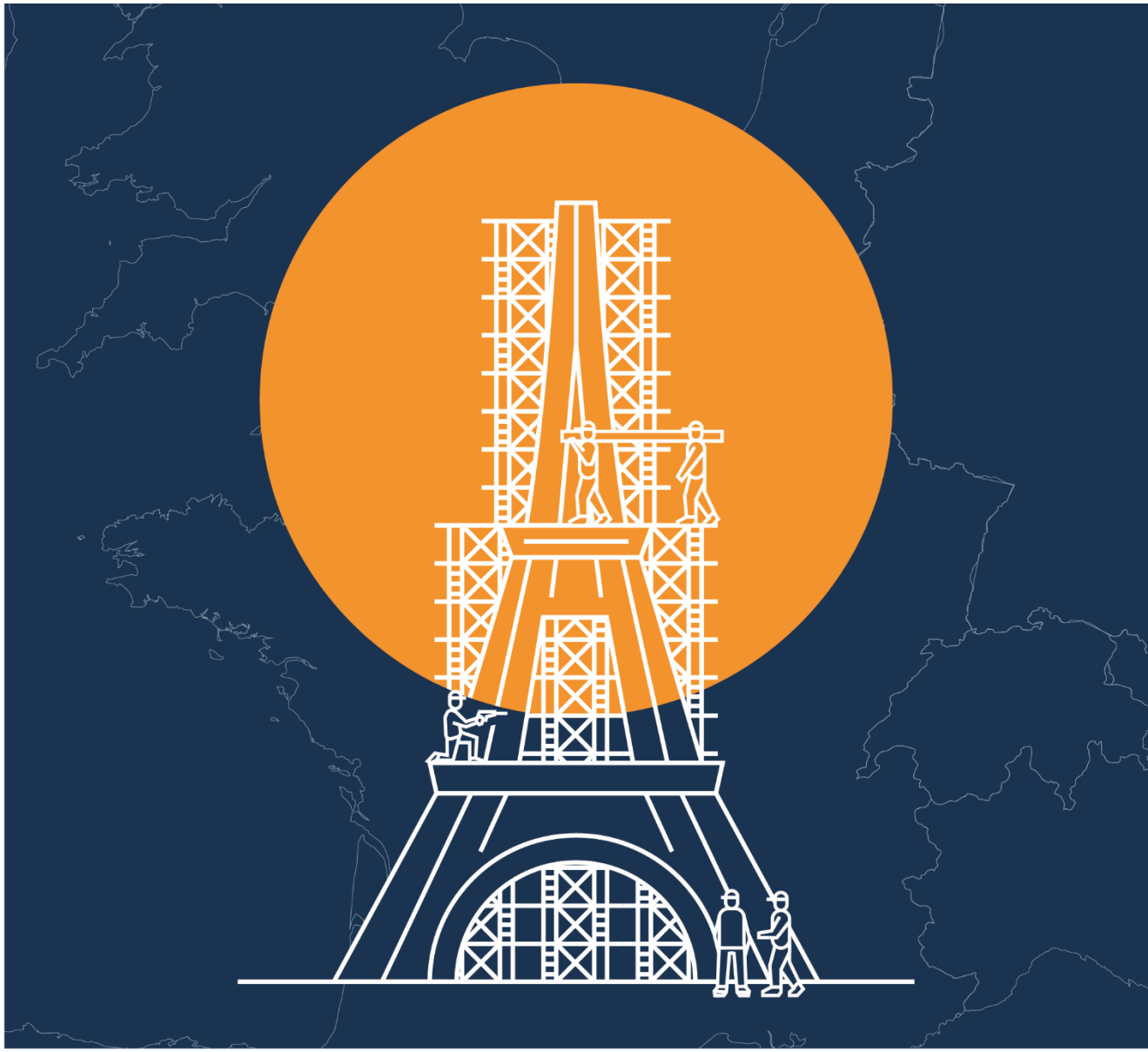

A Climate Impact Management System for Financial Institutions

Designing a scientifically sound climate contribution strategy

2° Investing Initiative

Finance ClimAct

Life

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A Climate Impact Management System for Financial Institutions

Designing a scientifically sound climate contribution strategy

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

Working globally with offices in Paris, New York, Berlin, London, and Brussels, 2DII coordinates some of the world's largest research projects on climate metrics in financial markets. 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, regulators, policymakers, universities, and NGOs.

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Contents

1. Introduction

Target setting initiatives are on the rise. Over the past few years, there have been a growing number of financial sector initiatives either focused on climate targets (e.g. Net Zero Asset Owner Alliance, Science-based Targets Initiative) or specific climate-related strategies (e.g. Coal Divest, Climate Action 100+ for engagement). Net-Zero targets have also been gaining traction in the recent months. Meanwhile, policy makers worldwide are starting to explore how regulatory frameworks could accommodate raising climate concerns – disclosure regulations, national and international labelling schemes for impactful products, etc.

Impact of these initiatives is rarely tested. To date, however, there has been limited focus on understanding the ultimate impact of these initiatives and associated specific actions on greenhouse gas (GHG) emissions reductions in the real economy. Much of the 'success' of the strategies is measured by the ability of financial institutions to 'decarbonize their portfolios' or 'align their portfolios with climate goals' in some form – **independent of the extent to which this leads to decarbonization in the economy more generally**. While alignment is a valuable strategy for various purposes (e.g. risk management), it there is no evidence that it causes decarbonization in the real economy[1].

There is a pressing need for impact frameworks. At a time when we need urgent, immediate action in order to remain well-below the 2° limit by the end of the century, the financial sector in turn requires frameworks for setting up climate strategies specifically designed to contribute to climate change mitigation. Multiple challenges pave the way to impactful climate action, that such frameworks must help financial institutions to navigate. Two such challenges are particularly hard to cope with. First, the long-known difficulty of measuring the impact of financial institutions on the real economy. Second, the existence numerous constraints that restrain financial institutions' impact potential (e.g. lack of internal capacities, clients' preferences, regulations, etc.). Both these challenges are discussed in Section 2 of this report.

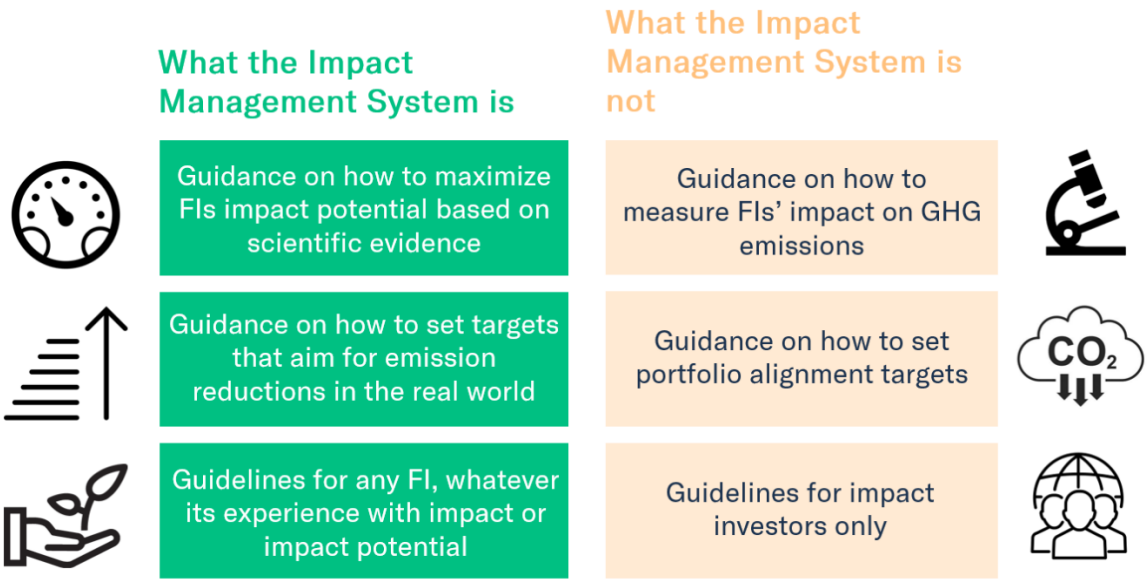
This report introduces an Impact Management System that will enable financial institutions to meet these challenges and actively contribute to climate change mitigation. The framework specifically guides FIs in defining the best possible contribution that they can make to climate change mitigation, based on available science and their specific constraints; in planning for this contribution and continuously improving it; and in communicating accurately about it. In short, we outline below a process for how financial institutions can best use the resources at their disposal to have an impact on climate change mitigation[2].

The framework is primarily for financial institutions (of any kind or impact potential) but can also inform the development of labelling or certification schemes for financial products. It can be particularly helpful for financial institutions that undertook long-term Net Zero commitments and want to set up short-term plans to actively contribute to these commitments. The framework can be applied at the product, business line, or institutional level.

The Impact Management System builds on existing standards and framework, such as the ISO 14097 and 14001, the Eco Management and Audit Scheme (EMAS), the Impact Management Project's (IMP) framework, and references various tools and guidance documents that can assist FIs in the process of setting up impact-based climate strategies.

[1] https://2degrees-investing.org/blogs/aligning-with-climate-goals-vs-contributing/

[2] Note that the process discussed in this report is not prescriptive as to the ambition expected of financial institutions. It only applies in cases where financial institutions want to contribute to climate goals or are claiming to do so.



The report is structured as follows.

Section 2 discusses the premise on which these guidelines are built and the challenges that arise from it. It then proposes that these challenges are best answered by defining principles to guide any impact management exercise, on which the Impact Management System is based. **Section 3** sets out the Impact Management System and outlines potential steps for a financial institution that wishes to maximize its climate contribution. Finally, **Section 4** provides guidance on how each of the steps of the framework can be performed. Links are also included in Section 3 to the relevant guidance sheets in Section 4.

Glossary & Commonly used acronyms

Impact of a financial institution (FI) on climate change mitigation: The change that the FI causes in the *real* world that directly or indirectly influences GHG emissions. This impact can be positive (reduction of emissions) or negative (increase in emissions). In the rest of this document, we refer to "impact" as meaning "positive impact".

Financial institution's contribution to climate change mitigation: Aggregate of the actions deployed by the FI that caused changes in the real world.

Climate Action: The specific initiatives of the financial institution to cause reductions in real-world GHG emissions.

Impact mechanism: The mechanisms through which climate actions can deliver impact.

Output of a climate action: The change arising from the financial institution's actions that influences the investee.

Outcome of a climate action: The measurable change observed in the activities of the investee, as a result of the output.

Level of evidence: Quality of the evidence available in the scientific literature as to the ability of a climate action to yield an impact.

Impact potential maximization: Maximization of the expected impact of an organization, branch or product, the expected impact being defined as the probability of having an impact multiplied by the scale of the impact.

AOOI: Action, Output, Outcome, Impact.

FI: Financial Institution

2. Key premise & challenges to managing impact

In this Section, we (i) discuss the premise on which these guidelines are built and (ii) discuss the challenges that arise from it. We then suggest that these challenges are best answered by defining principles to guide any impact management exercise. The management system outlined in Section 3 is built around these key principles.

Key premise: An impact management system should be science-based.

These guidelines are built on a key premise: **An impact management system should be science-based**, in the sense that it must be based on a scientific approach, **both in terms of the objective it pursues and the actions it deploys to reach it.**

What is a science-based objective to pursue? Climate change mitigation implies drastically reducing our anthropic emissions[3]. Financial institutions have significant influence over emitting companies in all economic sectors. **A science-based objective for financial institutions (FIs) is thus** to leverage their influence over these emitting companies **to trigger emission reductions in the real economy**[4]. It is this notion of "causing a change in real world emissions" that is captured in the word "impact" as we define it[5].

What does it mean for actions[6] to be science-based? This means, where evidence is available, factoring this evidence in decision making; where evidence is not available, implementing actions whose effectiveness can be scientifically assessed.

Such a scientific grounding ensures, first, that **the strategy that is deployed has the best possible chances to contribute to climate change mitigation**; and, second, that **best practices are not discouraged**. Indeed, we fear that if claiming contribution to climate change mitigation without scientific backing is permitted, no ambitious actions will ever be undertaken. If narratives and demonstrable theories are given the same weight, it undermines the possibility that the latter ever become more than theories. For these two reasons, we consider that an impact management system should be based on the best available science. For the same reasons, communication practices associated to climate strategies should also be fair and accurate, reflecting the current state of science.

The unique characteristics of financial portfolios present challenges when it comes to deploying such a science-based approach. We summarize these challenges below. We suggest that these challenges are best answered by defining principles to guide any impact management exercise.

Challenge 1. We cannot systematically measure the impact of financial institutions on the real economy.

It is unlikely that we can ever systematically measure the impact of individual financial institutions on the real economy, due to their indirect control over investees' actions. "Measuring impact" would mean identifying a causal link between the actions of a financial institution and changes in the investee's activities. This can only be done in very specific experimental settings and likely not in "natural" cases when multiple parameters influence the investees' decisions (oil prices, carbon taxes, competition, other investors' actions, behavioral change, etc.).

An analogy to medical studies, in which FIs are the doctor and investees the patients, can prove helpful in understanding this limitation (see **Figure 1**). We do not have "methodologies" for "measuring" the impact of a medication each time a sick person takes it. When wanting to assess the impact of a medication, we set up an "experiment" to "assess" the impact of the medication on a large population before its release on the market. It is the same for FIs' impact. What we should aim for is an assessment of the impact of various types of actions

[3] https://www.ipcc.ch/sr15/
[4] Such a conclusion is in line with the understanding of most practitioners: https://2degrees-investing.org/wp-content/uploads/2021/02/2ii_E4I_Stakeholder_Feedback.pdf
[5] See Section 4 for a more detailed definition of the notion.
[6] See Section 4 for a detailed definition of the notion.

in controlled settings, so as to identify the ones that are likely to be effective. Instead of measuring its impact, a FI could then maximize the impact expectation[7].

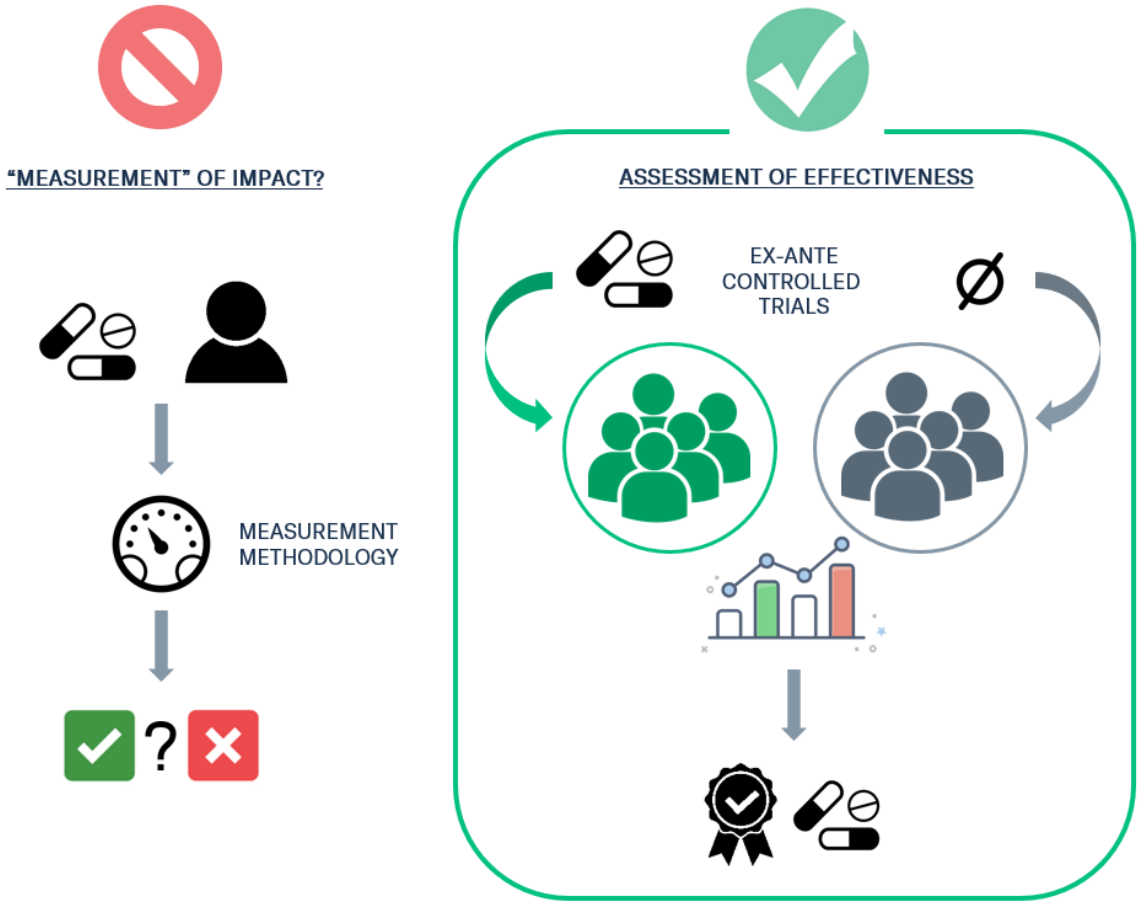


Figure 1 *The example of medical studies: Assessing the effectiveness of a medication via controlled trial rather than measuring its impact.*

The implications of this impossibility in terms of impact management are important: only the means deployed to contribute to climate improvements and the changes in the real economy can be monitored, while the impact of the FI itself cannot be isolated in most cases. The best that a financial institution can do is thus **maximize the expected[7] impact of its portfolios, by deploying necessary means, rather than demonstrating its impact**.

Thanks to the work of researchers such as Kölbel et al. (2020), some information is already available regarding existing evidence that various actions can deliver impact (i.e. on the means that have been proven to be impactful in some settings).

Considering that this existing information (while still incomplete) represents the best available evidence, **the goal of an impact management system could be to ensure that the FI's impact potential is maximized[8]**. An FI's impact on climate change cannot be systematically measured, as explained above, so **how do we maximize an FI's impact potential without being able to measure this impact?** This can be done by implementing priority actions that have proven impactful in the past; as well as actions whose impact is demonstrable for when research is lacking; and deploying the necessary efforts to demonstrating this impact.

[7] In the mathematical sense: product of the probability of an event occurring, here the probability of having an impact, and the value corresponding with the actual observed occurrence of the event, here the scale of the impact.

[8] Such a recommendation is in line with (Caldecott, 2020): *"The job of the financial institution attempting to secure ACO, is to get as close as possible in practice to the theoretical maximum potential impact an instrument in an asset class can have. If the maximum theoretical potential impact of an instrument in an asset class is performance-level X, then the financial institution should get as close to X as possible." & "Further, for financial institutions operating across instruments in different asset classes, their job for ACO should be to maximize the positive real economy impact across all the instruments they have and potentially even seek to optimize their portfolio of instruments, i.e. do more in instruments that have more impact and less in instruments that have less."*

Maximizing the impact potential, in this context, thus means ensuring that the expectation[7] that FIs' actions are impactful is maximized. See Section 4 for more details and caveats on existing evidence.

Challenge 2. Financial institutions face external and internal constraints that limit their ability to take impact-focused actions.

The second key challenge is that **financial institutions face external and internal constraints that limit their ability to take impact-focused actions.** Such constraints can be:

- External: regulatory and market constraints, etc.;
- Internal: organizational expertise and capacity, financial resources, internal incentive schemes, current balance sheet composition, etc.

Due to these constraints, the actions that have the highest impact potential cannot always be implemented by financial institutions, at least not right away. For example, an FI might determine that engaging closely with the top emitters in its portfolios might be the most relevant action to do but lack human resources to do it properly. As each institution faces a unique set of constraints, a one-size-fit-all approach is not appropriate.

Consequently, a crucial phase of setting a climate strategy is the identification of all constraints specific to the institution, business line or product whose impact potential is to be maximized, both internal and external. This allows for the **identification of actions that (i) are applicable given the constraints and (ii) have the highest expected impact, so as to maximize the impact potential** of the FI's portfolios under constraint.

These constraints determine FIs' ability to impact the real economy. A central aspect of an impact management system applied to financial activities is thus an obligation to continuously work on lifting the barriers to actions, so as to increase their impact potential year on year. Information gathered through this continuous improvement process could also be used to bridge the current research gaps and strengthen stakeholder collective understanding on the most promising actions.

Finally, communication practices need to reflect the two above-mentioned challenges: the impossibility of measuring impact and the fact that FIs' maximal impact potential varies greatly among institutions depending on the constraints that each face. Communications need to, first, reflect (non)existing evidence and, second, reflect the evidence associated with the contribution made. This means that not only should FIs avoid claiming achievements that they cannot prove (e.g. GHG emission reductions), but also they should also reflect the evidence level associated with their actions. For example, the fact that a fund entirely invested in liquid equity, even though the asset manager is engaged in a continuous improvement process, is associated with little evidence of effectiveness, needs to be reflected in communication.

From these three key challenges arise three key principles that could represent the foundations of an impact management system for financial institutions:

- Maximization of **the impact potential** under constraints
- C**ontinuous improvement**, both in terms of ability to take actions and contribution to research progression
- **Appropriate communication**

FIs' climate impact: Ideal vs. feasible situations

For the reader to better understand the implications of the above-listed challenges on impact management, we summarize in **Figure 2** the difference between an "ideal" framework for managing FIs' impact on climate change, and a feasible solution. It is towards this feasible solution that we intend to progress with this first report.

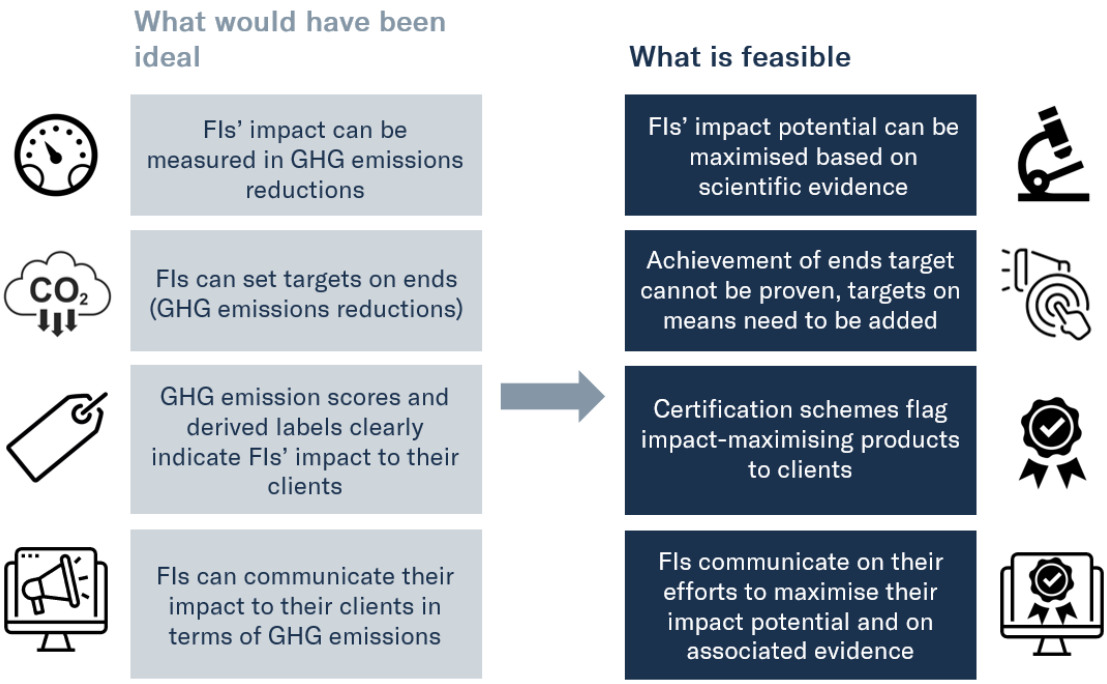
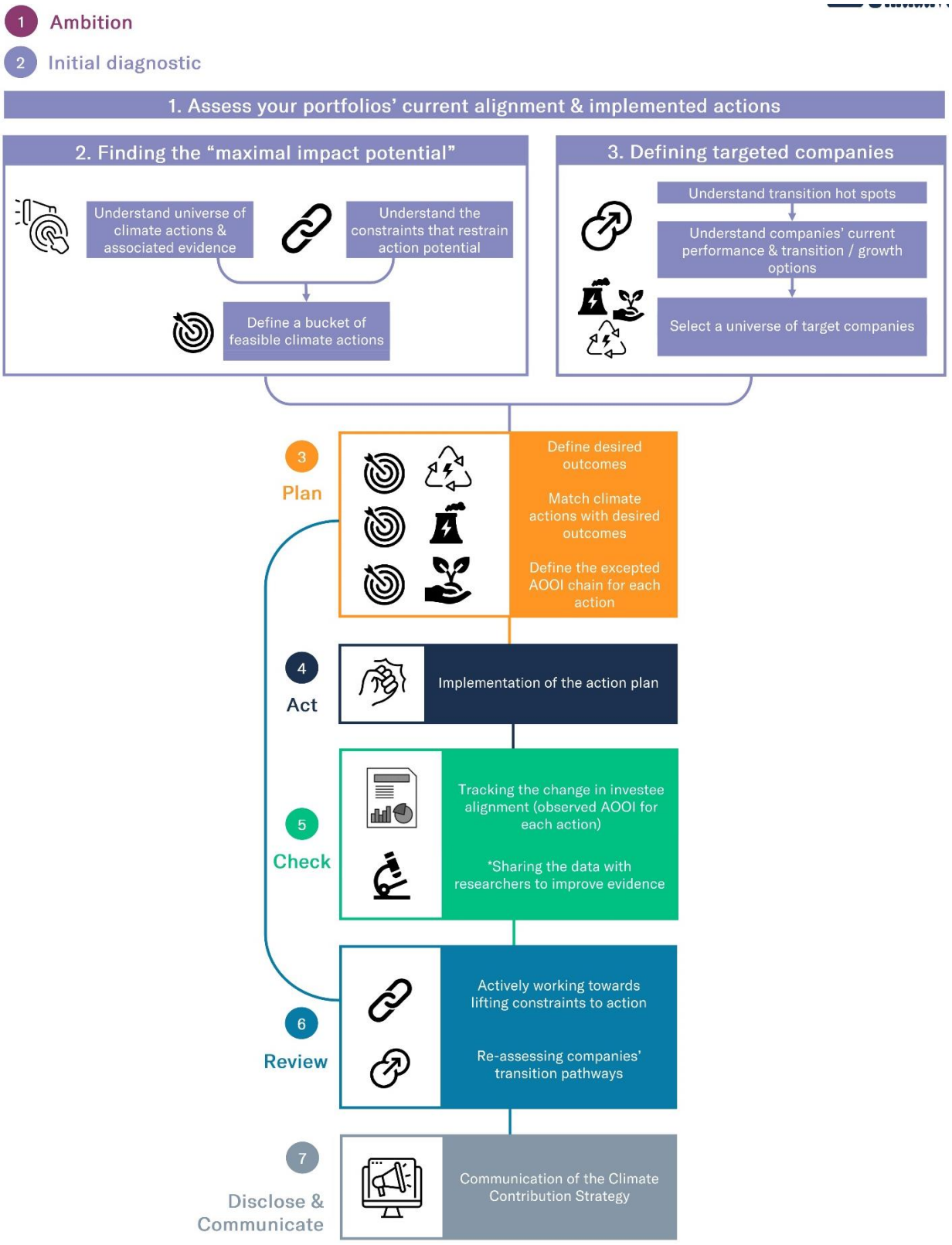


Figure 2 *Ideal vs. feasible impact management systems.*

3. A climate impact management system for FIs



Introducing the impact management system

The Section below outlines the steps that could be followed by a financial institution wanting to manage and maximize its impact potential.

Links to guidance on how to implement the step are embedded in the document. The framework draws on the existing management system standards discussed in Annex 1.

The framework can be applied to a variety of cases: specific financial products, branches of a financial institution, or a whole institution. The below text is written to reflect the application to the whole institution, but the same steps and principles would apply in the case of single products.

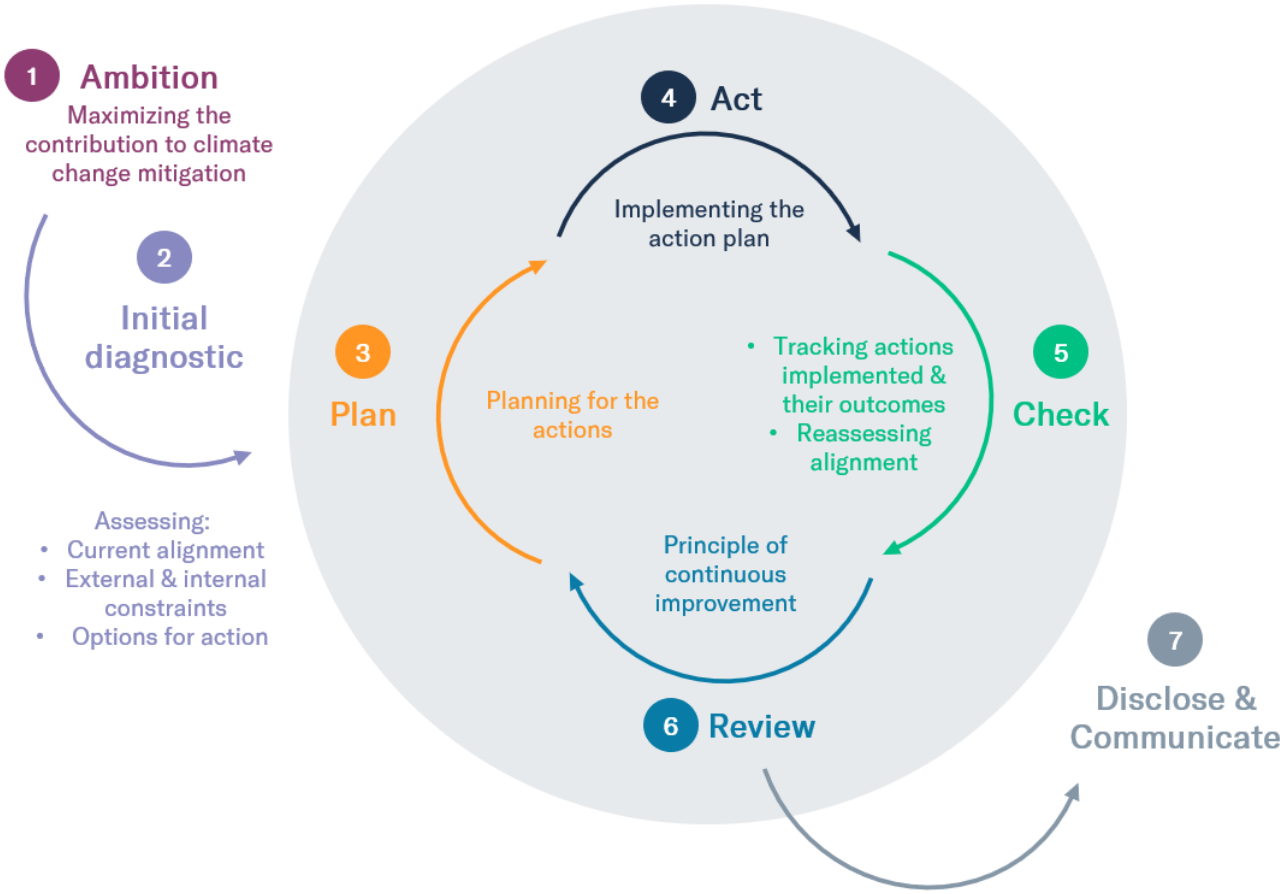


Figure 3 *An impact management system for financial institutions (Source: Authors, based on the standards discussed in Annex 1).*

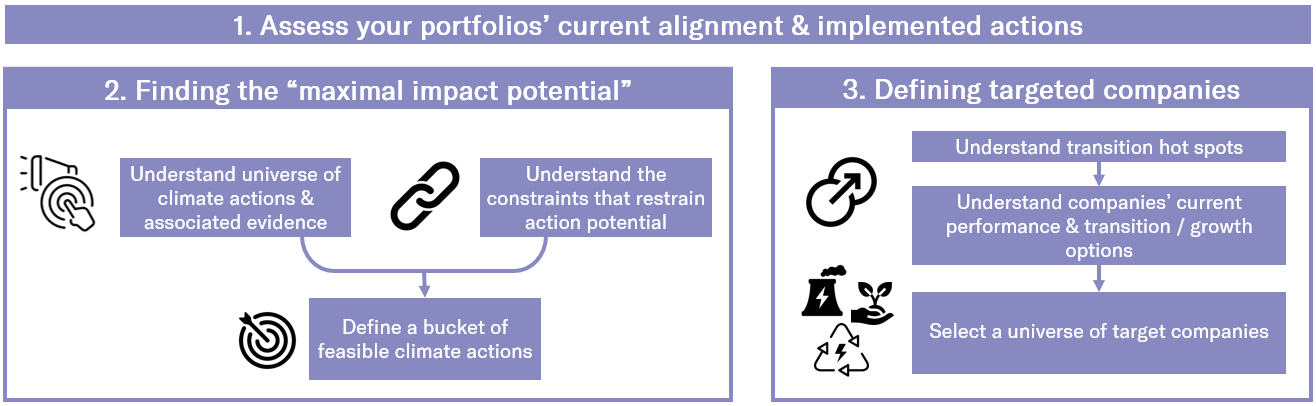
1 Ambition

The first step of the process is to **define the ambition** of the impact strategy that is going to be developed.

The ambition that the framework allows to operationalize is that of the **maximization of the impact potential** (see Section 2) of the financial institution on the real economy.

In this first step, the FI should thus articulate this ambition in a dedicated document.

2 Initial diagnostic



The second step of the process is an **initial diagnostic**, with the sub-steps as follows:

Assess your portfolios' current alignment and implemented actions

First, the FI needs to understand its initial contribution to climate improvements. This could be done by:

- Understanding the **climate actions already implemented** in existing portfolios and the evidence that exists regarding their ability to drive improvements in investees' behavior.[9] The FI will thereby understand its current contribution to climate change mitigation. Learn more in guidance sheet A & B.
- Understanding **the overall alignment of its portfolios with climate scenarios**, as well as the **sectors and companies that the institution is currently exposed to** (either contributing to climate change or to climate solutions). The FI will thereby understand what priority sectors and companies it should target with future actions. Learn more about how this could be done in Guidance sheet D.

Once the current performance of the financial institution is clarified, options for improvement need to be identified. Two dimensions need to be explored: the FIs' **contribution** to real-world changes (i.e. what impact mechanisms the FI can mobilize given its constraints), and the **real-world improvements** that these contributions aim to bring about.

Finding the "Maximal impact potential"

The objective of this step is to find a trade-off between actions whose impact potential is associated with a high level of evidence and constraints that restrain the ability of the institution to implement the actions. The diagnostic thus needs to cover both aspects:

- Identification of all **actions applicable to the FI** and of the existing evidence as to their ability to drive the necessary changes in the real economy – as identified in the previous step. Learn more in guidance sheet A & B.
- Identification of all **constraints applicable to the FI** that restrain the set of actions that can be applied or implementation modalities. These can be external constraints (regulation, clients' expectations, etc.) or internal constraints (HR resources, financial resources, etc.).[10] Factors that support climate actions' implementation can also be identified. Learn more in guidance sheet C.

[9] EMAS wording: *"Give a picture of the organization's current environmental performance (all existing practices and procedures concerning environmental management)"; "Identify direct and indirect environmental aspects and impacts"*

[10] EMAS wording: *"Identify the "external and internal issues" that can positively or negatively affect the organization's environmental management system"; "Determine the needs and expectations of interested parties"; "Identify applicable legal requirements"*

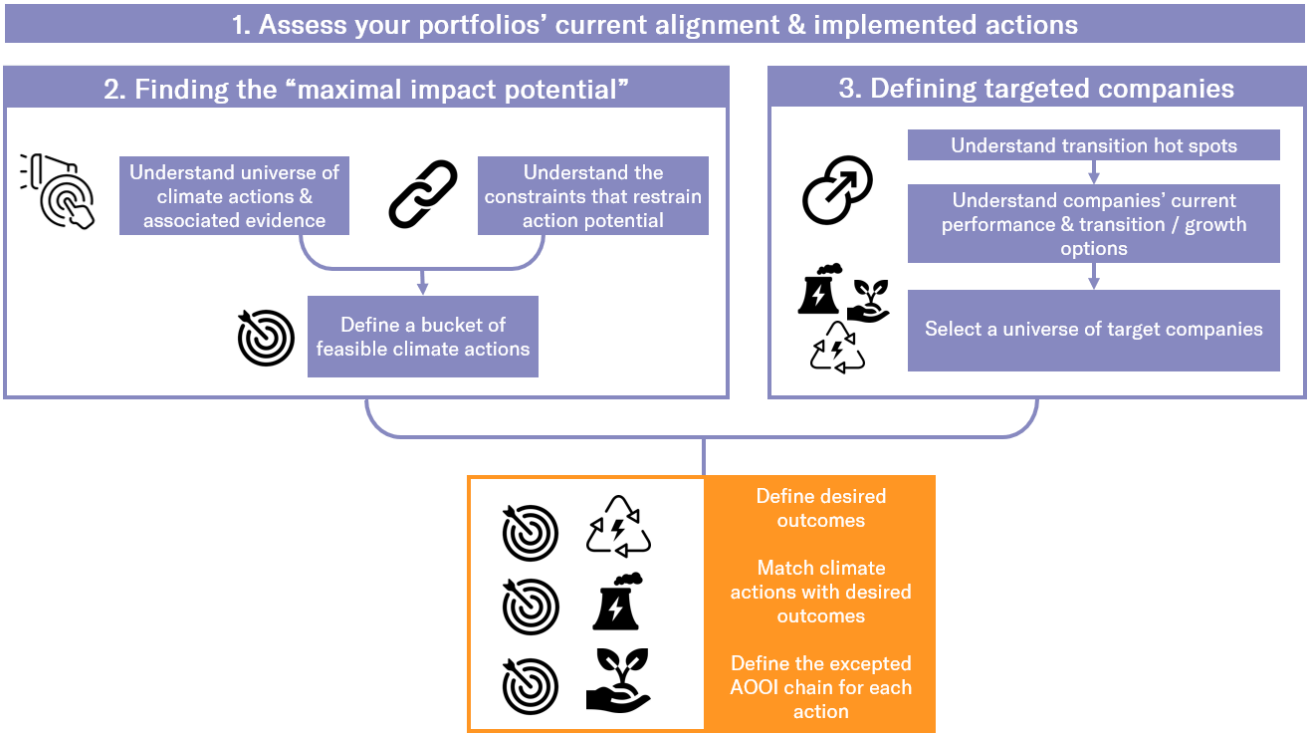
Finally, by crossing actions with constraints, the current **"maximal impact potential"** of the institution can be identified. **This maximal impact potential corresponds to a set of actions that the FI can implement, as well as their ideal implementation modalities.**

This maximal impact potential represents the most ambitious yet feasible climate performance that the FI should strive for when defining their impact strategy.

Defining targeted outcomes

In this step, the FI needs to understand how the investees in its portfolio currently contributing to climate change need to evolve to align with climate transition pathways. Detailed planning of the changes that the FI wants to trigger in investees' activities will be conducted in the Planning step. At this stage, the objective is simply to get a high-level understanding of required changes and relevant companies. FIs also need to understand the sectors and companies that the institution is currently not financing but contribute to climate solutions. Learn more about the step in guidance sheet D.

3 Plan



The **Plan step**[11] relates to identifying the FI impact targets. We consider the FI impact targets to have two dimensions:

- The actions to be implemented, thereafter called the "Contribution target"
- The real-world climate improvements that the FI aims at triggering with these actions, thereafter called the "Outcome target"

This step therefore relates to identifying aspects of both dimensions and carrying out a matching exercise between the two dimensions, so that each action to be implemented is assigned to the outcome(s) it aims at triggering.

[11] Similar to what is called in the EMAS framework *"Structuring your Environmental Management System (EMS) by defining an environmental policy and an environmental programme"*; and in the ISO 14097: *"climate strategy and policy"* & *"climate action planning and documentation"*

The two dimensions of impact targets

"Targets" are defined as a two-dimensional concept: the FIs' contribution, and the outcome of the contribution.

One dimension of the targets is the **actions that will be undertaken** to trigger the desired real-world improvements. This dimension is the one that is trackable, and whose achievement is demonstrable (see below).

The second dimension is the **real-world improvements (called outcomes) that the FI's contributions aim to achieve**. The delivery of the outcomes, as well as whether the outcomes materialized thanks to the FI's contributions, cannot be certain.

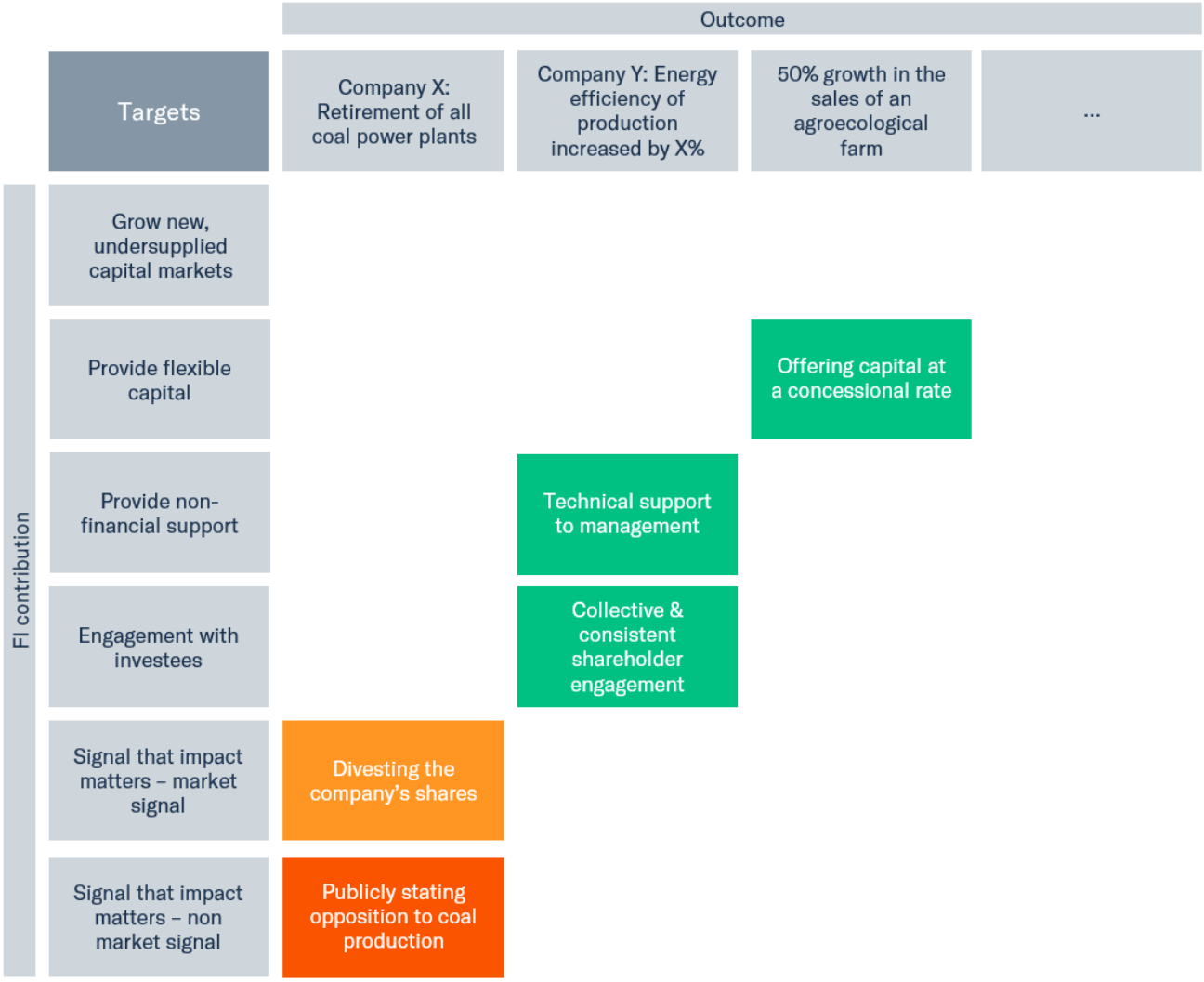


Figure 4 *Matched contribution & outcome targets – example of an investor portfolio. The colors relate to the level of evidence of effectiveness of the action. The Impact Management Project's classification system for FI contributions is used for illustration purposes.*

Why two-dimensional targets?

The reason why we recommend such a distinction is because, as reminded in Section 2, the FI's impact on the achievement of the outcome is unlikely to ever be measurable. Evidence can be identified such that action X will probably result in the outcome being delivered but demonstrating this each time action X is being implemented by an FI likely is impossible. Conversely, it is possible that an institution implements the best possible action to trigger an outcome, but that this outcome does not materialize due to external factors. In that case, the institution will have made the best possible contribution, thus reaching the contribution target, but there will be no visible result.

As such, **it is impossible to demonstrate that achievement or non-achievement of a target defined in terms of real-world change is due to the FI's actions**. Such an absence of demonstrability is incompatible with the notion of "science-based" targets and poses greenwashing risks. For this reason, we propose that **the main dimension of FIs' target should be the "FI contribution" dimension**. These targets are set on means rather than ends.

However, defining and tracking granular **outcome targets**, that represent the changes that the targets aim at triggering with its contribution, is key to:

- **The implementation of the targets**. For actions to be effective, they need to be tailored to the specific objective that they aim at reaching. Precise identification of this objective is thus necessary.
- **The improvement of existing evidence**. Collecting data on the real-world change brought about by actions is key to investigating their impact and thus improving existing evidence.
- **The improvement of the FI's strategy**. Improved evidence is crucial to the continuous improvement of the FI's climate strategy. If an action did not reach its objective, the FI needs to analyze the reasons for the failure and adapt its plans accordingly.

Mapping FI Contributions to Outcomes

The FI's ability to trigger real-world improvements is constrained by the actions that they can implement. The targeted outcomes will thus be conditioned by the set of feasible actions defined in the Diagnostic step. In the Planning step, the FI needs to **assign specific outcomes to the feasible actions** (as done in **Figure 4**).

Example: FI X can, in year X: set up about 100 thorough engagement strategies, dedicate X$ to concessional financing, engage with X policy makers, and divest X% of its most polluting investees. The FI, in the diagnostic step, identified 1000 companies in its investment portfolios that are climate-relevant, and defined high-level options for improvements for these companies, on a sectoral basis. For the 100 engagement strategies, it identifies 100 companies that have a potential for incremental but meaningful improvements. Specific outcomes are defined for each of the 100 companies (e.g. X% improvement in energy efficiency of production). As for the X$ of concessional capital, the FI mandates a blended finance expert to identify suitable investees. Specific desired outcomes are defined for each company, in collaboration with the company's management. Considering the difficulty that coal extraction companies will face in reforming their business models, the FI decides to allocate its X% of divestment of these companies.

Learn more about this step in guidance sheet E.

For each action/outcome association, **the chain of consequence that is expected to lead to the outcome should be specified** (see **Figure 5** for examples). We call this chain of consequence the Action Output Outcome Impact (AOOI) chain, in accordance with the ISO 14097.

	Impact mechanisms		
	The mechanisms through which climate actions can deliver impact		
Actions	**Output**	**Outcome**	**Impact**
The specific initiatives of the financier to influence the real economy towards meeting climate goals	The change arising from the financier's actions that influences the investee	The measurable change observed in the activities of the investee, as a result of the output	The consequence of the outcome of a financier's action measuring the extent to which its action contributes to the climate goals
Divesting coal mining public equity	Increase in WACC of coal mining companies	Retirement of a coal power plant	Reduction in GHG emissions
	Non-market signal that impact matters is perceived	Retirement of a coal power plant	
Offering concessional capital to capital-scarce green start ups	Increased access to capital	Growth of the green company	Increased green product offering leading to product substitution
Implementing granular engagement strategies with transitioning companies	Resolutions passed at the AGM ; Successful bilateral meetings	Increased energy efficiency of production ; Increased share of renewables in energy mix	Reduction in GHG emissions

Figure 5 *The chain of consequence from action to impact - example of an investor portfolio. (author, based on ISO 14097).*

The colors relate to the level of evidence that the action can be effective in delivering an impact, in the case of an investor. See Section 4 for more details.

Note: As specified in Section 4, research is missing in some cases (e.g. bank loans and credit lines), and not much is thus known about the effectiveness of climate actions in this context. In such a case, this planning step is particularly important: it allows one to rationalize why an action whose effectiveness has not yet been investigated (e.g. divestment in the context of a loan) could or could not work; as well as allowing for a scientific assessment of its effectiveness ex-post.

A "Climate Action Template" that can assist FIs in planning for their strategy and recording their intended actions and their AOOI chains is introduced in guidance sheet F.

In accordance with usual management system approaches, this planning step could be summarized in two documents:

- A "**Climate policy**", which synthetizes the general objectives of the institution and how it is intended to contribute to climate change mitigation, as well as a framework for setting targets (as outlined above).
- An "**Action Plan**" or "**Program**", which describes the specific actions (contribution targets) to be implemented and the outcome targets that they relate to. A detail of the excepted Action / Output / Outcome / Impact chain for each action should be also provided.

4 Act

The most straightforward step: the application of the above-defined plan! This step needs to be performed concomitantly to the following one.

5 Check: Monitoring & Tracking

While the action plan is being implemented, it is important to **monitor and track its implementation**. The same standardized template used in the planning step could be used to do so.[12]

Specifically, the FI needs to provide the following information:

- The precise list of the actions implemented and their modalities of implementation
- The initially expected effect on companies' alignment with climate goals, i.e. the output / outcome / impact of the actions
- The change in the companies' alignment, i.e. the observed outputs / outcomes / impact, and the method used to track the results

Learn more in guidance sheet F on how this could be done.

Note: 2DII is currently developing a "Climate Action Tracker" that could assist FIs in monitoring their implemented actions and the achievement of their targets related to climate.

Additionally, FIs can decide to **share the data collected** as part of the reporting step with researchers, so as **to contribute to the improvement of scientific standards**. This is especially important for those cases where evidence is currently lacking, such as in the case of loans.

6 Review: Revision & Improvement

The "Check" step could then inform the **revision and improvement of the action plan**. The objective of this step is to ensure that the impact potential of the FI will increase over time. The review step should be performed every year.

[12] Clause 6.4 of the ISO 14097: *"monitoring of the climate action and respective outputs, outcomes and impact.";* Clause 9 of the ISO 14001; EMAS wording: *"Once your management system has been implemented and is operational, you will need to monitor your performance of procedures and practices in terms of environmental aspects."*

In light of the constraints highlighted above, such a **continuous improvement**[13] implies:

- **Actively contributing to lifting the external and internal constraints restraining actions available**. The institution needs to demonstrate that it actively works to lift the constraints that prevent its investments from being more impactful – e.g. recruiting employees to conduct engagement, engaging with regulators on regulatory barriers, etc.
- **Re-assessing the changes that need to happen at the investee level.** As companies' business models evolve (either due to the FI's actions or not), the analysis of their transition options conducted in the diagnostic step needs to be updated.
- **Refining the targets as science progresses, as constraints evolve, and as the investees change.**

7 Disclose & Communicate

Finally, the last step of the process would be **disclosing** the actions taken and process followed to set up the strategy and **communicating** on the climate strategy put in place.

Communicating on the strategy put in place

A few **communication** principles should be taken into account:

- Only what can be scientifically demonstrated can be claimed.
- **The "depth" of the contribution of the FI to climate improvements has to be reflected** in the communication. For example, the fact that a fund entirely invested in liquid equity, even though the asset manager is engaged in a continuous improvement process, has a very low likelihood of being impactful compared to an alternative investment fund, need to be reflected in the certification and related communication.

Disclosing activities conducted

While ESG reporting started as a voluntary exercise, it is now recognized that much of this information is financially material and is therefore captured by general legal obligations which require disclosure of material information in specific sections of the annual financial reports (e.g. discussion of risk factors). In addition, regulatory requirements in jurisdictions across the globe are being updated to explicitly require disclosure of certain ESG information. By way of example, in the EU the Non-Financial Reporting Directive requires disclosure of ESG information and will shortly be updated by the Commission.

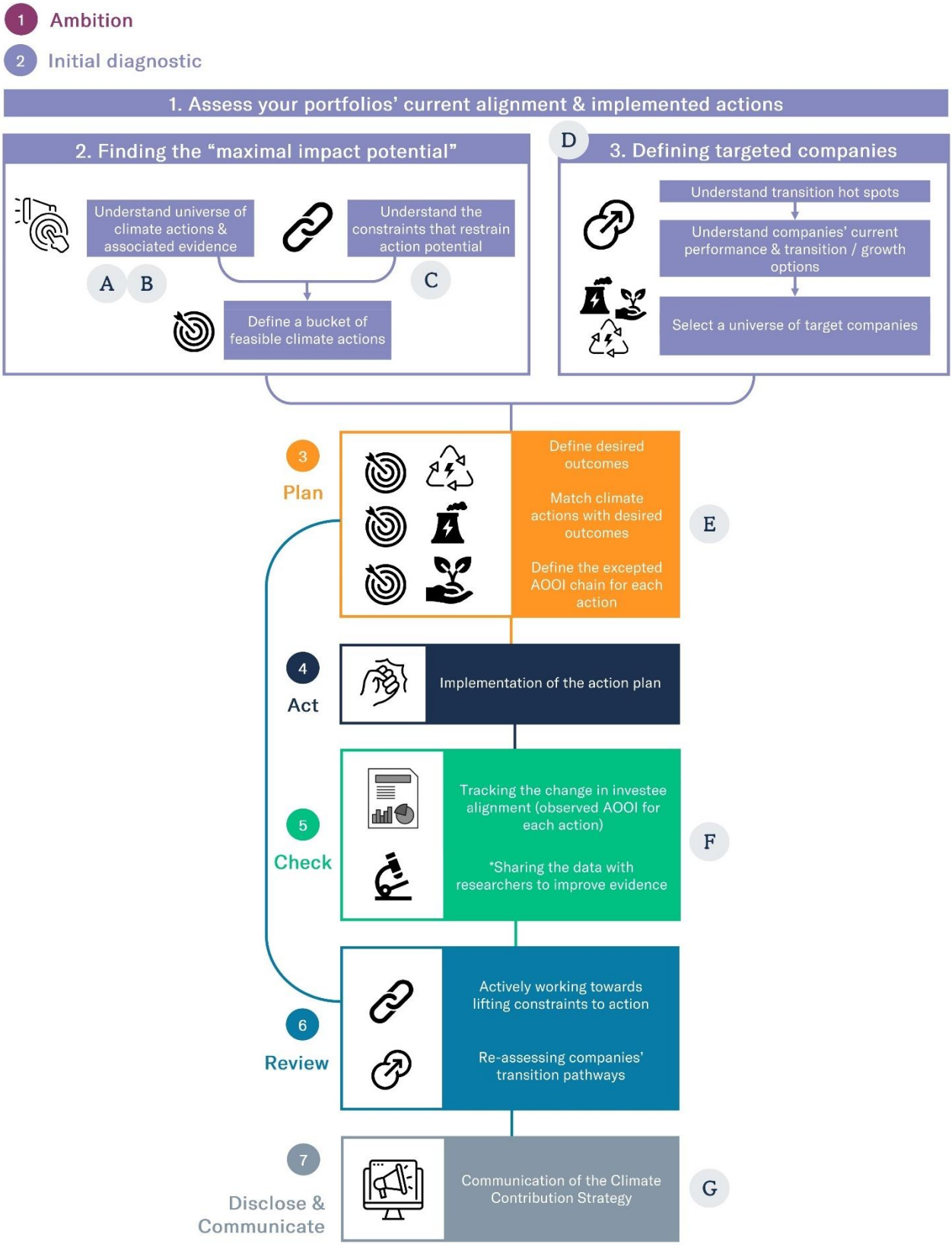
While the information covered by this framework goes beyond the more risk-based focus of typical ESG reporting and the determination of materiality is highly variable and difficult, this information does provide insight into the governance, strategic and risk management context for the financial institution and shareholders will be interested in monitoring how the financial institution is responding.

Therefore, **financial institutions are encouraged to disclose those of its activities conducted in accordance with this framework in the annual report**. However, it is recognized that certain financial institutions may choose to use other channels of reporting to clients and beneficiaries. Where this is the case, this information and means of reporting should ensure that the information is credible, subject to scrutiny and updated at least on an annual basis so as to provide an understanding of the financial institution's activities and progress in accordance with the principles outlined in this framework.

[13] Clause 10.3 of the ISO 14001; EMAS wording: "*Aim for continuous improvement in your environmental performance. Your organization's top management should periodically check the consistency of the organizational approach and its capability to meet the goals stated in the policy and the programme known as a management review. EMAS fosters continuous improvement, a process in which mistakes are identified, documented and analyzed in order to eliminate their direct and indirect causes. Don't forget to take external and internal issues into consideration, as well as changes in needs and expectations of interested parties, risks and opportunities and adequacy of resources to achieve the outcomes of the EMS*."

4. Guidance sheets

This Section provides guidance to assist the reader in understanding how each of the above steps can be performed. **The visual below illustrates which guidance sheet (from A to G) can be used for informing which step.**



A Impact: What is it and how does it work?

Objectives

The objective of this sheet is to guide FIs in understanding what its impact on climate change is, and how this impact can be delivered.

Definitions

The concepts defined and illustrated in **Figure 6** are key to understanding the FIs' impact on climate change.

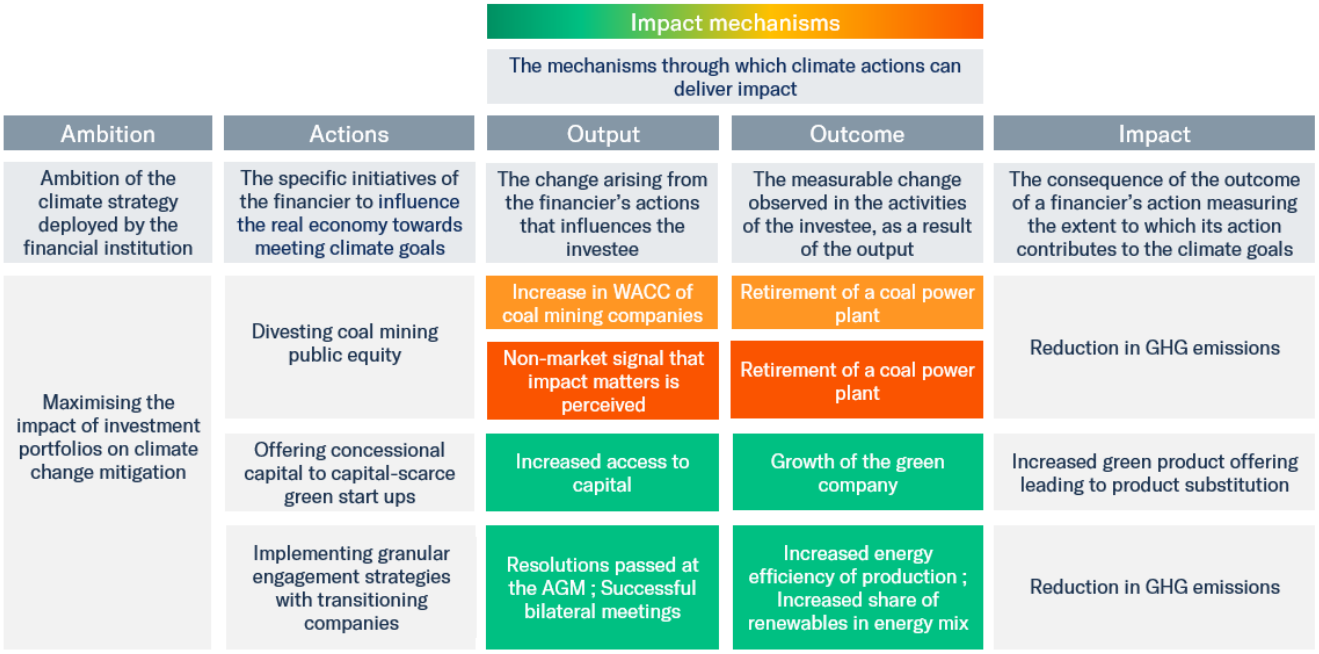


Figure 6 *From ambition to impact – example of an investor portfolio (Source: Authors, based on ISO draft standard 14097).*

Legend: Definitions are provided in blue boxes. Examples are provided in grey and colored boxes. Colors reflect various impact mechanisms (defined below). Dark green corresponds to "Offering concessional capital", Light green to "engagement with investees", yellow to "market signal that impact matters" and orange to "non-market signal that impact matters".

The below paragraphs further discuss these notions and provides frameworks for operationalizing them, based on the most up-to-date academics and practitioners' work.

Impact

Semantically, having an impact on something means "having a strong effect or influence" on this thing[14]. Hence, the impact of a FI on climate change can be defined as the effect of the FI on climate change.

GHG emissions being the main driver of climate change, the FI can affect climate change through the actors that it owns influence on and that emit GHG, i.e. mainly companies.

The impact of the FI on climate change can thus be defined, in line with academic literature, as **the *change* that the FI *causes* in the activities of real-economy actors** (most often companies) **that directly or indirectly reduces GHG emissions**. It has to be noted that this change caused in companies' activities can be

[14] https://dictionary.cambridge.org/fr/dictionnaire/anglais/impact

intermediated by the intervention of a third party. E.g. a financial institution can pressure policy makers to adopt a carbon tax, that will in turn affect companies' activities.

If we apply this definition to the climate issue, this change can either take the form of **growth** in a company's activities (e.g. a growth of its green power production) or of a change in the **quality** of a company's activities (e.g. an increase in the energy efficiency of a plant), as illustrated by **Figure 7** (Kölbel et al., 2018). It should be noted that this definition can be applied not only to positive impacts of the FI on climate change, but also to negative impacts. An example could for example be a growth in the activities of a coal extractor enabled by a banks' loan.

GHG emissions, considering their central role in climate change[15], **can be identified as a common unit for measuring the impact of FIs on climate change**. In the case of the "change in the quality of a company", the usability of this unit is straightforward: an improvement in the activities of a polluting company translates in a direct reduction of its emissions. In the case of the "growth in a green company's activities", the reasoning is the following: growth in the activities of a green company is interesting for climate only if the green products ultimately substitute or provides an alternative to brown products (otherwise there is no impact on climate change). The impact of the growth in the green activities would thus be defined as the GHG emissions saved by the substitution between a brown product and the new green product.

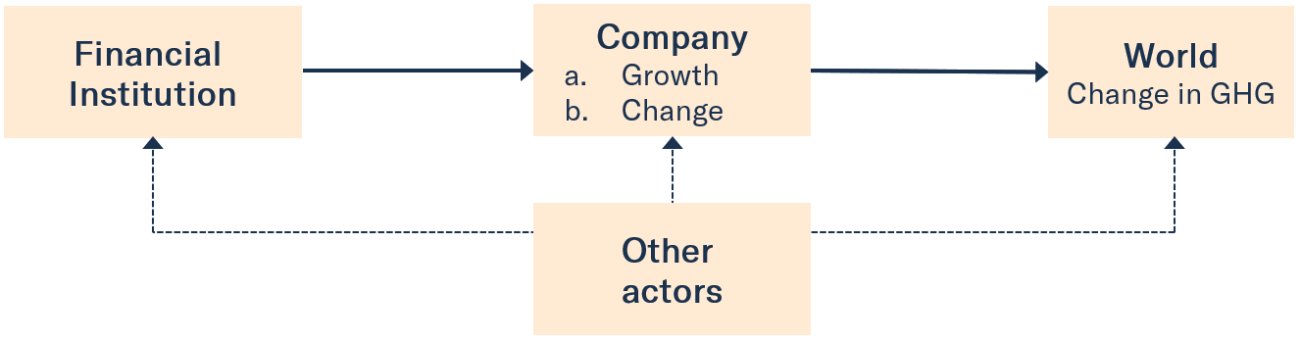


Figure 7 A synthetic definition of FI impact (Authors, based on Kölbel et al., 2018; Caldecott, 2020).

"Impact" thus designates a causal, demonstrable relationship between a financial institution's action and a real-world change – in the case of climate change, a change in GHG emissions**.** Many other factors, beyond the FI's actions, can affect the activities of companies (e.g. consumer pressure, regulations, etc.). The FI's impact is the share of the observed change that was caused by the FI's actions.

Impact mechanisms & climate actions

Impact can be delivered through various **climate actions**, that mobilize different **impact mechanisms.**

The Impact Management Project (The Impact Management Project, 2020)'s classification of impact mechanisms is reproduced below. We choose to use this classification of impact mechanisms for illustrative purposes in this report for two key reasons. First, it is the classification used in Kölbel et al.'s literature review, which is the only available meta-study of evidence on the topic of investor impact. Second, the classification is already widely adopted by practitioners. Any other classification system of impact mechanisms or climate actions could be used by FIs wanting to apply the guidelines outlined in this report.

[15] https://www.ipcc.ch/sr15/

Active engagement: Engagement can include a wide spectrum of approaches - dialogue with companies, creation of industry standards, taking board seats and management support (often seen in private equity), that all contribute to the same goal: improving the sustainability performances of the targeted companies. The mechanism can be split into two main categories: **provide non-financial support**, and **investee engagement**. 2DII suggests extending this impact mechanism to policy advocacy, to capture the influence that FIs can exert on policy makers.

Growing new or undersupplied capital markets: FIs can provide capital to new or previously overlooked opportunities, thus enabling their growth. This can for example involve offering capital at below-market rates.

Providing flexible capital: FIs can accept below-market, risk-adjusted financial returns when investing in impactful companies, thus lowering their cost of capital and enabling their growth.

Signaling that impact matters: FIs can choose not to invest in, or to favor, certain investments such that, if many FIs did the same, it would ultimately **impact the access to capital** of high-carbon companies or send a "**nonmarket signal**" to society that impact matters – through nonmarket channels.

Climate actions differ from impact mechanisms in that a given climate action can mobilize several mechanisms to deliver impact. Based on a review of current market practices, **Figure 8** below provides an overview of existing climate actions and maps them to corresponding impact mechanisms. Each of these **impact mechanisms** can be related to specific **climate actions**, i.e. actions that FIs can take to influence the behavior of a targeted company.

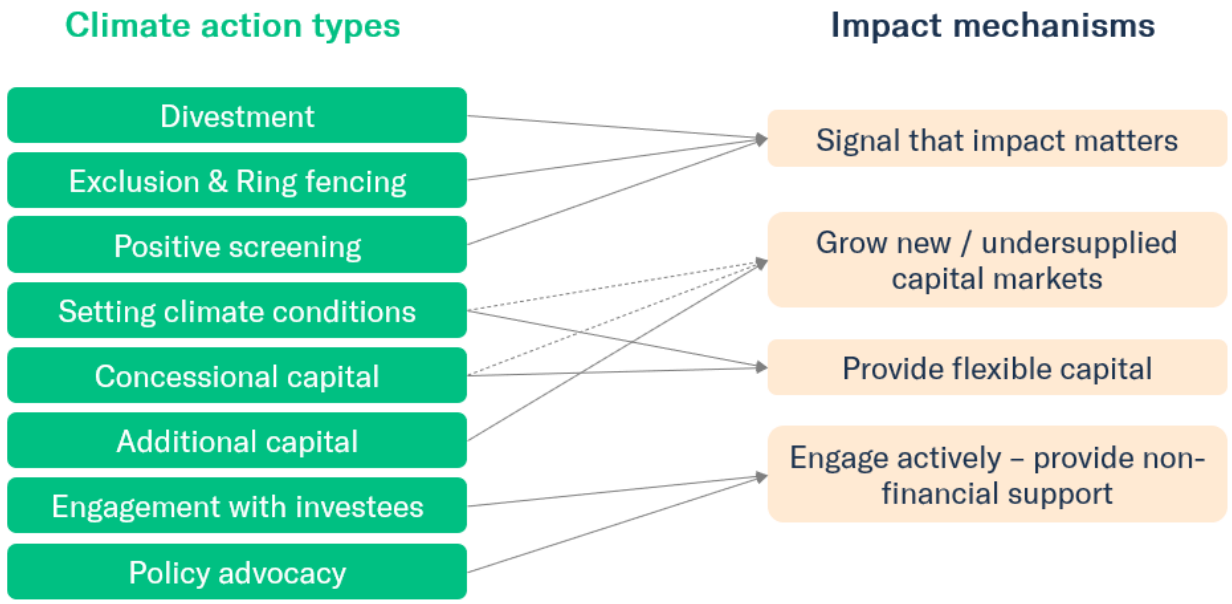


Figure 8 *Climate actions mapped to impact mechanisms (Source: author, with the kind support of the Impact Management Project (IMP)).*

Table 1 below provides definitions and examples for different types of actions that can be used to contribute to the impact channels described above. The types of climate actions mentioned below were defined and classified based on the ISO 14097 and on several surveys of banks, asset managers, asset owners and service providers conducted as part of 2DII's "Evidence for Impact" working group[16].

[16] 2DII, Evidence for Impact project, available on https://2degrees-investing.org/resource/impact-measurement-target-setting/

Type of climate action	Definition	Examples
Divestment	Within the context of climate action, divestment is the selling of assets for climate-related reasons.	An investor decides to divest from a range of to all the companies in its portfolio in a specific high-carbon sector or activity.
Exclusion	Exclusion at company level is the process of excluding the assets issued by specific companies from the universe of investable assets for climate-related reasons.	An investor sets investment policies that forbid the investment in certain harmful companies., e.g. by introducing a threshold such as “a maximum 25% of revenue coming from coal mining activities” when selecting investable companies.
Ring fencing	Exclusion within an exposure (ring fencing) is the process of excluding specific activities conducted by a company from the funding provided to this company. Screening within an exposure is the process of funding only specific activities of a company.	Project green bonds are an example, e.g. a green bond issued to finance a specific "renewable energy" project of a power producer which still produces some electricity with coal.
Traditional low-carbon capital	It is the process of investing in green assets at market conditions or to limit the investment universe to specific assets which feature quality climate-related characteristics, at market conditions	Best-in-class, best-in-universe, provision of a certain amount of money to “green” companies or the purchase of “green” assets…
Concessional capital	Concessional capital is the process of offering capital to a company at below market rate for climate-related reasons.	A bank decides to partner with a development finance institution (DFI) to offer concessional loans for companies engaged in renewable energy investment projects and the DFI agrees to subsidize the interest rate for borrowers.
Conditional investment / Setting climate-related condition	Conditional investments are investments made by financial institutions under specific conditions, relating to the sustainability performance of the investee/borrower.	Sustainable Improvement Loans. The interest rate is partially adjusted (a premium or discount is usually applied to the margin) depending on the evolution of the borrower’s sustainability performance. Lowering of returns decided by the majority of shareholder’s in exchange with low-carbon investments decreasing the sustainability risk of the investee.
Additional capital	Additional capital is the process of offering capital (at market rate) to a company that would otherwise not have accessed capital. It differs from “low-carbon investment/positive screening” because of this additionality dimension. Of course, low-carbon investment / positive screening can be be additional capital under certain conditions.	A bank decides to offer a loan (at market rate) to a sustainable energy company that didn't yet manage to find a bank agreeing to lend it money.
Engagement with Investee	Engagement actions are all financial institutions' actions undertaken to influence the behavior of the company they own.	An investor does bilateral engagement with an investee company to persuade it to increase the scale of its investment plans in renewable technologies.
Policy advocacy	Engagement actions on non-investee actors are all FI’s actions undertaken to influence the behavior of actors that are not their investees.	A group of influential financial institutions decide to engage with policy makers in their home country to support the implementation of a carbon tax.

Table 1 *The main types of climate actions that financial institutions can undertake (source: 2DII).*

Outputs & Outcomes

The chain of consequences from an FI’s climate actions to modified business activities and GHG emissions reduction consists of multiple steps (as shown in **Figure 5**): with the **ambition** of maximizing the impact of its portfolios on climate change mitigation, an FI decides to implement various **climate actions** to reach his

ambition - for example, engaging with companies in high carbon sectors and investing in innovative green companies. These actions lead to **outputs**, namely the direct consequence of the actions – for example, a change in the WACC of targeted companies, which turn into **outcomes** (encouraging growth or improvements) at investee's activities level – for example, a change in the investees' capex plans, or a growth in their production. The outcomes finally trigger a reduction of GHG emissions (**impact**).

The path from climate action to impact is not a clear path. All links of the chain are subject to **uncertainties**, a consequence of the indirect control that an FI has on the GHG emissions of its investees:

- **A climate action might not result in an output**: for instance, excluding high-carbon assets from the portfolio (the action) might not tangibly increase the cost of capital for the underlying high-carbon company (the unachieved output);
- **An output might not translate into an outcome**: the increased cost of capital resulting from an exclusion policy (the output) might not trigger a change in the investee's activities (the unachieved outcome), for example due to a disproportion between the incentive to change and the cost of change;
- **An outcome might not translate into an impact**: a company implements a new green project as a result of an FI action (the outcome), but it fails due to competition.

Each type of climate action is subject to these uncertainties; however, the depth of the uncertainty varies depending on the climate action type considered and on the modalities of implementation. Consequently, **the probability that a given action will yield an impact varies across actions**. Understanding the ability of a given action and related impact mechanism to deliver impact with a high degree of certainty is thus crucial to the design of science-based impact strategies. This topic of scientific evidence of impact is dealt with in the following guidance sheet.

Existing tools & online resources

Below are listed a few resources that can guide FIs in better understanding the above-discussed notions.

- 2DII's Climate Action Guide: Among other functionalities, the Climate Action Guide allows FIs to explore the climate actions that they can undertake to positively contribute to the fight against climate change.

- IMP's fund classification tool: The Impact Management Projects' product classification tools allows fund managers to classify their funds in "impact classes" based on two axes: the impact performance of the invested business (company impact), and the FI's contribution (impact mechanisms).

B FIs' impact: What do we know?

Objectives

The objective of this sheet is to guide FIs in understanding what evidence currently exists regarding the effectiveness of climate actions and what is missing, and how to use existing evidence in practice.

The state of research

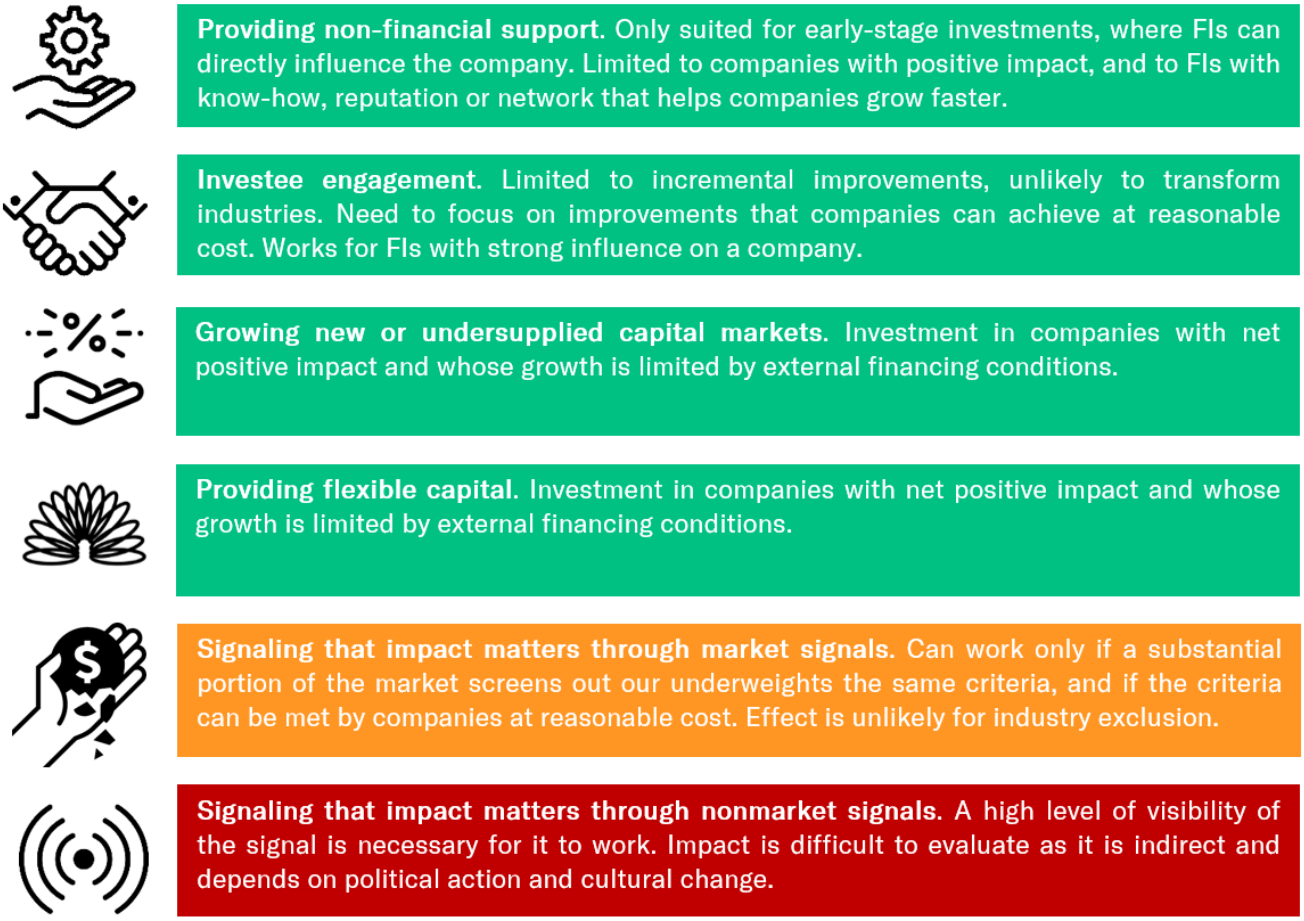
What we know

Thanks to the work of researchers such as Kölbel et al. (2020), who conducted the only existing meta-analysis of existing research on the topic of FI impact, some information is already available regarding:

- The **existing evidence** that various actions can deliver a change in investees' behavior.
- **Limitations & requirements** that need to be respected to maximize the chances that the change is delivered.

Note: It should be noted that the vast majority of existing scientific articles relate to investors. Research is lacking when it comes to other FI types, especially regarding banks' actions. This is particularly true for the following mechanisms: investee engagement and signaling that impact matters through market signals. The below conclusions regarding these mechanisms thus mostly apply to investors.

Figure 9 synthetizes this information.



Legend:

Evidence Level	Description
A: Scientific consensus	Systematic reviews of the empirical evidence document a scientific consensus on effectiveness of the mechanism.
B: Empirical evidence	Empirical studies show that the mechanism has been effective in specific settings. Yet, it remains unclear how far these findings can be generalized.
C: Model-based prediction	Economic models predict that the mechanism should be effective under certain assumptions.
D: Narrative	There are narratives that rationalize why the mechanism could be effective.

Figure 9 *The mechanisms of FI impact and their associated levels of evidence (Source: Kölbel & Heeb, 2020).*

What we don't know yet

The investigation of FI impact is a nascent research field and, as such, numerous gaps and uncertainties remain on the options for actions available to FIs, notably regarding:

- **Asset class and type of institution considered.** As explained above, the vast majority of the articles reviewed by Kölbel et al. (2020) relate to investors. Research is lacking regarding banks' actions, especially regarding the following mechanisms: investee engagement and signaling that impact matters through market signals. Further research is needed to understand the impact potential of climate actions that banks can take.

- **Non-conclusive research or absence of research**. Kölbel et al. classify impact mechanisms based on the type of proof of effectiveness available in the literature (see **Figure 9**). However, they do not distinguish between an absence of research (the mechanism is classified in "narrative" because no research was ever undertaken to investigate its effectiveness) and existence of non-conclusive research.

- The **indicator being investigated.** Often, it is not the impact of the climate action that is investigated by articles referenced by Kölbel et al., it is either its output or outcome. A refining of their classification is thus needed to clarify this distinction.

- The **likelihood of having an impact** with the action. Kölbel et al. (2020) list the requirements and limitations that apply to the impact mechanisms, i.e. the factors that influence the ability of the mechanisms to drive a change in the real economy. Further research is however needed to precisely quantify the likelihood that a given action has to deliver impact.

- The **scale of the impact that can be delivered** with the action. Information on the scale of the impact that can be delivered with a given impact mechanism or action is minimal in Kölbel et al.'s framework (most likely because it is rare in the literature). However, understanding whether a given action is best suited to foster a transformative change or rather a minor improvement is of crucial importance.

Kölbel's framework, as the only available meta-analysis on the topic, can thus be used as a starting point to identify options for action, but further research is needed to bridge the gaps listed above.

What we likely will never know

We will likely never be able to measure FIs' impact on climate. "Measuring impact" would mean identifying a causal link between an FI's actions and changes in the investee's activities. This can only be done in very specific experimental settings and likely not in "natural" cases when multiple parameters influence the investees decisions (oil prices, carbon taxes, competition, other FIs' actions, etc.) – identifying this causal link hasn't yet

be done by any researcher for any type climate action, it thus for now seems inaccessible to systematically do so for all climate actions. An analogy to medical studies, in which FIs are the doctor and investees the patients, can prove helpful in understanding this limitation. We do not have "methodologies" for "measuring" the impact of a medication each time a sick person takes it. When wanting to assess the impact of a medication, we set up an "experiment" to "assess" the impact of the medication on a large population before its release on the market. It is the same for FIs' impact. What we should aim for is an assessment of the impact of various types of actions in controlled settings, so as to identify the ones that are likely to be effective. Instead of measuring its impact, an FI could then maximize the expected impact of its actions.

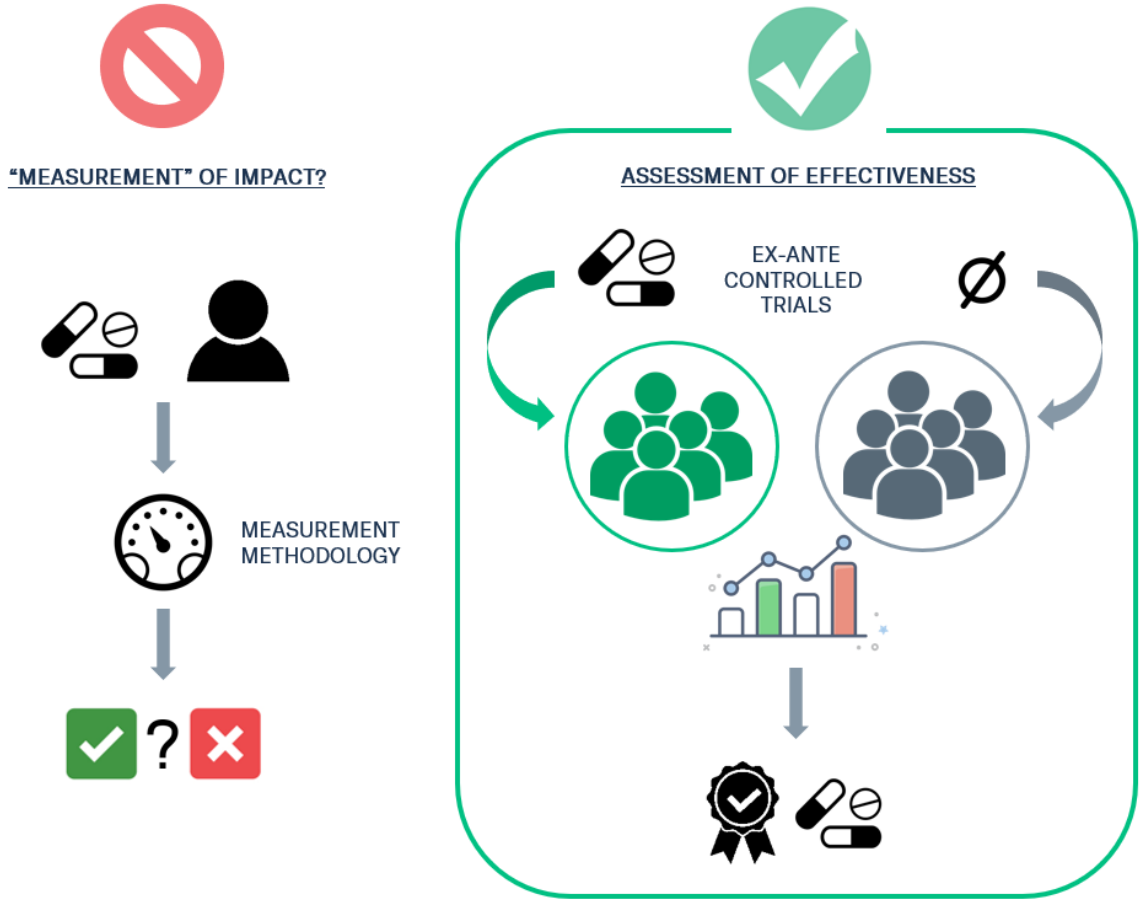


Figure 10 *The example of medical studies: Assessing the effectiveness of a medication via controlled trial rather than measuring its impact.*

It is unlikely that we can ever demonstrate the impact of "signaling that impact matters" for single actions, be it through market or non-market signals. A critical issue with the actions mobilizing this impact mechanism, beyond the current lack of research, is that we may never be able to prove their impact, even if there is impact. This is due to the complicated causal chain that needs to hold for a real-world change to be triggered by those actions. Although this absence of scientific ground does not disqualify these actions per se, it sheds doubts on their appropriateness in leading the sectors' response to climate change.

What can we strive for?

Systematic measurement of FIs' impact on climate is not a realistic objective. What we can however strive for is **the accumulation of evidence regarding the effectiveness of climate actions in various settings**, so as to identify the actions that are most likely to be impactful. The ultimate objective could be to have, for all actions:

- A **scientific consensus regarding their impact potential**, i.e. the highest possible level of evidence for all actions. For some actions, this "highest possible level of evidence" will likely stop at output level, and it might never be possible to identify a causal link between the action and reductions in GHG emissions, due to too indirect causal chains.

- Complete information regarding the **likelihood of having an impact** with a given action and given implementation modalities, as well as regarding the **scale of the impact that can be expected** from this action.

How to use existing research

Use existing level of evidence as a guidance when designing climate strategies. Climate strategies that are presented publicly (e.g. in marketing communications) as ambitious answers to the climate challenge should be designed primarily around climate actions:

(i) That are associated to the highest possible level of evidence.
(ii) Whose conditions of implementation are in line with evidence limitations and requirements.
(iii) For when research is missing, whose impact is demonstrable & whose implementation modalities are tracked to inform evidence production.

This is because if claiming contribution to climate change mitigation without any scientific backing is permitted, no ambitious actions will likely ever be undertaken. If pure narratives and demonstrable theories are given the same importance, it undermines the possibility that the latter ever become more than theories. The core of impact-oriented climate strategies should thus be climate actions whose impact potential is either demonstrated or demonstrable.

The limitations of existing research mush be acknowledged, and work must be undertaken to overcome them. Collaboration of FIs and researchers is paramount in this effort. Granular data on FIs' actions is needed to evaluate their impact, thus calling for disclosure agreements between FIs and academics.

As science progresses, we will move towards identifying actions with the highest possible likelihood and scale of impact, so as to get as close as possible to a proper impact potential maximization. Yet, for now, levels of evidence are all we have.

Science-based climate contribution strategies should thus be designed around actions associated to the highest possible level of evidence and contribute to the advancement of science, especially for where evidence is missing.

Existing tools & online resources

2DII released a Climate Action Guide that synthetizes **Figure 9** in an interactive online format. One of the aims of the Guide is to facilitate FIs' efforts to understand available climate actions and their associated evidence level.

This Guide is based on an underlying Evidence Repository, that gathers existing articles exploring the impact of climate actions. All articles from Julian Kölbel and Florian Heeb's meta-analysis are included in the initial version of the repository, as well as more recent articles. The repository allows for a filtering of articles based on various criteria, such as the asset class investigated or the geography of the financial institutions. Anyone can submit articles to be added to the Repository. 2DII's researcher will examine each submission and revise the Climate Action Guide's level of evidence classification twice a year based on new articles.

The objective is that the Climate Action Guide becomes a collaborative tool that reflects existing research as exhaustively as possible – you are thus all invited to consult and add to the Evidence Repository!

C Matching actions with constraints

Objectives

The objective of this sheet is to guide FIs in understanding how to assess and report on the external and internal constraints that determine their ability to implement climate actions.

Financial institutions each have a set of core missions, that vary depending on the type of institution considered. Such missions can for example be providing saving, payment, or credit services, financing projects, managing risks, etc. These missions are defined by constitutional documents and regulations are in place to ensure that they are properly fulfilled. Contributing to the fight against climate change is thus not, for FIs as for the majority of businesses, the core of their job. Considering their tremendous importance in shaping the economic reality, it is however FIs' societal and moral responsibility to take action on climate change – but it cannot be considered their central mission.

Ideal situation

We see two possibilities for matching the constraints faced by FIs with possible actions:

- An authority defines a fixed set of constraints per category of actor (e.g. Asset Managers always face constraints X, Y, Z), modulated by factors like the number of employees, the AUM, etc. The authority thus prescribes the level of ambition that these actors should deploy given these fixed constraints.

  \+ No risk of greenwashing ; Simplicity of application

  \- No flexibility in constraint assessment (all FIs are different) ; Requires extensive ex-ante research & continuous updating

- FIs are responsible for listing the constraints that they are facing and justifying why these cannot be overcome immediately.

  \+ Flexibility in constraints assessment ; Does not require ex-ante research

  \- Risk of greenwashing ; Need for a competent auditor

The state of research

Constraints to climate actions implementation have not yet been properly classified. This impact management system aims at guiding FIs in balancing, on the one hand, available evidence as to the effectiveness of various climate actions and, on the other hand, the constraints that determine the set of actions that they have the capacity of implementing. The first component is discussed in detail in guidance sheets A & B. As for the second, no framework yet exists to classify the elements that constrain FIs' abilities to take climate actions. Below is a preliminary overview of such constraints, elaborated based on literature review and discussions with FIs.

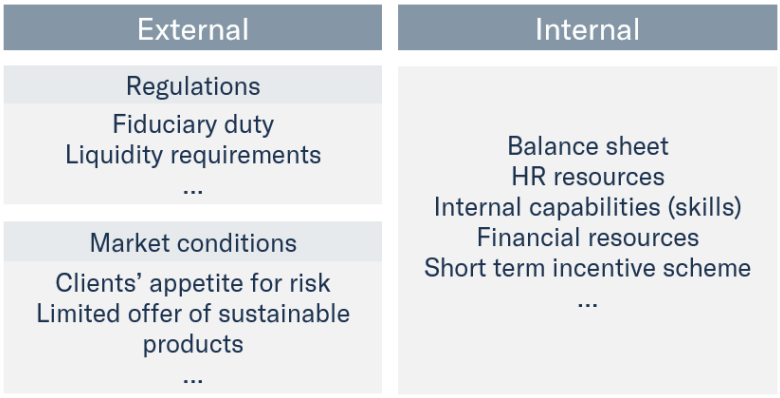


Figure 11 *Example of constraints that limit FIs' ability to implement impactful actions.*

A better classification of constraints is needed. Surveys will be released in coming months to better scope and classify the constraints faced by FIs.

Better understanding the resources needed to implement climate actions is paramount. To match climate actions with constraints, one needs to understand how much resources (H&R, financial, etc.) it takes to implement the actions. Such information is for now not publicly available. Work will be undertaken in the coming months to gather this information and make is public. In the meantime, such assessments will need to be conducted by the FIs themselves.

➔ Considering the currently limited knowledge on the topic, we see no other solution than the second highlighted in the "ideal situation" section: **FIs are, in this iteration of the framework, made responsible for listing the constraints that they are facing and justifying why these cannot be overcome immediately.**

How to use existing research

In the absence of agreed-upon classification framework, FIs who would want to apply the guidelines are asked to:

- List all the constraints that they face and that influence their ability to take climate actions, using the external / internal differentiation.
- Explain in detail how they think each constraint restrain their ability to implement climate actions associated to the maximum possible level of evidence (identified following guidance provided in sheets A and B). A differentiation should be made between constraints that the FI can work on, and constraints about which the FI cannot do anything.
- Explain which actions they commit to implementing, as a result of the above constraint/action matching exercise.
- Explain how they plan on lifting the constraints identified in the following years, so as to increase their ability to implement ambitious actions.
- If they identify any, FIs can also list the elements that support the implementation of climate actions. E.g. supportive policy framework, existing partnership with a Development Finance Institution, etc.

D Sector & Company level transition plans: Setting outcome targets

Objective

The objective of this sheet is to guide FIs in understanding which companies in their portfolio or investable universe should be targeted to impact climate change mitigation, and what changes should be aimed for. This includes understanding **how the business model of the companies in their portfolio needs to evolve** for the world temperature increase to stay below 2° by the end of the century, and **which still unfinanced companies are providing solution to climate change** – and should thus be financed.

Process

1. Get a global understanding of climate change and transition scenarios.

Understanding key facts regarding climate change (e.g. what are the most emitting sectors of the economies of countries in the portfolios) and its mitigation (e.g. what transition scenarios exist for the economies of countries in the portfolio) is crucial to deciding how to take action. We will not go into details in this paper, as numerous resources are already available online to guide you in this process. Such resources are for example:

- IEA's World Energy Outlook and Energy Technology Pathways
- IIASA's scenario selector

Another possibility, that we recommend, is for the managers of the institution to sign up for lessons on climate change and mitigation options.

The takeaways of this steps should be:

- Understanding of current emissions breakdown in countries of interest.
- Understanding of the key changes that need to happen in these countries for the Paris Objective to be met.

2. Assess the alignment of the portfolio with transition scenarios.

Once the high-level stakes are properly understood, the next step is assessing the overall alignment of the portfolio with transition scenarios. The objective of this step is to allow the FI to identify the sectors and specific investees in its portfolio that are important from a climate perspective.

To be useful in informing an impact management strategy, the methodology used to assess the portfolio alignment should thus allow for a granular analysis, at both sector and company level[17].

For a detailed discussion of the many existing methodologies for assessing portfolio alignment with climate goals, see "The alignment cookbook" (Julie Reynaud et al., 2020).

[17] As opposed, for example, to "temperature scores" aggregated at the portfolio level, that do not allow FIs to understand which sectors or investees determine the global score.

Example: PACTA analysis for identifying sectors and investees of interest

The **Paris Agreement Capital Transition Assessment** **(PACTA)** is a free, open-source methodology and tool that measures the alignment of corporate bonds, loans, and listed equities with international climate objectives such as the Paris Agreement.

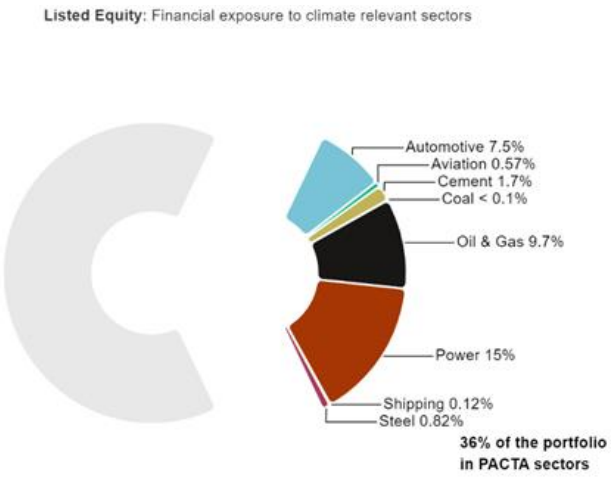
In a nutshell, PACTA compares what needs to happen in climate-relevant sectors in order to minimize global temperature rises, with financial institutions' exposure to companies in these sectors. More specifically, PACTA compares each sector's climate transition pathways (a.k.a. 'technology roadmaps') with the technology mix and 5-year production plans of portfolio companies. This allows for a dynamic, scenario-based, and forward-looking approach.

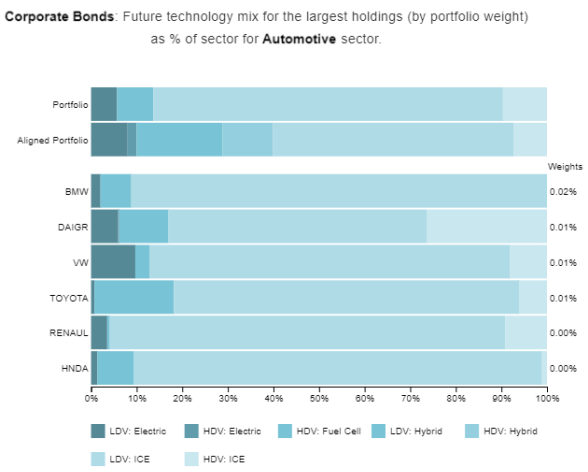
PACTA measures the alignment of investments in eight economic sectors with various climate change mitigation scenarios, including a Paris-aligned scenario. Because what needs to happen to meet the goals of Paris Agreement varies by sector, the methodology measures alignment per sector or per technology. Some sectors need to move more quickly than others; some sectors need to reform (e.g. power generation); and others need to phase out (e.g. fossil fuels).

The climate-relevant sectors are power, coal mining, oil & gas upstream sectors, auto manufacturing, cement, steel, aviation, and shipping. Collectively, these sectors account for about 75% of global greenhouse gas emissions.

A critical feature of PACTA is that it relies on global asset-level data as the core analytical concept, which provides granular, regional, sector-specific, forward-looking production pathways that can be compared with various scenarios.

In the context of this Impact Management framework, PACTA can prove a very useful tool in the "initial diagnostic" step, to identify the sectors and specific investees in financial portfolios that are important from a climate perspective.





The tool is available for free on TransitionMonitor.com.

3. Assess the contribution of companies in the portfolio to climate change.

Once the companies of interest have been identified, the next step is assessing the contribution of these companies to climate change.

Numerous methodologies exist to perform this step, each being defined by specific characteristics. The below table summarizes the most crucial of these characteristics.

It has to be noted that, on top of these characteristics discussed in **Table 2**, some methodologies also offer an allocation of the metric at portfolio level, thus facilitating the assessment of the portfolio's exposure to climate-relevant companies. These methodologies are useful for Step 2 (see previous page), to understand the portfolio's overall alignment with transition scenarios, before taking a deeper look at relevant companies.

Time horizon	Characteristics	Research questions that can be answered	Limitations	Example metrics
Forward-looking	Concrete / Quantitative	Allows scenario analysis, i.e. can be compared to climate change scenarios / decarbonization pathways Allows assessment of companies' efforts compared to their strategic goals (for the time-horizon of the ALD databases)	Limited to sectors with existing scenarios (ideally technology roadmaps) as well as forward looking production data (ALD/CAPEX databases)	Production forecasts (e.g. ALD databases / PACTA, Carbon Tracker Initiative, ACT)
Backward looking	Concrete / Quantitative	Allows for an analysis of companies' historic efforts and position compared to the average market actor. Can also allow assessment of compliance with historical strategy goals set by the company to assess trustworthiness	Provides no information on companies transition efforts If sector average are used no possibility to distinguish between companies	Emission data / carbon accounting (e.g. CDP data / PCAF, ACT)
Forward-looking	Strategies / Qualitative	Allows for an analysis of companies' ambitions to contribute to the transition and companies' awareness of the topic	Uncertainties about trustworthiness, often no clear pathway towards meeting end goals	Company strategies (e,g, Science-Based Target setting for companies), ACT, Transition Pathway Initiative
Backward-looking	Strategies / Qualitative	Allows for the assessment of trustworthiness of companies' forward-looking strategies in comparison to what was done in the past	Provides no information on companies current transition efforts Uncertainties about trustworthiness	Companies strategic actions (e.g. lobbying data) Historic Company strategies ACT

Table 2 *Key characteristics of existing methods for assessing the contribution of companies to climate change.*

Considering the pros and cons highlighted in the above Table, **we recommend FIs to favor quantitative forward-looking metrics**. However, considering that such metrics are not available for all companies in all sectors, qualitative forward-looking methods are also of interest for remaining sectors.

For a detailed discussion of the many existing metrics, see "The alignment cookbook" (Julie Reynaud et al., 2020), specifically pages 35 to 39.

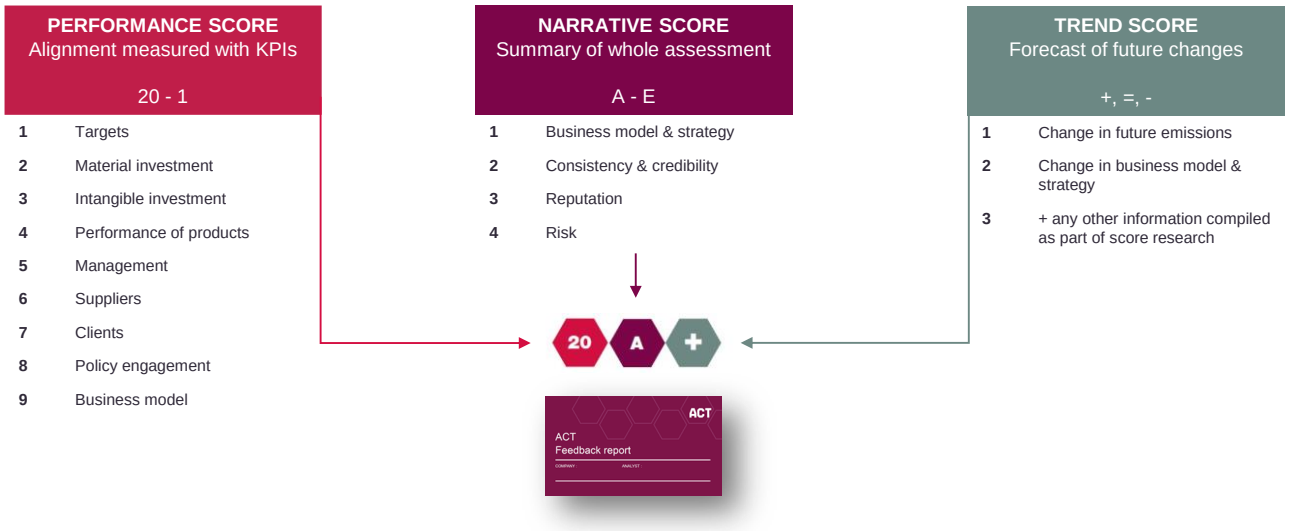
This exercise will enable the selection of the investees to be targeted by the FIs set of climate actions).

Example: Using ACT (Assessing low Carbon Transition) ratings to assess the contribution of companies to the Paris Agreement mitigation goals

ACT–Assessing low Carbon Transition –is a joint voluntary initiative from ADEME and CDP and part of the UNFCCC secretariat Global Climate Agenda (GCA) supported by the French government since 2015. ACT was developed on the premises that (i) carbon footprint is not sufficient to address the issue of low-carbon transition and that (ii) there is no methodological framework or standard to assess the relevance and degree of coherence of the commitments made by companies. The ACT tool aims at assessing how companies' strategies and actions are contributing to the Paris Agreement mitigation goals.

ACT aims to assess companies' low-carbon transition strategies and their alignment with sectoral decarbonisation pathways. The ACT assessment analyses company's decarbonization strategy with past, present and future quantitative and qualitative indicators.

ACT ratings cover most of the categories of indicators highlighted in Table 2, and thus **allow for a holistic assessment of companies past and future contribution to climate change mitigation goals**, as well as of the elements that undermine or foster companies' transitions.



4. Assess the investable universe of companies contributing to solutions and needing financing to scale up

While better understanding the climate performance and options for improvement of current investees is crucial, another important step is scoping the universe of still underfinanced companies that contribute to climate change mitigation. This work is necessary to the implementation of actions with high impact potential such as offering additional or concessional capital. Actions whose impact is less straightforward, such as positive screening, also depend on this identification of sustainable companies. 2 steps can be followed to do so:

- **Identify companies that are contributing to climate change mitigation.** The EU Taxonomy of sustainable activities can be used to guide the selection, as well as a variety of other metrics, such as for example the Net Environmental Contribution (https://nec-initiative.org/).

- **Identify companies that are underfinanced and need capital to grow.** The company needing capital to grow is a prerequisite to your investment having a demonstrable impact. This implies selecting companies in illiquid markets / identifying overlooked investment opportunities.

This exercise will enable the selection of the investees to be targeted by the FIs set of climate actions.

5. Derive objectives at the investee level from the above information

Once investees to be targeted have been identified comes the time to set specific objectives for these companies, in line with climate scenarios.

2 solutions are possible:

- From year 1, the FI decides to set objectives in terms of real-world changes for the relevant investees by itself. The challenge is that no tool or comprehensive guidance yet exists to do so. The simplest option would be to hire a consultancy that is expert on the topic and can assist in setting company-level objectives that are aligned with climate scenarios. The exercise can be easier for new investees contributing to climate solutions, as the objective for these can simply be a growth (using growth indicators relevant to the investee considered) in its activities.

- On year 1, the FI sets as an objective for relevant investees that they implement science-based targets and outline a detailed action plan on how they plan on meeting the target. On year 2 and following, the science-based targets are used by FIs as their objectives.

In any case, once the outcomes to be targeted by the FIs actions are defined, the FI should, as requested by the ISO 14097, quantify (or qualify when quantification is not possible) the gap between the business-as-usual trajectory of the investee's outcome(s), the expected trajectory of the outcome (i.e. provided the expected outcome materializes) and the science-based trajectory of the outcome (for when a science-based trajectory exists). Further guidance can be found in the ISO 14097 documentation regarding how this should be done.

E Matching actions with desired outcomes

Objective

The objective of this sheet is to guide FIs in matching the actions that they identified as being both ambitious and feasible, with the outcomes that they want to deliver at investee level.

The state of research

To date, there exists only minimal research investigating what types of climate actions are best suited to what types of targeted companies and real-world changes (objectives). Said otherwise, it is still unclear how to determine what is the best way to use available resources. The preliminary conclusions are synthetized below:

- Engagement with investees is limited to incremental changes only.
- Divestment is unlikely to trigger changes whose cost go far beyond the loss of profitability triggered by the divestment pressure(s) – i.e. divestment is unlikely to transform industries. However, for some sectors where no "low carbon" alternatives exist (e.g. coal mining extraction company), divestment may be the only valid action – in the hope that the company would ultimately be deprived of all funding. Divestment can also prove more effective for FIs who own a significant share of the market.
- Offering conditional capital (e.g. Sustainability-linked loans) is unlikely to trigger changes whose cost go far beyond the financial incentive offered by the instrument.
- Offering concessional or additional capital can enable / foster the growth of companies with transformative impact on the economy or the environment.

How to use existing research

Considering this limited knowledge, FIs are asked to explain in a dedicated document (see guidance here)

- How each of the actions to be implemented is meant to contribute to reaching the objectives defined in the previous step[18];
- How likely the FI believes it is that the actions will reach their objective and the factors that success depends upon[19];
- As well as, when the actions chosen are deemed unlikely to trigger the desired change by themselves, why no better actions could be chosen.

[18] See ISO 14097: "For outcome(s) related to climate change mitigation, the financier shall document and describe how the expected outcome supports the target of the financier and is intended to help its achievement."
[19] See ISO 14097: "The conditions and external factors that are necessary to deliver the expected output. In this process, the financier should specify the assumptions made regarding these external factors and the rationale, supporting evidence and sources. The financier shall specify if these external factors are being used to induce behavioural change on the investee."

F Declaring, Monitoring and Reporting on Climate Actions & their Outcomes

Objective

The objective of the present sheet is to guide FIs in declaring, monitoring and reporting on the climate actions that are deployed as part of their climate contribution strategies, and how these are meant to serve their ambition. The guidance provided below is derived from the preliminary version of the ISO 14097, that sets out a "Framework including principles and requirements for assessing and reporting investments and financing activities related to climate change".

Definitions

As reminded in guidance sheet A, the chain of consequences from an FI's climate actions to modified business activities and GHG emissions reduction consists of multiple steps (as shown in **Figure 12**): with the **ambition** of maximizing the impact of its portfolios on climate change mitigation, an FI decides to implement various **climate actions** to reach his ambition - for example, engaging with companies in high carbon sectors and investing in innovative green companies. These actions lead to **outputs**, namely the direct consequence of the actions – for example, a change in the WACC of targeted companies, which turn into **outcomes** (encouraging growth or improvements) at investee's activities level – for example, a change in the investees' capex plans, or a growth in their production. The outcomes finally trigger a reduction of GHG emissions (**impact**).

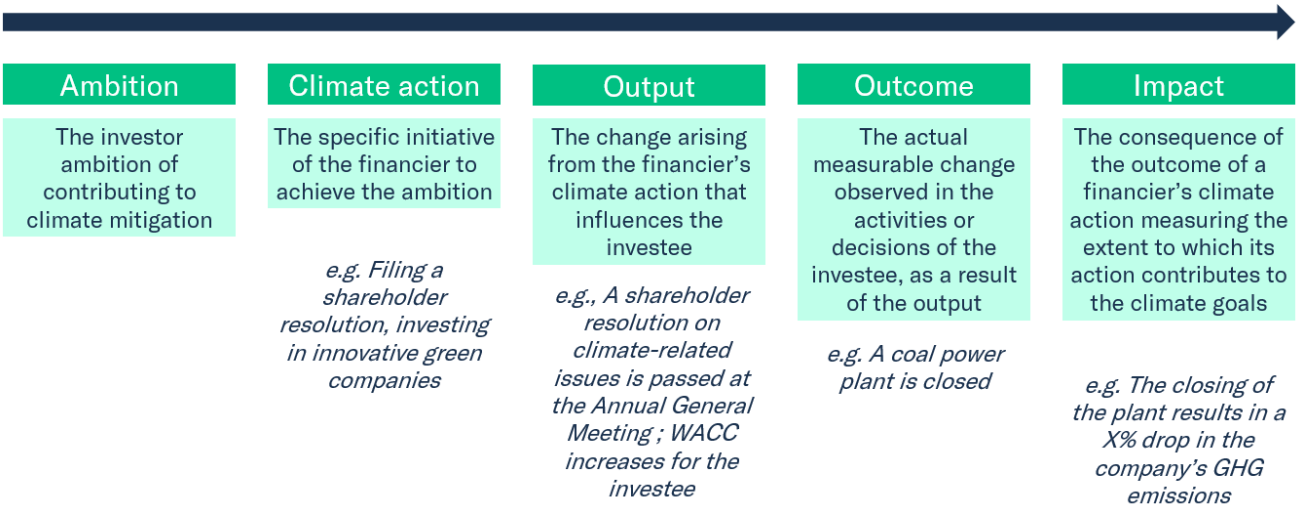


Figure 12 *Chain of consequence from an FI's action to impact.*

Documenting the action

Precise guidance on how climate actions should be reported on can be found in the upcoming ISO 14097. A "Climate Action Template", inspired by the ISO 14097[20], was designed by 2DII to guide FIs in recording the required information. Questions are asked on:

- The climate action's characteristics
- Its modalities of implementation
- Its intended outputs and outcomes
- Factors that can affect its effectiveness

[20] The Template cannot, to date, be deemed "compliant" with the ISO, as some questions were taken out for user-friendliness purposes. We plan on putting the template online soon, and the online version will include all ISO questions.

This information can be used to:

- Report on the implementation of the action at a later stage and justify of their accomplishment (I.e. justify that the “contribution” target is reached).
- Monitor the achievement of the output & outcome, and explore reasons for success / failure, so as to continuously improve the strategy.
- Contribute to scientific research exploring the effectiveness of the action, in terms of output, outcomes and impact.

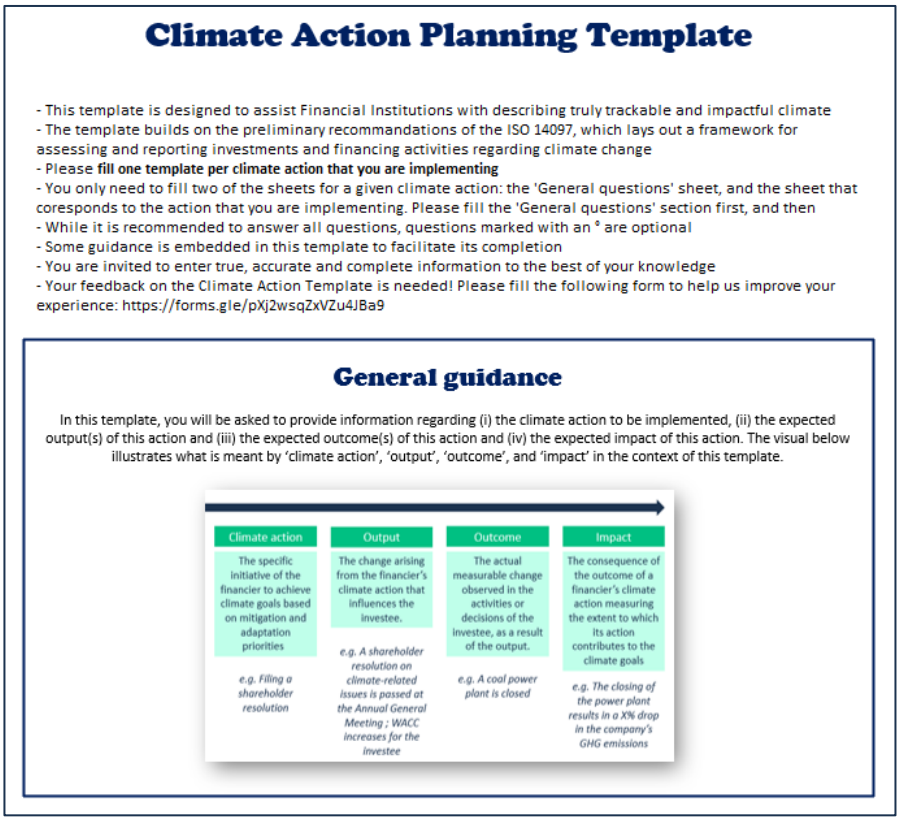


Figure 13 *Welcome page of the Climate Action Template.*

Annex 1. Review of applicable frameworks for creating an environmental strategy & key takeaways

In order to guide the development of our impact management system, we reviewed existing relevant frameworks. Three such frameworks were identified.

- The ISO 14097, which is a framework guiding financial institutions in setting up climate actions and reporting on their implementation, following a Plan Do Check logic.
- The Eco Management and Audit Scheme (EMAS), which is an environmental management tool for companies and other organizations to evaluate, report and improve their environmental performance, following a Plan Do Check Act (PDCA) logic.
- The ISO 14001, the international standard for designing and implementing an environmental management system, also following a PDCA logic.

These frameworks are complementary. **While the ISO 14097 defines what "performance of climate actions" means for an FI and how to report on it, the EMAS and the ISO 14001 define a process to manage and improve it over time –** with the EMAS introducing a few additional concepts and requirements such as the need for a detailed initial environmental review, absent from the ISO.

We draw on these three standards to produce a synthetic framework for guiding FIs in maximizing and managing their contribution to climate change mitigation. From the ISO 14097, we take the framework for planning climate actions and reporting on them. From the EMAS and ISO 14001, we take the framework for maximizing the climate performance and continuously improving it - which is present to some extent in the ISO 14097 but more clearly outlined in the management system standards.

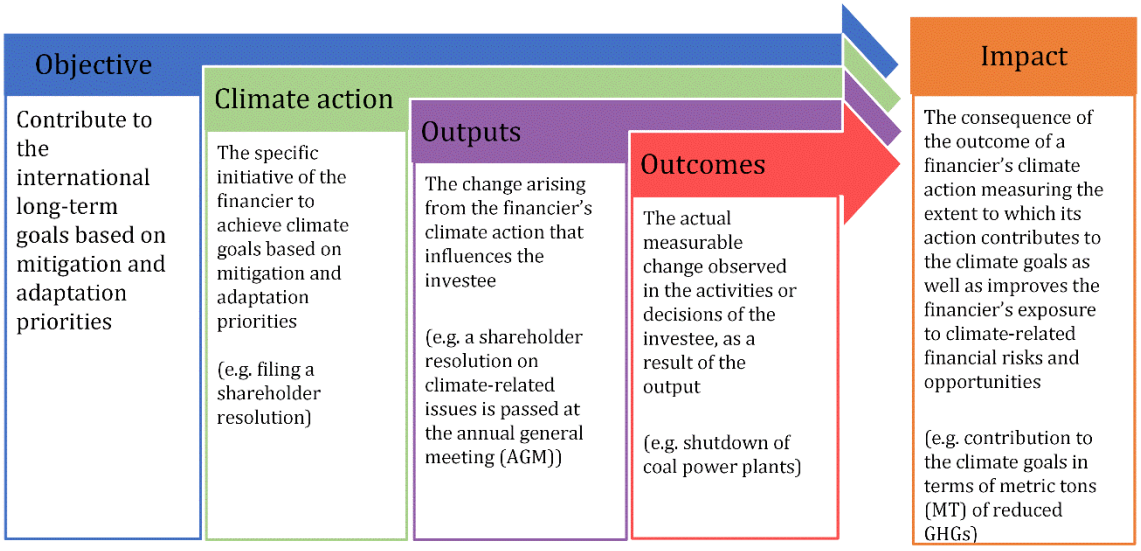
In the coming years, 2DII plans on exploring how the management system for FIs' impact outlined in this report could be integrated in the existing standards discussed below. This would allow FIs who would follow the above-detailed guidelines to be awarded an official certification.

ISO 14097 – A framework for understanding the performance of FI's climate actions.

The objective and key concepts underlying the ISO 14097 are reproduced below.

*"ISO 14097 provides principles, requirements and guidance to **define, monitor, assess and report on financial institutions' actions related to climate change and their respective contribution to the achievement of the climate goals**. The framework can be applied by financiers who undertake deliberate climate actions as well as by financiers without climate objectives or strategies."*

For financiers with climate objectives, the framework is built around the following Theory Of Change (TOC) approach (see diagram below).



The TOC process depends upon defining all of the necessary and sufficient conditions required to bring about a given long-term outcome and impact. The TOC explains the intended path the climate action will take to achieve the [expected] impact. This is done by describing the causal linkages between the Objective established by the financier, the Climate Action the financier plans to take to achieve the objective, the Output(s) of the action and finally the Outcome that will lead to the Impact."

Based on the above text, "climate performance" for a financial institution can be defined as the **Impact** of the **Climate Actions** deployed to operationalize its **Objective**. Monitoring this climate performance implies tracking the Outputs and Outcomes of the climate actions implemented. The ISO provides detailed guidance on how to report on these indicators, as discussed here.

The ISO also provides a definition of "target" that inspires our definition of "outcome targets":

*"**target for a financier**: measurable outcome and impact a financier intends to achieve with its climate action(s) with the ultimate goal being to maximize the financier's impact given available market opportunities.*

A mitigation target for a financier is considered science-based when it aims for a change in the investee's behaviour, contributing to reducing GHG emissions in the real economy at a scale and pace that is commensurate with climate goals.

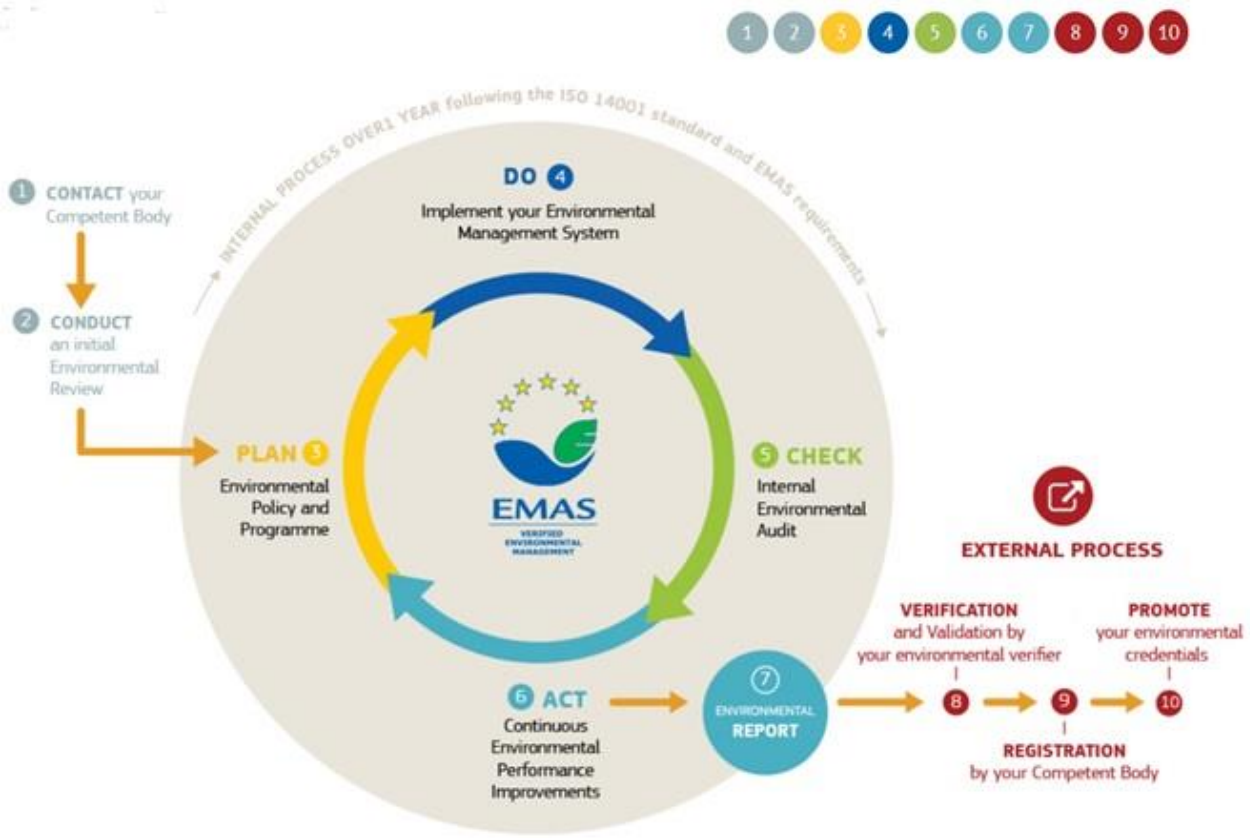
To achieve the target, the financier can carry out one or several climate actions."

An explanation of why we suggest adding a second dimension to the definition of "targets", based on means (climate actions) and not ends, is provided in Section 3.

EMAS – A framework for managing environmental performance over time

The objective and key concepts underlying the EMAS are reproduced below.

*"The Eco-Management and Audit Scheme, EMAS, is a voluntary **environmental management tool for companies and other organisations to evaluate, report and improve their environmental performance**. Organisations implement an Environmental Management System (EMS): they set up **procedures to assess and improve their environmental performance**. EMAS is open to every type of organisation eager to improve its environmental performance. It spans all economic and service sectors and is applicable worldwide."*



The EMAS framework, whose structure is inspired from the well know PDCA (Plan Do Check Act) iterative management method, is largely compatible with the key principles listed in Section 2.

- The “impact potential maximization” (i.e. matching of available actions with external and internal constraints) is enabled by the initial Environmental Review and subsequent Planning step.
- The “continuous improvement” is enabled by the Review step, which entirely focused on continuous improvement of the environmental performance.
- The “appropriate communication” is enabled by the Promote step, that allows the certified institution to communicate on its environmental performance in a standardized way.

ISO 14001 – The international standard for designing and implementing an environmental management system

The objective and key concepts underlying the ISO 14001 are reproduced below.

“ISO 14001 is the international standard that specifies requirements for an effective environmental management system (EMS). It provides a framework that an organization can follow, rather than establishing environmental performance requirements.”

Source: https://asq.org/quality-resources/iso-14001

More detail on each of these steps can be found here: https://www.praxiom.com/iso-14001-overview.htm.