. But these governance mechanisms are insufficient for startups to engage in ESG reporting meaningfully and sustainably as they grow, as macro-enterprises are exempt from mandatory ESG reporting in the current EU and Danish regulations. Despite the fact that venture investors are increasingly assessing ESG as part of their due diligence when weighing investment decisions, follow-ups with companies after they provide information are rare. Subsequently, startups are not always motivated to engage in, or recognize the relevance of, ESG reporting on their business operations and development.

According to one interviewee who has reviewed many companies' ESG reports,

According to one interviewee who has reviewed many companies' ESG reports,

My conclusion is that there is not a standardized way to do ESG reporting...

Well, one for each [venture capital], more or less, which is frustrating for everybody. On the other hand, again, I think [ESG reporting] should be built flexibly because one size does not fit all.

You need to make sure that it makes sense to you. What you are reporting provides value to you. Then of course you might have a group of things that provide value to the larger community and subsequently to yourself, but not directly. And thus I do it.

But I do see most of the ESG reporting as a compliance exercise to tick a box. One of the things that I see quite a bit, for instance, is that they [venture capitals] report on how many businesses... have an ESG policy. And I've read too many ESG policies not worth the paper they were on. So, I would say, so great you have one ESG policy each... What are you actually looking at? Have you included human rights? Do you look at privacy of data? If you're a tech company, if you don't have those things included, but you have a nice piece of paper, you might be compliant, but I don't think compliance and tick[ing] the boxes [is] what we need. Because then it's gonna be an administrative burden.

(Interview 08, May 5)

ESG data scheme: Currently, there are multiple international ESG reporting frameworks, as well as EU regulations on ESG, that are referred to by regulators and investors. While these frameworks give comprehensive lists of ESG categories, they are also generic and do not address industry-specific parameters. As new EU regulations such as the CSRD and the regulatory technical standards (RTS) of the SFDR come into effect, ESG reporting requirements are becoming more standardized in terms of categories, extent, and format. While these new regulations in the EU may lead to a shift in the expectation of ESG reporting in the future, at the moment ESG reporting standards still mix mandatory and voluntary requirements for both investors and startups. This confusing picture and lack of clear expectations impact the quality of the ESG data that companies provide.

When asked how to navigate different the ESG reporting frameworks, one investor noted,

It's our firm belief that for each company, [the focus of ESG] is going be different ... When you have a physical product then CO2 emissions become very important. If you know you have lot of partnerships, then how you handle your employees and these partnerships becomes very important. If you actually need a lot of consumer data, data security might be one of the main ones [that you include in the report].

While we want to help companies ensure they have something for the public on the outside, I would also like them to work on the inside. So, as a company, what would be key in this context: employee happiness, well-being, or is it how many people are stressed out, is it fair salary? Everybody has a little bit of a combo, so what is the most important for the company both internally and externally?

(Interview 10, June 10)

ESG reporting process: While ESG reporting in Fintech focuses primarily on interviews conducted as part of due diligence when researching investment options, some ESG-related data are already reported as part of other mandatory reporting processes, such as those required in financial license applications and renewals. Corporate governance, for instance, may be included in companies' annual reports. As startups become a part of an investment portfolio or a particular cluster, some of their ESG-related data may also be collected by the investors or cluster.

One interesting perspective that emerged from our startup interviewees is that bad user experiences with reporting systems can diminish the willingness of startups to engage in ESG reporting altogether. Among our VC and regulatory interviewees, much emphasis was placed on what ESG categories to use for reporting, in order to provide the best and most relevant ESG data. Limited consideration appears to be given to how ESG data should be provided, and its consequences on startups' motivations to engage in ESG reporting.

According to a startup founder,

Well, it's rather straightforward to gather the data. We have that [capacity]. But it's pretty difficult to actually make the reporting. We have to use an old system called Fiona, which is made by the Danish FSA and the National Bank, I guess. And it's a really old, and to be honest, a crappy system. So the actual reporting is pretty tricky and you are not certain whether it is actually sent, even though you have pressed send.

... maybe they [the authorities] shouldn't be so scared about, you know, saying to companies that they have to do more reporting. But they definitely have to improve the reporting systems before they do it, because that is actually just a big bottleneck. It's not because it's tricky. It's just because if it takes a lot of time, and people are in doubt whether they did it correctly, it doesn't really nurture, you know, a lot of good feelings when you have to do it. IT design is really important when you have to do this.

(Interview 09, June 1)

5.2 ESG REPORTING: CHALLENGES

From our interviews, we have identified 3 related issues that have shaped the status of ESG reporting among Fintech companies in Denmark.

DIVERGENT UNDERSTANDINGS AND REPRESENTATIONS OF THE MATERIALITY OF SUSTAINABILITY INFORMATION IN FINTECH

ESG data in Fintech is hard to access. This is in part because Fintech is an emerging sector: there are no clear definitions of what constitutes a Fintech company or a registry of existing Fintech companies in Denmark. As one staff at a Fintech cluster noted,

I think it's at a very basic level where the [ESG] data is not accessible... There is no database where I can go find all Fintech companies in Denmark. There's nothing like that.

(Interview 03, April 07)

In our interviews, startup founders also mentioned that it is unclear which ESG categories are relevant for Fintech companies. There is confusion across available ESG frameworks and when these frameworks and their respective emphases become relevant for Fintech. Noted one startup founder,

There are tons of different frameworks. No one really knows when to use which one. Of course, there's also the European Commission that is coming out with their own framework. There are tons of frameworks and no one really knows what to do and what to measure. The risk is that you are measuring tons of things that are totally irrelevant and the same in VC... I've seen a few VC ESG reports and some of the things they're asking, to me, don't make sense.

(Interview 01, March 21)

Contextualization can also be an issue when it comes to comparing and making sense of the ESG data at an aggregated level. For example, one of the sustainability data providers we interviewed talked about the challenges it has encountered in allowing different VCs to use their own ESG frameworks to collect data from their portfolio companies.

Now as we're building, for example, the data back end and the dashboard, we come across a lot of problems. One thing is now you see the customization of metrics. So I can start measuring data and I label it the way I want to, but how do you make the data comparable?

One VC might measure diversity and the percentage of female board members or female executive members, whereas another might measure a percentage of females in management, but not executives. So suddenly you have metrics that are supposed to measure more or less the same thing, but it's a little different and something you can't technically aggregate or make comparable. This is really also the struggle in this space here. It doesn't make sense, if you have tons of frameworks, tons of different ways of measuring things, because suddenly you can't compare. And I think this is exactly where either regulators need to force it [standardized reporting], or the industry converges towards one specific or a few specific frameworks.

(Interview 01, March 21)

Overall, this tension between comprehensive and contextualized ESG reporting contributes to the reluctance of VCs and companies to participate in ESG reporting; they would rather wait for regulations to be finalized than to act on divergent ESG reporting requests. There is therefore a strong need to better understand the materiality of the sustainability information in Fintech and how to contextualize ESG data.

LACK OF TRANSLATING THE VALUE OF ESG REPORTING TO FINTECH STARTUPS

Stakeholders in the Fintech ecosystem are often personally motivated to engage in “better” ESG reporting. For instance, as expressed in interviews, some regard ESG data as a proactive way to strengthen a company’s brand; some view it as a way to generate use cases and datasets for developing ESG reporting platforms; some believe ESG is an enabler for democratic investment in general; and some consider ESG data as contributing to a potential breakthrough that may solve the bottleneck in screening startups.

However, these perceived benefits of ESG reporting are not always seen as contributing to business development – a core activity of early startups. In fact, for VCs, ESG reporting represents a demand on scarce resources such as time and capital.

As one investor told us,

Fintech companies have to focus on sustainability. It will be a license to operate for most companies in general. Like most VC-backed companies, VC-backed fintechs typically have 12 months or 18 months runway, then they are running out of cash and they have very limited resources. That's how they work. So, they're focusing on, getting customers, building the product, raising funds, and stuff like that. And again, there needs to be some sort of incentives for them to actually start focusing on this [ESG reporting]... in their already like fully booked calendar. And I think that's probably the main issue right now, why they're not focusing more on that yet.

(Interview 04, April 8)

Given Fintech is a part of the highly regulated financial industry, startups also report that they are burdened with other reporting requirements such as financial licensing. According to a startup founder,

It doesn't make sense only to do traditional financial reporting. Having said that, it's also really tricky as a small company and a young company as we are to really find the resources to do other types of reporting such as ESG reporting because we are really just trying to create value with our products. Having more reporting than what we already have to do every year would be tricky to fit into our schedule.

(Interview 09, June 1)

Some startups also fail to see the value for small companies to report specifically on their environmental impacts. This was expressed to us by another startup founder,

I would say environmental impact is also very difficult for us. Well, at least I don't know where to start on that, and I find it rather insignificant at this point in time [for us] to report environmental impact. Not saying that it won't become important over time, but we are 50 people. And it's pure software. We all take our bikes to work. So I think it's a wrong place to focus... Getting [data from] a small company like ours can't make any difference anyways... I think it's just a waste of time.

(Interview 05, April 22)

Based on these findings and insights, we argue that limited efforts from venture investors and regulators to translate the value of ESG reporting to Fintech startups leads to a lack of motivation, understanding, and resources for Fintech startups to engage in ESG reporting.

LACK OF ASSURANCE ON ESG REPORTING

Until the CSRD came into effect in November 2022, publicly available ESG data did not need to be audited, which has resulted in a lack of reliability in the ESG data collected prior to that point. Even with the new regulation in place, companies may still face data consolidation issues due to inexperience. For instance, a consultant has expressed their fears when it comes to ESG data quality.

Sometimes it's not as much about what specific data point is difficult to get, but more about in which contexts and for which industries it is challenging to get data. That is a quite important thing to get there... I don't think the challenge is getting it [data], but the fact that it has been calculated correctly and includes the whole organization... What we've seen plenty of times is that companies have a little disclaimer that says 'ohh by the way, these are the 14 factories in Bangladesh that have not been included, because we're still figuring it out.' So I think companies still have a lot of work to do in terms of data consolidation and improving their accounting practices when it comes to greenhouse gases, for instance.

(Interview 06, May 2)

Among the VC investors that expressed an ambition to collect ESG data or use it to facilitate investment decision making, it is unclear if these ambitions are met in practice. We encountered one incidence where a VC investor did not follow up on non-financial reporting during the investment period.

Actually, [our investor] told us, back when we were funded by them, that we had to do some kind of reporting that was not solely financial. But they [the investor], haven't. I think they have been too busy to look at it. They told us that they would send us some kind of PDF that we should fill out every quarter to report on other [non-financial] aspects [of business activities], but I think they haven't gotten around to it yet.

(Interview 09, June 1)

As the CSRD comes into effect, third-party assurance will soon become mandatory for companies, including investment companies. Lack of follow-up, like that expressed in the above quotation, could be problematic in the face of new regulations.

6 RECOMMENDATIONS

HIGHLIGHTS

- **Fintech companies need to build sustainability into their growth mindset from their inception.**
- **Fintech companies can effectively build sustainability into their growth mindset by:**
 - Capturing startup and VC incentives;
 - Specifying sustainability foci across the business cycle;
 - Making connections between sustainability and business operations, which enhances voluntary ESG self-governance; and
 - Recognizing the benefits of ESG reporting among other startups, which can serve as motivation to follow suit.
- **The implementation of ESG in Fintech should:**
 - Combine bottom-up nurturing with a top-down push; and
 - Be led in part by clusters, which act as mediators between startup communities, investors, regulators, and incubators, and can help fill gaps between government- and market-led ESG initiatives.
- **ESG data and relevant initial foci for Fintech startups:**
 - ESG frameworks should be customized for a specific context yet remain comparable.
 - An openness as to what companies consider important for their business also nurtures companies' willingness to engage in ESG reporting activities initiated by investors.
- **A way forward with the cluster-based approach:**
 - Potential benefits of a cluster approach include: benchmarking, pre-selecting criteria for early startups (saving time and resources for both VCs and startups), and co-developing and collaboration (value creation).
 - Potential challenges of a cluster approach include: a lack of motivation for and authority to engage in ESG reporting, unclear accountability for the cluster report, and the workload on startups and cluster organizations.

Below we explain our recommendations for different actors in the Fintech ESG landscape such as startups, investors, regulators, and consultants. We support the recommendations with quotations from our interviews.

6.1 FINTECH COMPANIES NEED TO BUILD SUSTAINABILITY INTO THEIR GROWTH MINDSET FROM INCEPTION

As large, listed companies are steered into sustainability through compliance pressure, we are looking at a future generation of businesses that need to be sustainable in order to operate. Thus, when a new company begins growing, it is important to nurture ESG-compliant operational models and culture from the get-go. Not only can sustainability-oriented businesses offer significant economic value in the aggregate, but they can also potentially help individual companies to grow with a sustainable mindset. As talent is increasingly concerned about climate and social issues, systematically focusing on ESG in business development at an early stage can also help companies attract and retain young workers with the skills to translate sustainable visions into business success.

As one investor explained to us,

When I interviewed ten of our portfolio companies, they were actually doing a lot of stuff, they just didn't really put it into a system or think actively about it. We figured out that if they are working on it, but do not really know how to go about it right, we wanted to start from the beginning. That's why we made that guide for ESG reporting. What we also figured out in the interviews was that if you start by setting some structures, (the founders) would just have those thoughts from the beginning. Then it becomes a lot easier to grow into a company where it's baked in from the beginning, right? Whereas [it is easier] if you're trying to change one [person], once you hit 100 people [i.e. employees], it's difficult to change.

(Interview 10, June 10)

This view is also shared by another interviewee,

The argument of not bothering with the small companies, I'm actually trying to turn that around to say, it's actually when they're small that we need to get in and get them to see the value and the purpose of this type of data [i.e. ESG data]. But that's an uphill battle.

(Interview 08, May 5)

6.2 HOW TO BUILD SUSTAINABILITY INTO THE GROWTH MINDSET OF STARTUPS

CAPTURING THE INCENTIVES OF VCS AND STARTUPS IS IMPORTANT

ESG does need to be framed as a value-adding activity for key market actors, such as startups and VCs. Given the scarce time, capital, and resources that startups have for business development, as well as the emphasis on significant business development and/or financial returns from VCs, Fintech startups largely prioritise direct business activities and compliance requirements over a voluntary commitment to sustainability. Creating and capturing VCs' and startups' incentives for sustainability reporting is key to ensuring their long-term commitment.

According to one ESG data provider,

What I would start with is understanding why to do this [i.e. ESG reporting], and for what objective? Because it's extremely important for us to always understand why do we do this. Some might say, oh, because we believe that regulators are asking for this, or our VC is asking us for that. Some might say that by doing this we can build a strong risk engine. Once you've understood the objective, you will better understand why [ESG reporting requires] doing certain things, and maybe also help them [i.e., startups] to do [ESG reporting].

(Interview 01, March 21)

For VCs, incentives are important: among other things, having the right driving incentive makes it easier for VCs to attract investment from LPs. Yet this raises questions for startups: What are their incentives? What makes startups willing to make additional efforts to do ESG reporting other than surviving in a competitive market? Where should incentives come from? These are key questions, which were elaborated on by an investor,

I think [it is the same for] startup founders: they themselves may be very mission-driven, especially in Nordic countries. But I think it is still a minority [among startup founders who are mission-driven]. [This is] because in the early days, you were struggling with your runway. Not to mention one startup may die in 5 months. Would you still want to pay attention to ESG? There is no need [unless] these ESG categories can help you overcome some business obstacles.

(Interview 07, May 3)

SPECIFYING SUSTAINABILITY FOCUS ACROSS A COMPANY'S BUSINESS CYCLE

To maximize the limited resources available to startups, identifying specific, suitable sustainability foci for companies at different stages of the business cycle can provide a roadmap for sustainable growth that incentivizes and nurtures startups' willingness and long-term commitment to monitor and report their ESG performance.

This was articulated by a startup founder, who told us,

OK, of course, you know, of course we track the [ESG] data; of course we update the data; of course we report on it, and maybe we even make it public because it actually makes sense from a business perspective to do that. But it's very much a matter of timing. I think the very important part for me is that you don't require small companies that are just getting started to spend a lot of time on doing useless reporting on all these areas that you know insignificant. So having the whole list [of the ESG categories required to be reported on], I see how it makes sense, but map it into the stages of a company. You can just map it onto, if you want to do venture, a business cycle: there's an initial idea, pre-seed, Series A, B, ..., you can just map that out and say when [the ESG data] actually becomes relevant to report...Having that business cycle perspective as a part of this [ESG] report, I think that's very relevant.

(Interview 05, April 22)

MAKING CONNECTIONS BETWEEN SUSTAINABILITY AND BUSINESS OPERATIONS IS KEY TO MAKING ESG AN AREA OF VOLUNTARY SELF-GOVERNANCE. SEEING THE BENEFITS OF ESG REPORTING CAN HELP MOTIVATE STARTUPS TO ENGAGE IN IT.

Linking ESG categories to business operations could potentially make ESG reporting a self-regulating process for startups, due to a potential overlap between specific foci in ESG and capital efficiency improvement. For instance, in one of our conversations, a startup founder did not recognize the relevance of ESG categories to their business development until we started unpacking categories related to digital services, such as the choice of data centre and servers. These choices turned out to be an important part of the company's measures for capital efficiency improvement, leading to the founder's realization that certain ESG considerations are already integrated into the companies' decisions.

As this founder told us,

OK. It [linking business operations to ESG categories] is actually self-regulating, because we are very aware of how much money we spend on servers... We just had a product cycle where we tried to optimize or find a way to optimize our data storage and usage and CPU usage because it just makes sense from a business perspective. It's more expensive to use more CPUs and more power and storage. So, for me, it really just comes very natural... When it comes to data, you don't need more backup than what is needed. But for example, because of [the war between]

Russia and Ukraine, we decided to have a much larger, or longer backup because there is a large security risk of hacking... But in general there's self-governance. We don't want to just have servers running without using them, because spending power costs money. So, we don't want to do that. It becomes a little bit counterintuitive... because why spend time on reporting that [ESG], when it's very obvious for me.

(Interview 05, April 22)

This same startup founder also became more motivated to do ESG reporting when they saw inspirational examples where ESG reporting attracted recognition, customers, and talent to other companies. This example illustrates how a business-oriented motivation can be leveraged to influence companies to invest in developing their ESG profile.

I want to take it [the ESG reporting] even further. So, one of the companies that I get quite inspired by is H. They do a full ESG report every year and they make it public. And why do they do that? To attract more talent from the market. They do all the updating. They spend a lot of time on analytics and, you know, really understanding how all these parameters, how they fluctuate and how they develop. And then they make it public. Then they can attract more candidates from the market... I don't know if that is a trend, but if it is, I think it's really smart from a business perspective.

(Interview 05, April 22)

6.3 WHO SHOULD DRIVE THE ESG IMPLEMENTATION IN FINTECH?

A COMBINATION OF BOTTOM-UP NURTURING AND TOP-DOWN PUSH IS NEEDED.

Currently there are reporting pressures both from regulatory bodies and the market. Yet each has its own issues. Regulations can be slow and turn ESG reporting into a waiting game. For instance, the implementation of both the SFDR and the CSRD has involved a phase-based approach, meaning it is taking time for all businesses to understand compliance rules to effectively report their ESG performances. From the market side, despite the power that LPs as asset owners may have over VCs as asset managers, LPs can be conservative and do not always push VCs to follow more strict ESG criteria.

Our interviewees (one investor and one ESG data provider) described the situation to us this way:

I think, especially within Fintech actually, it's both [the regulatory bodies and the market that drive the ESG reporting]... Fintech industry is special environment, just like life science companies. It's heavily regulated... I think the regulatory side [on the ESG reporting in Fintech] is definitely coming, just like you have seen it in the last couple of years with compliance. I think that's probably also going to happen from a sustainability angle for all companies.

(Interview 04, April 8)

Because at the end of the day, VC make money from LP. But that's why sometimes, it's also annoying, [because] the LPs are very conservative. They're not pushing up in my opinion. The LPs will say, 'but we cannot force VCs,' or, 'we don't put too much pressure on them.' But in my opinion, it starts at the top of the food chain, where the money comes in. Who owns the money controls the rest.

(Interview 01, March 21)

This situation means that market, government, and the business community (i.e., regulators, VCs, clusters, and startups) need to join forces to push for enhanced ESG reporting among Fintech startups. Learning about effective reporting can be done through the dissemination of “use cases” of ESG reporting, which is also an effective way of providing inputs to regulators from clusters and business communities.

As one ESG data provider reflected,

I think that's exactly what's happening now with [the EU] interest groups. They are saying, we don't want to wait until the regulators come, then they put something on top of us and say 'this is what you have to do.' Sometimes the industry lobbies come in and say, 'hey but wait, we have been working with this already for the past three years. Here is our experience. Now, let's sit at the table and talk. Right?'

... All the policymakers, you know, hopefully want to create something that makes sense. And then at least there are some use cases that can be great for learning from. I think this is also [why] these interest groups [have] interest in creating learnings. Hopefully, the regulators don't come with the sledgehammer and say, 'hey now this is what you have to do.' They can influence it.

(Interview 01, March 21)

CLUSTERS CAN LEAD ADDRESSING CURRENT GAPS BETWEEN GOVERNMENT - AND MARKET-LED ESG EXPECTATIONS

It is not easy for a community of Fintech startups to have a unified, strong voice to influence policy, not only because startups may have limited economic impacts (depending on their sizes), but coordination can also be difficult. As one startup founder noted,

I could imagine that it could be a bottom-up approach or getting everyone together to [voice out their needs], but if there' are so many stakeholders involved, then I guess it's difficult... But I think the trick is to really get the top people on board because otherwise it [ESG reporting] would never become a standard. I think that's quite important.

(Interview 01, March 21)

In this case, a cluster occupies a unique position in the Fintech ecosystem as a mediator between startup communities, investors, and regulators, as well as an incubator for growing startups. The Fintech cluster can play an important role in communicating and promoting the importance of ESG, pushing for ESG implementation among startups, and both unifying and amplifying the voice of Fintech startups as a business community.

One staff from a Fintech cluster mentioned,

I think from an ecosystem perspective, for example, today, if anyone wants data on funding for Danish fintech companies, then they ask us, cuz we have the best data. So I think as a cluster, we're also a data provider for the industry. And I think that's an interesting position for us. So if we could say, we are also the ones that report how many jobs are created in FT, how much funding is going into it, how many FTs are there... if we could add one sustainability measure on this, like, this is the gender diversity of all FTs in Denmark, or these are ones that have a direct positive

environmental impact,... if we can add that dimension in an easily reportable way, that would be valuable for everyone involved, because as an industry we could promote it.

(Interview 03, April 7)

One ESG data provider echoes their view,

Clusters can be [an important actor]... Let's take Copenhagen Fintech as an example. I think they said 50% of all Fintech companies started in the Fintech Lab, and I think that's, of course, interesting because if the companies are incubated there, then they [the cluster] can also have a big influence by saying, 'hey guys, this is something you should focus on. This is important.' In my opinion, they can influence it and at the same time they could also potentially influence the investor side. So yeah, for me, clearly that cluster has a big role in this.

(Interview 01, March 21)

6.4 HOW SHOULD ESG DATA BE COLLECTED? WHAT FOCI SHOULD FINTECH STARTUPS PRIORITIZE?

ESG FRAMEWORKS SHOULD BE CUSTOMIZED FOR A SPECIFIC CONTEXT, YET REMAIN COMPARABLE

To make sure ESG data both represents Fintech as a sector and can be comparable with other sectors, it is important to improve data quality. According to our study, among venture investors, (corporate) governance (including decentralized ownership) business models that have fair compensation and fair treatment are often considered most important for ESG reporting in Fintech due to regulatory requirements in the financial sector.

Gender equality across different levels of an organization and its board is an important focus for assessing social impact due to the skewed gender ratio in the financial and tech industries in general, including among startups.

Although limited emphasis in Fintech ESG is placed on supporting digital technologies that underpin financial services, there are many common denominators in this area, such as cyber security, data privacy, ethics, and inclusive design and transparent development of digital products/services.

As an investor explains,

It [ESG reporting] varies between different companies, but some of them [ESG criteria] are in common. Security is a major thing. So are data privacy, keeping user data and treating them respectfully, and not utilizing them or sharing them without the users' consent. Business models that have fair compensation and also treat people in a fair way is also important.

A lot of them [Fintech companies] use services that have AI elements. In that case, it [ESG reporting] requires transparent and explainable reasoning for the software, and the software copyright.

If you are credit checking somebody, gender shouldn't matter... The same with the hiring process. That's also a place where we emphasize [gender equality]. In IT and software in general, there are a lot of males. This is true for boards and co-founders. Diversity in general is a big agenda for us. [We are] trying to change the companies from being very male dominated to [being more gender balanced]... Another big thing is the decentralizing of ownership and the possibility of making money.

(Interview 10, June 10)

AN OPENNESS AS TO WHAT COMPANIES CONSIDER IMPORTANT FOR THEIR BUSINESS ALSO NURTURES COMPANIES' WILLINGNESS TO ENGAGE IN ESG REPORTING ACTIVITIES INITIATED BY INVESTORS

One of the startup founders gave an example of how their company tried to help its investors understand what is relevant when it comes to employee diversity in their company:

So we actually gave them [investors] some feedback because we thought gender ratios was simply too narrow [a category to report on]... [We suggested] it could [also] be diversity such as age. We actually gave them feedback on that.

(Interview 05, April 22)

6.5 A WAY FORWARD WITH THE CLUSTER-BASED APPROACH

CAREinFintech proposes that the key to moving Fintech ESG forward is to explore and maximize the potential role of the Fintech cluster. More specifically, we began to establish the ESG-reporting capabilities in a cluster of Fintech startups through 4 key steps:

- Identifying relevant ESG categories for Fintech clusters using existing ESG regulations;
- Establishing ESG data assets within the cluster;
- Organising ESG data capabilities across the cluster; and
- Developing analytic tools that can be used for both cluster reporting and sub-reporting for individual startups.

Phase 1 of our study resulted in an ESG compass (Appendix I) that helps Fintech startups make sense of ESG reporting in general. Through a cluster-based approach, we aim at: 1) closing the gaps between the ESG frameworks currently used by investors, the EU taxonomy, and the demands of the Fintech industry; and 2) overcoming a lack of data capabilities as related to ESG reporting among individual Fintech startups.

During the study, we also collected feedback on the idea of the cluster-based approach to ESG reporting from stakeholders within the Fintech ecosystem. Our interviewees expressed potential benefits that could come with the cluster-based approach, including benchmarking, validation (time/resource saving for both VCs and startups), and co-developing and collaboration (value creation). Others expressed concerns about the cluster-based approach, such as a cluster lacking motivation and authority, the potential lack of accountability over the cluster report, and the workload of startups. We will address these concerns in future studies

POTENTIAL BENEFITS

Benchmarking: The most celebrated potential of cluster-based ESG reporting was the possibility of creating of a benchmark among Fintech startups. According to our interviewees, cluster-based reporting can serve many purposes such as comparing ESG performance within a cluster over time, comparing across clusters, identifying ESG trends, and setting future goals.

I love the cluster approach. One of the things that would be fantastic from an investor point of view, and one of the things that we struggle with, is: how do we benchmark one investment against another one within a cluster and even between clusters? But let's just start within a cluster: who's actually a good performer and who's not a good performer? It is difficult because you have many

dimensions, but how do you normalize that?

The other part that I'm struggling with is, within a cluster, defining the environmental part and the governance part is fairly easy. But how do we define what is really relevant? What do we look at from the social part, especially if we consider human rights? What is the specific key aspect that I need to figure out around Fintech? Data privacy, for instance, is one. But are there other aspects that are relevant to ask about that we don't?

(Interview 08, May 5)

ESG validation for early-stage startups: It is often a challenge for a startup of two people, or one without a minimum viable product, to report on organisational impact. Therefore, another potential benefit of cluster-based ESG reporting is how it could help early-stage startups navigate the due diligence process in a way that reduces their reporting burdens. If it becomes part of an incubator or a cluster that is ESG-oriented, then a startup can potentially be automatically validated by a specific investor without having to engage in added ESG reporting until it moves further along in the business cycle. This approach is also welcomed by some of our interviewees who works for a VC or a consultancy.

Report in a bundle to get an overview of all 20 (startups) at the same time? ... I think in that case, there can be some value at the early stage for a company. Especially in the beginning, if you have a lot of smaller firms, going through all of them at the same time can be quite tricky.

(Interview 06, May 2)

If you are a member of this cluster, then the cluster makes sure that everybody is ESG compliant. Then, the market knows, they have been through ESG due diligence processes executed by a trusted third party, which means that they have already been validated.

So let's say if you are part of a Fintech lab, everybody in the market knows that to be a part of that, you have to comply with these rules in terms of ESG. Then when we invest in an Fintech startup from that lab,... it's going to make the due diligence process easier for investors, as some of the ESG due diligence has already been verified by [the cluster based on pre-selected ESG criteria].

(Interview 04, April 8)

Co-development and collaboration: From an industrial point of view, ESG reporting also provides a platform for collaboration and co-development in a new sector such as Fintech. This, according to our interviewees, gives startups, who are often in competition with each other, an opportunity to co-develop and collaborate on ESG standards.

As an investor explains,

In general, ESG... it's not where people compete. It's actually if we go together, we're stronger. In the event we are direct competitors, this actually can be done in a collaborative way. That's what I like about it [ESG reporting] and that's where I think it makes a lot of sense to gather it [ESG reporting] in clusters to share knowledge. ... And I really like the benchmarking idea because to be honest, if they ask us what this could look like,... I don't really know... It might be completely different than a deep fake AI case?... I like that cluster idea and co-developing, especially within this field. It [ESG reporting] is not a competitive field. Everybody should win.

(Interview 10, June 10)

CONCERNS

Clusters may lack motivation: A cluster organization itself may lack the motivation to organize and coordinate cluster-based ESG reporting. Identifying the incentive for cluster organizations to engage in ESG reporting is thus critical. As one ESG data provider told us,

I think the important question is, what is the interest of a cluster? For example, do they [clusters] see a problem in this [ESG reporting]? If they do see a problem that they want to solve, I think it makes a lot of sense to use their strengths of having good connections and a good reputation to step in and say that, hey, no one has taken control of this. But this [lack of uniformed ESG reporting] is the problem in our industry. That's why we are putting this [cluster-based approach] on the agenda. And that's how we are trying to solve this.

For me, when amassing large amounts of data, you always need to ask yourself for what purpose is this being done, and what do you want to do with them? For clusters, why does everybody want to play a role in what you want to measure? But I can definitely see the clusters playing a big role in this.

(Interview 01, March 21)

Workload of startup and cluster organization: One of the main reasons why clusters may not be incentivized to spearhead cluster-based ESG reporting is because even at a cluster level, reporting may still be a daunting task for startups. Integrating ESG reporting and data management with existing incubation activities is one of the main concerns for cluster members in a cluster-based approach.

We, for example, did a workshop where UNDP came in to our incubation program. And then we said, okay. This is how the UNDP would look at impact for a startup. Here's our framework for how we look at it, and then you track it to ESG. This is how you turn that into metrics. And this is how you could report on it. In reality, no startup is going to do [ESG reporting]. If you are a founder you're stretched... there's no bandwidth to do extra reporting for the sake of it. So unless someone forces them to report, they won't.

I don't see it [ESG reporting] as starting up new activities. I see it as adding a perspective to ongoing activities. We educate board members, right? We might already have that, but this should be an easy thing to add to that board education. That would push the report from that angle. We run an incubation program. We teach them [startup leaders] about their pitch talk. Why not also teach them about the sustainability aspect of their business. We do investor matchmaking in which we ask for some info [from startups]. Why not also ask for sustainability info? I think for us it would just be, how do we add that perspective in a nice way, across our activities?

(Interview 03, April 7)

Cluster lacking authority: A cluster may also lack (or be perceived as lacking) the authority to enforce ESG reporting among Fintech startups. Despite the unique position of the cluster in the wider Fintech ecosystem, its authority is not legitimized through either legal frameworks or capital flows. Rather, its authority is largely reliant on other relational bonds within and between Fintech communities, which are not always stable and transparent.

Today the startups don't report to us. The startups we know report to the VCs. So if you want granular level reporting on VC-backed Fintech startups, then it's the VCs that get that. The VCs, for example, send an Excel sheet quarterly to their portfolio companies and ask the companies to

populate with their data. The ESG reporting is being pushed down by VCs. And then VCs take that internally, turn it into a report, and send it to LPs. For us to write to all of these startups 'please, please populate this with your data'... we have very little leverage. We don't fund them, so they don't have to reply to us.

(Interview 03, April 7)

Unclear accountability in cluster-based ESG reporting: The benefit of the cluster-based report is not always clear from an individual startup's point of view. For an individual company, the value of ESG reporting often lies in how it demonstrates accountability and commitment within an individual organization, while at the same time, differentiating the company from its competitors. Yet sharing a single ESG report across a cluster means that reporting cannot serve these purposes. In the face of the new CSRD, which requires large companies to provide a sustainability report about their value chain, this also means that when a potential customer requires an ESG report from a Fintech startup as a service provider, proof of individual performance may not exist. Therefore, for some companies, cluster-based approaching is neither entirely favourable nor unfavourable.

As one startup founder expresses their ambivalence attitude towards the cluster-based reporting with two different perspectives,

I think if it [i.e., ESG reporting] is cluster based, I don't think, a potential new customer would put us under scrutiny, a cluster-based report would help them a lot. Because they wouldn't know whether it reflected us or not.

(Interview 09, June 1)

Overall, as the Financial Services Union Denmark (Finansforbundet) suggested in 2021, a collective approach to ESG reporting with the Fintech sector is an important step towards establishing Fintech as a mature industry in Denmark (Petersen 2021). Based on our findings, we advocate for a sustainable and democratic venture in Fintech where clusters are able to represent the voices of startups as small businesses and of Fintech as an emerging industry in relation to ESG. We hope this report provides much needed understanding around the necessary tools to help Fintech startups, clusters, investors, and regulators jointly shape the development of ESG in Fintech.

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Appendix 1

ESG Compass

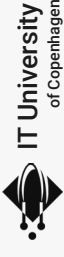
ESG Reporting Compass

ESG Reporting breakdown for Fintech Startups

Cancan Wang¹, Qiuyu Jiang¹, Yvonne Dittich¹, Carsten Østerlund²

¹IT University of Copenhagen

²Syracuse University



Syracuse University

Know-Why across Investment Stage

	Angel	Pre-seed & Seed	Series A + B	Public
Maturity	Pre-product	Minimum Viable Product (MVP)	Scale-up	Diverse Revenue Streams
Investor	Angels, FFF	Seed Capital, Venture Capital	Venture Capital, Acquisitions, Mergers, Strategic Alliances	Public Market
ESG Challenge	Resource Scarcity	Prioritization	Prioritization	Necessary
Value of ESG Reporting	<ul style="list-style-type: none"> 1. Business Development 2. Talent attraction and hiring 3. Demonstration of risk accounting, operational ability, and value proposition to investors 	<ul style="list-style-type: none"> 1. Business Development 2. Talent attraction and hiring 3. Competitive advantage by transparency to investors and customers. 4. Pilot with ESG-compliant clients 	<ul style="list-style-type: none"> 1. Talent attraction and hiring 2. Competitive advantage by transparency to investors and customers 3. Operational benefits such as supply chain relationships 	<ul style="list-style-type: none"> Must for IPO, investors, and customers

- Taking the Right Risks (Why)
- Preparing Conversation with Investors. (Who)
- Contextualized and Meaningful Reporting (What)
- Openness and Transparency (What & How)

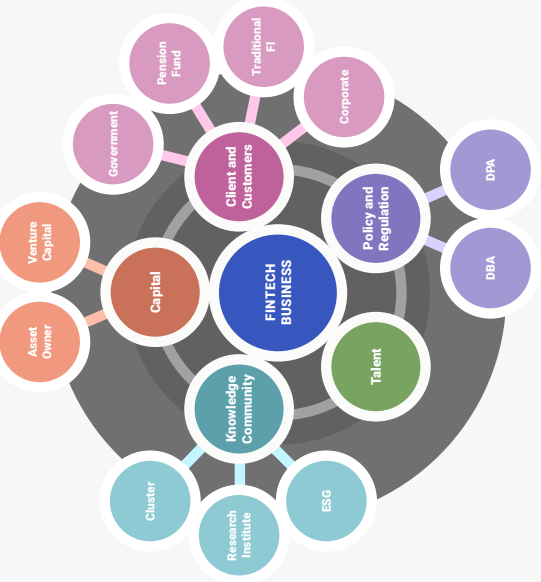
Know Who and Know How by Specification of Information Level and Reporting Format to Investors

Regulation and Venture references

Categories	Significance	Specifications
Team	Denmark based Venture Capitals that currently require ESG reporting	Policy exist? (✓ / X) Data, fact sheet and interview on policy
Product	<ul style="list-style-type: none"> • Sustainable Development Goals • Denmark based VCs that currently require ESG reporting • EU Green Taxonomy 	Policy and Due Diligence Process? (✓ / X) Data, fact sheet and interview on policy
Corporate Governance	<ul style="list-style-type: none"> • All Denmark based Venture Capitals; • Danish business legislation (e.g., The Danish Companies Act) • Danish Financial legislation (e.g., The Financial Business Act) 	Policy exists? (✓ / X) Data, fact sheet and interview on policy

Know-What in the Danish venture and regulatory environment

Categories	Significance	Specifications
Team	Most popular ESG reporting category in Fintech	<ul style="list-style-type: none"> • Diversity and inclusion • Working environment
Product	Most emphasized source of ESG impacts in Fintech	<ul style="list-style-type: none"> • Responsible product design • Social impact • Supply chain relationships • Energy consumption and carbon footprint
Corporate Governance	Obligatory reporting categories for companies and the financial sector	<ul style="list-style-type: none"> • Management decision-making and accountability structure • Designated ESG policy and roles/teams/outourcing • Tax • Financial service licenses • Combating the Financing of Terrorism (CFT)



Know-How by Core Business Operations in Fintech

Core Business Operations	Corresponding ESG Specifications
Team Formation and Hiring	<ul style="list-style-type: none"> • Diversity and inclusion • Working environment
Company Structuring, Contracting, and Accounting	<ul style="list-style-type: none"> • Management decision-making and accountability structure • Designated ESG roles/teams/outourcing • Tax
Business Model Development	<ul style="list-style-type: none"> • Social impacts (e.g., leveraged green asset ratio)
Financial Service Licensing	<ul style="list-style-type: none"> • Financial service licenses
Fintech Product	<ul style="list-style-type: none"> • See table on the backside of this page
Marketing	<ul style="list-style-type: none"> • Supply chain relationships & energy consumption and footprint (e.g., use of social media services)
Fund raising	<ul style="list-style-type: none"> • Designated ESG policy and roles/teams/outourcing (e.g., company policy making and credit risk reporting for loan and other investment instrument)

Know-How by Investment Stage

Investment Stage	Information Level
Angel	Interview on Plan
Pre-seed & Seed	Policy and Due Diligence Process exist? (✓ / X) Data, fact sheet and interview on policy
Series A + B	Policy exists? (✓ / X) Data, fact sheet and interview on policy

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ESG Reporting Compass

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Know-How by for Fintech Product Ideation, Design, and Development

(Specifications in black – common items; Specifications in blue – relatively more important items; Specifications in red and bold – most emphasized items corresponding to the specific technologies)

Core Supporting Technologies

Corresponding ESG Specifications

General

- Responsible product design & social impacts (e.g., ethics in data collection, consumer protection, resource and energy efficiency promotion, sustainable infrastructure, access to basic services, green and decent job creation, better quality of life)

Data Analytics, Big Data

- Supply chain relationships & energy consumption and footprint (e.g., **data storage**, server and API usage, electricity consumption, **due diligence adequacy**)

Automation, AI, Machine Learning

- Responsible product design & social impacts (e.g., **data ethics**, **automation ethics**, cyber security, **consumer protection for individuals and businesses**)
- Supply chain relationships & energy consumption and footprint (e.g., data storage, server and API usage, electricity consumption, due diligence adequacy)

Cloud Computing

- Responsible product design & social impacts (e.g., data ethics, automation ethics, **cyber security**, consumer protection for individuals and businesses)
- Supply chain relationships & energy consumption and footprint (e.g., data storage, server and API usage, electricity consumption, **due diligence adequacy**)

Blockchain, Distributed Ledger Technology, Cryptoasset

- Social impacts (e.g., **leveraged green asset ratio**)
- Responsible product design & social impacts (e.g., data ethics, automation ethics, cyber security, consumer protection for individuals and businesses)
- Supply chain relationships & energy consumption and footprint (e.g., data storage, server and API usage, **electricity consumption**, **due diligence adequacy**)

Platform, Open Banking

- Responsible product design & social impacts (e.g., data ethics, automation ethics, cyber security, consumer protection for individuals and businesses)
- Supply chain relationships (e.g., data storage, server and API usage, **platform policy**, due diligence adequacy)