



How Asset Owners Can Go from Net Zero to Climate Leadership

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The race to net zero is on for asset owners. Many pensions, sovereign wealth funds, endowments, and foundations have declared their intent to have net-zero portfolios by 2050 or sooner. Our conversations with investors, and observations of market dynamics, suggest many more will soon follow.

A net-zero portfolio can be engineered by steering capital to low-emissions sectors (like technology) and divesting high-emissions sectors (such as energy, agriculture, and

manufacturing), where **climate action** and capital are most needed. But these moves are not enough.

What is needed is climate leadership—the kind that can generate real-world climate impact while also delivering investment returns. Asset owners can be climate leaders by deploying long-term capital and strong governance to steer sectors and companies toward a lower-carbon future.

There are many paths to climate leadership. For skilled players with internal investing programs, there will be opportunities to buy “gray” assets (high emitters of CO₂ and other greenhouse gases) and turn them into “green” assets that will command a premium at exit. For plans that outsource to investment managers, the role shifts to creating more compelling incentives—rewards and penalties—for managers to adapt their investment approach. Still, others may lend credibility to the broader climate dialogue by creating a more coherent framework for company disclosures or by working with peers to champion change at high-emitting companies.

Whatever the climate leadership path, the need for large-scale capital deployment is clear, as is the imperative for immediate action. According to our estimates, \$5 trillion in new equity and debt investment is required each year between now and 2050 to fund the transition of key industries such as energy, transportation, and **manufacturing**. That is equal to roughly 5% of the global GDP in 2020.

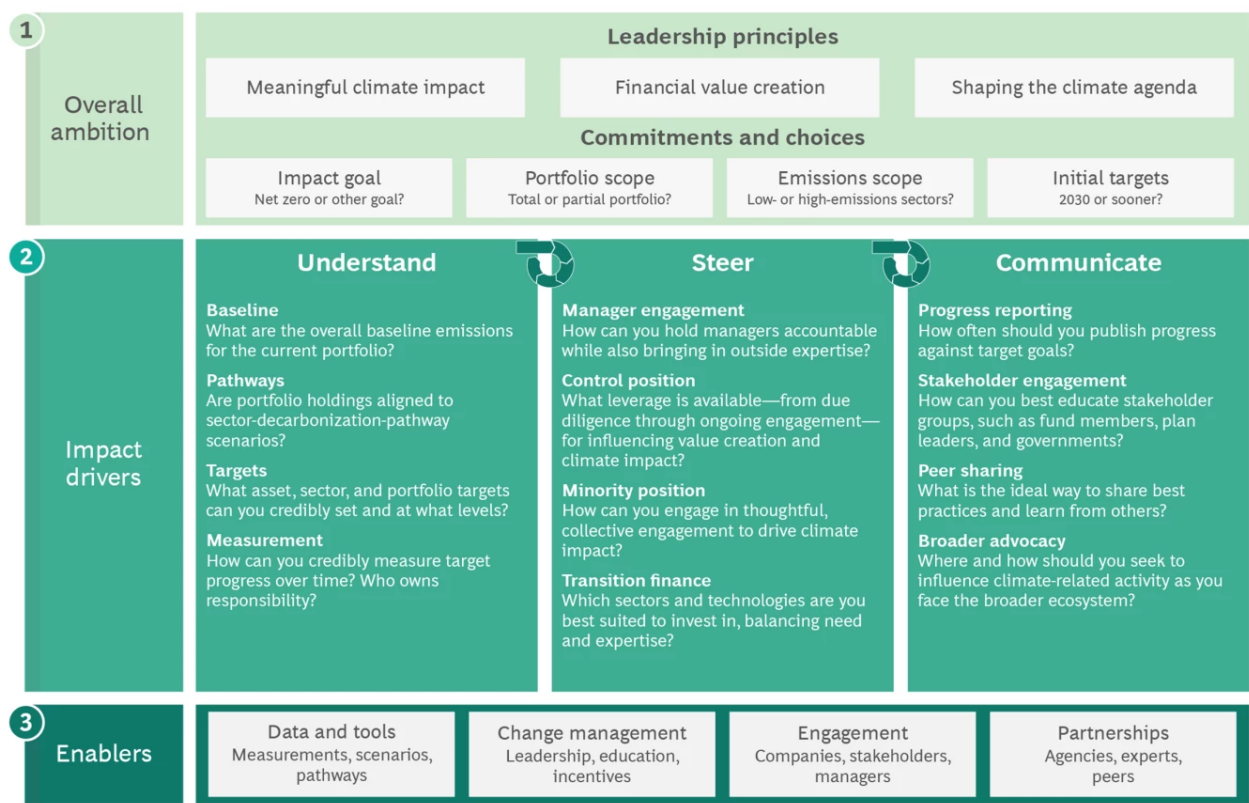
But we are running out of time. To reach net zero by 2050, we need to cut global emissions in this decade by almost 60% from 2010 levels. According to the Intergovernmental Panel on Climate Change, only five-to-ten years’ worth of the global carbon budget remains; exceeding this budget means losing a fighting chance at preventing a 1.5°C rise in the average global temperature.

Climate leaders can seize the moment to make a meaningful impact and generate great returns for their investors. The following is a playbook for asset owners who want to lead.

Defining the Climate Ambition

Climate leadership requires a holistic strategy that ties together every factor related to an investment portfolio. Exhibit 1 shows the key ambitions, impact drivers, and capabilities that make up a climate leader’s playbook.

Exhibit 1 - The Climate Leadership Playbook



understand where and how to lower the emissions in the assets a plan owns. For asset owners, credible climate leadership—and the appropriate level of ambition—depends on reducing the carbon footprints of their portfolios.

Climate leaders can generate financial value by investing in climate-related trends across industries. For example, an asset owner could buy lagging utilities with legacy coal assets and convert them to run on wind, solar, or nuclear energy. Another example is investing in early-stage ventures that are leading in critical technologies, such as carbon capture, utilization, and storage (CCUS) or grid-scale batteries. Having a deep understanding of climate trends requires developing in-house, cross-industry views on sector decarbonization pathways, [emerging technologies](#), and other policies. This is often new ground for investors.

Finally, there is an important role in shaping the broader dialogue with policymakers and peer plans. Smaller plans have the opportunity to contribute intellectual capital to creating better reporting standards for companies, for instance.

In our experience, when taken together, these ambitions tend to reinforce one another in a virtuous cycle. Driving climate impact generates financial value, which in turn provides new insights and influence for the climate agenda, leading ultimately to greater climate impact and value creation.

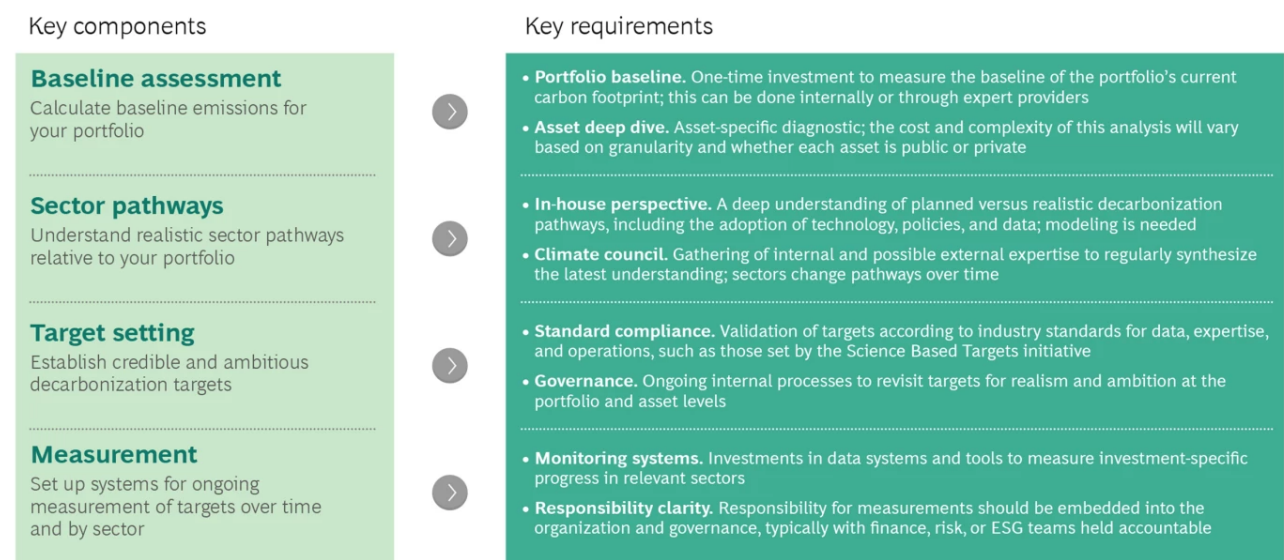
Once the plan's ambition is established, it's time to design the capabilities to deliver. These all fall under the second section of the playbook, related to impact drivers. Its three broad steps largely take place in sequence. The first step is to understand the current portfolio of investments and to set targets for change. The second is to steer the portfolio toward those targets in a manner consistent with the ambition you have articulated. The final step is to communicate your progress and learnings.

Understand the Portfolio

In this step, the asset owner creates an inventory of the current portfolio and evaluates it against the changes that need to be made. This includes acknowledging the current baseline of emissions, laying out a plan for change with pathways for specific sectors,

setting specific targets for progress, and establishing measurement systems. All of this will require incremental investments in selected capabilities, as detailed in Exhibit 2.

Exhibit 2 - Operating Model Requirements for Decarbonization



Source: BCG analysis.

At the outset, the plan for change should include a baseline picture of total portfolio emissions. In most enterprises, there is no single source of truth for emissions-footprint measurements. Developing the baseline estimates will thus require stitching together multiple data sources across asset classes, physical locations, and geographies. The issue is particularly acute for private markets, where reporting standards are weaker.

There are myriad data providers and platform integrators seeking to address data quality issues. These will hopefully improve over time as disclosure practices and measurement methodologies become standardized. Today, the process is difficult, but that should not stop progress.

Next, the plan needs to evaluate the portfolio's current emissions picture relative to the sector decarbonization pathways that are required for achieving net zero.

This is important for two reasons. First, the sector pathways are the best science-based roadmaps to net zero available today. Second, by benchmarking against specific data from other companies following the same prospective path, asset owners can learn whether a particular holding is on- or off-track. Investors can then nudge that firm back onto the path through bilateral engagement (in the case of a control position) or collective engagement (in the case of a minority position). The International Energy Agency (IEA) and Transition Pathway Initiative (TPI) provide helpful data and methodologies for thinking about sector pathways.

In this step, the plan sets milestones for progress toward climate impact. These milestones need to be ambitious because that's what the global climate situation calls for. They must also be realistic and achievable.

It is best to set multiple milestones to triangulate progress. For example, the plan might commit to an overall target of net zero by 2050, but further commit to specific, interim reduction milestones by 2030 for the overall portfolio or for specific sectors. Some plans will be more ambitious, setting total emissions or emissions-intensity reduction targets at the asset level. The more specific and tangible the milestones, the better. The Science Based Targets initiative (SBTi) provides thoughtful guidance for setting milestones of this sort.

Finally, the plan needs established criteria for measuring these milestones over time. Practical questions should be raised about the operating model. For example: Where should the responsibility sit for monitoring emissions and progress? With the ESG team, with the risk team, or with the CFO? Should data-tracking systems be used, or is it better to pay a provider? It is important to address these questions early in the process and to adjust the operating model accordingly.

The overarching message for this step is: “Don’t let perfect be the enemy of good.”

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Given the urgency of the climate change imperative, journeys must start now.

The data landscape is highly imperfect, and measurement tools are nascent. All will improve with time. Given the urgency of the climate change imperative, journeys must start now.

Steer the Portfolio

Having developed plans that give them a good handle on the climate baseline and directional targets, asset owners can start driving the portfolio to deliver decarbonization results and generate financial value. For most asset owners, there are four main mechanisms to choose from, depending on the nature of investor control. Each lever needs its own guidance to account for the nuances of value creation in specific circumstances.

Manager Engagement. Investing can be conducted by a third-party manager. Here, asset owners have a few options to drive impact and value.

For example, the plan may require managers to proactively screen for climate leadership, conducting a new mandate-allocation due diligence process. This requires going beyond surface-level performance outcomes into the heart of the investment process to understand how climate risk and opportunities are managed. Are the managers simply divesting assets with high carbon footprints? Or do they have a proactive stance on how they will invest in the climate transition? Methods as simple as running a best-practices checklist can go a long way in tracking the right issues systematically.

Asset owners may prescribe climate-impact targets as a threshold issue for inclusion in the portfolio. They can base the evaluation of existing managers, and the recruitment of new

managers, on their approach to compliance. In some cases, an asset manager's investment style won't meet the standards, and the leadership team will have to make the difficult call to part ways.

Asset owners can also support their asset management partners with capabilities and insights, grounded in the owners' experience. This might involve sharing sector-pathway research based on the due diligence of a recent investment or passing along insights about upcoming reporting standards gleaned from an asset-owner-alliance meeting.

These moves are not mutually exclusive, and many plans are employing one or more of them today. Given the proportion of externally managed assets for most plans, efficiently influencing asset manager behavior will be important for achieving climate ambitions.

Control Positions. Another lever is based on control positions, through which the asset owner has a majority stake and governance rights. An example would be a majority-owned [private equity](#) portfolio company.

When a control position is involved, the playbook focuses on driving holistic change in all aspects of business strategy and operations, generating real-world climate impact, and increasing the multiples on exit as the demand for green assets increases.

For the largest and most sophisticated investors, this lever will likely be the most impactful—but it requires building new capabilities for climate-friendly [value creation](#). One leading investor, for example, is creating a climate council composed of sector-level climate experts who can help steer portfolio teams toward sources of value for the initial investment thesis and then support the company (or asset) through the transition. Leading plans are thinking broadly about their network of partnerships, recognizing that much of the climate knowledge they need lives beyond the four walls of the plan.

Minority Positions. Different leverage approaches are needed for minority positions, in which the asset owner has a small stake and limited governance rights. This might include positions with shares of stock in a large-cap publicly listed company.

In these cases, the key is productive collective engagement. Any one asset owner or asset manager will own too small a stake to drive meaningful change. The most innovative engagement programs are thus collaborative efforts focused on specific issues or companies that are tied to the plan's climate ambition. By adopting a common plan and joining forces, like-minded asset owners and asset managers can amplify their impact and accomplish far more than traditional proxy voting allows.

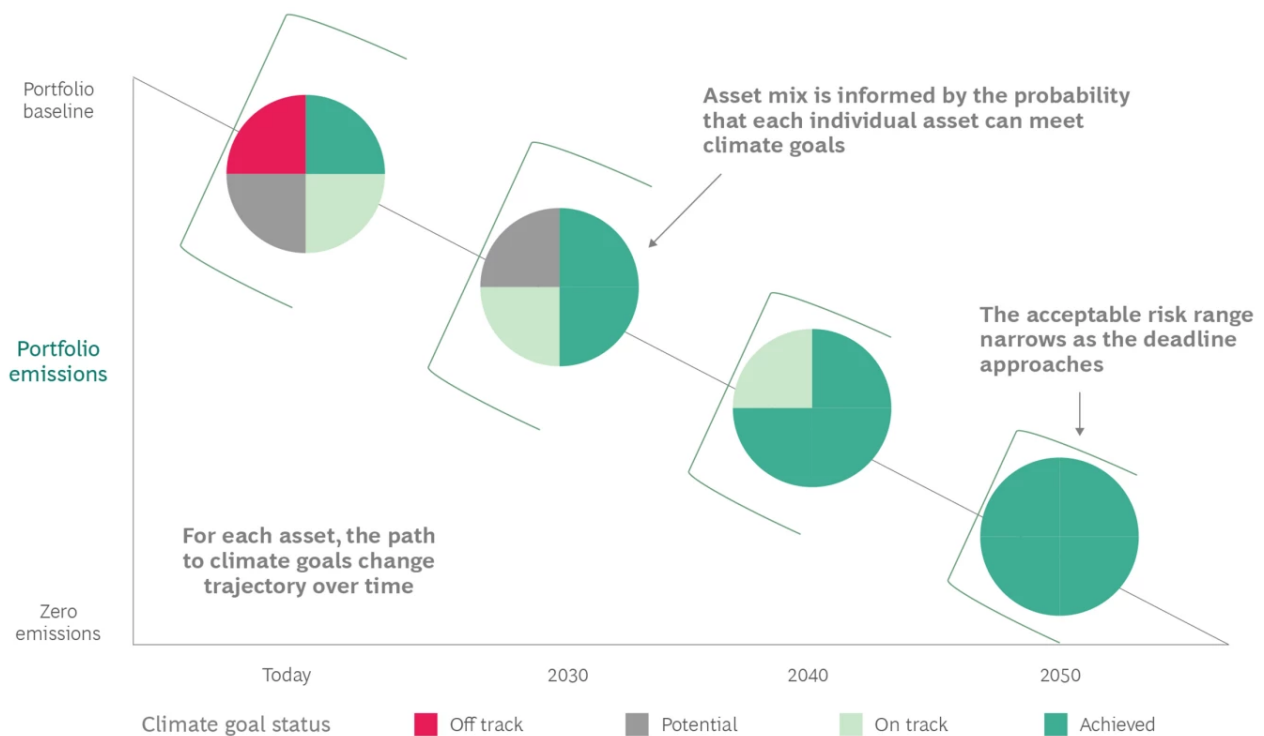
Transition Finance. With this lever, the plan identifies specific sectors or technologies to invest in outside the normal asset class structure. For example, the plan could call for balancing the portfolio with a group of companies that specialize in green fuels.

This form of steering is similar to a venture capital model. It allows innovative firms to carve out pools of riskier capital and invest them in breakthrough climate technologies, such as green hydrogen, scalable CCUS, and next-generation nuclear power. If one of these bets pays off, the climate and financial impact will be massive. If they don't pay off, the collective learning still adds value. Because of the high-risk nature of these investments, any single plan can only carve out a small portion of its asset allocation for them. If multiple plans join forces in these investments, alongside skilled venture capital managers and governments, it could be a game changer. Some [deep tech investment](#) approaches are being developed to accomplish this.

At the total portfolio level, each of these plan-steering mechanisms can come together. The result would be a glide path similar to that of a target date fund, but with a different goal: "Net Zero 2050," instead of, "Retirement 2050," for example.

As shown in Exhibit 3, the plan would guide the portfolio by systematically maintaining the approach with the highest probability of reaching the climate ambition while delivering on the expected returns. At times, the plan may need to be adjusted to account for glide path positioning, based on new information about sector pathways, companies, or specific assets. Leading firms are already thinking in these terms. To help deal with residual emissions, they are contemplating portfolio-level alternative approaches, such as offsets or green bond overlays.

Exhibit 3 - The Glide Path for an Investment Portfolio



Source: BCG analysis.

Communicate

The final step is open and transparent communication with key stakeholders and peers. Meeting an ambitious climate agenda will take collective wisdom gained through sharing best practices and failures. Leading plans will mandate that asset owners and managers are fully responsible for their narratives and that they must be upfront about the imperfections of their data and reporting.

Compliance will be forced upon asset owners' climate plans, which need to be handled thoughtfully to hold everyone accountable. When forming their plans, asset owners should think of this as an opportunity for gaining insight and credibility as well as meeting external standards. They should not let reporting compliance distract from the goals of real climate impact and value creation. As one investor noted recently, "Measuring the grass in a burning forest won't put the fire out."

Establishing Enablers

Several key enablers underpin plans' ability to steer their respective portfolios. These include data and tools for measuring and tracking progress, change management for driving buy-in across the organization, engagement for communications, and partnerships for amplifying impact.

Perhaps the most important of these elements is change management.

Leaders will be called on to make bold bets about the future they want to engender within the next 30 years, even if their own tenures will only last another 5 or 10. Moreover, given the expansive nature of climate change, reaching net-zero emissions will require every part of the investment organization to move in the same direction.

Everyone in an asset owner's group will have to be on the lookout for great alpha-generating (market-beating) opportunities, peering around the corner for new risks.

It's easy to take on this challenge in theory but hard to maintain it in practice. Leaders may find themselves managing multiple stakeholders, such as board members

and government leaders, with divergent views. Some plans may have to drive a change in thinking among organization executives or investment teams unaccustomed to thinking about climate risk and opportunity. Being a climate leader will test the abilities of every executive team.

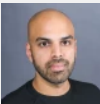
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Achieving ambitious climate goals will be one of the great investment-leadership challenges of this era.

Climate change represents one of the greatest risks and opportunities investors will see in their careers. We believe the sustainability agenda could have **even more impact on leading companies** than the digital revolution. Every person, community, company, and country will be affected to some extent. In the investment community, the climate leaders

are those who seize the moment. They can have real impact on the future of human civilization through climate change mitigation—and generate significant upside returns for their clients in the process.

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