

A pilot study on systems thinking in asset management

SEI working paper
April 2023

Linn Järnberg

Aaron Maltais

Åsa Moberg





Stockholm Environment Institute

Linnégatan 87D 115 23 Stockholm, Sweden

Tel: +46 8 30 80 44 www.sei.org

Author contact: Åsa Moberg

asa.moberg@sei.org

Media contact: Ulrika Lamberth

ulrika.lamberth@sei.org

Editing: Content Creation Company (The CCC)

Layout and graphics: Richard Clay

Cover photo: Wind turbine blades on train, Australia © Michael Hall / Getty

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes, without special permission from the copyright holder(s) provided acknowledgement of the source is made. No use of this publication may be made for resale or other commercial purpose, without the written permission of the copyright holder(s).

Copyright © April 2023 by Stockholm Environment Institute

DOI: <https://doi.org/10.51414/sei2023.027>

Stockholm Environment Institute is an international non-profit research and policy organization that tackles environment and development challenges.

We connect science and decision-making to develop solutions for a sustainable future for all.

Our approach is highly collaborative: stakeholder involvement is at the heart of our efforts to build capacity, strengthen institutions, and equip partners for the long term.

Our work spans climate, water, air, and land-use issues, and integrates evidence and perspectives on governance, the economy, gender and human health.

Across our eight centres in Europe, Asia, Africa and the Americas, we engage with policy processes, development action and business practice throughout the world.

ACKNOWLEDGEMENT

The Swedish Foundation for Strategic Environmental Research, Mistra, funded the pilot study.

We appreciate the input from interviewees and workshop participants.

Contents

About this pilot study	4
Background.....	6
Findings	9
Reflections	16
The six dimensions of systems thinking	17
Some potential ways forward.....	18
References	19
Appendix 1 – Methods.....	20

About this pilot study

This report documents reflections and outcomes of the pilot study, “Piloting whether and how systems analysis could add value to Sustainable Development Goal (SDG) analysis in capital investment”, and identifies some possible ways forward in practice. The target groups are banks, asset managers, asset owners, and ESG¹ service providers in the finance sector.

The Swedish Foundation for Strategic Environmental Research, Mistra, funded this study. Researchers at Stockholm Environment Institute conducted it from January to December 2022. The study was exploratory in nature, and aimed to better understand whether and how systems analysis could add value to the incorporation of SDG analysis in capital investment to support positive impacts on sustainability.

For this study we surveyed existing methodologies and tools designed to incorporate the SDGs and/or broad sustainability considerations into asset management. We were particularly interested in identifying approaches that adopted a systems perspective, either directly referencing the SDGs or strongly related to the scope of the SDGs. We identified three examples of relevant tools and discussed the potential strengths and weaknesses of these tools.

Independent of the scoping exercise on existing tools and methodologies, we also engaged in several interviews with practitioners in the financial sector. The aims of the interviews were, firstly, to better understand the extent to which the SDGs are a useful framework for incorporating sustainability considerations into asset management and capital allocation decisions; and secondly, to gain reflections on how investors could better incorporate sustainability systems thinking into financial sector practice. Finally, we organized a workshop with practitioners to test ways of bringing more sustainability systems thinking to asset management practices.

Some of the key findings from this pilot study are that:

There are several methods and tools for incorporating systems sustainability thinking into financial sector practice. A clear result is that incorporating a systems approach to assessing sustainability impacts introduces a high level of complexity into methodologies and raises requirements for extensive data collection at the company level. One approach to dealing with this complexity is to attempt to narrow one's focus to those companies that are considered most important for achieving global sustainability impacts. Another is to use complex automation techniques, such as machine learning, to increase the population of companies that can be analysed. A third approach is to adopt more qualitative approaches to assessing system-wide sustainability impacts of capital allocation decisions, but we did not find good examples of this. Overall, we found that there are few if any accepted methods backed by sufficient data that could standardize sustainability performance evaluations across companies, sectors and regions. Still, improvements in the quality and standardization of company level reporting, such as those being implemented by the EU, should provide opportunities to incorporate more systems-level sustainability analysis into investment decisions.

From the interviews and workshop discussions, we found that there is interest in using a wider systems perspective for investment and asset management. However, the practitioners who participated in this study should be characterized as front runners with respect to their engagement with sustainability, and not representative of the industry as a whole. Practitioners see the SDGs as useful but recognize that they have lost some momentum due to competition from other frameworks and reporting requirements, such as the EU Taxonomy and the Sustainable Finance Disclosure Regulation (SFDR). Our respondents discussed both pros and cons of using the SDGs in capital investment. On the positive side, the SDGs were perceived as

¹ ESG refers to Environment, Social and Governance

useful with regards to the double materiality approach – i.e. they cover both risks to financial performance *and* the potential impacts of a business on the environment and society. The fact that the SDGs are future-looking was also considered positive. On the negative side, our interviews and discussions found that when working with the SDGs in capital management there is a risk that companies and investors only report on a few SDGs and only those goals they have had a positive effect on. More generally, the lack of standardized approaches to SDG analysis was considered negative.

An overarching conclusion from this study is that systems thinking is a challenge for the finance sector. For investors, company-specific information is often necessary, and very complex value chains and lifecycles need to be covered. The finance sector has a strong focus on quantitative data, aggregation, comparability and the use of benchmarks, which may be challenging to integrate with a systems approach to understanding sustainability impacts of capital allocation decision. The amount and type of data that analysts would need to collect and the complexity of the sustainability interactions to be assessed makes a highly quantitative approach to systems thinking very demanding.

Still, a systems perspective can help to approach the complexity of sustainability. This pilot study identifies six dimensions of systems thinking that would be useful for investment and asset management:

1. Are multiple dimensions of the sustainability agenda considered?
2. Are positive and negative impacts systematically considered?
3. Are more complex effects including indirect effects considered?
4. Are direct and indirect impacts producing co-benefits and trade-offs within the system?
5. Is there a long-term perspective?
6. Are large and small impacts distinguished?

These six dimensions are first steps in operationalizing systems thinking for sustainable finance and can be used as a simple checklist. However, in order for these dimensions to be useful to sustainability experts in finance, and even more so to asset managers, these six dimensions need to be further concretized in relation to the specific economic activities and companies under assessment. We recommend that the first critical steps that can be made now are to address a broader range of relevant sustainability aspects for specific companies and sectors; to systematically consider both positive and negative impacts; and to adopt a value chain approach to assessing impacts. Transparent company reporting of full value chains and hotspots is crucial to enable prioritization of the most consequential sustainability issues.

Background

Increasing awareness of and interest in environmental, social, and governance (ESG) issues among investors has led to a large ESG data market, with a wide variety of products on offer from service providers (Eccles et al., 2020). A value chain perspective on ESG is becoming increasingly common in the finance sector, meaning that activities throughout supply chains, product use and waste management are considered. This can be seen, for example, in the increasing attention on and expectation for companies to address greenhouse gas (GHG) emissions upstream and downstream from their core activities. This could include emissions embedded in the goods and services that a company purchases and emissions that result from the transport, use and final disposal of the company's products. Still, despite the increasing prevalence of a value chain perspective, Sjöström and Belinga (2021) found that financial analysts who sold assessments of companies to asset managers and other institutional investors often neglected companies' value chains.

Companies and investors use the Sustainable Development Goals (SDGs) to report on sustainability efforts, providing an opportunity to incorporate a range of sustainability issues. However, in an overview made by Dansif, Swesif and Finsif (Dansif, 2020), the most common approach is to report on a few particular SDGs. Investors whom they interviewed noted that there is a lack of data on companies' negative SDG impacts, making it difficult for investors to account for both positive and negative impacts. Still, the SDGs are a way to gain a broad perspective, acknowledge the wide range of sustainability issues, and consider impacts on society. In the finance sector, the concept of materiality has for a long time kept a narrow focus. Now, financial professionals are under increasing pressure to consider systemic risks and a broader scope of materiality that addresses not only the direct financial risks to businesses, but also the impact of businesses on nature and society.

One example is the Taskforce for Nature-related Financial Disclosures (TNFD). This initiative is developing a risk management and disclosure framework for organizations to report and act on nature-related risks. The approach takes one step towards more systems thinking by establishing approaches to materiality that guide companies to assess both risks to the financial performance of an enterprise associated with nature-related issues *and* the potential impacts an enterprise has on "people and planet". Taking both perspectives into account is called "double materiality" and can be contrasted with a focus exclusively on the impact of nature-related issues on the financial performance of the company. The TNFD framework does not dictate which approach should be adopted, but it is designed to facilitate both approaches to defining materiality (TNFD, 2022). The TNFD also, in addition to physical and transition risks, mentions system risks. The new Corporate Sustainability Reporting Directive (CSRD) (EU, 2022) more clearly states that reporting should cover both the impacts of the organization on people and the environment, and how sustainability matters affect the organization, i.e. it adopts the double materiality approach.

Depending on the time horizon of the investor, financial risk analysis could benefit from a double materiality approach to enable long-term optimization. Opperman et al. (2017), in their analysis of hydropower financing, argue that investments should use a systems perspective as a basis to avoid future losses. In practice, the time frames of concern to asset managers may not activate the types of incentives that one might want to attribute to a long-term and "universal" investor. But even where investors' incentives do not live up to this ideal, they should nevertheless adopt a double materiality approach. Society has a legitimate expectation that companies be transparent about their impacts on people and planet.

While there are steps being taken towards broader perspective and ambition, Crona et al. (2021) describe a "cognitive disconnect in financial risk frameworks between environmental and financial risk" and call for a broadened scope to "consider other key parts of the Earth system, including their complex interactions and non-linear properties". Sjöström and Belinga (2021) refer to Crona et al. (2021), and foresee that financial analysts who use a systems perspective

will gain an advantage as knowledgeable investors will start to ask for this type of systems-level sustainability analysis. This is in line with Eccles et al. (2020), who point to increased recognition of system-level issues, and identify that there is increasing demand for impact measurements and for assessing externalities in a credible way. With broader scope and ambition by investors, the benefits of using a system perspective should be considered. In this study we have started to reflect on this.

At the outset of the study, we identified four aspects of systems thinking that we believed were particularly relevant to sustainable finance. We tested and discussed these aspects with investors and asset managers in interviews and a workshop, to understand their relevance and the extent to which professionals are currently applying them (see Appendix 1 for more details on the methods). These four aspects are:

1. The consideration of a broad range of sustainability topics
2. The consideration of both positive and negative impacts
3. The consideration of potential indirect effects, both positive and negative
4. The consideration of interlinkages across different impacts.

The four dimensions are broadly informed by systems thinking (e.g. Meadows, 2008), and have also been inspired by existing methodologies for systems analysis developed by the Stockholm Environment Institute (SEI) in particular. *SDG Synergies*² is a method and online tool developed by SEI that draws on systems thinking to analyse interactions across different policy areas. It offers a systematic and transparent approach to assessing a wide range of sustainability aspects and provides an approach for semi-quantitatively scoring positive and negative interactions, identifying indirect effects as well as synergies and trade-offs.

In this pilot study, we consider systems thinking related to finance in an overarching manner, without the ambition to dig deeper into the plethora of concepts and methodologies within the field of systems thinking. In future, actors involved in assessing the sustainability of economic activities (e.g. financial actors, companies, data providers, and policy makers) may find it worthwhile to explore the different methodological approaches to systems thinking, especially so-called “hard” and “soft” systems thinking. SEI’s *SDG Synergies* tool is focused on supporting SDG policy processes, and the methodology applies soft systems thinking where evaluation of sustainability impacts is based on qualitative stakeholder or expert opinion, rather than quantitative models and extensive data sets. One advantage of this soft approach is that it allows for a structured analysis of systems, where major parts of the system are being continuously influenced by humans, and where there are limitations with respect to empirical metrics (Hernández-Orozco, Lobos-Alva, et al., 2022).

The *SDG Synergies* tool is concerned with SDG interactions. Hernández-Orozco et al. (2022) argue that soft systems thinking is preferable for characterizing SDG interactions, regardless of the scale of the analysis. The finance sector tends to have a strong preference for quantitative metrics and models, and thus one should expect a preference for hard systems thinking in this sector. However, given the enormous amount of data needed for considering a very broad range of sustainability considerations and interactions, a soft approach may also be appropriate for financial actors. This would allow for the incorporation of a structured systems analysis of sustainability impacts, which is often currently missing, without having to wait for complete data. This soft approach may in fact better match the time and resources that investment asset managers can be expected to dedicate to systems analysis and to their capacity to make practical use of the outputs from systems analysis.

2 <https://www.sei.org/projects-and-tools/tools/sdg-synergies/>

The four dimensions we originally identified are explained below. In addition to these, the interviews and workshop revealed two additional dimensions that are central aspects of systems thinking, and appear highly relevant to the finance sector, namely:

5. taking a long-term view
6. distinguishing between large and small impacts.

All six dimensions are discussed in the Findings section.

1. Consider multiple dimensions of the sustainability agenda

The first aspect entails taking a broad perspective on sustainability and considering the full spectrum of issues, for instance as represented by all 17 SDGs. In line with Silva (2021), we note that there appears to be a tendency towards selecting one or a few topics or SDGs, typically climate in the environmental realm, while disregarding impacts in other areas. A systems perspective can help ensure that no important dimensions are overlooked. This is important, not least because different sustainability issues, such as climate, biodiversity, and health, are typically closely interlinked.

2. Consider both positive and negative impacts

The second aspect involves analysing both positive and negative impacts. Investors and asset managers can play a key role in promoting both the strengthening of companies' positive impacts, and the reduction or mitigation of the negative ones. We note that there appears to be a tendency in company reporting towards emphasizing primarily positive impacts, while investors in their engagement processes with companies tend to focus on pushing companies to reduce negative impacts. For transparency and accountability, and for driving positive change, the reverse is equally important. A more systematic approach to assessing positive and negative impacts could help overcome these tendencies.

Silva (2021) points to the need for further investigation of whether focusing on a few SDGs means excluding those in which companies have negative impacts (so-called "SDG-washing"); or whether it is those that are less relevant that are excluded. For the latter, it would also be interesting to use a double materiality lens in further studies.

3. Consider more complex effects including indirect effects

A systems perspective encourages the consideration of system-wide impacts and unintended consequences. One concrete way to do this is to try to understand any indirect impacts, whether positive or negative, that may result from an activity (e.g. see van Zanten and van Tulder, 2021). We use a sneaker company as a simple example to illustrate this point. The sneaker company has a direct impact on water use at the location of its operations. However, if we analyse indirect effects, we may find that the company's water use affects water availability for farmers, not only at the location of the company but also further downstream, which affects agricultural productivity and livelihoods. A better understanding of indirect impacts can provide a more comprehensive view of which impacts are significant. For instance, a small direct impact may have a very severe indirect negative impact, which may increase the priority given to address the original, direct impact. Also, a positive indirect impact may lead to rethinking action on the direct negative impact. We note that these types of impacts with complex causal chains are typically difficult for investors and asset managers to assess. Systems analysis could contribute to filling this gap.

4. Synthesize how direct and indirect impacts produce co-benefits and trade-offs within a system

A fourth step synthesizes identified relationships to gain a deeper understanding of the systems-level consequences of various impacts. Of particular relevance is to consider interactions across activities that either lead to co-benefits or trade-offs. These positive or negative interactions can then be targeted for backing or avoidance and mitigation. This entails understanding how different positive and negative impacts are interlinked by positive and negative direct and indirect impact relationships, to grasp full system-level impacts. It can also entail mapping whether specific impacts are central or peripheral to other parts of the system. A pharmaceutical company may consider switching to a more energy-efficient production process that reduces their climate impact, but generates more hazardous waste (i.e. a trade-off). In several cases there would also be co-benefits from resource efficiency measures, such as internal recycling that can reduce material flows and costs at the same time. Systems thinking offers promise in assessing such interactions, and identifying possible ways to strengthen co-benefits and mitigate trade-offs (Weitz et al., 2018), which can for instance constitute the basis for engagement dialogues with companies.

Findings

Overview of some available tools for systems analysis in asset management and investment

After an initial broad screening, we selected three systems analysis tools for review. The research team judged them to have important strengths from a systems perspective. We present them briefly below in terms of how they address aspects of systems thinking, and share some reflections on their potential usefulness and limitations. This portion of the pilot study was based on our own desk research and our own assessments of the tools. Although we incorporate some of the input we received from interviewing experts into our assessments, the selected tools and methodologies were not part of the interview portion of this pilot study.

World Benchmarking Alliance SDG2000³

The SDG2000 list identifies the 2,000 most influential companies globally, in terms of their size, sustainability impact and influence. They span a broad range of sectors and industries. The methodology begins with an effort to identify a set of drivers that will be central to the achievement of the 17 SDGs and their 169 sub-targets. It identifies seven so-called “systems transformations” required to deliver on the full SDG agenda (social, agriculture and food system, decarbonization and energy, circular, digital, urban, and financial system transformations). This approach is an interesting way of simplifying assessment while still maintaining a broad understanding of sustainability. We have seen this strategy in several of the methodologies we examined. The idea is that each company will be benchmarked based on their performance in these seven cross-cutting sustainability transformations, with the intention to promote a “race to the top” and provide accountability. We consider this a “systems” approach because, firstly, it focuses on how companies perform on a set of dimensions that are expected to be central to achieving a wide range of sustainability goals; and secondly, because it considers the extent of good or poor comparative performance at companies with a global impact. Performance on each transformation is assessed based on a set of quantitative indicators. Moreover, the companies included are based on an analysis that judges the degree to which they:

³ <https://www.worldbenchmarkingalliance.org/sdg2000/>

- dominate global production revenues and/or volumes within a particular sector
- control globally relevant segments of production and/or service provision
- connect (eco)systems globally through subsidiaries and their supply chains
- influence global governance processes and institutions
- have a global footprint, particularly in developing countries.

These assessments are based on quantitative indicators. This methodology is dependent on access to detailed databases providing company-level data and significant quantitative analysis.

The methodology's approach to including the full sustainability agenda is good. The World Benchmarking Alliance (WBA) develops separate benchmarks for each topic (e.g. gender and human rights). A potential barrier to adoption of the systems approach in this methodology could arise if financial actors in practice only use a single or a few selected benchmarks to evaluate the impact of a company, rather than the full set of assessments the methodology offers. Such an approach would significantly reduce the potential for systems analysis. The benchmarks highlight both positive and negative impacts. To our understanding, the benchmarks do not allow for analysing interactions such as co-benefits and trade-offs across different benchmarks, nor do they allow for assessing indirect effects. Importantly, the approach excludes sectors dominated by large negative sustainability impacts and thus have low potential to contribute to a sustainability transformation, such as coal, tobacco and weapons.

Overall, the approach appears to fit best with investors who are adopting an "active engagement" approach, in which they directly or in coalitions push companies to adopt certain sustainability practices, or to otherwise improve on sustainability performance. The WBA methodology helps an investor to engage with selected companies across a range of sustainability drivers and identify companies where active engagement has a higher likelihood of leading to positive impacts.

The WBA methodology requires a deeper analysis on a company-by-company basis for several sustainability dimensions. This means that it leaves a lot of the "investible universe" out of scope. It is also somewhat resource-intensive for users of the benchmarks to understand each individual company assessment. However, a benchmarking and ranking approach done by a specific organization and made available publicly requires much less commitment in time from investors, compared to each individual investor doing separate in-depth sustainability analyses of all the companies in their portfolio. The methodology is also aligned with typical investor practices of trying to identify "best in class/sector" actors.

Upright Project⁴

The Upright Project has built a mathematical model that relies on machine learning and artificial intelligence to quantitatively assess net sustainability impact across a wide range of areas. The data allows for analysing SDG alignment, the SFDR Principal Adverse Impacts, and the EU Taxonomy.

Upright's main methodology for scoring the sustainability performance of companies assesses 19 dimensions of sustainability categorized under four main themes: society, knowledge, health and environment. Scores are provided for each dimension and the scoring is done on a scale of positive and negative impact. The positive and negative scores are then summed up and compared to each other to provide a "net impact". The negative scores are subtracted from the positive scores and then divided by the sum of positive scores, which gives you a percentage that represents the net positive impact. Importantly, it should be clear that if the

⁴ <https://www.uprightproject.com>

negative scores are greater than the positive, the percentage will be negative. Calculating the net in this way means that a company with only positive impacts will get the maximum positive percentage of 100%. However, a company with much more negative impacts than positive impacts can have percentages well below -100%. The results provide an indication of the extent to which a company is delivering positive or negative impacts on sustainability goals. To our understanding, it does not allow for analysing interactions across different types of impact, nor understanding indirect effects.

What the scores mean for each sustainability category is difficult for us to assess. The methodology and data used in this model are a “black box” to non-subscribers, and it is unclear how much more methodological and data transparency is provided to paying customers. The public methodology documents suggest that the methodology focuses on quantitative data analysed using machine learning techniques, trained on peer-reviewed scientific literature to identify correlations between various metrics and sustainability impacts.

The approach provides scores across a broad range of sustainability dimensions in a way that contributes to a systems-level understanding of sustainability performance. However, given the complexity of the methodology, we judge that it would take extensive analysis to get a clear understanding of what various scores mean in terms of seriousness of impacts. A single score also does not provide details of what is causing a company to perform well or poorly on “waste”, “biodiversity”, or “taxes”, for example. We also found it difficult to understand how to interpret the summing of impact scores across sustainability dimensions. For example, one concern is that summing up scores on a shared scale over different dimensions of sustainability may not provide much insight into which of a company’s impacts are of most importance for overall sustainability performance. Understanding the single scale that encompasses quantitative data from different sustainability indicators would require in-depth analysis of the methodology.

From what we can assess with limited time to evaluate this complex method, the approach looks like it would be beneficial for tracking the overall performance of a company over time to see if it is trending in the right direction across a set of sustainability dimensions, and for benchmarking the performance of different companies against each other. We feel less certain that the netting of performance scores is useful in adopting a systems approach to investing.

Future-Fit Foundation⁵

Future-Fit has sought to define what a sustainable future and economy looks like: a “Future-Fit society”. This is translated into “break-even goals”, or minimum standards that any Future-Fit business must reach, as well as “positive pursuits” – activities that companies can pursue towards future-fitness – and progress indicators that can be used to monitor a company’s performance over time. The methodology offers the option of mapping against the SDGs.

At its heart, the methodology is guided by systems thinking and encourages the analysis of a multitude of sustainability impacts, both positive and negative. The designers have encouraged users to consider likely trade-offs and potential system-wide consequences, and to minimize the risk of unintended side effects. There is also consideration of indirect impacts, for example in other parts of the company’s value chain.

The approach is interesting as it seeks to define a sustainable economy and the role of companies within that. From what we can tell, it takes an ambitious approach to systems thinking. The drawback appears to be that applying the methodology is resource-intensive and may be unrealistic to do for more than one or a few companies. The methodology sets out a set of qualitative goals that should be achieved for a company to be considered “Future-Fit”, but an assessment of the extent to which companies are achieving these goals would require quantitative methods, metrics, and access to extensive data. The Future-Fit methodology leaves

⁵ <https://futurefitbusiness.org>

this quantitative analysis to users of the framework to carry out. Therefore, usability for investors appears to be a challenge.

Relevance of the SDGs as a framework for sustainable finance

Recent years have seen the emergence of multiple new frameworks and processes related to sustainable finance, not least the new EU regulations such as the EU Taxonomy and the Sustainable Finance Disclosure Regulation (SFDR). We sought to get a sense of whether the SDGs are still perceived as a relevant framework for guiding sustainable finance, or whether they have been crowded out by competing processes.

Based on the interviews we carried out with investors and asset managers, it appears as though the SDGs remain relevant as an overarching framework for sustainable finance. While they have lost some of their original momentum due to other processes competing for resources and attention, they still serve a purpose among investors and asset managers: *“the SDGs have really been adopted by the companies – they report based on them.”*

Some of the advantages of the SDGs in relation to the EU legislation, as highlighted by our interviewees, are that they are perceived as *“appealing”* and future-oriented. They are also perceived as more *“double-material”* in the sense that they focus more on impacts on humans and the planet, whereas preceding EU regulations had been more specifically based on risk and exposure perspectives, and more focused on the activities of companies rather than their impacts on society. This is related to their respective purposes, and for the SDGs this means that while they can be used as an overarching framework, they can also be perceived as less easy to apply from a company or an investor perspective.

A few important shortcomings of the SDGs as a framework for sustainable finance in relation to other emerging frameworks are that they are not perceived as solution-oriented and are not always relevant to the finance sector, as they have been developed primarily with the public sector in mind. *“They are a range of goals, but they don’t really say what the products and services are from an investment standpoint that will help deliver on those goals. There are certain assumptions that need be made around how this product or service helps deliver on one of the goals.”* One of the interviewees also raised the point that the SDG framework metrics are a bit skewed towards developing economics and basic services, which in some ways could be less relevant for investors who invest in technology in developed markets. This highlights the difficulties of emphasizing the finance sector as a vehicle for sustainable development, since key challenges lie in providing basic services to all.

On the other hand, part of the finance sector specializes in financing development projects. Hernández-Orozco, Cárdenas-Vélez, et al. (2022) assess how investments in World Bank-financed projects contribute to the SDGs, and how the results of their mapping exercise are used for impact reporting. They raise challenges related to a broader systems perspective, such as taking the potential synergies and trade-offs of projects into account, and not only considering direct connections to specific SDGs.

The SDGs are also not defined in the level of detail needed to analyse individual companies. For this reason, some interviewees perceived the SDGs as primarily useful for communication, labelling and reporting purposes, rather than for guiding investments and engagements. Several interviewees also highlighted how the SDGs, with their broadly formulated goals, make it easy for companies to *“tick the box”* and make sweeping statements of their contribution to the goals: *“there is always an element of simplification, and we see that very clearly when companies are communicating about the SDGs, that it is actually quite sweeping about their contribution to the different SDGs.”*

Another shortcoming of the SDGs is their lack of a standardized approach for working with and monitoring businesses: *“there is no agreed-upon approach for the [SDG] framework, which makes it lose some of its power. Everyone thinks it is important issues. Everyone wants to work with them. But the very last stretch to the finish line, the common toolbox – that should perhaps be the same for everyone – that is lacking.”* Much of the SDG data available relies on companies’ own reporting, which makes it difficult for investors and others to assess: *“it would have been much easier and better if [mapping of accounting numbers against SDG impact] was included in accounting standards and were audited numbers in company reporting, in a well-established manner, as the Taxonomy will now be. If a corresponding way existed for the SDGs, it would have been a lot easier for us as asset managers to redirect larger amounts of capital.”* This also makes room for the risk of SDG-washing.

The SDGs may therefore serve a complementary purpose compared to regulations and reporting standards. As they emphasize impacts of companies on society and nature, one important role of the SDGs for companies and investors could be as a basis for a double materiality approach. Rather than pushing them into the format of a standardized approach for accounting, they could provide a perspective and overarching framework to relate to, which could also qualitatively support a systems perspective.

Six dimensions of systems thinking in investment and asset management

1. Are multiple dimensions of the sustainability agenda considered?

Interviews and workshop participants alike seemed to confirm that addressing the full range of relevant sustainability impacts is a challenge. Cherry-picking is a common phenomenon according to one interviewee, and ESG reports are seen as public relations or PR products in which companies’ sustainability work is presented in quite a selective manner. We note that among environmental impacts, climate is predominant, even for sectors where other environmental concerns may be more critical. Systematically addressing climate impacts from the portfolio, such as setting net-zero ambitions and working with science-based targets, appears to be common practice. When asked about the strong predominance of climate issues, interviewees highlighted that, beyond the societal importance of addressing climate change, it is also relatively easy to quantitatively measure greenhouse gas emissions, and data is readily available. Issues such as biodiversity, which is increasingly seen as important by investors and stakeholders, are perceived as harder to grasp and measure. Climate issues are also seen as having become material for businesses.

Some interviewees highlighted that climate typically has co-benefits with areas such as biodiversity, hence such issues are addressed indirectly if not directly. They also highlighted that companies that are front runners in addressing climate impacts are typically front runners in addressing other sustainability issues as well. Potential trade-offs with climate were generally not noted by interviewees or workshop participants.

To narrow the number of aspects to focus on, materiality analysis can be made. However, Beske et al. (2020) note that the information provided by companies about their materiality analysis is often narrative and lacking in explanation, and thus verification is difficult. With a shift towards double materiality and towards a broader system that includes the value chain, the description and scope of materiality analyses becomes key to the interpretation and usability of the information provided.

For investors, capacity is a main challenge in addressing a multitude of sustainability impacts across a broad portfolio. For this reason, simple and quantitative approaches that can be applied across the entire portfolio, such as those that are available for climate impacts, are preferred. Beyond this, investors also spend time addressing specific controversies and scandals, and in some cases other thematic areas they perceive as timely and relevant for their portfolios.

Investors frequently use benchmarks, as they provide an independent assessment, allow for comparisons across companies and sectors, and allow for monitoring performance over time. However, workshop discussions pointed to the need for systemic analysis first, to put benchmarks, which typically address a relatively narrow topic, in context. Benchmarks that cover a broad range of topics and provide aggregated scores are pointed out as problematic, as different providers rate the same company very differently. Also, benchmarks miss the absolute impact, and if all companies are “bad”, the best rated may still be bad. To achieve real-world impact, investors much understand the actual performance.

In sum, there is a long way to go in systematically addressing all relevant sustainability impacts in investment and asset management. Broadening the scope beyond climate appears to be a key issue and an important first step – both as part of companies’ reporting, where a key issue is lack of incentives, and among investors, where a key issue is capacity constraint. An important lever mentioned by several study participants relates to more standardized sustainability reporting, whereby companies would be required to report transparently and be audited on their performance, similarly to financial reporting. With EU regulations developing rapidly, their effects in coming years will be interesting. Crucially, reporting should cover both impacts that result in business risk and impacts that affect society and nature in general, i.e. double materiality.

2. Are positive and negative impacts systematically considered?

A key issue that emerged under this theme relates to the aggregation of different impacts. Several interviewees highlighted challenges with comparing and weighing different positive and negative impacts and understanding the net impact of a company: *“for one, is alignment with several SDGs better than alignment with one SDG? And for a revenue stream that is SDG aligned, the impact may be bigger or smaller. So how big is actually the impact for this particular activity? That is very challenging to assess.”* In practice, large investors rely on aggregated sustainability data, though there also appears to be consensus that such data is of poor quality as different data providers often provide very different ratings of the same company. This highlights that there are significant methodological challenges with the aggregation approach. These challenges are also related to the inherent subjectivity involved in weighing different sustainability impacts. Thus, a more fundamental question not raised by study participants relates to whether aggregation is desirable, given that it entails comparing apples and pears (e.g. climate impacts vis-à-vis impacts on human rights); it may over-simplify highly complex issues; and it may be of limited value if the objective is to drive change by strengthening positive impacts and reducing negative ones.

The current practice at one of the firms interviewed is to focus on directionality or trends, and make a more qualitative assessment of which impacts are significant: *“is this going up or down? What do we see as the relative weighting, based on knowledge of the industry and the business model, the size of it?”*

Several interviewees also highlighted that EU regulations are an important driver in pushing companies in the direction of more systematically considering positive and negative impacts, for instance through the do-no-harm principle embedded in the EU Taxonomy and the SFDR. Another trend seems to be a shift from seeing ESG issues as mainly about risk minimization (i.e. reducing negative impacts to the business) to seeing ESG issues as opportunities (i.e. enhancing positive impacts for the business): *“historically, we have focused a lot on reducing risk. All of the work we and other Nordic asset managers have done to exclude quite broadly from our investment universe has been about minimizing risk. That is, we do not even want to spend time analysing certain sectors. But nowadays, there is a much stronger focus on opportunities.”*

3. Are more complex effects including indirect effects considered?

Through the interviews, we found limited evidence of consideration of indirect effects, and when done it does not appear to be systematic. As an exception, one investor highlighted that they use a logical framework, or Theory of Change type of approach to assess the products and services, the customers or beneficiaries of those products, and what they are using it for, and then assess

the impact of that. Similarly, this investor assesses the operations and its outputs, impacts and potential consequences.

Another interviewee highlighted that indirect effects are often difficult to assess and may be outside the control of the company, particularly when considering the entire value chain. For instance, a semiconductor company may have some control over its supply chains. But its products are used in a very broad range of end products, some of which have highly positive impacts (e.g. computers enabling access to internet), but also some negative ones (e.g. ending up as electronic waste when particular computer companies do not ensure appropriate recycling). Such indirect effects may need to be addressed at the system level rather than by individual companies or investors.

4. Are direct and indirect impacts producing co-benefits and trade-offs within the system?

The topic of aggregation of impacts (see discussion in the section on positive and negative impacts above) is relevant for understanding how investors approach the issue of co-benefits and trade-offs. Other than that, looking at more specific impacts, we found limited evidence of investors or asset managers assessing interlinkages across impacts. However, one topic that emerged in workshop discussions related to the value of being able to present companies with sustainability improvements that are synergistic with business development. To address this issue in the future, simple methodologies such as SDG Synergies could provide inspiration for how to approach interactions in a simple, systematic and transparent way.

5. Is there a long-term perspective?

Workshop participants and interviewees highlighted that a long-term perspective is necessary for sustainability work as well as to enable a systems perspective: *“if your focus is the next three months, the relevance of all of these issues, or the trade-offs you are prepared to make in relation to some of these issues, are quite different to if your focus is 10 years or more.”* One workshop participant expressed that *“sustainability is by definition about the long-term”*. A much broader range of sustainability issues, and systemic risks, become material on a longer time perspective. From a societal view, sustainability issues are all material, and for universal investors they are also financially material since impacts will affect some of the holdings.

However, conveying to companies that they need to consider systemic risks is very challenging due to their short time horizons, where banks have five years as their longest time horizon (see (Setterberg et al., 2019) for a longer discussion). Some of our interviewees (notably impact investors), do explicitly take a long-term view in their ownerships, and hence prioritize the long-term sustainability of the companies they invest in. As such, they seek proof that companies are on a long-term trajectory towards sustainability and have long-term plans to transition into sustainable businesses: *“we would argue that over the long term, the companies that more positively impact the world are more consistent with our sustainability mission and are going to do better over the long term.”* One interviewee highlighted the example of family companies: *“we have often liked companies that are led by families because they can have a multiple generational perspective and a legacy that they are trying to leave. Not all family companies are good ones but we found some really great examples of companies that have a cornerstone family share holder that has really helped it become a company that delivers on a social purpose as well as a financial objective.”*

6. Are large and small impacts distinguished?

Investors and sustainability analysts typically have large workloads with wide portfolios and significant amounts of data to deal with. A systems perspective needs to come in at an early stage, to help identify and prioritize the most significant sustainability impacts for a particular sector or company and put more fine-grained data into context.

In the workshop, where participants worked with an ESG report as a case study, they said that ESG reports provide very limited accountability because companies showcase their positive

impacts rather than their most significant impacts. In the ESG report in focus, workshop participants noted that the case study company did not seem to have done an analysis of the value chain to identify hotspots of sustainability impacts. This then made it very challenging to interpret the ESG report and understand what impacts were most significant. Ideally, a systemic overview of the value chain, or rather the full life cycle of the companies' products, would have been the starting point of the ESG report, highlighting the hotspots and what the company is doing about them. To make sure that the measures taken do not just transfer problems elsewhere, the analysis would need to include upstream processes, production, distribution, use of products or services, as well as waste handling. This is related to the materiality discussion and could be a basis for the company's impact on nature and society, as part of a double materiality approach. Transparency is key here to make it possible for investors to follow the reasoning behind the definition of material issues.

Similarly, a systems analysis that starts at the sector level to understand the most significant impacts before analysing specific companies could help identify where change is needed. In some cases, the sector or industry level, nationally and regionally, rather than the company level, may be the most appropriate entry point. This can be motivated for instance when addressing structural problems in a specific region.

The possibility of approaching the companies with the most severe negative impacts for engagement, irrespectively of whether they are a major part of the portfolio, was mentioned as one way to focus on large impacts. This is done in initiatives like Climate Action 100+. The Trase⁶ tool was mentioned as useful for targeting key companies connected to deforestation, and the lack of direct company identification related to other key environmental challenges was noted.

The discussion on aggregation of impacts above (see the section on positive and negative impacts) is also relevant for understanding how investors distinguish large and small impacts. One interviewee mentioned interest in the Upright tool (described above in the overview of some available tools for systems analysis), because it assesses impact size, allowing investors to identify and distinguish the most significant impacts.

Reflections

A first, overarching conclusion from this study is that operationalizing systems thinking for the finance sector is difficult. Any systemic analysis of sustainability impacts would need to be sector-specific, and often company-specific, to be relevant, as conditions and sustainability impacts are highly varied. It would also need to take into account very complex value chains and lifecycles. Finance actors such as investors and asset managers prefer quantified and standardized data that enables comparisons between companies. There is thus a need for both significant breadth and depth of information, which is resource-demanding. Some of the tools reviewed in this study take important steps in this direction, but still fall short.

To some extent, this may also reflect a possible tension between systems thinking and the mode of operations in the finance sector. Notably, the strong focus on quantitative data, aggregation, comparability, and use of benchmarks may at times be challenging to integrate with a systemic approach. For instance, a systems thinking approach may take an overarching view to identifying hotspots of impact, which may be very specific for a particular company. This approach may make it difficult to compare companies as such comparisons would require identical system boundaries and scopes, and also measuring all types of data, including those that are not hotspots for all. Finding meaningful ways of simplifying and prioritizing appears to be a key task, though not an easy one, and often not in line with current practice in the finance sector. Perhaps there is a need

6 <https://www.trase.earth>

for a more fundamental shift in mindset with regard to how we approach sustainability impacts, and the prominence given to comparability. A first step could be to reflect on when and why comparison is useful and whether it is a goal for the specific exercise.

Another system-level lever appears to be improved sustainability reporting. Standardized and audited sustainability reporting that provides accountability and transparency would address many of the challenges identified in this report. At present, it appears as though companies have a relatively good understanding of their positive and negative impacts across a wide range of relevant sustainability issues. However, they lack incentives to report these in a transparent and systematic way. Current and planned EU regulations (notably the EU Taxonomy, the SFDR, and the CSRD) appear to be important steps in the right direction. Some dimensions of systems thinking appear to be missing from these new regulations and initiatives, such as considering trade-offs and synergies. However, these new reporting initiatives appear to provide a strong basis for providing the data and inputs needed for more effective systems analysis. As such, there is a lot of potential value associated with championing a more systems-oriented approach to sustainable finance, given the current inflection point on reporting.

The six dimensions of systems thinking

Overall, our impression from interviews and the workshop is that there appears to be an interest in more systemic approaches from investors, but that they address the six dimensions included in the study in quite an ad-hoc manner, if at all. The six dimensions do appear relevant, but much remains to be done to put them into practice. As pointed out by workshop participants, the different dimensions are interrelated and addressing one dimension may lead to addressing another. As such they should not be seen as separate but closely interlinked.

Addressing a broader range of relevant sustainability dimensions – in particular, broadening the scope beyond climate and considering both positive and negative impacts – would be critical first steps. Before these are in place, it would be of limited value to try to make more sophisticated analyses of indirect effects and of co-benefits and trade-offs. Notably, we did find limited evidence of indirect effects, co-benefits and trade-offs being considered.

Further, as pointed out by workshop participants, transparent reporting of the full value chain and hotspots is crucial to make possible a useful prioritization and focus. Including the use phase and post-consumer phase of products would make it possible to identify further impacts.

The six dimensions can be seen as a first step in operationalizing systems thinking for sustainable finance and can be used as a simple checklist. However, in order to be useful to sustainability experts in finance, and even more so to asset managers, these six dimensions need to be further concretized in relation to the specific economic activities and companies under assessment. For instance, this study has relied on a simplified definition of indirect effects, stemming from how it is used in the SDG Synergies tool, but more sophisticated approaches and definitions are available (see Börjesson Rivera et al., 2014) and may be more appropriate in different contexts. Critically, systems thinking is particularly useful in the early stages of analysis, whether to inform an investment decision or to inform engagement dialogues. A systems analysis can be used to do a broad screening, enable prioritization, and identify the most significant and relevant impacts of a company. A systems perspective needs to go hand in hand with a stronger focus on double materiality to facilitate finance for sustainable development. As illustrated in our interviews and workshop, climate has become financially material over time, but there is still no systematic double materiality norm. For instance, one workshop participant highlighted that many investors neglect water risks because they do not realize that water is under-priced in many parts of the world and may soon – and very rapidly – start being priced in, which could have significant impacts across many value chains.

Six dimensions of systems thinking for sustainable finance

1. Are multiple dimensions of the sustainability agenda considered?
2. Are positive and negative impacts systematically considered?
3. Are more complex effects including indirect effects considered?
4. Are direct and indirect impacts producing co-benefits and trade-offs within the system?
5. Is there a long-term perspective?
6. Are large and small impacts distinguished?

Some potential ways forward

A systems perspective coupled with a double materiality scope should become the norm within sustainable finance. It is very difficult for individual investors and asset managers to take this perspective if the broader conditions are not in place.

Improved reporting standards may quite significantly change the conditions for systems analysis in the near future. A task for future research would be to provide a more in-depth analysis of

relevant policy frameworks to assess their merits and shortcomings from a systems thinking and double materiality approach. What does requiring double materiality entail in practice? How could various aspects of systems thinking be further strengthened in policy frameworks? How can EU reporting be useful to assess system-level effects and what gaps in reporting frameworks and practices should be filled to provide deeper system-level understanding of impacts?

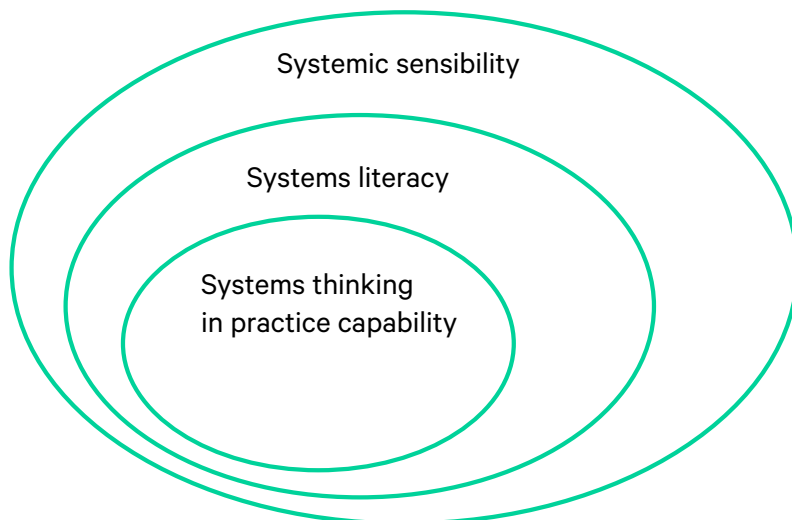
Life Cycle Assessment (LCA) takes the full life cycle of a product into account in assessing its environmental impacts and can be an important tool for systems analysis. Methodological discussions on boundary setting, quantification, and weighting of different impacts from this community could be useful for inspiration and furthering the integration of systems analysis in finance. LCA relates to the impact on society and can thus contribute to double materiality analyses. Many companies use LCA for internal purposes,

and more transparency would be useful, for example to motivate prioritization and focus. LCA is resource-demanding, but screening LCA can be performed to identify hotspots.

Another strand of work could be to further operationalize systems thinking in sustainable finance. Ison and Shelley (2016) provide a useful heuristic (see Figure 1) for this purpose, illustrating that there are different levels of systems thinking – ranging from a realization that systemic features and interactions exist (systemic sensibility), to a more fundamental capability of applying systems thinking in practice. There appears to be an interest among sustainability analysts to take more of a systems perspective.

Here, the challenge is to be more specific about how this can be done in practice, building a stronger *systems thinking in practice* capability. This could entail developing concrete tools and approaches for systems analysis that can be applied in practice by sustainability analysts.

Figure 1. Three levels of systems thinking



Source: Ison & Shelley, 2016

Sustainability analysts also highlight the need to work with asset managers to increase general awareness of systemic issues among them – that is, strengthening their *systemic sensibility*. Capacity-building or training efforts targeting asset managers might help with this. Such training could take the six dimensions in this report as a starting point. In this context, workshop participants emphasized the role of researchers in providing in-depth systems analysis, and for translating research results to enable implementation in practice. Participants requested that the research community present research results in a format that clarifies relevant information for investors.

References

- Beske, F., Hausteiner, E., & Lorson, P. C. (2020). Materiality analysis in sustainability and integrated reports. *Sustainability Accounting, Management and Policy Journal*, 11(1), 162–186. <https://doi.org/10.1108/SAMPJ-12-2018-0343>
- Börjesson Rivera, M., Håkansson, C., Svenfelt, Å., & Finnveden, G. (2014). Including second order effects in environmental assessments of ICT. *Environmental Modelling & Software*, 56, 105–115. <https://doi.org/10.1016/j.envsoft.2014.02.005>
- Crona, B., Folke, C., & Galaz, V. (2021). The Anthropocene reality of financial risk. *One Earth*, 4(5), 618–628. <https://doi.org/10.1016/j.oneear.2021.04.016>
- Dansif. (2020). *Investor Reporting on the Sustainable Development Goals – A Dansif, Finsif and Swesif Analysis* [Dansif Study]. Dansif.
- Eccles, R. G., Lee, L.-E., & Strohle, J. C. (2020). The Social Origins of ESG: An Analysis of Innovest and KLD. *Organization & Environment*, 33(4), 575–596. <https://doi.org/10.1177/1086026619888994>
- EU. (2022). *DIRECTIVE (EU) 2022/... OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of ... amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting*. <https://data.consilium.europa.eu/doc/document/PE-35-2022-INIT/en/pdf>
- Hernández-Orozco, E., Cárdenas-Vélez, M., & Keenan, C. (2022). *Using Automated Text Mining to Align Investments with the Sustainable Development Goals*: International Bank for Reconstruction and Development / The World Bank. <https://thedocs.worldbank.org/en/doc/ae8ec255531fe80332541514c8d8464d-0340022022/original/WB-SEI-Using-Automated-Text-Mining-to-Align-Investments-with-SDGs.pdf>
- Hernández-Orozco, E., Lobos-Alva, I., Cardenas-Vélez, M., Purkey, D., Nilsson, M., & Martin, P. (2022). The application of soft systems thinking in SDG interaction studies: A comparison between SDG interactions at national and subnational levels in Colombia. *Environment, Development and Sustainability*, 24(6), 8930–8964. <https://doi.org/10.1007/s10668-021-01808-z>
- Ison, R., & Shelley, M. (2016). Governing in the Anthropocene: contributions from systems thinking in practice? *Systems Research and Behavioral Science*, 33(5), 589–594. <https://doi.org/10.1002/sres.2436>
- Meadows, D. H. (2008). *Thinking in Systems: A Primer*. Chelsea Green Pub.
- Opperman, J., Hartmann, J., Raeppe, J., Angarita, H., Beames, P., Chapin, E., Geressu, R., Grill, G., Harou, J., Hurford, A., Kammen, D., Kelman, R., Martins, T., Peters, R., Rogeliz Prada, C., & Shirley, R. (2017). *The Power of Rivers, A Business Case*.
- Setterberg, H., Sjöström, E., & Vulturius, G. (2019). *Long-Term Perspectives in Investment Analysis | Swesif*. <https://swesif.org/2019/04/long-term-perspectives-in-investment-analysis/>
- Silva, S. (2021). Corporate contributions to the Sustainable Development Goals: An empirical analysis informed by legitimacy theory. *Journal of Cleaner Production*, 292, 125962. <https://doi.org/10.1016/j.jclepro.2021.125962>
- Sjöström, E., & Belinga, R. (2021). *Integrating Sustainability in Investment Analysis, 2021*. Swesif Report. <https://swesif.org/2021/12/integrating-sustainability-in-investment-analysis-report-2021/>
- TNFD. (2022). *The TNFD Nature-Related Risk and Opportunity Management and Disclosure Framework Beta v0.3*. https://framework.tnfd.global/wp-content/uploads/2022/11/TNFD_Management_and_Disclosure_Framework_v0-3_B.pdf
- van Zanten, J. A., & van Tulder, R. (2021). Improving companies' impacts on sustainable development: A nexus approach to the SDGS. *Business Strategy and the Environment*, 30(8), 3703–3720. <https://doi.org/10.1002/bse.2835>
- Weitz, N., Carlsen, H., Nilsson, M., & Skånberg, K. (2018). Towards systemic and contextual priority setting for implementing the 2030 Agenda. *Sustainability Science*, 13(2), 531–548. <https://doi.org/10.1007/s11625-017-0470-0>

Appendix 1 – Methods

This study has relied on three sets of methods: a review of existing tools to analyse systemic impact in finance; interviews with investors and asset managers; and an in-person workshop with banks, asset managers and advisors.

Review of existing tools

We reviewed existing tools, methods and approaches that draw on systems thinking to analyse sustainability impact in the finance sector. In an initial screening, over 25 open-access tools were reviewed. Out of these, we selected three tools for more in-depth review, as they appeared most promising in terms of incorporating systems analysis in the sense described elsewhere in this report. These three tools were the World Benchmarking Alliance SDG2000, the Upright Project, and the Future-Fit Foundation.

We also reviewed relevant frameworks, principles, and standards such as the Sustainability Accounting Standards Board (SASB) standards, the Task Force on Climate-related Financial Disclosures, and the EU's Sustainable Finance Disclosure Regulation.

Interviews

We conducted a total of six in-depth interviews to better understand current practices and limitations with regard to how investors and asset managers apply systems thinking to understand sustainability impacts.

Asset managers and investors at the following companies were interviewed:

- CapMan Oyj
- Generation Investment Management LLP
- Stewart Investors
- Nordea Asset Management
- Folksam
- SEB Investment Management AB.

Each interview lasted approximately one hour and sought to address the following topics:

- (How) do you work with the SDGs?
- How do you work across all SDGs/all dimensions of the sustainability agenda across the portfolio? Which dimensions?
- Do you search for companies with a large positive and/or small negative impact? Do you take both positive and negative impact into account?
- Do you have ways to take into account synergies and trade-offs across different objectives?
- Do you have any way to take into account indirect effects?
- What are challenges in integrating these perspectives?

The interviews also included a discussion of the three tools we selected, in the cases where the interviewees had some previous exposure to them.

Workshop, 24 November 2022

On 24 November 2022, SEI hosted a half-day, in-person workshop, entitled “*What could a broader systems perspective entail for sustainable investment and financing?*” (“*Vad skulle ett bredare systemperspektiv kunna innebära för möjligheten till hållbara investeringar och finansiering?*”). The workshop included participants from Tundra Fonder, AP7, Alecta and Ethos. During the workshop, we used the case of Pfizer’s ESG report for 2021, with two selected examples of sustainability impacts: waste management and equitable access and pricing. For each example, SEI researchers provided a brief overview of key metrics and information from the ESG report. A discussion was then held to discuss the extent to which the report enabled an investor or funder to take a systemic view of the impacts of the company, based on five aspects of systems thinking:

1. To what extent does the ESG report consider all positive and negative impacts?
2. Can the report be used to understand synergies and trade-offs?
3. How to distinguish between large and small impacts?
4. Can the report be used to consider indirect impacts?
5. To what extent does the report cover the full range of the sustainability agenda?

The workshop discussions also identified current gaps and challenges, potential benefits to investors, as well as some ways forward in addressing sustainability through a systems perspective.

Visit us

SEI Headquarters

Linnégatan 87D
Box 24218
104 51 Stockholm Sweden
Tel: +46 8 30 80 44
info@sei.org

Måns Nilsson
Executive Director

SEI Africa

World Agroforestry Centre
United Nations Avenue Gigiri
P.O. Box 30677 Nairobi 00100 Kenya
Tel: +254 20 722 4886
info-Africa@sei.org

Philip Osano
Centre Director

SEI Asia

Chulalongkorn University
Henri Dunant Road Pathumwan
Bangkok 10330 Thailand
Tel: +66 2 251 4415
info-Asia@sei.org

Niall O'Connor
Centre Director

SEI Latin America

Calle 71 # 11-10
Oficina 801
Bogotá Colombia
Tel: +57 1 6355319
info-LatinAmerica@sei.org

David Purkey
Centre Director

SEI Oxford

Oxford Eco Centre
Roger House Osney Mead
Oxford OX2 0ES UK
Tel: +44 1865 42 6316
info-Oxford@sei.org

Ruth Butterfield
Centre Director

SEI Tallinn

Arsenal Centre
Erika 14
10416 Tallinn Estonia
Tel: +372 6276 100
info-Tallinn@sei.org

Lauri Tammiste
Centre Director

SEI York

University of York
Heslington
York YO10 5NG UK
Tel: +44 1904 32 2897
info-York@sei.org

Sarah West
Centre Director

SEI US Main Office

11 Curtis Avenue
Somerville MA 02144-1224 USA
Tel: +1 617 627 3786
info-US@sei.org

Michael Lazarus
Centre Director

SEI US Davis Office

501 Second Street
Davis CA 95616 USA
Tel: +1 530 753 3035

SEI US Seattle Office

1402 Third Avenue Suite 925
Seattle WA 98101 USA
Tel: +1 206 547 4000
