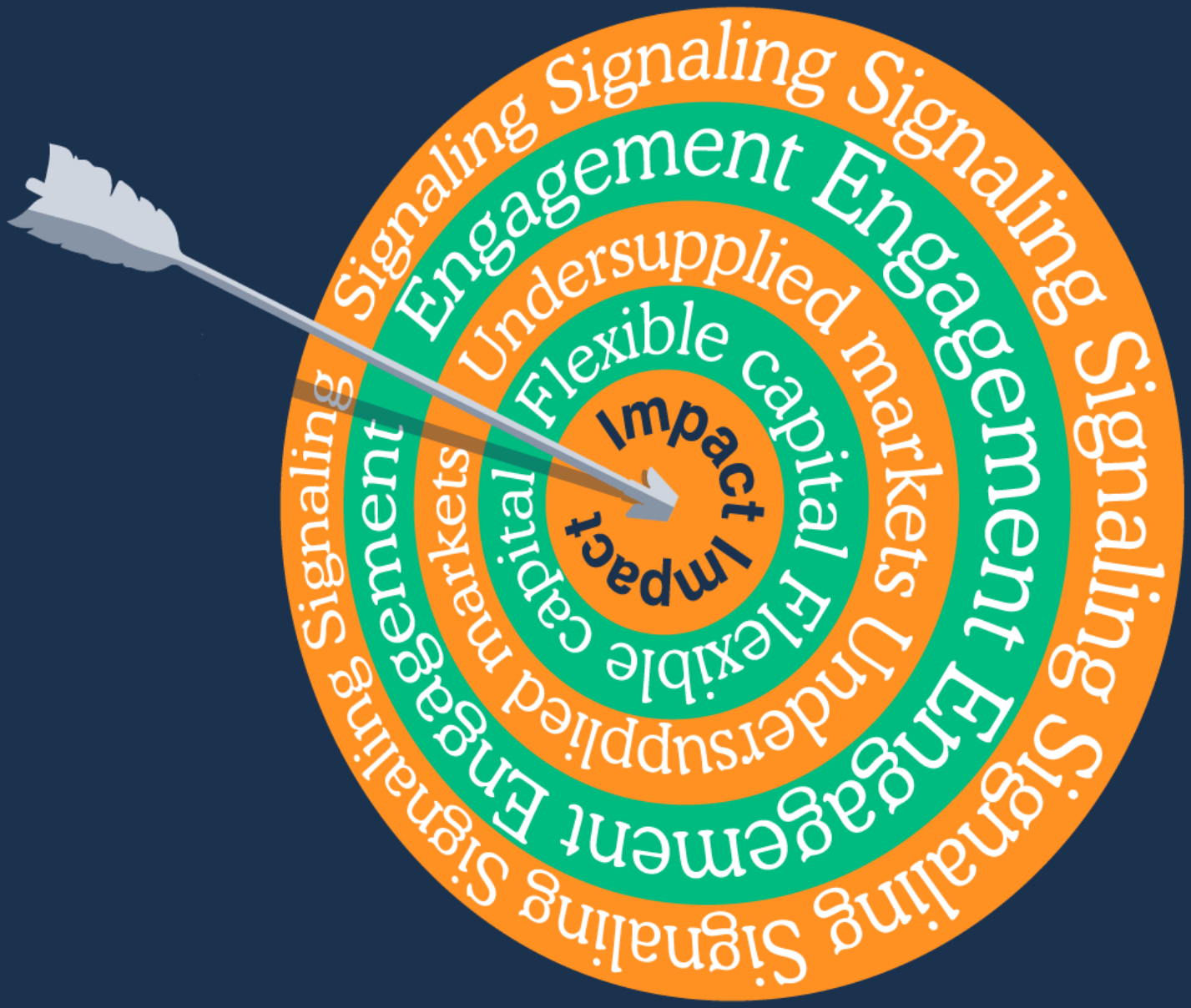


The Impact Potential Assessment Framework (IPAF) for financial products

2i investing initiative

About 2° Investing Initiative

The 2° Investing Initiative (2DII) is an independent, non-profit think tank working to align financial markets and regulations with the Paris Agreement goals.

Globally focused with offices in Paris, New York and Berlin, 2DII coordinates some of the world's largest research projects on sustainable finance. Our team of finance, climate and risk experts develop research, tools, and policy insights to help financial institutions and regulators hasten and adapt to the energy transition.

In order to ensure our independence and the intellectual integrity of our work, we have a multi-stakeholder governance and funding structure, with representatives from a diverse array of financial institutions, governments and NGOs.

Authors:
Mickaël Mangot
Nicola Stefan Koch

Published on: March 2023

About our funder and the project: This project is funded by the EU's Horizon 2020 research and innovation program under Grant Agreement No 834345. LEVEL EEI aims at making the financial products contributing to energy efficiency and sustainable energy more competitive. This work reflects only the author's view and the funder is not responsible for any use that may be made of the information it contains.

The paper is part of the Retail Investing Research Program at 2DII which is one of the largest publicly funded research projects about the supply, demand, distribution and policy side of the retail investment market in Europe.

Executive Summary

A new science-based framework to assess the impact potential of financial products:

- The Impact Potential Assessment Framework (IPAF) assesses financial products based only on their actions to generate real-life impact,
- Using this methodology, the framework differs from other frameworks that choose to include in their ratings other sustainability/impact dimensions,
- It is exclusively based on public information provided by the product manufacturers,
- It is applicable to various types of financial products (funds in public markets, funds in private markets, deposits, crowdfunding investments) and sustainability objectives (e.g., climate, biodiversity, social issues, etc.).

The IPAF, as a multi-purpose framework:

- The IPAF has been designed to be used by impact-motivated retail investors to discriminate financial products based on their potential to deliver impact (per additional euro invested),
- The framework also provides avenues to product manufacturers to muscle up their impact actions and improve their impact communication ("do more and communicate better"),
- It finally serves as a tool against impact-washing by displaying practical limitations of self-labelled "impact products".

A two-step methodology:

- The IPAF successively assesses two dimensions of the impact potential of financial products,
- First, it assesses the (maximum) impact potential of financial products based on impact mechanisms they supposedly apply (in relation to communicated elements in marketing documents). Those impact mechanisms are the ones widely documented by academic research:
  - Grow new/undersupplied markets,
  - Provide flexible capital,
  - Engage actively,
  - Send (market and nonmarket) signals.
- Second, it evaluates the implementation of that impact potential based on the intensity with which financial products action the various impact mechanisms in connection to success factors documented by academic research.

An aggregate score/rating as a synthesis:

- At the end of the scoring process, the IPAF delivers an Impact Potential Score which is the product of the two intermediary scores:

Impact Potential Score = Compartment's Impact Potential Score * Product's Implementation Score

- The Impact Potential Score is transformed into an Impact Potential Rating that goes from A (products with highest impact potential) to G (products with lowest impact potential).

A comprehensive factsheet that synthesizes information, including additional pieces that do not participate to the rating:

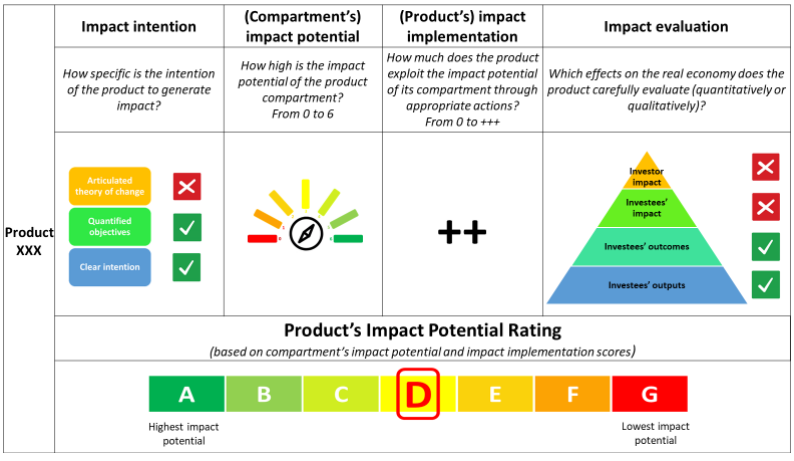


Table of Contents

Introduction

Meeting retail investors' demand for impact

Many retail investors want to have impact but fail to find adequate financial products or detailed information about their actual impact that would help them to discriminate across products.

In two successive surveys, 2DII asked retail investors in 12 EU countries a series of questions regarding their financial and sustainability goals for different practical financial goals attached to their savings (e.g., saving for retirement, generating a precautionary buffer, increasing personal wealth, financing personal projects, etc.). We considered three types of overarching sustainability goals, two being related to sustainability (aligning savings with one's values and having an impact on the world) and one being purely financial (achieving maximum return for a certain level of risk). It enabled us to generate a typology of seven profiles, either pure (focusing on one goal only) or mixed (caring for two or three goal). Having impact with one's savings, despite coming third, was important for half of European respondents (from 35% in Denmark and Estonia to more than 60% in Romania and Poland).

A framework assessing impact potential would therefore be a useful tool for those investors.

Table 1: Distribution of sustainability profiles in Europe

	Survey 2021						Survey 2022						Average EU-12
	Denmark	Estonia	Germany	Greece	Ireland	Romania	Belgium	Italy	Netherlands	Poland	Spain	Sweden	
Pure impact	10%	9%	11%	10%	9%	7%	2%	3%	3%	2%	3%	2%	**5,8%**
Pure values	10%	13%	16%	11%	9%	7%	7%	5%	13%	4%	5%	3%	**8,5%**
Pure return	30%	20%	20%	16%	22%	11%	15%	9%	11%	8%	11%	20%	**16,1%**
Mix of impact and return	4%	3%	3%	5%	5%	3%	3%	6%	3%	5%	6%	6%	**4,2%**
Mix of values and return	16%	23%	12%	15%	12%	17%	20%	10%	20%	18%	9%	18%	**15,8%**
Mix of values and impact	4%	3%	7%	6%	5%	4%	7%	7%	9%	3%	8%	5%	**5,5%**
Mix of values, impact and return	17%	21%	19%	31%	33%	47%	30%	45%	24%	54%	48%	36%	**33,7%**
No clear profile	9%	10%	12%	8%	6%	4%	16%	16%	18%	8%	10%	10%	**10,6%**

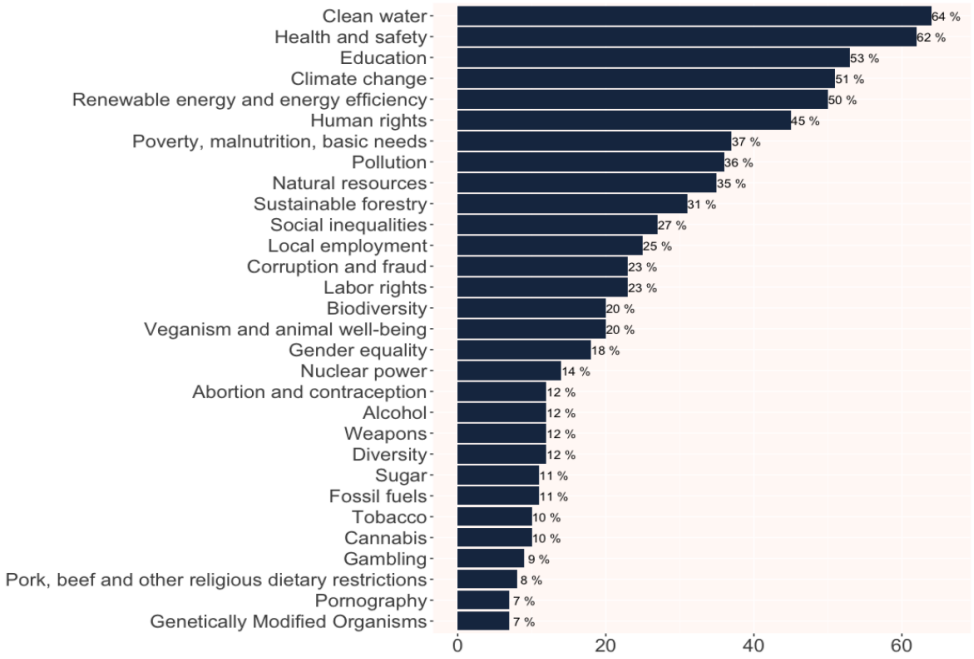
Source: 2DII

A variety of concerns

Using the same survey, we also questioned the type of values people want to express and/or the cause they want to improve with their savings. We proposed a list of 30 sustainability topics out of which respondents could select a maximum of 6 topics. The list equally included environmental, social and ethical topics. Responses showed a major concern for certain environmental issues like "Renewable energy and energy

efficiency" or "Climate change" mitigation as well as for some social issues like "Health and safety" or "Education". Therefore, providing an assessment framework that would be usable for various topics in the environmental or social realm would meet the heterogeneity of retail investors' concerns and aspirations.

Figure 1: Sustainability topics preferred by European retail investors



Source: 2DII (2022)

Retail savings for solving sustainable issues

If well oriented, retail savings can become a massive force for change in order to solve pending sustainability issues. For instance, in a previous work[1] we highlighted how crucial retail savings was to meet the environmental objectives set by the European Commission. In Europe, financing gaps related to renewable energy in a below two degrees scenario (B2DS), namely the difference between historical (or committed) investments and estimated needs, have been estimated at € 30 billion per year for the 2020-2030 decade by the European Commission in a recent working paper (EC, 2020) and in a range between $54 and $75 billion per year until 2050 by researchers (Polzin and Saunders, 2020). For energy efficiency, the EC estimated the EE funding gap over the next decade to be at € 310bn per annum. When we add investment needs for RE and EE, **the total funding gap amounted to more than 27% of total annual savings by EU households, even before considering the upgraded targets.** Such a funding gap will be filled only if a radical and quick reorientation of private savings is implemented. Knowing where to channel the climate-concerned retail savings is necessary to avoid capital misallocation and time waste.

Ex-ante vs ex-post assessment of impact

There are several ways to assess the impact of financial products.

First, it can be assessed ex ante, looking at the impact potential of the product based on the deployed strategy and actions. Such a method can identify and quantify an impact potential without ensuring that the potential will materialize.

[1] 2DII (2021b), I've got the power! Really? Assessing the impact potential of financial products supporting the energy transition.

Second, it can be assessed ex post, focusing on the achieved real-life outcomes. The limitation, here, is that, as for financial return, past impact does not ensure future impact. Another limitation is that good impact data is missing for most (if not all) self-labelled "impact" financial products.
Finally, the assessment can lie on a mix of both approaches, with achieved outcomes (caused by the product) acting as an additional piece of evidence supporting the high/low impact potential of a product. This mixed approach has notably been used by Paris Europlace in its very recent grid to assess the contribution potential to the sustainability transformation of a fund[2].

The present framework opts for the first (strategy and process-based) approach as investor impact measurement data is remarkably absent for most if not all financial products currently available for investing.

A 2-step assessment framework

The present framework displays and rates information regarding the impact potential of financial products using **a 2-step methodology**. First, it rates the impact potential of the product compartment to which the financial product belongs. Second, it quantifies how much the product actually exploits the full potential of its category based on the impact mechanisms actively leveraged by the product. This second section builds on an extensive review of success factors of various impact mechanisms presented in **a joint series of discussion papers**. Those two evaluations contribute to the **Impact Potential Rating**.

Finally, additional features of products are communicated but do not participate to the aggregate rating: i) the level of clarity and specificity of the intention of the product to deliver impact, and ii) the information regarding impact evaluation that is provided by the product. Products may provide a vague or clear intention to generate impact as well as they may disclose information about their investees' outputs, outcomes and impacts and, ideally, about their own investor impact.

To 2DII, communication about intention and impact evaluation should be a prerequisite for real "impact products"[3]. But, in absence of proper regulation of that category of products, so far the first dimension is poorly harmonized while the second is largely neglected by financial institutions. As it cannot be used for discriminating across products, we consider the latter should not be included in the rating methodology of the first version of the framework. But we plan to insert it in future iterations insofar as investor impact measurement (hopefully) becomes more common.

Impact generation vs impact alignment

The present framework builds on the idea that investing in companies already having a positive impact regarding a sustainability topic (e.g., a specific Sustainable Development Goal) is not enough to be considered as an impact investment.

Instead, we call these investments impact-aligned following Busch et al. (2022). They suffer from the same flaws as value-aligned investments. IMP describes value-aligned investments as a "*signal that impact matters […] A commitment to factoring in the impact an enterprise has, such that -if all investors did the same-it would lead to a 'pricing in' of social and environmental effects by the capital markets. This strategy expresses the investors' values and is an important baseline. But alone, it is not likely to advance progress on societal issues when compared to other forms of contribution.*"

While many investors may make investments with the intent of impact, these investments are not impact investments if the investor lacks a credible narrative of how the investment contributes to impact.

[2] Institut de la finance durable (2022). Available here.
[3] 2DII (2023), Guide sur l'encadrement des allégations d'impact environnemental des produits financiers.

Such products may satisfy some investors and provide them with a source of “warm glow” but they are clearly misleading regarding what service they offer to investors[4]. The market needs to draw a clear distinction between impact and the illusion of impact. Most impact investors don’t want to be deluded and aspire to make a real and verifiable difference.

The different uses of the framework

The framework is to be used as an informational tool for retail investors in search for financial products that have the potential to contribute to tackling sustainability issues and, consequently, help the investor to make a difference.

The transition from product impact to investor impact is not a straightforward one though. First, we can think of positive-impact products that do not help investors to have a positive impact, for instance when products are closed-ended. In such a case, investors buying shares of the products only substitute for other investors and do not increase the capacity of the products to deliver impact through their investments (see chapter 2). Second, the product’s total impact is contingent on product size (i.e., the amount of assets under management) and, thus, picking the products with the maximum total impact does not ensure the investor he will own the products with the maximum average or marginal impact.

The framework has been designed to assess financial products based on impact success factors that shape the products’ total impact potential as well as their marginal impact potential (i.e., impact potential per additional euro invested).

To remove the risk of product/investor impact inconsistency and to make it actionable for investors, the framework is to be applied only for open-ended products.

In all cases, it does not represent a decision rule in itself. It is rather to be aggregated to other financial information (e.g., the risk and past/expected return of the product) as well as non-financial information (e.g., other sustainability features like exclusion rules).

Finally, the framework is also a tool against impact-washing as it provides avenues for product manufacturers to substantiate the action dimension of their impact claims by communicating relevant information about strategies deployed.

[4] 2DII (2021), Sustainable Finance and Market Integrity: Promise Only What You Can Deliver.

Part I: Research underlying the Impact Potential Assessment Framework (IPAF)

Chapter 1

Disentangling the impact potential of financial products

Capital providers, whether retail or institutional, have several opportunities to generate a positive impact in the real economy through their investing and lending activities. They can enable “green” companies to grow faster, encourage “brown” enterprises to transform and improve their sustainability performances, and/or influence other investors in their investment decision-making processes (Kölbel et al., 2020).

The variety of impact mechanisms in financial markets

The IMP developed a taxonomy of the different investors’ strategies to effectively generate an impact and the level of empirical evidence supporting those strategies. The IMP taxonomy includes four main investor impact mechanisms, namely (i) signaling that impact matters, (ii) grow new or undersupplied markets, iii) provide flexible capital and iv) engage actively with investees and other relevant stakeholders (IMP, 2019).

All those mechanisms should not be considered as equal. A comprehensive review by Heeb and Kölbel (2020) shows that **among the four impact mechanisms, signaling is the one whose capability to create positive change in the real economy is the least supported by empirical evidence**. The support for signaling comes from mere narratives or theoretical models, while, in contrast, other mechanisms are backed by real-life observations.

We base our analysis on an adaptation of the taxonomy of investor impact developed by the Impact Management Project (IMP, 2019) and put to empirical tests by researchers of the University of Zurich (Heeb and Kölbel, 2020).

The taxonomy considers four main impact mechanisms:

- **Signaling that impact matters:** investors can send market and non-market signals that they are committed to impact. Market signals through investments and divestments based on sustainable screening contribute to change the conditions to access capital in financial markets for companies. Investors can also send signals that do not directly affect financial markets but may influence stakeholders through stigmatization (publicly stating opposition to certain companies or industries), endorsement or benchmarking (passively applying benchmark portfolios of companies with the highest sustainability performance),
- **Grow new or undersupplied capital markets:** investors can make a difference by enabling the growth of impactful companies whose growth is constrained by limited access to external financing,
- **Provide flexible capital:** investors can also help impactful companies by offering beneficial financing, for instance by accepting below-market returns, taking subordinated debt or equity or agreeing on custom-made exit terms,
- **Engage actively:** investors may use their privileged position to influence the companies they are invested in through different means (voting at shareholder meetings, dialoguing with management, asking for board seats, etc.).

To our knowledge, the IMP classification of impact techniques is the most comprehensive classification of impact approaches enforceable by impact-interested investors. Other frameworks provide a more restricted list or plainly refrain from providing such a list, limiting themselves to showing examples of impact strategies.

In a close but different typology of impact mechanisms as the one proposed by IMP, Caldecott et al. (2022) argue that, in order to have a positive environmental impact, investors or financial institutions must make a clear and measurable difference in one or more of the following ways: (i) reducing (increasing) the cost of capital for (un)sustainable activities; (ii) increasing (reducing) access to capital for (un)sustainable activities; and (iii)

encouraging or enabling sustainable practices by counterparties, such as companies, sovereigns, and individuals.

The Operating Principles for Impact Management, which are principles proposed by the International Finance Corporation to offer a reference point against which the impact management systems of funds and institutions may be assessed, do not prescribe specific strategies.

In their Principle 3, the OPIM state that "*contributions can be made through one or more financial and/or non-financial channels*" and add in a footnote that "*this may include: improving the cost of capital, active shareholder engagement, specific financial structuring, offering innovative financing instruments, assisting with further resource mobilization, creating long-term trusted partnerships, providing technical/market advice or capacity building to the investee, and/or helping the investee to meet higher operational standards*."[5]

It is remarkable to observe that all examples provided by the OPIM are consistent with categories proposed in the enriched version of the IMP classification by the Center for Sustainable Finance and Private Wealth of the University of Zurich, as shown in the table below. This strengthens our belief that the IMP classification is a comprehensive framework on which it is reasonable to build an assessment tool.

Table 2: classifications of investor impact mechanisms

IMP classification	CSP augmented classification	OPIM examples
Grow new/undersupplied markets		
Provide flexible capital		improving the cost of capital
		specific financial structuring
		offering innovative financing instruments
Engage actively	**Provide non-financial support**	assisting with further resource mobilization
		providing technical/market advice or capacity building to the investee
		helping the investee to meet higher operational standards
	Shareholder engagement	active shareholder engagement
		creating long-term trusted partnerships
Signal that impact matters	**Market signals**	
	Non-market signals	

The impact potential of sustainable financial strategies

In practice, sustainable financial products are not designed to conform to any of the specified impact mechanisms. They are designed to propose apparent features that meet investor's demand. To do so, they apply various typical sustainable strategies.

For instance, the Global Sustainable Investment Alliance in its biannual Global Sustainable Investment Review considers seven sustainable common strategies and provides estimates of total assets managed using the strategies. These strategies are:

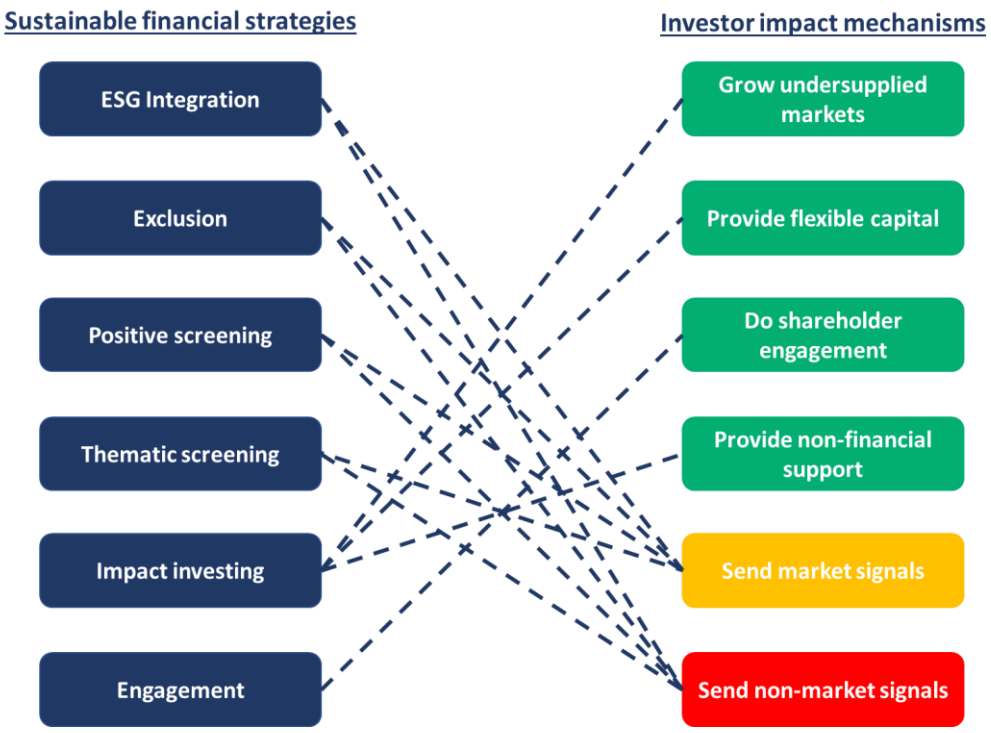
1. Negative/Exclusionary screening: the exclusion from a fund or portfolio of certain sectors, companies or practices based on specific ESG criteria,

[5] IFC (2021).

2. Positive/Best-in-class screening: investment in sectors, companies or projects selected for positive ESG performance relative to industry peers,
3. Norms-based screening: screening of investments against minimum standards of business practice based on international norms, such as those issued by the OECD, ILO, UN and UNICEF,
4. ESG integration: the systematic and explicit inclusion by investment managers of environmental, social and governance factors into financial analysis,
5. Sustainability themed investing: investment in themes or assets specifically related to sustainability (for example clean energy, green technology or sustainable agriculture),
6. Impact/Community investing: targeted investments aimed at solving social or environmental problems, and including community investing, where capital is specifically directed to traditionally underserved individuals or communities, as well as financing that is provided to businesses with a clear social or environmental purpose,
and 7. Corporate engagement and shareholder action: the use of shareholder power to influence corporate behavior, including through direct corporate engagement (i.e., communicating with senior management and/or boards of companies), filing or co-filing shareholder proposals, and proxy voting that is guided by comprehensive ESG guidelines.

By nature, those strategies may action some of the previously described impact mechanisms more or less intensively. The figure 2 shows which impact mechanisms are intensively actioned by the different strategies. They can also lever other mechanisms in a more minor way.

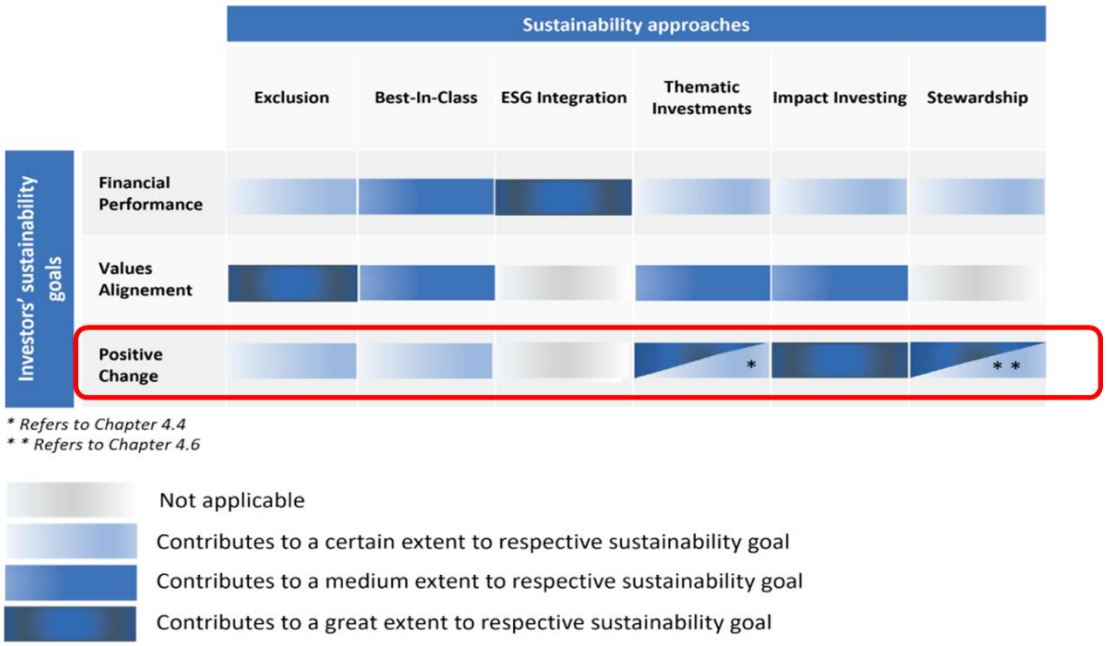
Figure 2: main impact mechanisms activated by sustainable financial strategies



Looking at the figure 2, one can easily note that most of the mainstream sustainable financial strategies (excluding engagement and impact investing) only action impact mechanisms that are weakly supported by academic evidence, namely market- and nonmarket signaling. As such, the capacity of those sustainable strategies to deliver impact is considered to be poor by researchers. For instance, in a paper called “How to avoid the greenwashing trap”, the Swiss Asset Management Association (2021) concluded that products using ESG integration, exclusion or positive screening were contributing to a minor extent or not at all to the impact goal of (some) retail investors, unlike stewardship (engagement) or impact investing products.

Regarding thematic investing, they varied their conclusions based on the asset class in which the strategy is implemented. They consider the potential of thematic investing to deliver impact to be minor in public markets but more significant in private markets, where private equity or private debt investors can encourage young companies with sustainable solutions to grow by providing fresh capital. Said differently, in private markets thematic investment often grows undersupplied markets aside of sending market and non-market signals.

Figure 3: matching matrix between sustainable strategies and investor sustainability goals



Source: Swiss AMA (2021)

The impact potential of asset classes and product categories

The impact potential of asset classes

Caldecott et al. (2022) assessed the possibility of impact across key asset classes, hypothesizing a maximum potential for impact for each. For each asset class they ranked the potential impact on counterparties, on a scale from negligible (1) to strong (5) while acknowledging that asset class was only one factor among others that can ultimately affect impact, including firm size and maturity, and the structure and type of a given transaction. Their indicative scoring suggests that the most high-impact asset class is loans, followed by private equity. Public equity is the least likely to generate impact when considering aggregated potential impact across each transmission mechanism.

For instance, in public equities, they consider that "*any given investor's investment in (divestment from) the publicly listed shares of green (dirty) companies is not likely to have an impact on the firm's cost of capital, as any one stake is typically small, and most listed firms have dispersed, diversified ownership structures. The magnitude of impact of any given investor's actions when acting alone is very minor, potentially small enough to be lost amid the "noisiness" of public equity pricing signals, which are influenced as much on shorter timescales by market sentiment and shorter-term trading arbitrage as by company fundamentals*".

Meanwhile in lending, where firms are reliant on fewer lenders or even just one, the interest rate set by the lender can significantly determine the cost of capital that a firm faces.

Table 3: impact potential of various asset classes (Caldecott et al., 2022)

	Public equity	Fixed Income (bonds)	Fixed Income (loans)	Private Equity	Real Assets	Hedge Funds
Cost of capital	1 / 3	2 / 4	3 / 5	2 / 3	2 / 3	2 / 4
Access to liquidity	1 / 3	2 / 3	3 / 5	2 / 4	1 / 3	1 / 4
Adoption of practices	2 / 4	1 / 3	3 / 5	3 / 5	2 / 4	1 / 4

Source: Caldecott et al. (2022)

In the table, variance in potential impact for each asset class reflects the variety of practices within them.

For instance, in public equity, while most of the time impact through cost of capital is negligible, it can turn moderate when there is a strong market signal conveyed by a group of investors (e.g., blacklisting), or when passive investors collectively track the performance of a sustainable index.

Regarding loans, they highlight the moderating role played by the number of available funders. Where the pool of available lenders is small, the rate set by a specific lender can influence the firm's cost of capital where the firm has few other borrowing options, exerting a large impact with strong persistence. For bigger or more mature firms that can access loans from multiple sources, tap bond and equity markets, and are likely to have access to a wider group of banks, the impact of the decision of any one lender is likely to be more moderate, with more variable persistence.

That work shows that many of these asset classes may have only limited opportunities for impact in the real economy, or that this impact is contingent on coordinated action and/or a confluence of factors over which investors only have partial control.

The impact potential of product categories

As said in the previous section, there is a wide variety of practices within each asset class. A more granular analysis, at product category level, is possible and desirable. Here, **a product category is defined as a subset of an asset class (or a product type) marked by the application of a specific strategy or a restriction to a specific segment of securities within the asset class**.

In a preliminary paper, 2DII (2021b) investigated the climate impact potential of ten product categories. For each of them, we provided an analysis of their climate impact potential based on their activation of (a slightly modified version of) the different impact mechanisms proposed by the IMP and, when possible, on the existing research on the specific effectiveness of those mechanisms when applied to the products.

In a follow-up work applying the same methodology, 2DII designed "climate impact product factsheets" for 9 product categories. The figure below provides an example of such a factsheet for green bonds.

Figure 4: example of climate impact product factsheet (2DII, 2021b)

Example: Green bonds

Impact mechanisms

	Description of the mechanism	Deployment by products from the category
Price signaling	Do investments in the product send clear price signals that may positively influence the behavior of economic agents (i.e., issuers or investors) regarding their climate policy?	YES (green bonds currently trade at a "greenium", i.e. a decreased yield compared to conventional bonds from the same issuer)
Underserved markets	Do investments in the product finance holders of green projects with difficult access to financing?	NO (they de facto target large companies with no difficulty to access funding)
Flexible capital	Do investments in the product provide capital to holders of green projects at flexible conditions (e.g., at lower cost or with a risk transfer compared to market terms)?	UNCLEAR (there is currently a "greenium" in bond markets at the issuance but it seems too small to influence issuers)
Commitment to a B2DS	Do investments in the product create a strong incentive for project holders to align with a scenario well below 2°C?	CONDITIONAL (to the standards the purchased bonds follow)

Observed effects on climate

Number of research papers investigating the effect of the product category on climate metrics (as of 2021/12/31)	8
% analyses that obtain a positive effect (at climate KPI level)	68%

The dual method (combining an analysis of impact mechanisms used and academic evidence of positive outcomes) led us to assign a high, medium or low impact potential for the nine product categories, as displayed in the following figure.

Figure 5: climate impact potential of green products (2DII, 2021b)

High impact potential		• Green equity crowdfunding • Green peer-to-peer lending • Green private equity funds • Green private debt funds • Green infrastructure funds
Medium impact potential		• Green bond funds • Green deposits
Low impact potential		• Green thematic equity funds • Green low-carbon equity funds

A problem with the dual method used in those two previous works is that research on the observed outcomes of green financial products at the investee level is particularly limited. Apart from the study of impact mechanisms, we conducted a literature review on product outcomes based on keywords (e.g., carbon emissions, carbon intensity, avoided emissions, climate strategy, carbon footprint, temperature score…) to link financial products to observable climatic outcomes. We could identify only a handful of papers dealing with this issue, and more than two thirds of them focused on one single structure: green bonds.

In a way, the absence of academic papers evaluating the real-life outcomes of sustainable financial products or categories matches the lack of information provided by product manufacturers regarding the achieved impact of their solutions.

Consequently, **in the framework presented in this paper, we will adapt the methodology to concentrate on impact mechanisms applied by products irrespective of the evidence of the real-life outcomes of these products.**

The impact implementation of financial products

Variations within product categories

As said before, in each asset class not all products share the same impact potential as they vary in their practices (strategy used, intensity, etc.). That identically holds for narrower product categories, even if on paper all products could apply the same impact mechanisms.

In practice, the impact potential of specific products will depend on their actual ability to leverage mechanisms they are supposed to use to achieve impact. Fortunately, research has largely documented success factors of the various impact mechanisms.

Moderators of impact success

When does the use of the various impact mechanisms lead to the expected impact? Based on academic research, we have identified a list of success factors for each of them. They are documented in **a joint series of discussion papers.**

Grow new/undersupplied markets

The identified success factors for this mechanism are the following:

- **The impact potential of investments:** impact depends on the ability to identify projects for which the provision of fresh and innovative capital will lead to a positive impact through the bolstering of growth. It requires the ability to select projects with (existing or future) positive impact.
- **The financial needs of investees:** impact depends on the ability to identify project holders that lack access to traditional financing or for which traditional financing does not match the specific needs. As said before, some segments of the economy are more likely to be affected by external financing conditions. Firms, particularly large ones, can also use internal finance (retained earnings) to finance projects with little or no exposure to external funding costs. Indeed, listed firms generally have enough cashflow and cash reserves to be largely self-financing if required, such that the cost and conditions of (external) capital matter less to them.
- **The innovativeness of the financial solution:** impact depends on how much the terms (duration, risk transfer, etc.) of the financial solution proposed diverge from existing solutions. The magnitude of the divergence to market terms affects the capacity of innovative products to influence the growth/transformation pathway of investees vs a scenario in which they would rely on conventional sources of financing.
- **The tailoring of the financial solution:** finally, impact depends on how much the solution proposed is adapted to the specific needs of the project to be financed.

For a more in-depth discussion of the mechanism and its success factors, see the associated paper:

Discussion paper #1: Grow new/undersupplied markets

Provide flexible capital

The identified success factors for this mechanism are the following:

- **The impact potential of investments:** impact depends on the ability to identify projects for which the provision of concessional capital will lead to a positive impact through the bolstering of growth. It requires the ability to select projects with (existing or future) positive impact.
- **The needs of investees of flexible capital to grow:** due to market failures, some positive-impact projects may prove to be non-viable if financed at market terms. The provision of flexible capital by impact investors in isolation or combined with additional capital by conventional investors may then make them possible. To be impactful, the provision of flexible capital should be a condition for the project implementation and not represent a windfall for the project holder (i.e., when the project is still viable even if financed at market terms).
- **The magnitude of the divergence to market terms:** it mechanically influences the capacity of flexible capital products to influence the growth/transformation pathway of investees. Especially, the difference in rates between debts associated to green projects and other debts is keen to affecting the strategic priorities of companies. For instance, a lot of empirical work has been done about the greenium attached to green bonds or green loans. They obtain a very small or even negligible greenium (between 0 and 20 bp) that seems too small to affect the volume of green investments or the arbitrage between green and non-green projects by companies.
- **The design of the incentivization scheme**: some incentivization mechanisms may prove to be poorly designed to motivate companies to change. For instance, research by Kölbel and Lambillon (2022) and Auzepy et al. (2022) respectively show that the current features of many sustainability-linked bonds and sustainability-linked loans are improper to create effective incentives for improving corporate sustainability performance.
- **The internal rate of return of sustainable projects:** the importance of reducing cost of capital is enhanced when the IRR of sustainability-related projects is located around the WACC. If so, reductions by concessional investors can turn some ustainability-related projects from non-viable to viable.

For a more in-depth discussion of the mechanism and its success factors, see the associated paper:

Discussion paper #2: Provide flexible capital

Engage actively

Active engagement can take the form of shareholder engagement or the provision of non-financial support. For those two types, we have highlighted a list of moderators of the impact success.

For shareholder engagement and voting:

- **Size:** there is evidence that engagement requests are more likely to succeed when the shareholder engaging holds a larger share of the targeted company (Dimson et al., 2015; Dimson et al., 2019).
- **Resources:** active shareholder engagement also requires financial and human resources. Financial costs relate to information acquisition, strategy implementation and external legal counselling. Activist shareholder campaigns have been estimated to cost millions of euros (Gantchev, 2013). For instance, the

total cost of the high-profile successful Exxon campaign by Engine n°1 has been estimated for the asset management firm at around $30 million[6].

- **Access to management/board:** it has also been convincingly argued that engaging investors benefit from having a strong relationship and/or cultural awareness of the target company. The role of cultural connection has been emphasized by Dimson et al. (2019) who found that a group of investors engaging had more influence when the engagement was spearheaded by an investor who is from the same country as the company being engaged, suggesting that linguistic and cultural elements may play an important role. This is also consistent with the finding in Kim, Wan, Wang, and Yang (2019) that institutional shareholders are especially likely to commit resources to ESG engagement with companies that are located nearby.
- **Specific objectives and clear milestones:** objectives should be specific and targeted to enable clarity around delivery and the engagement approach should be bespoke (tailored) to the target company. For instance, FinanceMap stresses that engaging investors should use a defined structure for engagement and milestones to measure progress against.
- **Detailed escalation policy:** it is also commonly admitted that engaging investors should have a detailed escalation policy. For instance, escalation is one of the 12 principles of the 2020 UK Stewardship Code while the former UK Code set out a helpful list of escalation measures that can be considered to advance engagements.
- **Full use of shareholder authority:** to be effective, engagement escalation policies should include offensive actions to be used as credible threats in case engagement requests were ignored by engaged companies. Those offensive actions include divesting, putting the company on exclusion list, filing shareholder resolutions, driving anti-management voting campaigns at AGMs, litigation, etc.
- **Coordinated engagement:** the evidence on the effectiveness of implicit or explicit coordination is mostly positive. Studying a sample of international hedge fund activists, Becht et al. (2017) report that engagements by multiple investors perform better than those by a single organization. Wong (2020) finds that the presence of a wolf pack is positively associated with the success of hedge fund campaigns. Kedia et al. (2020) document that cooperation between hedge funds and like-minded institutions increases the likelihood of success in engagements with investee companies. Dimson et al. (2015) obtain that collaboration with other shareholders and/or stakeholders significantly improves the success rate of engagements, especially those on environmental and social topics. Gillan and Starks (2000) observe that shareholder proposals on corporate governance issues sponsored by coordinated groups gain substantially more support than those sponsored by individuals.

And for the provision of non-financial support:

- **The identification of investees' needs:** to maximize its impact, the impact investor should propose services that match investees' needs and, for that purpose, build on a structured elicitation mechanism,
- **The personnel allocated to non-financial support:** the impact investor should also have (internal or external) expert staff to allocate to the support of investees,
- **The financial resources dedicated to non-financial support:** the impact investor should have adequate financial resources to allocate to the support projects though internal or external financing,
- **The systematicity of non-financial support:** to maximize impact, the impact investor should propose tailored non-financial support to all investees and not restrict it to a few of them (e.g., those asking for support).

For a more in-depth discussion of the two mechanisms and their respective success factors, see the associated papers:

[6] Naef (2022)

Discussion paper #3: Shareholder engagement and voting

Discussion paper #4: Non-financial support

Signal that impact matters

Investors can send market and non-market signals that they are committed to impact with the intention to foster attitude change by companies. Market signals through investments and divestments contribute to change the prices on (public or private) markets and the conditions to access capital for companies. Investors can also send signals that do not directly affect financial markets but may influence stakeholders through stigmatization (i.e., publicly stating opposition to certain companies or industries), endorsement (i.e., displaying public support) or demonstration (i.e., pioneering investments in a sector to generate imitation by followers).

For those two types of signaling, we have highlighted a list of moderators of the impact success.

Regarding market signaling:

- **the deviation from conventional index of the sustainable allocations:** sustainable funds can significantly affect prices only when their allocation significantly varies from the conventional benchmark,
- **the elasticity of stocks:** the more inelastic the stocks are, the easier it is to influence prices. All else being equal, it is more effective for large stocks that are more inelastic than small caps (because passive investors hold them whatever happens) and for stocks that lack substitutes. The effect of investors' screening approaches is likely to be higher for companies whose assets are not easily substitutable. The models of Heinkel et al. (2001) and Fama and French (2007) show that the capital allocation of sustainable investors has a stronger effect on the prices of assets whose returns are only weakly correlated with the market portfolio - that is, assets that are not easily substitutable. Counterbalancing sustainable investors' demand for these assets requires a higher and costlier deviation from an optimally diversified portfolio from neutral investors than is the case for stocks that have very close substitutes.
- **the size of the sustainable inflows or outflows vs the investment universe:** the effect is larger when capital is deployed/withdrawn on smaller segments of the market,
- **the concentration of trades by sustainable investment funds:** the more investment funds concentrate on a few holdings, the stronger is the effect they can have on market prices (when assets under management held constant),
- **the similarity of screening filters across sustainable funds:** the more homogeneous the screenings are, the more effective are investments/divestments of each fund in affecting market prices. This advocates for a harmonization in screening criteria, as permitted by the introduction of regulations (like the EU taxonomy) or by the reliance on ETFs tracking the same ESG indices,
- **the fraction of wealth commanded by sustainable investors:** equilibrium models indicate that the total effect of screening approaches on asset prices, as well as the marginal effect per additional dollar involved, increases with the fraction of wealth commanded by investors that apply the same screening approach,
- **the cost of reform:** a change in market prices due to a sustainable screening approach is more likely to cause companies to improve their ESG practices or their contribution to SDGs if the costs for a company to implement the necessary reforms (to conform to the requirements embodied in the screening) are low, as emphasized in the models of Heinkel et al. (2001) and Gollier and Pouget (2014),

- **the reliance on market financing:** another condition is that companies have necessity to raise more capital through markets to develop.

And regarding non-market signaling:

- **the investor salience:** a drop in the share price of stigmatized companies and consequential actions by the targeted companies is only possible if the announcing stakeholder is powerful or owns legitimacy[7],
- **the coordination between investors:** the effect of any individual stigmatization/endorsement is enhanced when done in coordination with other investors,
- **the importance of social norms among investors:** the effect of collective stigmatization/endorsement movements on market prices is even stronger in financial markets with higher social norms. The performance of sin stocks, for instance, varies considerably between markets with high and low social norms. The stigmatization of fossil fuel stocks by prominent investors will alter other investors' decisions more in markets with high social norms and/or with high concern about climate change[8].
- **the importance of companies' ESG reputation to stakeholders:** if stakeholders prefer to work with suppliers or employers who are more concerned about their sustainability, the targeted company will have more incentives to respond to stigmatization by implementing new or better practices to retain its customers or employees,
- **the cost of reform:** when stigmatized, companies will comply more with demands which will entail relatively low costs.

For a more in-depth discussion of the two mechanisms and their respective success factors, see the associated papers:

Discussion paper #5: Market signalling

Discussion paper #6: Non-market signalling

A hierarchy of impact mechanisms?

Even if it would be highly valuable for investors, it is currently impossible to build a clear hierarchy of impact mechanisms in terms of impact potential per euro invested as i) comparative empirical studies do not exist and ii) the practical effectiveness of those mechanisms strongly depends on many moderators.

Nevertheless, several points can be made to assist impact-motivated investors in their reflection about which strategy to implement for achieving or maximizing real-life impact:

[7] Mitchell et al. (1997).
[8] Fauver and McDonald (2014).

1) **Only four mechanisms are convincingly supported by theoretical and empirical evidence (excluding the two forms of signaling),** a situation that was already highlighted by Heeb and Kölbel (2020),
2) **These four also are the only mechanisms to have a direct effect on investees.** The remaining two (market and nonmarket signaling) have an indirect effect through market prices or other stakeholders. As such, their success is conditional on actions by others. In other words, those mechanisms imply a high impact risk.
3) **Grow undersupplied markets, flexible capital and non-financial support build on a continuation and extension of current activities by investees** while other mechanisms (at least in some forms like exclusions, divestment or stigmatization) are pushing for a change in investees' activities. The latter will only deliver impact if the investees' managers accept to implement the required changes, creating another source of impact risk.
4) **Shareholder engagement and (market and nonmarket) signaling are size/coordination/reputation dependent** while other mechanisms are not. With those specific mechanisms, it is more probable to end up with a zero impact when minimum magnitude is not attained. This contingency is a third source of impact risk.
5) **Shareholder engagement is commonly preferred to divestment by academic researchers and institutional investors.** For instance, Broccardo et al. (2020) developed a model to compare "exit" and "voice" strategies of investors and consumers. Investors or consumers can exercise their exit option by divesting from polluting companies or boycotting their products; or investors can use their voice by voting or engaging with management. Their simple model suggests that in most situations the voice strategy dominates the exit one. Krueger et al. (2020) surveyed institutional investors and found that they consider engagement rather than divestment to be a more effective approach to address climate risks.
6) **Engagement appears to be the most effective impact tool in secondary markets** (especially in the public equity market due to shareholders' right to vote) where investors do not directly finance investees and can have tough difficulties affecting market prices or orienting other investors' behavior.

The table below displays the specificities of the various impact mechanisms.

Table 4: Characterizing and comparing impact mechanisms

	The effect on investees is direct	The effect is not dependent on investees' acceptance to reform	The effect (per euro invested) is non contingent on size / coordination / reputation	How the mechanism is supported by academic evidence
Grow new/undersupplied markets	✓	✓	✓	Strongly supported
Provide flexible capital	✓	✓	✓	Strongly supported
Provide non-financial support	✓	✓	✓	Strongly supported
Engage and vote	✓	✗	✗	Strongly supported
Send market signals	✗	✗ (exclusions)	✗	Partially supported
Send non-market signals	✗	✗ (stigmatization)	✗	Poorly supported

Chapter 2

Presenting multiple variations of impact evaluation

What to evaluate: from investee outputs to investor impact

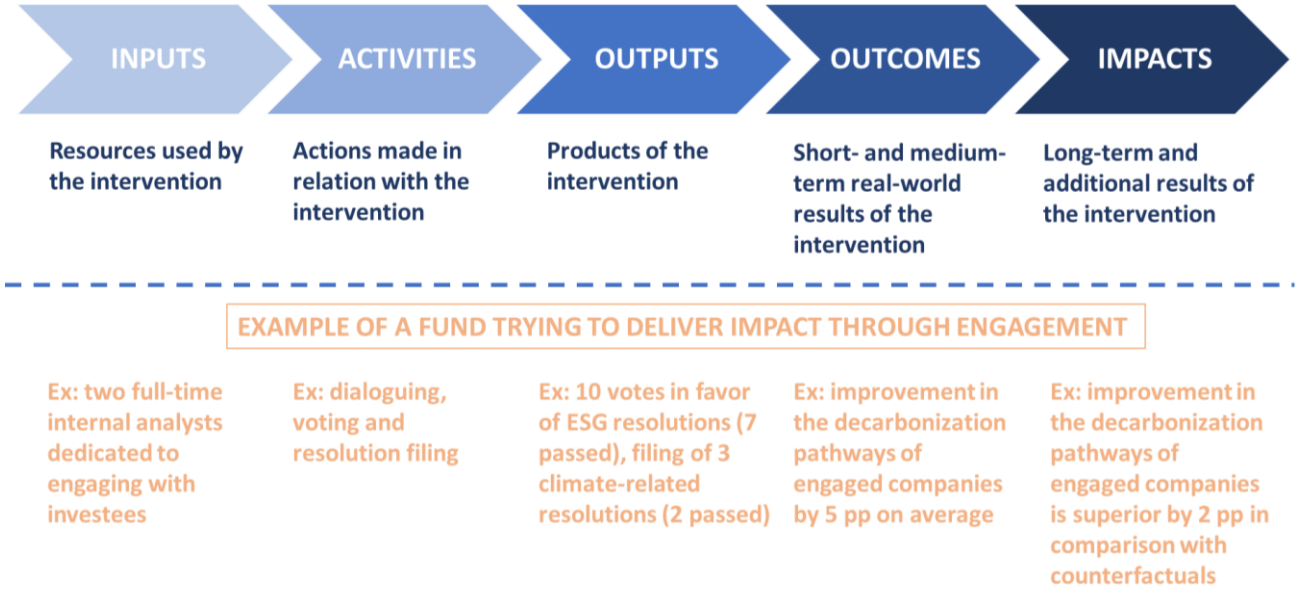
The logic chain of (investee) impact

Impact is about final outcomes and not about intermediary stages. It is widely accepted to differentiate between concepts of “outputs,” “outcomes”, and “impacts” of economic activities.

“Outputs” are the direct products (in the form of goods and services) of the activities of an organization.
“Outcomes” indicate the positive changes to the social or environmental system generated by the activity of an organization.
Finally, “impact” refers to the portion of the total outcome generated by the organization that occurs “above and beyond what would have happened” without the organization’ actions. Frequently, this requires the development of a counterfactual scenario.

Consequently, in more precise terms, impact is the causal and additional outcome to the world in comparison with a counterfactual baseline scenario.

Figure 6: the logic chain of impact



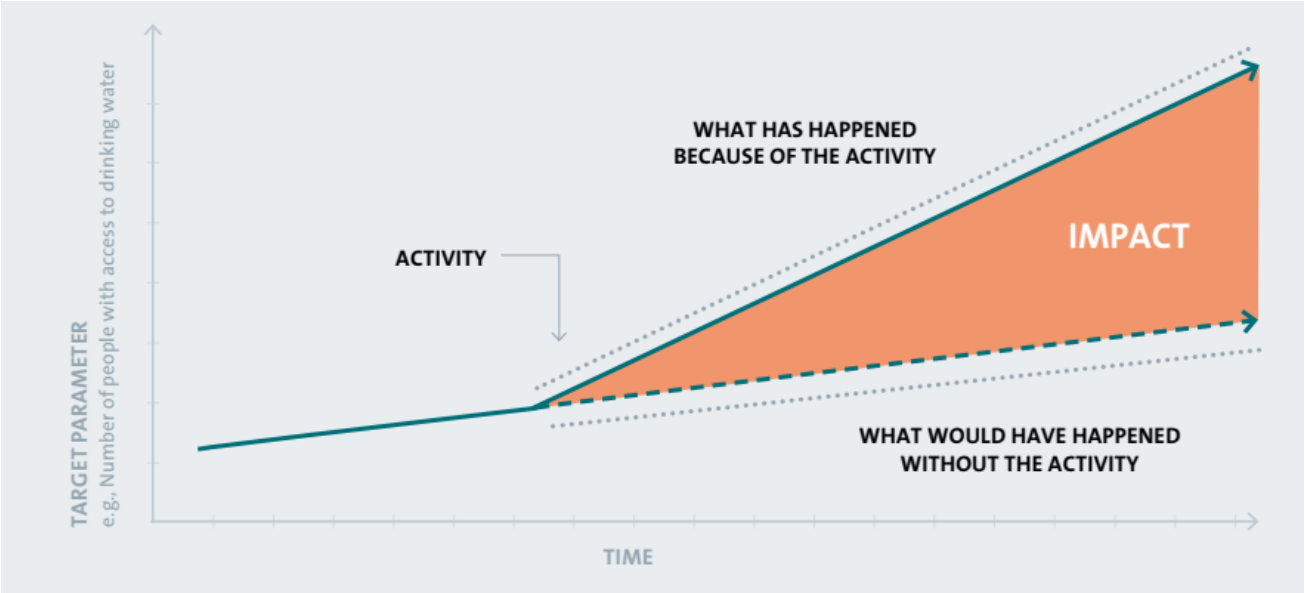
Avoiding the confusion between investee impact and product/investor impact

When applied to investees (companies, governments, associations, households, etc.), impact becomes investee impact and is the additional outcome to the world caused by the investee compared to a counterfactual (and hypothetical) scenario when the investee would not exist.

An enterprise can have impact in several possible ways[9]:

- Product impact is the impact of the goods or services produced by the enterprise (e.g., providing anti-malaria bed nets, clean water, financial services, or energy-efficient devices).
- Operational impact is the impact of the enterprise's processes on its employees' health and economic security, its effect on jobs or other aspects of the well-being of the community in which it operates, or the environmental effects of its supply chain and operations

Figure 7: visualization of the impact of an activity



Source: Heeb and Kölbel (2021)

Similarly, investor impact is the additional outcome to the world caused by the investor compared to a counterfactual scenario when the investor (or funder in the case of financial institutions providing loans) would not exist.

Investor (or funder) impact corresponds to the change(s) induced through investing and lending activities in the impact of invested companies.

Of course, aside from investors/funders, other stakeholders (such as NGOs, medias, public administrations, consumers…) also have an impact through their actions towards companies. And the impact of funders may be mediated by other stakeholders, for instance when a financial institution lobbies to influence the regulation to which companies must comply.

The impact of investors and other actors ultimately depends on the (variations of) impact of the investees they support.

When investors directly invest in companies, it results in a two-stage chain of impact, as in figure 8.

[9] Brest and Born (2013), "Unpacking the Impact in Impact Investing", Stanford Social Innovation Review.

It is crucial to understand that investing in positive impact companies does not always lead to a positive investor impact. Sometimes, the investor impact of such a strategy will be null, for instance when investors buy securities from other investors in secondary markets, failing to make a change on investees.

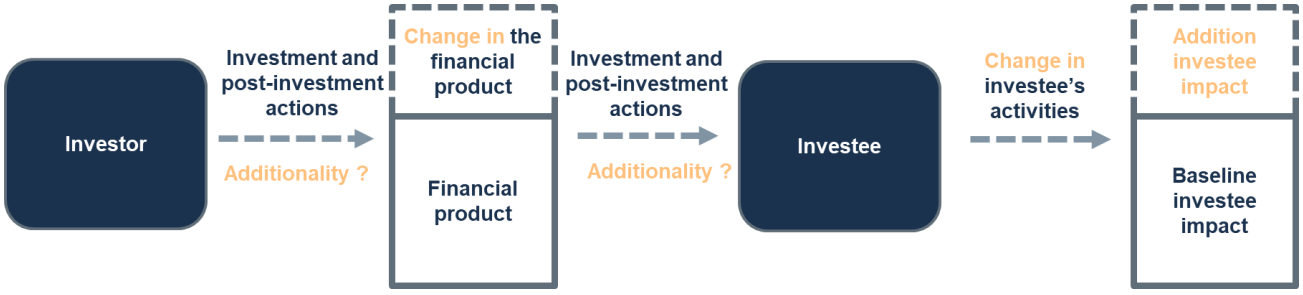
Figure 8: the impact chain in the case of direct investments

We can also apply the impact definition to financial products that operate as intermediates between investors and investees. Such an application would permit to discuss the impact of sustainable securities (e.g., green bonds or sustainability-linked bonds) or sustainable funds (e.g., ESG funds or low-carbon funds).

In that case, product impact would be the additional outcome to the world caused by the current use of the financial product compared to a counterfactual scenario where the product would not exist or not be used. In such a counterfactual scenario, investors invest in a different way and investees get financing or refinancing through other means.

For situations in which investors invest through financial products (like funds), the impact chain would be more accurately graphically represented as a three-stage process, as illustrated below. Three levels of additionality can be assessed[10]: at the investee, product and investor levels. Companies only have a positive impact if their activities make a positive difference. Financial products only have a positive impact if their actual use (by investees and investors) make a positive difference. Finally, investors only have a positive impact if their personal investments in financial products make a positive difference.

Figure 8: the impact chain in the case of intermediated investments



It is noteworthy that a product can have a positive impact while the investor does not have a positive impact by using the product. It occurs when the investment has already been made by another investor or would have been made by another investor and the substitution does not cause any improvement to the world. It only leads to a portfolio reallocation between (two or more) investors, like a zero-sum game.

[10] As in Hockerts et al. (2022).

This especially happens with closed-end high impact products, at issuance if they are oversubscribed (primary market) or later (secondary market). It is like the investor investing in such a product would be (quite superficially) attributed a positive impact at the detriment of other investors by replacing them.

Therefore, an impact-focused investor would counterintuitively increase his own (real) impact by letting regular investors purchase those oversubscribed high-impact products because he would then be capable to reallocate the money to other investments with higher impact compared to those that would be funded by standard investors.

How to evaluate: a multitude of approaches

The difficulty to evaluate impact

Desperately searching for causality and additionality

In the most general terms, impact is the **causal and additional outcome** to the world in comparison with a counterfactual (baseline) scenario.

Causality (also referred to as causation) is influence by which one event, process, state, or object (a cause) contributes to the production of another event, process, state, or object (an effect) where the cause is (at least partly) responsible for the effect, and the effect is (partly) dependent on the cause[11].

Causality qualifies a relationship between an action and an outcome. Three conditions are often presented as necessary to establish a causal relationship[12]:
- the action has to precede the observed outcome,
- the presence or absence of the action has to be correlated with the presence or absence of observed outcome,
- and there cannot be any other plausible rival explanatory factors that could account for the correlation between the action and the outcome.

The use of a counterfactual makes it possible to establish a causal link by respecting these three conditions[13].

Additionality is the property of anything (an action, an output, an outcome, etc.) being additional by adding something new to the context. Additionality requires a comparison of the actual state-of-the-world to a baseline scenario.
Unlike causality that qualifies the relationship between two objects (a cause and an effect), additionality qualifies objects. In particular, additionality can cover actions or outcomes. An action is additional when it adds to existing actions performed by others (and does not substitute them) and an outcome is additional when it adds to what would have occurred without the implementation of an action.

Additionality of outcomes can also be established thanks to counterfactual methods.

By definition, **impact requires that the observed outcome should be caused by the action analyzed AND be additional[14].**

The fundamental evaluation problem

[11] See for instance Wikipedia's article on "causality".
[12] McDavid and Hawthorn (2006).
[13] Menzies (2014).
[14] As in OECD (2019).

By nature, impact evaluations suffer from a fundamental evaluation problem: the counterfactual that is required to assess causality and additionality cannot be observed (for the same action at the same time) because there is no parallel world in which the action analyzed would not be implemented. The effect cannot be observed simultaneously in two different states (with and without the action). Hence, instead of using a real counterfactual, we need to find a good proxy from a comparison group.

This is called the “counterfactual problem”: How do we measure what would have happened if the other circumstance had prevailed?

We need to fill in this missing piece of information by estimating the counterfactual. Solving the counterfactual problem would be easily done if one could find a “perfect clone” for each of the treated units by an intervention, or in a financial context, if an investor could find a “perfect clone” for each of its investees.

In reality, we know that it is impossible to identify perfect clones.

Second-best options

We therefore need to rely on second-best options to assign counterfactuals to any investee that would lead only to an imperfect proof of the causality and additionality. Many different evaluation designs exist that lead to differing degrees of confidence in the extent to which an evaluation is able to establish causality and additionality.

As noted, in the absence of perfect proof, one is often left not fully confident that an evaluation has established causality and additionality. In such cases, evaluators often look to supplementary analyses, other data, and situational factors to undertake a form of triangulation to establish greater confidence. If multiple, and diverse additional sources of insight (each of which is in and of itself insufficient to establish causation) are all consistent with a causal explanation, then one can have greater confidence. Diversity of sources and approaches is important in this triangulation exercise.

A proliferation of methods

Recently, strands of research have focused on impact evaluation from a public administration perspective[15], social enterprise perspective[16], and investor perspective[17].

Over the last decade, much progress has been made in tracking changes in social and environmental outcomes that are associated with investments. In practice, many impact investment firms are developing their own in-house frameworks. The flipside of such a dynamism is an inconsistency in how impact investors approach impact evaluation that complexifies any attempt of harmonization.

A review[18] of the burgeoning impact evaluation literature (peer reviews and grey literature) indicates that there is a substantial body of literature that describes the steps a social impact evaluation should take, but with little prescription as to the recommended approach, and even less focus on exact tools or instruments for data collection or analysis – with much left to the discretion of the evaluator or impact investor.

Existing methods to evaluate impact

[15] Gębczyńska and Brajer-Marczak (2020).
[16] Lall (2019), Epstein and Yuthas (2017).
[17] Reisman and Olazabal (2016), Gianoncelli and Gaggiotti (2021).
[18] For a recent one, see Strano et al. (2021).

Quantitative methods

Multiple quantitative impact evaluation methods coexist. They vary according to their capability to design appropriate counterfactuals and control for different confounding factors.

Confounding factors are credible alternate explanations for an observed (possibly spurious) relationship between an action and an outcome. Confounding factors lead to an upward or downward bias in the impact evaluation. Typical confounding factors in impact evaluations include selection biases, interfering events, positive and negative spillovers, etc.

Counterfactual methods

Counterfactual analysis enables evaluators to attribute cause and effect between actions and outcomes. The 'counterfactual' measures what would have happened to beneficiaries in the absence of the intervention, and impact is estimated by comparing counterfactual outcomes to those observed following the action.

The key challenge in impact evaluation is that the counterfactual cannot be directly observed and must be approximated with reference to a comparison group. There are a range of accepted approaches to determining an appropriate comparison group for counterfactual analysis, using either prospective (ex ante) or retrospective (ex post) evaluation design[19].

Within this group of methods, it is important to distinguish between experimental and quasi-experimental approaches.

Under **experimental evaluations**, the treatment and comparison groups are selected randomly and isolated both from the intervention, as well as any interventions which may affect the outcome of interest. These evaluation designs are referred to as **randomized control trials (RCTs)**. The experimental approach is often held up as the 'gold standard' of evaluation. It is the only evaluation design which can conclusively account for selection bias in demonstrating a causal relationship between intervention and outcomes.

When randomization is implemented over a sufficiently large sample with no contagion by the intervention, the only difference between treatment and control groups on average is that the latter does not receive the intervention. As RCTs lead to balanced samples in both observed and unobserved characteristics, observed outcome differences between the two groups can be solely attributed to the treatment.

Perfect randomization and isolation from interventions might generally not be practicable in the realm of social financing. For instance, it has been estimated that RCTs might be only applicable to 5 percent of development finance[20].

Because randomized experiments are often neither feasible or desirable, evaluators have developed multiple evaluation designs that compare outcomes across two groups - one made up of participants in a program and the other individuals not in a program - for which assignment to each group is not random and is due to multiple factors (often unknown to an evaluator) that determined who is in which group. Such approaches are based on observational, quasi-experimental designs, so designated because an aspect of the program design and context enables researchers to identify causal effects even in the absence of randomization.

Quasi-experimental methods use savvy techniques to provide counterfactuals in absence of randomization and perfect control of the environment. They notably include:

- (Propensity Score) Matching
- Difference-in-Differences
- The Aggregate Control Method

[19] Caliendo (2018), An Introduction to Counterfactual Impact Evaluation.
[20] Bamberger and White (2007)

- Instrumental Variables
- Regression Discontinuity Designs

Quasi-experimental methods allow for a way to verify outcomes in the cases where an RCT is too costly, impractical, and/or unethical (e.g., denying people of treatment by random order). These methods are generally more flexible and less costly than RCTs and can make good use of available data (e.g., historical data). Conversely, they may suffer from important limits in their ability to rule out exogenous factors, depending on the rigor of the counterfactual. For practitioners, they unfortunately require a lot of data, which makes them not suitable in all contexts.

Non-counterfactual methods

Other quantitative evaluation methods don't try to provide proper counterfactuals. Non-counterfactual designs are the weakest quantitative evaluation design, because to show a causal relationship between intervention and outcomes convincingly, the evaluation must demonstrate that any likely alternate explanations for the outcomes are irrelevant. Non-counterfactual methods cannot do that.

Within this group, we can position i) before/after designs and ii) casual comparisons.

A common method used in non-experimental evaluation is to compare intervention groups before and after implementation of the intervention. A **before/after comparison** attempts to establish the impact of an action (an investment) by tracking changes in outcomes for beneficiaries (investees) over time. In essence, this comparison assumes that if the action had never existed, the outcome for beneficiaries would have been exactly the same as their situation before the action or would have followed the preexisting trend.

Those types of evaluation fail to demonstrate that any likely alternate explanations for the outcomes are irrelevant. Indeed, other factors besides participation may have changed during the before and after periods.

It is commonplace for impact funds to disclose longitudinal changes of impact KPIs of their investees in annual impact reports without proposing any type of comparison benchmarks or providing a detailed connection between their actions as an investor and the observed outcomes. We consider that this very basic approach, when used in isolation, is vastly insufficient to quantify investor impact or demonstrate investor contribution.

Casual comparison studies compare the outcomes of a group treated with those of a group of comparable units whose features have not been carefully matched. Without randomization, unobserved factors are not controlled for while observed ones are only superficially taken into account in the definition of the comparison group. If done across small samples, micro interfering events can also bias the evaluation.

Qualitative methods

Qualitative analyses offer rich and valuable insights not possible through quantitative methods. These methods give stakeholders a voice by soliciting their feelings, attitudes and beliefs about an outcome. Qualitative methods also help evaluators identify and understand intangible factors that may influence an intervention's success. And, importantly, qualitative methods can help interpret quantitative results by giving evaluators a deeper understanding of the complex relationships between the internal and external factors that influence the outcomes of an intervention.

Common qualitative methods include observations, focus groups, interviews, and open-ended survey questions, as well as their variations.

Qualitative tools are typically not used as a singular option in the evaluation of outcomes and impact. They are more likely to be a complementary activity carried out alongside other reporting tools and methods. This balance meets requirements to get a 'human touch' towards an intervention, or to find complementary supporting evidence of a perceived change in the data.

Qualitative methods are not doomed not to be representative. Acumen's approach, for instance, allows statistically significant numbers of individuals to be met at relatively cheap cost, while the qualitative impact protocol (QuIP)[21] ensures academic rigor, causal mechanisms to be clearly defined, and an objectivity in understanding differential impact.

Hybrid methods

Targets, ratings and scorecards are hybrid methods that mix qualitative and quantitative assessments. They are another, slightly more complex, form a showing alignment of outcomes with the impact investor's goals. Outcomes can be assessed against predefined targets[22]. Baseline data are collected at the time of investment, and targets are (often) agreed in conjunction with the investee, and monitored throughout the course of the investment. Investees are typically assessed based on how well they have progressed against the targets.

These frameworks are typically easy for internal and external stakeholders to understand, therefore providing clarity and credibility about the investor's intent and progress against performance goals. But, because different types of investments will have different KPIs and targets, this approach does not easily provide a basis for comparison and aggregation between different investments. And the method does not allow to draw any conclusion between the investor's actions and the achieved outcomes.

Outcomes can also be rated or transformed into a score in order to be normalized and aggregated at portfolio level[23]. This variation does not lift the aforementioned limitation that the approach cannot demonstrate causality.

Theory-based methods

Theory-based approaches to evaluation use an explicit theory of change to draw conclusions about whether and how an intervention contributed to observed results[24]. Theory-based impact evaluation may be contrasted with the 'black box' approach of counterfactual methods. The latter often simply reports an impact, being interested in the statistical significance of the coefficient for the average treatment effect, but makes no attempt to answer the "why" and "how" questions.

A theory-based approach to evaluation can help address these shortcomings. In the absence of an overall experimental design, it provides a way to assess the extent to which an intervention has produced or influenced observed results. It also opens the black box, examining what precise role the intervention played in producing the observed results.

Theory-based approaches to evaluation use an explicit theory of change to draw conclusions about whether and how an intervention contributed to observed results. Those approaches, which examine the assumptions underlying the causal chain from inputs to outcomes and impact, are already well-established as they have long been used by some practitioners of experimental and quasi-experimental approaches as a way of explaining their findings[25]. Some researchers[26] consider that a theory-based approach would be appropriate for all impact evaluations.

Theory-based evaluation is more an approach to evaluation (i.e., a conceptual analytical model) than a specific method or technique. It is a way of structuring and undertaking analysis in an evaluation. There is no

[21] Accessible here.
[22] IFC (2019).
[23] Ibid.
[24] For an extensive presentation of those approaches, please refer to the Treasury Board of Canada Secretariat Canada's "Theory-Based Approaches to Evaluation: Concepts and Practices", accessible at: https://www.canada.ca/en/treasury-board-secretariat/services/audit-evaluation/evaluation-government-canada/theory-based-approaches-evaluation-concepts-practices.html
[25] Blackman and Reich (2009).
[26] Rogers (2009).

agreed classification of theory-based approaches. Indeed, in recent years, there has been a proliferation of theory-based approaches and numerous variations within each approach.

A major category of theory-based approaches are **theory-of-change approaches**. These approaches involve developing a theory of change for the intervention showing how the specific intervention is intended to work and the assumptions behind the theory. The theory of change is usually developed and then confronted with a range of stakeholders' views and information sources.

One theory-of-change approach, **contribution analysis**, argues that if an evaluator can validate a theory of change with empirical evidence and account for major external influencing factors, then it is reasonable to conclude that the intervention has made a difference. The theory of change provides the basis for arguing that the intervention is making a difference and identifies weaknesses in the argument, thus identifying where evidence for strengthening such claims is most needed. Causality is then inferred from the following evidence:

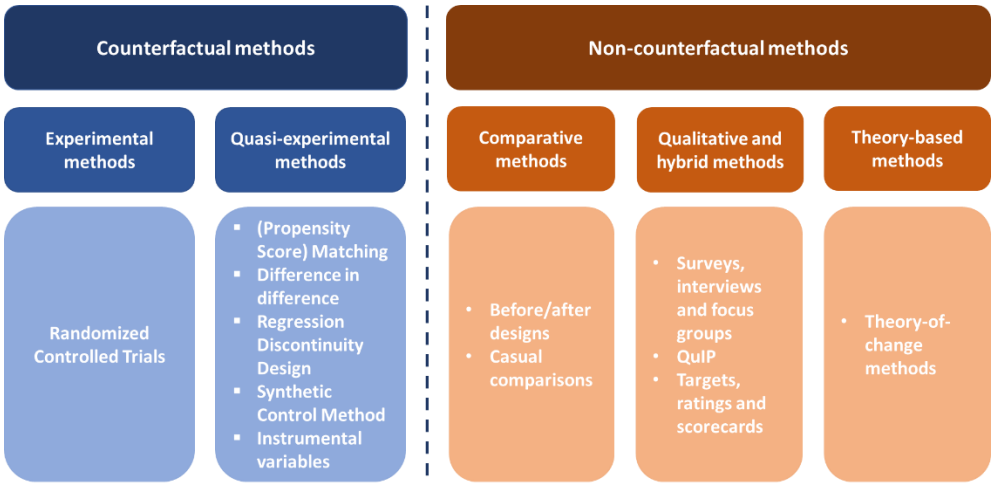
- The intervention is based on a reasoned theory of change,
- The results chain and the underlying assumptions of why the intervention is expected to work are sound, plausible, and agreed to by key players,
- The activities of the intervention were implemented,
- The theory of change is verified by evidence: the chain of expected results occurred, the assumptions held, and the (final) outcomes were observed.
- External factors (context) influencing the intervention were assessed and shown not to have made a significant contribution, or if they did, their relative contribution was recognized.

In the end, a conclusion (a contribution claim) is made about whether the intervention made a difference.

A 360° view of impact evaluation methods

The figure below summarizes the various approaches to impact evaluation.

Figure 9: a 360° view of impact evaluation methods



Mixing methods

As non-counterfactual methods suffer from a conceptual flow (i.e., their inability to control for confounding factors and, consequently, to demonstrate causality and additionality), a common practice is to mix several of them to conclude about the impact of an intervention.

Mixed-method approaches combine in complementary ways different methodological approaches, most often a quantitative plus a qualitative one. The effectiveness component (often quantitative) provides a level of confidence regarding additionality (did the action work and to what extent?) while the descriptive (often

qualitative component) can substantiate causality and provide insight into the underlying mechanisms that contribute to an action's success (failure).

The current situation: investor impact is never assessed

Nothing beyond investee outcome

So far, most (if not all) impact-oriented financial products do not assess their investor impact. At best, they assess and communicate about real-life outcomes of their investees. On some occasions, those investee outcomes are assessed and communicated vs targets.

Therefore, two crucial dimensions of impact assessment are neglected.

Firstly, they abstain from isolating the portion of the total outcome generated by their investees that occurs "above and beyond what would have happened" without the investees' actions. Whether done quantitatively or qualitatively, this would require the development of a counterfactual scenario that they do not provide.

Secondly, they do not make the walk to the final step of impact evaluation in the financial context, which is about evaluating the investor impact by segregating the portion of investees' impact that could be attributed to the investors' actions through the financial product. Here again, this would require the development of a counterfactual scenario that is missing.

The looming risk of impact-washing

Several years ago, the Rockefeller Foundation warned that if a certain level of rigor in impact measurement is not established across the industry, the label "impact investing" runs the risk of becoming diluted and used merely as a marketing too[27].

Impact investing without a serious impact evaluation, is it still impact investing? Self-labelled impact investments may have a credible narrative of contribution, but lack a system of impact evaluation. Alongside the IFC[28], in absence of credible information about achieved impact, we are tempted to call such investments value-aligned only and consider them as misleading by default.

Despite the importance attributed to measurement within impact investing, recent research indicates an "impact paradox" in the field, which is characterized by the lack of attention and agreement on accepted evaluative approaches[29].

This has led to an ironic situation within the impact investing industry: the premise of 'doing good' has led to increasing claims of social impact by investors, and yet measuring impact has been a low priority for many impact investors[30].

Setting the right standard

Therefore, the financial industry, is urged to set a right standard for self-labelled "impact products".

Creating and sharing robust evidence about achieved impact is a key lever for contributing to greater impact, demonstrating additionality, and for building confidence among potential investors, partners and observers in this emergent industry on its path to maturity. In a way, the impact investing industry faces many challenges

[27] Reisman and Olazabal (2016).
[28] IFC (2019).
[29] Nicholls, Paton and Emerson (2015), Caseau and Grolleau (2020), Kah and Akenroye (2020).
[30] Mudaliar et al. (2016), Gugerty and Karlan (2014).

that are similar to those faced by the microfinance industry in the 2000s, where the lack of non-financial measures threatened to undermine the growth of the sector[31].

It is remarkable that, so far, principles or guidelines for impact investors are industry-led but not regulatory-led. Such a vacancy raises the issue of low-demanding market standards. For instance, we are especially concerned by observing that the industry-led GIIN's methodology for investor impact measurement is based on a non-scientific method of proportional impact attribution[32] that ignores knowledge gathered by decades of practice in the evaluation field.

Not all methodologies share this flaw though. In a white paper drawn for the Eurosif in the context of developing a future standard for sustainable finance product reporting, Busch et al. (2022) proposed five categories of investments, including one for "impact-generating" investments that they distinguish from "impact-aligned" investments. For the former, they recommend that "*the performance measurement of impact-generating investments captures the expected and generated ecological and social impacts on both levels, company and investor impact. Again, these impacts need to refer to ecological or social objectives based on science or accepted sustainability frameworks like the SDGs, planetary boundaries, or human rights. Impact-generating investments differ from impact-aligned investments in that they aim to actively change investees' impacts through investor activities. To provide evidence of their influence, impact-generating investments need to measure their investor impact, both for capital allocation and engagement strategies (see box two for examples of approaches for assessing investor impact). The success of these strategies needs to be monitored regularly. In their engagement processes, for example, impact-generating investments need to hold the investees accountable for the transition towards ecological or social targets*."

Most recently, regulators have nevertheless started reflecting on standards applicable to so-called "impact funds". In the US, the SEC is considering introducing a category of "impact funds" with specific disclosure requirements, including "*how the fund measures progress toward the specific impact, including the key performance indicators the fund analyzes*"[33].

In the same vein, the UK's FCA thinks about adopting three different labels for sustainable financial products, including a "sustainable impact" label. Products classified as such would "*aim to achieve a positive, measurable contribution to real world sustainability outcomes. While sustainable investment products in the other two categories would set objectives that target a particular sustainability profile for their assets, a firm seeking to use the sustainable impact label would commit to deliver and report on its (the investor's) contribution to a positive environmental and/or social sustainability outcome through financial as well as other types of investor additionality.*"[34] Especially, it should rely on "*a robust method to measure and demonstrate that its investment activities have had a positive environmental and/or social sustainability impact*" and "*in specifying KPIs to assess performance of the product, a firm must apply enhanced impact measurement and reporting based on industry best practices.*"

[31] Foose and Folan (2016).
[32] GIIN (2021).
[33] SEC (2022).
[34] FCA (2022).

Part II: The Impact Potential Assessment Framework (IPAF)

Chapter 4

Dimension 1: the impact compartment

A list of impact-oriented product categories

For its first iteration, we have chosen to apply the framework to twelve product categories of four different types that target impact in the environmental domain.

Funds in public markets:
- Green thematic equity funds
- Low-carbon equity funds
- Green/sustainability bond funds
- Green engagement funds

Funds in private markets:
- Green VC/PE funds
- Green private debt funds
- Green infrastructure funds
- Green impact investing funds

Bank accounts:
- Green current accounts
- Green saving accounts

Crowdfunding investments:
- Green equity crowdfunding
- Green peer-to-peer lending

We have chosen to focus on those twelve categories as we were able to identify specific products in each of them that are already available for retail clients within the EU (see table 4). In the future, with the supply of innovative products, new categories will emerge and be included in the framework for assessment. In the same vein, similar categories will be drawn for other E/S topics (e.g., biodiversity).

Table 4: Examples of financial products per category

Funds in public markets	Green/climate equity funds	BNP Paribas Climate Impact	BGF Climate Action Equity Fund	CPR Climate Action
	Low-carbon equity funds	BNP Paribas Easy Low Carbon 100 Europe	HSBC GIF Global Lower Carbon Equity	Trustnet Low Carbon Equity Fund
	Green bond funds	Mirova Global Green Bond Fund	Amundi RI Impact Green Bonds	Allianz Green Bond
	Green engagement funds	Engine n°1 Transform Climate ETF	Nordea 1 - Global Climate Engagement Fund	RobecoSAM Global SDG Engagement Equities
Funds in private markets	Green VC/PE funds	CNP Relance et climat	Mirova Green Impact Private Equity	Carbon Equity funds
	Green private debt funds	Berenberg Green Energy Debt	Artesian High Impact Green Debt fund	Triodos Emerging Markets Renewable Energy Fund
	Green infrastructure funds	MAIF Rendement Vert	Amundi Energies vertes	Triodos Energy Transition Europe Fund
Bank accounts	Green current accounts	Triodos Current Account	Lydia Green	Helios Current Account
	Green saving accounts	Livret NEF/Compte à terme NEF	Ecology Building Society's savings accounts	ABN Amro Green Savings Deposits
Crowdfunding investments	Green equity crowdfunding	Econeers	öko	Enerfip
	Green crowdlending	Ecoligo	Lendosphere	Enerfip

A seven-geared speedometer for investor contribution

Various shades of investor contribution

The IMP has listed various combinations of impact mechanisms that can be actioned by an investor. They distinguished and ranked six combinations, from the least to the most effective. Figure 10 displays the six investor contribution categories according to the IMP. Adding a seventh category for products that do not apply any impact mechanism leads us to a seven-item typology of investor contributions.

Figure 10: IMP's investor contribution categories

The impact potential speedometer

For the present framework, we have transformed those investor contribution categories into impact potential compartments to which we will assign financial products **based on impact mechanisms the product manufacturers claim to apply in the marketing or legal documents**. The table 5 presents those impact potential compartments.

Table 5: The framework's impact potential compartments

	No impact potential	Low impact potential	Median impact potential		High impact potential		
IMP Investor contribution categories	**0**	**1**	**2**	**3**	**4**	**5**	**6**
Applied impact mechanisms	**None**	**S**	**SE**	**SG**	**SEG**	**SGF**	**SEGF**

Lecture: S=Signal that impact matters; E=engage actively; G=grow new/undersupplied markets; F=provide flexible capital

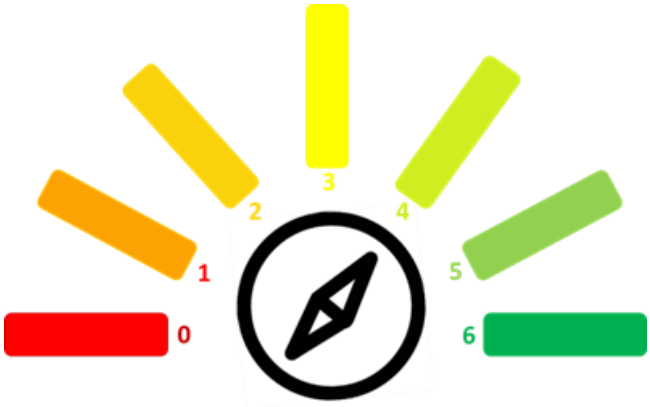
The impact potential compartment of the product will then be used as an intermediate score (called Compartment's Impact Potential Score) for calculating the final Impact Potential Score.

Compartment's impact potential score = Product's IMP investor contribution category

In the framework's product factsheet, the Compartment's Impact Potential Score of a financial product is represented as a position on a seven-geared speedometer. Figure 11 illustrates the case of a financial product

falling in impact potential compartment #4. It shows the product claims to simultaneously use signaling, active engagement and the growing of new/undersupplied markets to achieve positive climate impact.

Figure 11: the compartment's impact potential speedometer



Within the framework, it is important not to confuse products' impact compartments with product categories and product types. The table below provides definitions and examples for those proximate concepts.

Table 6: glossary of framework's terms

Name	Definition	Number of items	Example #1	Example #2
Product type	A grouping of financial products based on high-level shared features (market, type of securities, etc.)	4	Fund in public markets	Deposits in bank accounts
Product category	A subset of a product type marked by the application of a specific strategy or a restriction to a specific segment within the product type	12	Thematic equity fund	Deposits in green saving accounts
Product's impact compartment	A transversal grouping of financial products based on applied impact mechanisms (G,F,E,S)	7	Impact compartment #2 (Signaling + Engagement)	Impact compartment #5 (Signaling + Grow undersupplied markets + Flexible capital)

Assigning an impact potential to product categories

We have opted for assigning various impact potential compartments for products within the same product category as not all products within a category claim to apply the same impact mechanisms. For instance, green (public) equity funds may or may not claim to achieve impact through engagement. Or some green private equity funds may emphasize their provision of non-financial support while other do not communicate about it.

By default, all sustainable financial products are at minimum assigned to the compartment #1 due to the signaling function of their labelling. Only products that claim to use other mechanisms are allocated to superior impact potential categories.

The table displays the possible impact potential compartments for each product category. Funds operating in public (bond or equity) markets cannot be assigned to compartments above compartment #2 (signaling + engagement) as, by nature, they cannot address new/undersupplied markets (since they target large companies) nor propose flexible capital (compared to market terms).

Climate engagement equity funds form a special case as they can only be assigned to impact potential compartment #2. They cannot be assigned either below or above since they use engagement by definition and share the same limitations as other funds in public markets.

Table 6: possible impact compartments for product categories

			No impact	Low impact potential	Median impact potential		High impact potential		
IMP Investor contribution categories			**0**	**1**	**2**	**3**	**4**	**5**	**6**
Applied impact mechanisms			**None**	**S**	**SE**	**SG**	**SEG**	**SGF**	**SEGF**
Product categories	**Funds in public markets**	Green/climate thematic equity funds		X	X				
		Low-carbon equity funds		X	X				
		Green/climate equity engagement funds			X				
		Green/sustainability bond funds		X	X				
	Funds in private markets	Green climate VC/PE funds		X	X	X	X	X	X
		Green/climate private debt funds		X	X	X	X	X	X
		Green/climate infrastructure funds		X	X	X	X	X	X
	Bank accounts	Green/climate current accounts		X	X	X	X	X	X
		Green/climate saving accounts		X	X	X	X	X	X
	Crowdfunding investments	Green/climate equity crowdfunding		X	X	X	X	X	X
		Green/climate peer-to-peer lending		X	X	X	X	X	X

Lecture: S=Signal that impact matters; E=engage actively; G=grow new/undersupplied markets; F=provide flexible capital

Chapter 5

Dimension 2: the impact implementation

Evaluating impact success factors

In order to assess how much financial products exploit the possibilities of their assigned impact potential compartment, we have designed specific assessment grids for each impact potential compartment. These assessment grids are grounded on research on success factors for the various impact mechanisms whose conclusions were summarized in chapter 1.

The four impact mechanisms documented by research (G,F,E,S) are attributed 3 or 4 criteria to assess the implementation score of the mechanism by the financial product. A preliminary question on the impact-based selection of investees/projects, transversal to the various impact mechanisms, is also provided. **Depending on how many impact mechanisms they claim to apply, products will be assigned up to fifteen questions**.

By default, all products are assigned questions relative to the Signaling mechanism (i.e., four questions).

There are four level of responses per question, leading to scores from 0 to 3.

Questions are tailored to be coherent with the product category assessed. Consequently, we have designed four different assessment grids to match the various product types:
- funds in public markets,
- funds in private markets,
- deposits in bank accounts,
- crowdfunding investments.

Assessment grid per product type

The different assessment grids can be accessed through the following link:

Impact Potential Assessment Grid

The implementation score and rating

The implementation score of a product is obtained by doing **a weighted sum of the scores** obtained to the relevant questions.

The weighting scheme includes:
- an equal weighting for all questions pertaining to the same impact mechanism,
- an identical unweighted sum of 18 points for all impact mechanisms,
- a double weighting for impact mechanisms solidly supported by academic evidence (i.e., G,F,E),

- the treatment of the **signaling category as a bonus category** for all products that also activate other mechanisms. This choice has been made to avoid the situation where the score for products that intensively activate other (better supported by academic research) mechanisms would get a score averaged down in case of a poor activation of the Signaling mechanism.

Table 7: details of the impact implementation assessment grid

	Number of questions	Unweighted maximum score	Weighting of the section	Weighted maximum score
General	1	9	2	18
Grow undersupplied markets (G)	3	18	2	36
Provide flexible capital (F)	3	18	2	36
Engage actively (E)	4	18	2	36
Signaling (S)	4	18	1	18

After summing weighted scores for all required questions, each product receives an implementation score (from 0 to 100%) that represents its ability to exploit the full impact potential of its impact compartment.

Implementation score = total score / maximum possible score for the impact compartment

When Signaling is only taken as a bonus, it does not contribute to the computing of the maximum possible score. For instance, a product that uses E and F mechanisms will be assessed vs a maximum score of 90 points (i.e., 18 points for the General section, 36 points for the F section and 36 points for the E section). Any point gained due to its signaling actions will increase its total score without increasing the maximum possible score.

In the product climate impact factsheet, the Implementation Score is displayed as a rating with four levels **(0, + , ++ or +++)** based on the following transformation table.

Table 8: the potential implementation score and rating

Exploitation Rating	Implementation score (as % of maximum score for the product impact compartment)
0	0
"+"	0 < x < 33%
"++"	33% ≤ x < 66%
"+++"	x ≥ 66%

Chapter 6

Dimension 3: additional information

The starting point: impact intention

In 2007, the term "impact investing" was first coined by The Rockefeller Foundation, stating that there was "not enough charitable and government capital to meet the social and environmental challenges we face"[35], and proposing impact investing to attract new sources of capital "to complement charity and government to bring solutions to scale".

Since then, as the practice of impact investing has spread, various attempts have been made to clarify the definition of it, without reaching a consensus.

Based on an appreciative reading of the extant literature and confronting the various definitions, Hockerts et al. (2022) identify the following six dimensions to describe impact investing:

- Intentionality (of both financial return and social/environmental impact)
- Additionality (in outcomes),
- Contribution (i.e., investor actions)
- Materiality (i.e., social and environmental outcomes of investees that are significant to stakeholders)
- Measurability (of investee impact)
- Attribution (i.e., allocation of the positive impact to the investor)

We borrow those six criteria to compare the multitude of competing definitions in the following table.

Table 9: elements of "impact investing" definitions

Dimensions	Explanations	GIIN	GSIA	IFC	UNEP-FI*	IMP	F4T
Intentionality	Mixed goals (financial return and positive sustainability impact)	x	x	x	x	x	x
Additionality	Achieved additional investee sustainability outcomes						x
Contribution	Significant (potentially additional) investor actions		x	x	x	x	x
Measurability	Assessment of investee sustainability outcomes	x	x	x	x	x	x
Attribution	Assessment of investor impact						x
Materiality	Significant sustainability outcomes for stakeholders					x	(x)

*Definition for the broader category of "Investing for Sustainable Impact"
(X) F4T's definition includes the active management of investment externalities for various stakeholders

[35] Bugg-Levine & Goldstein (2009)

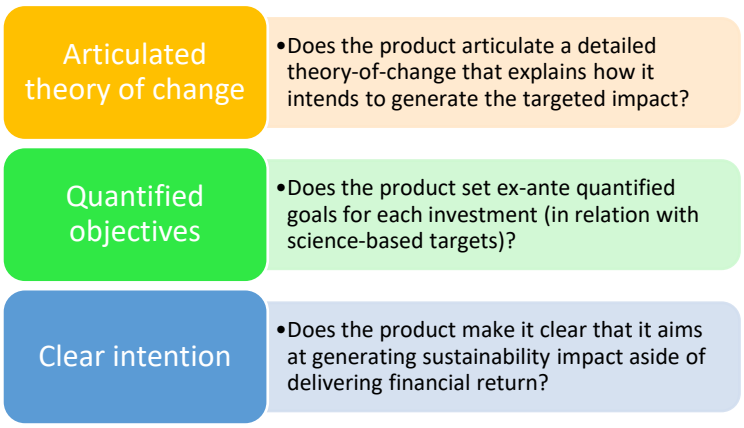
Out of those six dimensions, the least controversial is “intentionality”. Intentionality is defined by the GIIN as the investor’s intention to contribute to the generation of a measurable social or environmental benefit. The explicit aim of impact investors is to respond to an issue of sustainable development. While social impact can be achieved unintentionally, prior intention is key to qualify as an impact investor. By definition, the impact investor clearly discloses that he pursues two goals: to generate a financial return AND an impact.

Intentionality also implies to define **ex-ante goals** for each investment. In contrast, it excludes from claiming positive impacts after they have been generated, despite not having declared an intention to generate these impacts in advance. When possible, goals should relate to widely accepted science-based targets.

Finally, intentionality requires to articulate **a clear theory of change** that details the actions that will be implemented to achieve the targeted goals. A theory of change is essentially a comprehensive description and illustration of how and why a desired change is expected to happen in a particular context. It is focused in particular on mapping out the intermediary steps between what an agent is doing (e.g., an investor) and how these actions would lead to desired goals being achieved. It does this by first identifying the desired long-term goals and then works backwards from these to identify all the intermediary outcomes that must be in place (and how these related to one another causally) for the goals to occur.

In the present framework, we display specific information about the explicit intention to achieve impact of the assessed products. They pertain to the three dimensions highlighted above, as explained in the following figure.

Figure 12: impact intention



Importantly, in the framework **intentionality details are presented only for informational purpose but do not participate to the product rating.**

The missing piece: how much impact in the past?

As already mentioned, most (if not all) impact-oriented financial products do not thoroughly assess their achievements regarding product/investor impact. At best, they assess and communicate about real-life outcomes of their investees, potentially against targets.

Therefore, they neglect two crucial dimensions of impact assessment.

First, they abstain from isolating the portion of the total outcome generated by their investees that occurs “above and beyond what would have happened” without the investees’ actions. Second, they do not make the walk to the final step of impact evaluation in the financial context, which is about evaluating the investor impact

by segregating the portion of investees' impact that could be causally attributed to the investors' actions through the financial product.

Therefore, **in the framework we cannot provide investors with information about past impact performance nor use it to rate products**.

The substitute: which impact dimension is assessed?

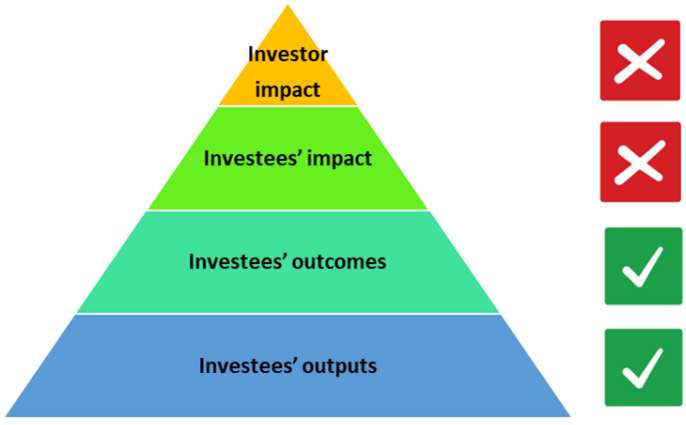
In the absence of data about past impact performance of financial products (how much?), we opted for providing information about the impact dimensions assessed by the products (what?).

The framework displays which of four dimensions of impact are carefully assessed and communicated by the financial products. Taking the example of climate impact, those are:

- **investees' outputs:** the climate-related goods and services produced by the investees (e.g., total number of electric cars),
- **investees' outcomes:** the positive changes to the climate generated by the activity of investees (e.g., total amount of avoided carbon emissions),
- **Investees' impact:** the portion of the total climate outcomes generated by investees that occurs "above and beyond what would have happened" without the investees' actions (e.g., additional avoided carbon emissions),
- **investor impact:** the change in investees' impact that can be attributed to the actions of investors through the financial product (e.g, the variation in additional avoided carbon emissions).

This way, the user can visualize if some crucial impact information is missing. The display (see figure 14) has been thought to form an incentive for product manufacturers to gather and disclose information about the final two dimensions (investees' impact and investor impact). In its work on marketing claims, 2DII advocates that financial products to be called "impact" should necessarily evaluate the "investor impact" dimension in order to conform to consumer protection regulation[36].

Figure 13: example of impact evaluation display for a specific financial product



In the example provided, the product measures investees' outputs and outcomes but ignores to assess (or report) investees' impact and investor impact.

As for intentionality, in the framework **impact evaluation details are presented only for informational purpose but do not participate to the product rating.**

[36] 2DII (2023), Guide on environnemental impact claims for financial products.

Chapter 6

Synthesis: the Impact Potential Factsheet

The Impact Potential Rating

In the framework, each financial product receives two scores: one for its impact potential compartment (from 0 to 6) and one for its own capability to exploit the full potential of its impact compartment (from 0 to 100%).

Both scores are multiplied to give the Impact Potential Score (from 0 to 6):

Impact Potential Score = Compartment's Impact Potential Score * Product's implementation score

The Impact Potential Score is then transformed into an Impact Potential rating (from A to G) using the following matching table:

Table 10: matching table between aggregate scores and ratings

Impact Potential Score	Impact Potential Rating
0	G
]0;1[	F
[1;2[	E
[2;3[	D
[3;4[	C
[4;5[	B
[5;6]	A

The Impact Potential Rating is displayed in the product's Impact Potential Factsheet in the form of a position on a colored band from dark green (equivalent to a A-rating) to dark red (G). It stands in the spirit of nutriscore for food or energy performance index for buildings.

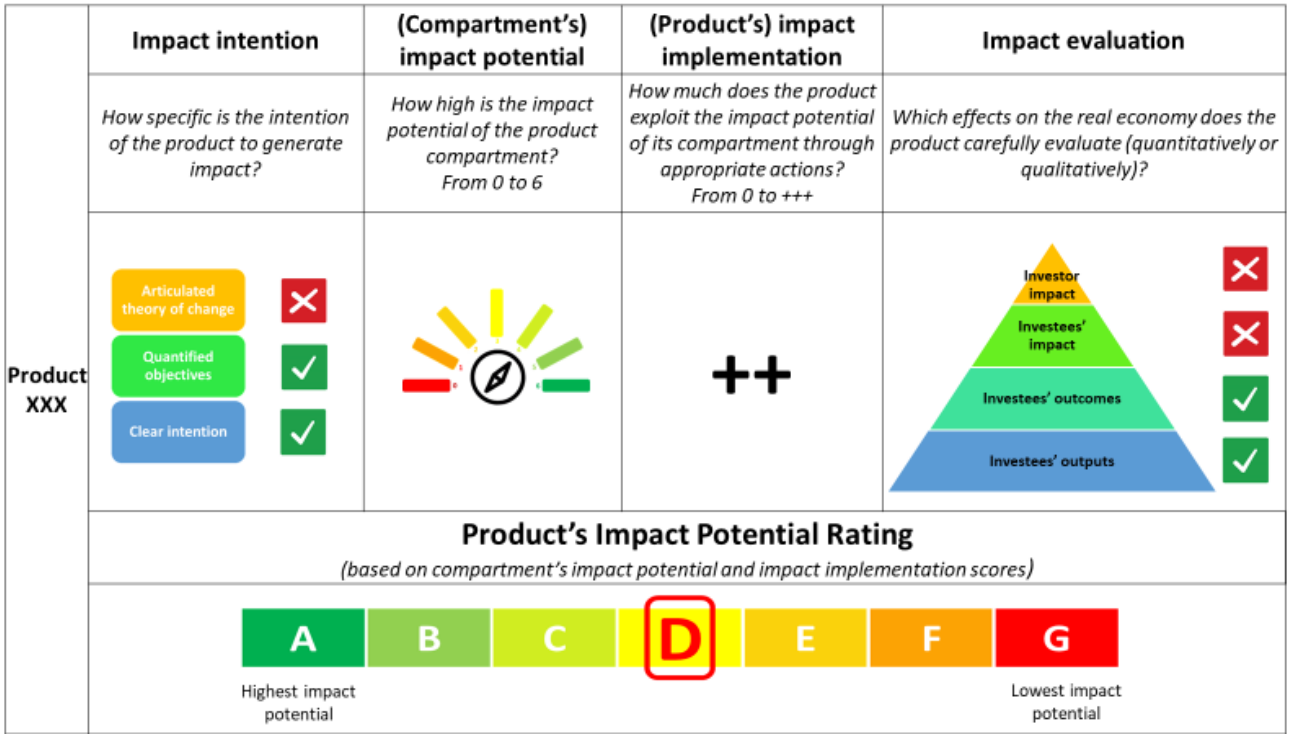
Figure 14: example of a product's CIP Aggregate Rating

Lecture: the product is attributed a D rating. It implies the product has obtained a climate impact aggregate score in the range [2;3[.

Displaying the Impact Potential Factsheet

The Impact Potential Factsheet gathers all pieces of information from the framework in a one-pager, as in the example below. The graphic display is only for illustration and should not be considered as in its final form.

Figure 15: example of a product's Impact Potential Factsheet



In the present example, the factsheet shows that:

- the product XXX obtains a D final rating, which indicates a medium impact potential based on its product compartment's impact potential and its own ability to exploit the full impact potential of its product compartment,
  - the product XXX is positioned in a category that is attributed a high impact potential score (4 out of 6) based on impact mechanisms that could be deployed
  - in practice, information communicated in marketing documents suggests that the product XXX moderately applies impact mechanisms of its compartment, leading to a ++ rating.
- The product makes it clear that it aims to generate impact and set specific objectives for its investments while it does not provide a detailed theory of change.
- The product does not evaluate investors' impact nor investees' impact. But it assesses investees' outputs and investees' outcomes.

Summarizing the steps towards the Impact Potential Factsheet

Here, we recap the successive steps to build the product's Impact Potential Factsheet:

- **Step 1:** assign to the product a product category to select the appropriate impact assessment grid,
- **Step 2:** browse the product's marketing and legal documents to i) identify impact mechanisms that are (supposedly) actioned by the product, ii) observe the specificities of the impact intention of the product, and iii) note which impact dimensions are carefully assessed by the product manufacturer,
- **Step 3:** select the impact potential compartment (from 0 to 6) of the product compartment based on the presumed impact mechanisms obtained in step 2,
- **Step 4:** apply the relevant sections of the (adequate) impact assessment grids for the product compartment (i.e., only the S and G questions for a product claiming to apply the S and G mechanisms) and calculate the impact implementation score,
- **Step 5:** transform the impact implementation score into an impact implementation rating (using the matching table displayed in table 8),
- **Step 6:** multiply the impact potential score of the product category by the impact implementation score of the product to obtain the product's Impact Potential Score,
- **Step 7:** transform the product's Impact Potential Score into an Impact Potential Rating (using the matching table displayed in table 10).

In the annex, we will go through those various steps to illustrate the application of the framework on one financial product.

Conclusion

A necessary framework

As emphasized in the introduction, the present framework fills an embarrassing gap by providing a convenient tool to assess the impact potential of various sustainable financial products and reduce the risk of “impact washing”.

It participates to distinguishing genuine impact products from impact-aligned products that only invest in companies already having a positive impact on a sustainability issue without fostering any positive change.

The framework will be of a great use as an informational tool for retail investors in search for financial products that have the potential to actively contribute to the solving of sustainability issues. It will complement other financial information (e.g., the risk and past/expected return of the product) as well as non-financial information (e.g., other sustainability features like exclusion rules) for feeding the investor’s decision.

The framework gives birth to a new kind of data: investor-level impact data. As pointed out by Heath et al. (2022), while investors do care about environmental and social real-life outcomes, fund flows respond to third-party (ESG- or SDG-focused) ratings and these ratings only deal with issuer-level impact data. As such, they channel investors into a role of stock selectors and away from a role of impact investors. The present framework intends to fix this major shortcoming of the sustainable finance ecosystem.

A unique framework

So far, the framework is the most advanced action-based impact rating framework for financial products. Its methodological focus on actions deployed makes it singular in comparison with other frameworks.

For instance, in France Paris Europlace has launched in December 2022 an “Evaluation scale of the potential of funds to contribute to the sustainable transition” that opts for a very different methodology. Indeed, the multistakeholder working group (copiloted by 2DII) chose a methodology based on a mix of questions dealing with intentions, actions, processes and outcomes. The Paris Europlace’s framework only tackles impact mechanisms exploited by the assessed funds in a superficial way, avoiding digging into the important moderators of success for those mechanisms.

The present framework also differs from the Paris Europlace scale by its applicability to various types of products beyond investment funds and its emphasized distinction between the product compartment’s impact potential and the product’s implementation score in order to understand where the product limitations are located.

We consider the two frameworks and their singular methodologies as important steps in the journey towards a transparent and integer market for impact-oriented financial products.

A framework with (un)intended limitations

The choice of an action-based rating methodology mechanically leads to a few blind spots and limitations. Some important dimensions like managers' compensation are not covered while some products are not eligible for assessment through the framework. It concerns closed-end funds which prevent from inferring investor impact from product impact (as the purchase of a share of the fund does not make the fund grow).

Another key limitation is a forced one: the neglect of investor impact measurement. In absence of proper impact data by product manufacturers, we could not provide investors with information about past impact performance nor use it to discriminate products. We regret the situation as we subscribe to the view that impact-oriented products should disclose about their own past impact (like financial performance) in addition to communicating about their investees' impact.

Towards next iterations

In future iterations, several improvements appear possible:

- the enrichment of the assessment grids if research provides new insights about success factors of impact mechanisms,
- the display of the impact orientation chosen by the product (i.e., "grow the positive" or "transform the negative")
- An addition of new impact mechanisms (e.g., offsetting, profit sharing)
- An integration of impact measures if product manufacturers decide to carefully measure investor impact under the pressure of regulation or marketplace conventions.

Those future developments are contingent on the feedbacks and expectations provided by stakeholders (academia, product manufacturers, NGO, regulators, etc.) on the present work.

Bibliography

2DII (2021), Sustainable Finance and Market Integrity: Promise Only What You Can Deliver.

2DII (2021b), I've got the power! Really? Assessing the impact potential of financial products supporting the energy transition.

2DII (2022), What do your clients actually want? Understanding and estimating household demand for sustainable financial products.

2DII (2023), Guide sur les allégations d'impact environnemental des produits financiers.

Auzepy, A., Bannier, C., and Martin, F., (2022), "Are sustainability-linked loans designed to effectively incentivize corporate sustainability? A framework for review", Working Paper.

Bamberger, M., and White, H. (2007), "Using Strong Evaluation Designs in Developing Countries: Experience and Challenges", Journal of Multi-Disciplinary Evaluation.

Becht, M., Franks, J., Grant, J. and Wagner H., (2017), "Returns to Hedge Fund Activism: An International Study", Review of Financial Studies.

Blackman, L., and Reich, S., (2009), "Randomized control trials: a gold standard with feet of clay?" in Stewart Donaldson, Christina Christie and Melvin Mark (eds.), What Counts as Credible Evidence in Applied Research and Evaluation Practice?, Sage Publications.

Broccardo, E., Hart, O., and Zingales, L., (2020), "Exit versus Voice", Journal of Political Economy.

Bugg-Levine, A., and Goldstein, J., (2009), "Impact investing: harnessing capital markets to solve problems at scale", Community Development Innovation Review.

Busch, T., Bruce-Clark, P., Derwall, J., Eccles, R., Hebb, T., Hoepner, A., Klein, C., Krueger, P., Paetzold, F., and Scholtens, B. (2021), "Impact investments: a call for (re) orientation", SN Business & Economics.

Caldecott B., Clark, A., Harnett, E., Koskelo, K., Wilson C., and Liu F., (2022), "Sustainable Finance and Transmission Mechanisms to the Real Economy", Working Paper

Caliendo, M., (2018), An Introduction to Counterfactual Impact Evaluation.

Caseau, C. and Grolleau, G., (2020), "Impact Investing: Killing Two Birds with One Stone?", Financial Analyst Journal.

Dimson, E., Karakaş, O., and Li, X. (2015), "Active ownership", Review of Financial Studies.

Dimson, E., Karakaş, O., and Li, X. (2021), "Coordinated engagements", European Corporate Governance Institute–Finance Working Paper.

Epstein, M., and Yuthas, K., (2017), Measuring and Improving Social Impacts - A Guide for Nonprofits, Companies and Impact Investors, Routledge.

Fama, E., and French, K., (2007), "Disagreement, tastes, and asset prices", Journal of Financial Economics.

Fauver, L., and McDonald, M., (2014), "International variation in sin stocks and its effects on equity valuation", Journal of Corporate Finance.

FCA (2022), Sustainability Disclosure Requirements (SDR) and investment labels - Consultation Paper.

Foose, L., and Folan, A., (2016), "What Impact Investors Can Learn from the Microfinance Industry", Stanford Social Innovation Review.

Gantchev, N. (2013), "The cost of shareholder activism: Evidence from a sequential decision model", Journal of Financial Economics.

Gębczyńska, A., and Brajer-Marczak, R., (2020), "Review of Selected Performance Measurement Models Used in Public Administration", Administrative Sciences.

Gianoncelli, A., Gaggiotti, G., Picon Martinez A., and Piergiovanni, L., (2021), Navigating Impact Measurement and Management, EVPA.

GIIN (2021), Compass: the methodology for comparing and assessing impact.

Gillan, S., and Starks, L., (2000), "Corporate governance proposals and shareholder activism: the role of institutional investors", Journal of Financial Economics

Gollier, C., & Pouget, S. (2014), "The "washing machine": Investment strategies and corporate behavior with socially responsible investors", Working Paper.

Gugerty, M., and Karlan, D., (2014), "Measuring Impact Isn't for Everyone", Stanford Social Innovation Review.

Heath, D., Macciocchi, D., Michaely, R., and Ringgenberg, M. (2022), "Does Socially Responsible Investing Change Firm Behavior?", Working Paper.

Heeb, F., and Kölbel, J., (2020), The investor's guide to impact, Center for Sustainable Finance and Private Wealth, University of Zurich.

Heinkel R., Kraus, A., and Zechner, J., (2001), "The Effect of Green Investment on Corporate Behavior", The Journal of Financial and Quantitative Analysis.

Hockerts, K., Hehenberger, L., Schaltegger S., and Farber, V., (2022), "Defining and Conceptualizing Impact Investing: Attractive Nuisance or Catalyst?", Journal of Business Ethics.

IFC (2019), Creating Impact - The Promise of Impact Investing.

IFC (2021), Operating Principles for Impact Management, Revised Edition.

IMP (2019), A Guide to Classifying the Impact of an Investment.

IMP (2019b), Investor contribution in public and private markets, Request for feedback via the Harvard Business Review Idea Lab.

Kah, S., and Akenroye, T., (2020), "Evaluation of social impact measurement tools and techniques: a systematic review of the literature", Social Enterprise Journal.

Kedia, S., Starks L., and Wang, X., (2020), "Institutional Investors and Hedge Fund Activism", The Review of Corporate Finance Studies.

Kim, I., Wan, H., Wang, B., and Yang T., (2019), "Institutional Investors and Corporate Environmental, Social, and Governance Policies: Evidence from Toxics Release Data", Management Science.

Kölbel, J., and Lambillon, A-P., (2022), "Who Pays for Sustainability? An Analysis of Sustainability-Linked Bonds", Working Paper.

Kölbel, J., Heeb, F., Paetzold, F., Busch, T. (2020), "Can sustainable investing save the world? Reviewing the mechanisms of investor impact", Organization and Environment.

Krueger, P., Sautner, Z., & Starks, L. T. (2020), "The Importance of Climate Risks for Institutional Investors", The Review of Financial Studies.

Lall, S., (2019), "From Legitimacy to Learning – How Impact Measurement Perceptions and Practices Evolve in Social Enterprise – Social Finance Organization Relationships", Working Paper.

McDavid, J., and Hawthorn, L., (2006), Program evaluation and performance measurement: An introduction to practice. Sage Publications.

Menzies, P., (2014), "Counterfactual theories of causation", Stanford Encyclopedia of Philosophy.

Mitchell, R., Agle, B., and Wood, D., (1997), "Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts", The Academy of Management Review.

Mudaliar, A., Schiff, H., and Bass, R., (2016), Annual Impact Investor Survey 2016, GIIN.

Mudaliar, A., and Dithrich, H., (2019), Sizing the Impact Investing Market, GIIN.

Naef, A., (2022), "Shareholder engagement for climate change: Lessons from the ExxonMobil vs Engine No.1 proxy battle", Working Paper.

Nicholls, A., Paton, R., and Emerson, J., (2015), Social Finance, Oxford University Press.

OECD (2019), "Better Criteria for Better Evaluation - Adapted definitions and principles for use", DAC Network on Development Evaluation.

Polzin, F., and Sanders, M. (2020), "How to finance the transition to low-carbon energy in Europe?", Energy Policy.

Reisman, J., and Olazabal, V., (2016), "Situating the Next Generation of Impact Measurement and Evaluation for Impact Investing", The Rockefeller Foundation.

Rogers, P. (2007), "Theory-based evaluations: Reflections ten years on", New Directions for Evaluation.

SEC (2022), Enhanced Disclosures by Certain Investment Advisers and Investment Companies about Environmental, Social, and Governance Investment Practices.

Strano, E., Rizzello, A., and Trotta, A., (2021), "Evaluation in Impact Investing: Where We Are and Where We Are Going", in Handbook of Research on Global Aspects of Sustainable Finance in Times of Crises, IGI Global.

Swiss Asset Management Association (2021), How to Avoid the Greenwashing Trap.

Wong, Y., (2020), "Wolves at the Door: A Closer Look at Hedge Fund Activism", Management Science.

Annex: testing the framework on a fund in public markets

To illustrate the practical application oft IPAF, we tested it on the RobecoSam Global SDG Engagement equities fund (ISIN: LU2354273463).

We browsed multiple public materials provided by the asset management firm to come up with the fund's Impact Potential Rating. The sources and associated links are presented in the following table:

Summary document	https://www.robeco.com/doca/CGF_SDGEG_YH-swda-202211-profgloben.pdf
Engagement Policy	https://www.walespensionpartnership.org/media/egamdnxh/robeco_voting-policy_wpp.pdf
KIID	https://www.robeco.com/doca/cgf_sdgeg_yh-prip-202301-profgloben.pdf
Prospectus	https://www.robeco.com/docm/pros-cgf-general.pdf
Robeco SDG Framework	https://www.robeco.com/docm/docu-robeco-explanation-sdg-framework.pdf
SDG Engagement policy	https://www.robeco.com/sg/insights/2022/05/turning-caterpillars-into-butterflies-sdg-engagement-equities.html
Sustainability-related disclosure	https://www.robeco.com/docm/sfdr-global-sdg-engagement-equities.pdf
Monthly Report	https://www.robeco.com/doca/CGF_SDGEG_YH-fact-202301-profgloben.pdf
Fund Engagement Strategy	https://www.robeco.com/docm/pmup-global-sdg-engagement-equities-general.pdf
Quarterly Report	https://www.robeco.com/docm/quar-20220930-robecosam-global-sdg-engagement-equities-general.pdf

The consultation of all those public sources led us to issue the following scores and rating:

RobecoSAM Global SDG Engagement Equities Fund			
		Product Score	**Maximum Possible Score**
Compartment Impact Potential Score		**2 (S+E)**	**6 (S+E+G+F)**
Implementation score		**64%**	**100%**
	General	12 points	18 points
	G	NS	NS
	F	NS	NS
	E	18 points	36 points
	S (bonus)	4,5 points	(18 points)
	Total	34,5 points	54 points
Impact Potential Score		**1,28**	**6**
Impact Potential Rating		**E**	**A**

The details of the scoring of the Implementation Score can be found in the table thereafter:

#	Moderators	Questions	Weighting of questions	Scoring				Weighting of categories
				0	1	2	3	
				None/negligible	Small/anecdotal	Moderate/aggregate	Significant/specific	
General								**2**
A1	Impact-driven selection of investees	Does the fund select/exclude investees based on its capacity to achieve impact through investing/excluding them?	3	No	Yes, the fund documents a general selection process incorporating the capacity to achieve impact	Yes, the fund provides details (e.g., decision rule, weightings of criteria) of a selection process incorporating the capacity to achieve impact	Yes, the fund provides evidence on how its capacity to achieve impact was taken into account for each investment (for at least 70% of AuM)	
Grow new/undersupplied markets								**2**
G1	Investees' difficulty to access funding	Does the fund document funding difficulties of investees?	2	No	Yes, the fund provides general or anecdotal evidence of a difficulty to get funding by (some of) its investees	Yes, the fund provides portfolio-level evidence that a majority (> 50% of AuM) of investees had difficulties to get funding	Yes, the fund provides portfolio-level evidence that a large majority (> 70% of AuM) of investees had difficulties to get funding	
G2	Innovativeness of the financial solution	Does the fund offer innovative financial solutions?	2	No	Yes, the fund provides anecdotal evidence of using non-traditional financing tools (longer maturity, with project risk transfer, etc.)	Yes, the fund provides portfolio-level evidence that a majority (> 50% of AuM) of investees benefit from non-traditional financing tools	Yes, the fund provides portfolio-level evidence that a large majority (> 70% of AuM) of investees benefit from non-traditional financing tools	
G3	Tailoring of the financial solution	Does the fund offer financial solutions tailored to investees' needs?	2	No	Yes, the fund provides anecdotal evidence of using tailored financing tools to match investees' needs	Yes, the fund provides portfolio-level evidence that a majority (> 50% of AuM) of investees benefit from tailored financing tools	Yes, the fund provides portfolio-level evidence that a large majority (> 70% of AuM) of investees benefit from tailored financing tools	
Flexible capital								**2**
F1	Need of flexible capital by investees	Does the fund provide evidence of specific needs of flexible capital by investees?	2	No	Yes, the fund provides general or anecdotal evidence of a need for flexible capital by (some of) its investees	Yes, the fund provides portfolio-level evidence that a majority (> 50% of AuM) of investees are in need for flexible capital	Yes, the fund provides portfolio-level evidence that a large majority (> 70% of AuM) of investees are in need for flexible capital	
F2	Divergence of the financial solution from market terms	Does the fund provide evidence it offers concessional funding conditions (rate, risk transfer, duration, etc.) ?	2	No	Yes, the fund mentions it sometimes provides concessional financing solutions (i.e., with a risk-adjusted expected return voluntarily below market standards)	Yes, the fund provides portfolio-level evidence that a majority (> 50% of AuM) of investees benefit from concessional funding solutions	Yes, the fund provides portfolio-level evidence that a large majority (> 70% of AuM) of investees benefit from concessional funding solutions	
F3	Use of an incentivization scheme	Does the fund insert impact-linked incentivization schemes within its funding solutions?	2	No	Yes, the fund provides anecdotal evidence that it sometimes invests in securities that include an impact-linked incentivization scheme (e.g, sustainability-linked bonds)	Yes, the fund provides portfolio-level evidence that a majority (> 50% of AuM) of its investments are through securities that include a significant impact-linked incentivization scheme (e.g, sustainability-linked bonds with a step-up equivalent to at least 20% of the baseline interest rate)	Yes, the fund provides specific evidence that a large majority (> 70% of AuM) of its investments are through securities that include a significant impact-linked incentivization scheme (e.g, sustainability-linked bonds with a step-up equivalent to at least 20% of the baseline interest rate)	

Engage actively								2
E1	Specific objectives and milestones	Does the fund set clear objectives and milestones for its (shareholder or nonfinancial) engagement with investees ?	1,5	No	Yes, the fund claims to set objectives and milestones for its engagement/non-financial support actions with investees	Yes, the fund reports aggregate performance vs objectives of its engagements/non-financial supports at portfolio level	Yes, the fund reports performance of its engagement/non-financial support actions vs specified milestones for a large majority of investments (for at least 70% of AuM)	
E2	Capacity to influence investees	How significant is the capacity of the fund to influence investees' decisions through active engagement?	1,5	No mention	The fund provides anecdotal evidence of its particular capacity to fruitfully engage with some of its investees through board seats, voting rights or participation to coalitions	The fund provides portfolio-level evidence of its particular capacity to fruitfully engage with its investees through board seats, voting rights or participation to coalitions	The fund provides evidence of its particular capacity to fruitfully engage with its investees through board seats, voting rights or participation to coalitions for a large majority of its investments (> 70% of AuM)	
E3	Resources dedicated to active engagement	How important are the resources dedicated to active engagement by the fund?	1,5	No mention	The fund mentions that it devotes internal resources (human and/or financial) for its (shareholder and non-financial) engagement activities with investees	The fund provides details of the internal resources (human and/or financial) that it uses for its (shareholder and non-financial) engagement activities with investees	The fund provides details of the internal resources (human and/or financial) that it uses for its (shareholder and non-financial) engagement activities with investees and shows that they represent a significant fraction of the AuM (> 0,1%)	
E4	Escalation policy	Does the fund have a clear escalation policy in case of unsuccessful engagement?	1,5	No	Yes, the fund claims to have a clear escalation policy	Yes, the fund provides details about its general escalation policy	Yes, the fund provides details about its general escalation policy and evidence at the portfolio level of escalations	
Signaling								**1**
S1	Capacity to influence stakeholders	How significant is the capacity of the fund to influence stakeholders (issuers or investors) by signalling its strategy?	1,5	No mention	Yes, the fund claims to set objectives and milestones for its engagement/non-financial support actions with investees	Yes, the fund reports aggregate objectives and milestones of its engagements/non-financial supports at portfolio level	Yes, the fund reports objectives and milestones of its engagement/non-financial support activities at investment-level for a large majority of investments (for at least 70% of AuM)	
S2	Communication on investees' impact	Does the fund communicate information on investees' outcomes or impact in its marketing documents to increase the visibility of investees and emulate other companies/issuers?	1,5	No	Yes, the fund communicates anecdotal information on investees' outcomes	Yes, the fund communicate information on investees' outcomes for a large majority of its portfolio (> 70% of AuM)	Yes, the fund communicate information on investees' impact (i.e., in comparison with a baseline) for a large majority of its portfolio (> 70% of AuM)	
S3	Use of media	Does the fund use media campaigns for endorsement or stigmatization of companies/issuers?	1,5	No	Yes, the fund provides anecdotal evidence of its use of media to signal endorsement or stigmatization of companies/issuers	Yes, the fund provides aggregate evidence (e.g., total number of appearances) of its use of media to signal endorsement or stigmatization of companies/issuers	Yes, the fund provides detailed evidence of its use of media to signal endorsement or stigmatization of companies/issuers	
S4	Capacity to affect market terms	How significant is the capacity of the fund to influence market prices of investees'securities and, therefore, affect other transactions?	1,5	No mention	The fund provides anecdotal evidence of its capacity to influence market prices of investees' securities through large stakes or by sharing the same investment strategy as other funds	The fund provides portfolio-level evidence of its particular capacity to influence market prices of investees' securities through large stakes (e.g., the fund owns an average of x% of its investees) or by sharing the same investment strategy as other funds	The fund provides specific investment-level evidence of its particular capacity to influence market prices of investees' securities through large stakes or by sharing the same investment strategy as other funds for a large majority of investments (>70% of AuM)	