

# 5

## tips for setting a high-integrity climate action budget

1 Scientific benchmarks

2 Peer group

3 Ability to pay

4 Frame of reference

5 Guardrails and portfolio





# Key words:

transition  
and capital

Depending on where you consume your news, you're either hearing that combating climate change is going to cost<sup>1</sup> a lot of money, or it's going to save<sup>2</sup> the world a lot of money. It all depends on perspective and framing, but what will ultimately determine the truth is how much money is spent. Capital is what's going to drive and dictate the transition.

- **Transition** means pursuing all technologically and operationally feasible steps to reduce emissions, while compensating for the remaining amount in full or in part with carbon removal.
- **Capital**, for most Environmental, Social, & Governance (ESG) leaders, often translates to a company's compensation or contribution budget. That is the total amount of money, framed as a dollar sum or a dollar/tonne amount, that a company will use to support carbon removal solutions. While budgets can and should include dollars for reducing your carbon emissions, this guide is going to focus on what Patch does best: scaling carbon removal solutions.

Moreover, "*What should my carbon credit budget be?*" is one of the most common and most important questions we support companies in addressing.

Corporate sustainability leaders are hyper-aware of the fear of messing up<sup>3</sup> (FOMU) when it comes to carbon credits. Setting the "right" budget is the pivotal step at the start of the process and plays a major role in project selection and ultimately, the risk of "messing up."

There isn't a one-size-fits-all answer. "Right" for each company means something different. Through thousands of conversations, our climate experts have pulled together a buyer's guide for setting a compensation or contribution budget that will help you make a bigger climate impact and reduce risk to your company.

<sup>1</sup> Deloitte Report: Inaction on Climate Change Could Cost the US Economy \$14.5 Trillion by 2070 – Press release. (2022, January 25). Deloitte United States.]

<sup>2</sup> Sommer, L. (2022, November 7). Do wealthy countries owe poorer ones for climate change? One country wrote up a bill. *NPR*.

<sup>3</sup> Hyken, Shep. (2022, December 14). FOMU...The Fear of Messing Up. Shep Hyken | Customer Service Expert.



TIP

# 01

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Start by understanding the  
scientific benchmarks  
underpinning climate change



TIP 01

Start by understanding the scientific benchmarks underpinning climate change

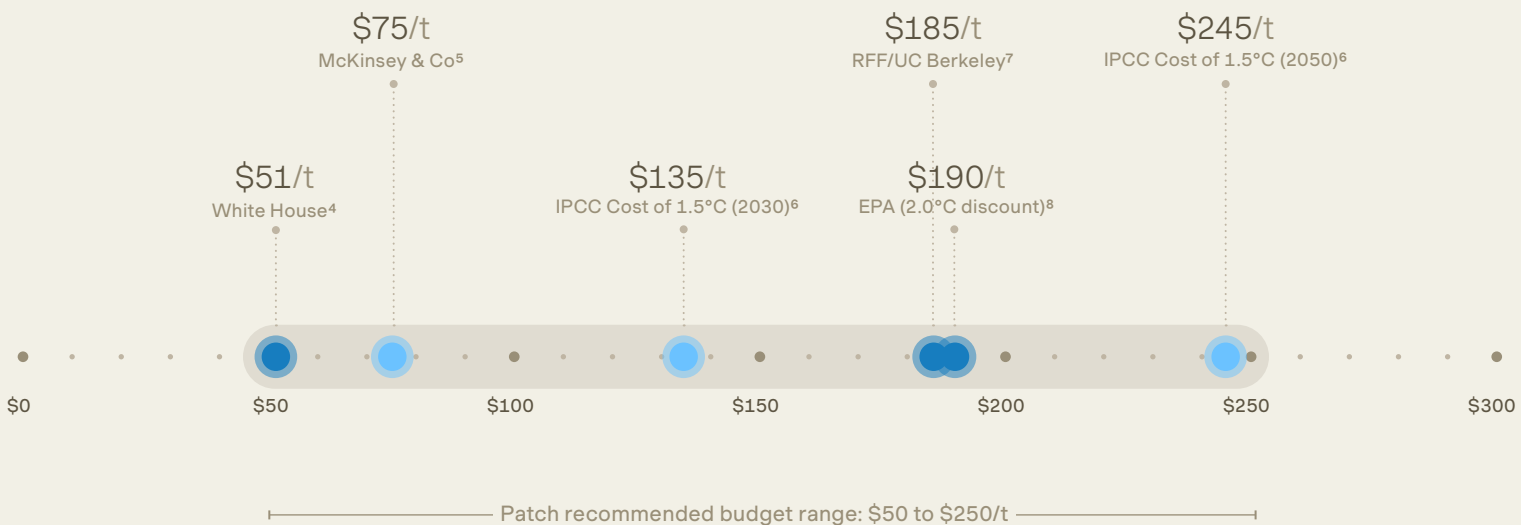
The stage is set: we have to deploy capital to combat climate change. If we don't act fast enough, it's going to cost a considerable amount in physical damages.

But how much? The IPCC, UC Berkeley, and government research organizations globally have set out to answer that question.

Exhibit 1 | What are the scientific ranges for pricing a tonne of carbon?

- **Social cost of carbon**  
The cost of doing nothing  
*The total calculated economic damages of one tonne of CO<sub>2</sub>*

- **Carbon cost of 1.5°C by 2030**  
The cost of doing something  
*The total economic cost of the global effort to achieve 1.5°C, per tonne of CO<sub>2</sub>*



4 Interagency Working Group on Social Cost of Greenhouse Gases, United States Government. (2021). Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990

5 McKinsey Sustainability, Global Energy and Materials Practice. Global Energy Perspective 2022. (2022). McKinsey & Company.

6 Rogelj, J., Shindell, D., & Jiang, K. (2018). Chapter 2: Mitigation pathways compatible with 1.5oC in the context of sustainable development. In *IPCC SR 1.5*.

7 Kevin, R. et al (2022, September 1). Comprehensive Evidence Implies a Higher Social Cost of CO<sub>2</sub>. Resources for the Future.

8 U.S. Environmental Protection Agency. (2022). Report on the Social Cost of Greenhouse Gases.



## TIP 01

Start by understanding the scientific benchmarks underpinning climate change

## "So, our starting point? Somewhere between \$50 and \$250 per tonne."

In Exhibit 1, we plot a range of estimates for the social cost of carbon (SCC) and the cost of a 1.5°C (or commonly known as "net zero") pathway.

The social cost of carbon is an estimate, in dollars, of the socioeconomic damages that would result from emitting one additional ton of carbon dioxide. Those costs include factors like loss of life to increased risk of flood and drought, damages to agricultural productivity, even the increased cost of air conditioning. On the other hand, the Carbon Cost of 1.5°C is assessed by the cost of deploying technologies and solutions that underpin the IPCC's pathways to 1.5°C.

Both of these framings — the "cost of doing nothing" and the "cost of doing something" — provide helpful starting points for understanding a reasonable budget range for compensation.

So, our starting point? Somewhere between \$50 and \$250 per tonne. That kind of variance is affected by a long list of economic assumptions. What will future economic growth look like? How will the cost curves of new technologies for reducing or adapting to climate change shake out? What discount rates are being used? Such a wide range may seem paralyzing on first glance, but having flexibility will actually help us once we get to tip #5.



TIP

# 02

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Develop a market-based set  
of peer group compensation  
benchmarks

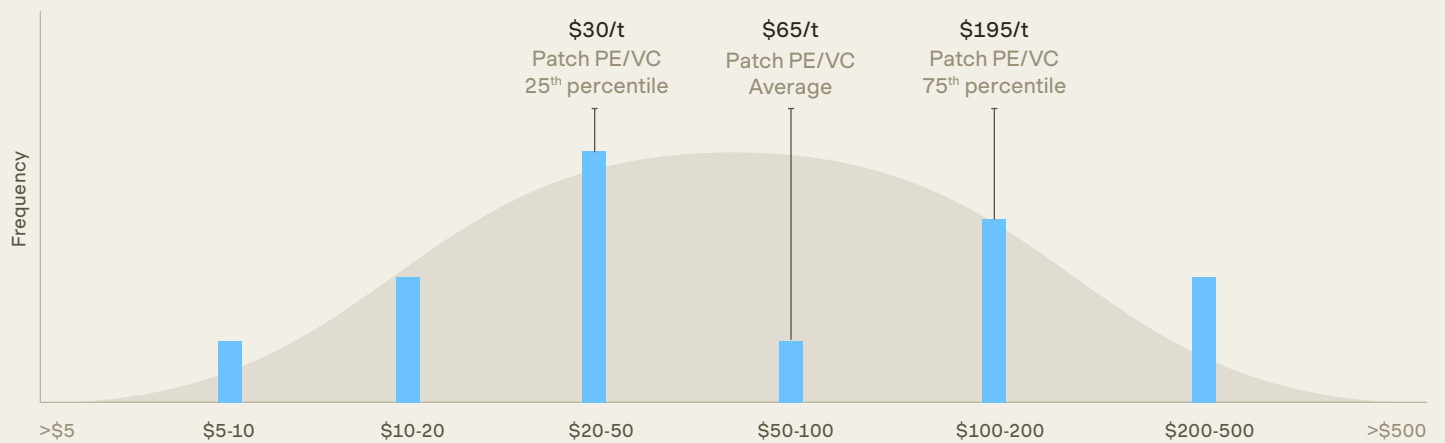


TIP 02

Develop a market-based set of peer group compensation benchmarks

Along with understanding external, scientific benchmarks, looking within your industry and peer group can help narrow in on an acceptable and appropriate range. Patch can measure and aggregate what our customers are spending per tonne on our platform, giving us insight into industry trends.

Exhibit 2 | What are PE and VC firms spending on carbon credits?  
Indexed, anonymized data from the Patch marketplace (2020-2023)



For better or worse, peer-group comparisons are a very common approach to assessing the performance of a given business — and the same holds for carbon compensation standards.

When defining your peer group, we recommend considering: (A) Industry, (B) Geography, and (C) Company Size. While data availability won't be perfect, a marketplace like Patch can help you understand what your peers are doing and guide you to meet, or hopefully exceed, the bar.

In Exhibit 2, we share anonymized data from the Patch marketplace for the Private Equity & Venture Capital (PE/VC) industry. You can see that the PE/VC spends, on average, \$65/tonne on their compensation budgets. You can also see that leaders, or the top 25 percent, spend on average \$195/tonne — a price point which should inspire all of us to do more.

Learn more

Want to access your industry's benchmarks?

Schedule a consultation at [patch.io/intake-form](https://patch.io/intake-form)



TIP

# 03

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Consider your own  
business performance  
and your ability  
to pay for solutions



## TIP 03

Understanding your peer group benchmarks is a great first step, however, the peer group assessment does not stop there. Relying on historical or existing peer statistics assumes that the masses are acting appropriately — an assumption that might not hold true.

The fact of the matter is that combating climate change is a global imperative, and a moral one at that: a classic prisoner's dilemma.<sup>9</sup> Within a prisoner's (climate) dilemma, each company is incentivized to minimize its own personal spending. However, minimizing individual spending at a global scale leads to a world where critical climate solutions can't reach gigatonne scale. Therefore each individual bears a higher cost in the long run due to physical climate hazards.

With that in mind, tip #3 calls for a consideration of each company's "ability to pay," best exemplified by Exhibit 3. The governing logic is simple:

- Assume any given company could commit ~1-3% of profits to climate spending
- Divide a company's profits by its emissions to yield a dollar (profit) / tonne (emissions) figure
- Multiple that figure by 1-3% to understand the company's "ability to pay"

Why 1-3%? We've based that on a mix of observed heuristics cross-referenced with expected costs for combating climate change at a global GDP level.<sup>10</sup>

Applying this simple logic across the Fortune 1000 company set produces fascinating results, with some industry segments being able to afford north of \$500/tonne, and others less than \$10/tonne.

### Consider your own business performance and your ability to pay for solutions

While there is no governing rule to meet one's "ability to pay," asking yourself what your climate contribution *should* be is an important step to understanding what it *could* be.

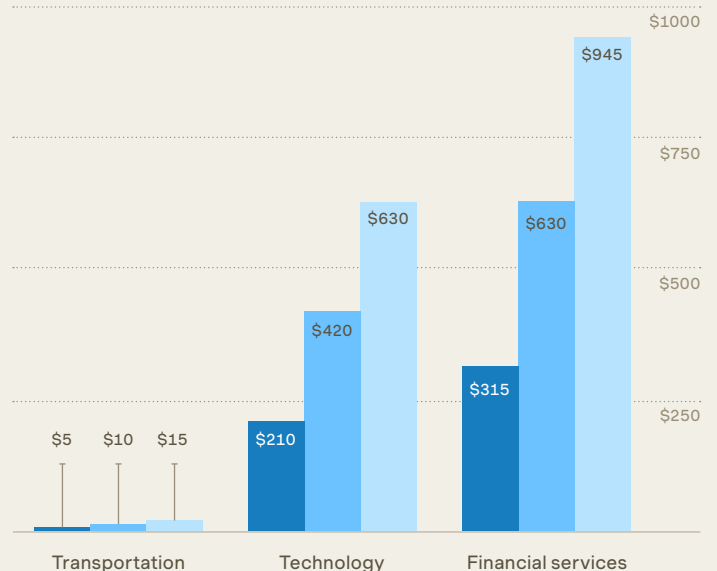
We'd stress that any company's climate strategy should be a healthy balance of sustainable ambitions, business operations, and financial realities.

For this exhibit, we've pulled three example industries representing the low end of the spectrum, the mid-range, and the high end, and extrapolated what per-tonne spending could look like with "ability to pay" factored in.

#### Exhibit 3 | Which industries have the highest ability to pay for carbon credits?

Based on: PACC (Pragmatic Abatement Cost Curve) by sector<sup>11</sup>  
Price per tonne of emissions (since 2018)

- Profits ÷ Emissions × 1%
- Profits ÷ Emissions × 2%
- Profits ÷ Emissions × 3%



<sup>9</sup> [What Is the Prisoner's Dilemma and How Does It Work?](#) (2023, March 31). Investopedia.

<sup>10</sup> Yanosek, K., & Victor, D. G. (2022, March 22). [How Big Business Is Taking the Lead on Climate Change](#). McKinsey & Company

<sup>11</sup> Ross, K. (2021, August 23). [Introducing the PACC: the Pragmatic Abatement Cost Curve](#). [Climateusings.substack.com](#)



TIP

# 04

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Clarify your frame  
of reference:  
what claims and strategy  
are you pursuing?



## TIP 04

Perhaps more important than *what* amount of money you spend is *why* you are spending the money. Specifically, what climate targets have you set for your business?

Over the past few years, we've observed the climate target landscape get more and more complex. For this tip, we'd recommend answering two specific questions:

1. What climate strategy are you pursuing? (e.g., SBTi, Net Zero, % of spend)
2. What time frame are you considering? (e.g., this year, historic emissions, etc.)

Clarify your frame of reference:  
what claims and strategy are you pursuing?

Answering these two questions will often prescribe a budget range and tonne range for compensation. For example, certain climate commitments rule out avoidance credits, which tend to be less expensive than many types of removal credits, which means your price-per-tonne could increase.

By understanding your commitment and your time frame, you can understand whether you should pursue a compensation budget (\$/tonne) or consider a contribution budget (total \$) to stay within guardrails.

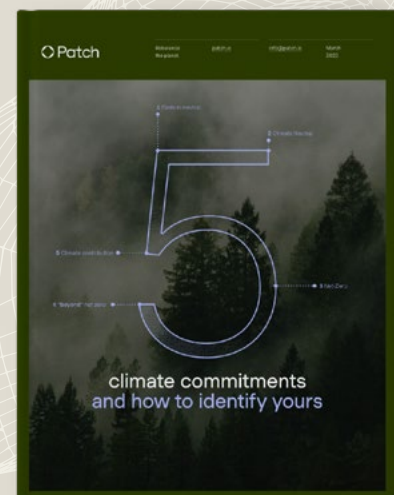
We often hear from companies whose expectations on a price-per-tonne level exceeds their budget, putting compensation out of reach. A contribution budget gives optionality to companies who can't afford to compensate their footprint even at \$50/tonne. You don't have to offset your entire footprint; you could direct your overall credit budget towards the highest quality projects regardless of the number of tonnes.

#### Learn more

Patch has published an introductory guide to the most common types of climate commitments to help you learn more if you haven't selected one.



[Download the guide](#)





TIP

# 05

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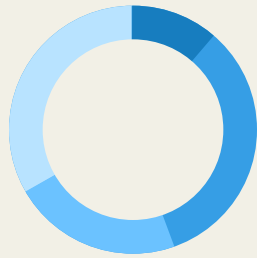
Set guardrails and take a portfolio approach to optimize impact and mitigate risk



TIP 05

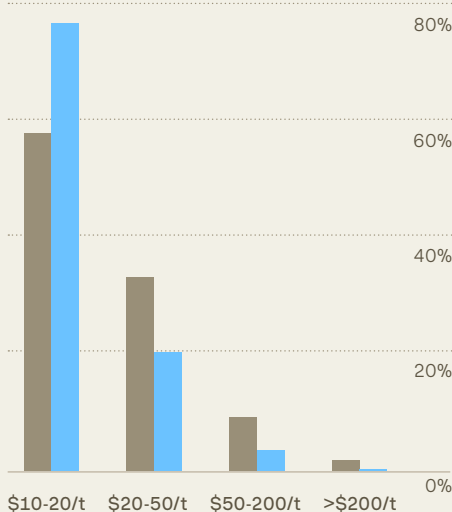
Set guardrails and take a portfolio approach to optimize impact and mitigate risk

Exhibit 4 | How many projects make up Microsoft's FY22 portfolio?



- >\$200/t — 2 projects
- \$50-200/t — 6 projects
- \$20-50/t — 4 projects
- \$10-20/t — 6 projects

Exhibit 5 | How do Microsoft's FY22 purchases compare with total \$ spent and tonnes purchased?



- Share of \$ spent (%)
- Share of tonnes purchased (%)

By following tips #1 through #4, you can work your way to an annual budget that should support your compensation or contribution strategy. As mentioned, this budget could be a set dollar number or a prescribed price-per-tonne based on the approach you're taking.

Our final tip comes to bear when shifting from strategy to execution. Regardless of the budget you choose, Patch recommends (1) taking a portfolio approach, and (2) setting clear guardrails.

**A portfolio approach:** We recommend supporting anywhere from 3-10+ projects. This tactic allows you to simultaneously optimize for both climate impact and telling your company's story while also mitigating risk from any single project. An average buyer in the Patch marketplace will support between 3-8 projects in a given order.

**Clear guardrails:** We also recommend defining in advance which specific projects you won't buy, a price-per-tonne minimum for any given project in your portfolio, or permanence and additionality standards (e.g., BeZero, Sylvera). Setting firm guardrails will ensure that regardless of your overall purchasing strategy, you can avoid greenwashing and maximize the climate impact your dollars will make.

In Exhibits 4 and 5, Patch analyzed [Microsoft's FY22 purchases](#)<sup>13</sup> to demonstrate a portfolio approach in action. Microsoft purchased 16 different projects, ranging from ~\$10/tonne to north of \$600/tonne. We estimate that their average purchase budget was between \$15-20/tonne, depending on the specific prices delivered by the project developers.

This approach allowed Microsoft to support projects across the nature-based and engineered-removal landscape while staying within acceptable budget expectations.

13 (2022, March). [Microsoft carbon removal: an update with lessons learned in our second year](#). Microsoft



FINAL TAKEAWAYS

Putting plans into action and preparing for an uncertain future:

# Now that we've described the five-step approach, let's see what it looks like in action.

EXAMPLE CUSTOMER

**\$10Bn AUM Private Equity Fund**  
(operational footprint of 5K tonnes/yr)

01

SCIENTIFIC BENCHMARKS  
\$50-250/tonne budget range

02

PEER GROUP  
\$65-195/tonne  
(50th to 75th percentile)

03

ABILITY TO PAY  
\$200-600/tonne (1-3% of management fees, assume 1% of AUM)

04

FRAME OF REFERENCE  
Assume annual compensation, \$1M / year max budget

05

GUARDRAILS + PORTFOLIO  
Assume no projects below \$10/tonne

**\$100 – \$200/t**

OUTCOME

By selecting a budget averaging between \$100-200/tonne, this customer would be able to satisfy the outcomes of all five tips!

We've built this guide to be flexible enough to stand the test of time. Most companies are only at the beginning of their climate strategy, and the carbon markets are evolving rapidly.

This future evolution will bring two primary changes: changing (lower) footprints, and changing prices for carbon removal (shown illustratively in Exhibit 6).

As a buyer, you should embrace and drive this change. By pursuing all feasible reduction opportunities within your business you will both lower your carbon burden while simultaneously enabling a higher budget (\$/tonne) to support innovative carbon removal projects. The Oxford Principles for Net Zero Aligned Carbon Offsetting, shown in Exhibit 7, outlines a portfolio approach that shifts with time as well. At present, a portfolio may include more avoidance and short-term storage approaches like sustainable cookstoves or improved forest management. But over time, we'll transition more and more to permanent carbon removal. Your choices will be impacted by this shift — but they'll also help accelerate it.

We hope this guide serves you in deploying a high-integrity compensation strategy and if you'd like to learn more or get help in following these tips yourself, you know where to find us.

Exhibit 6 | Illustrative evolution of carbon markets

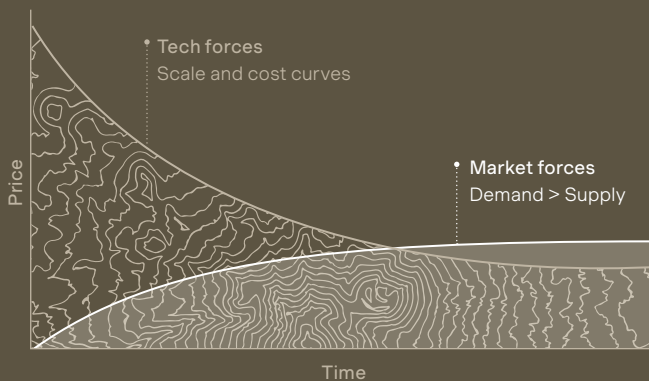
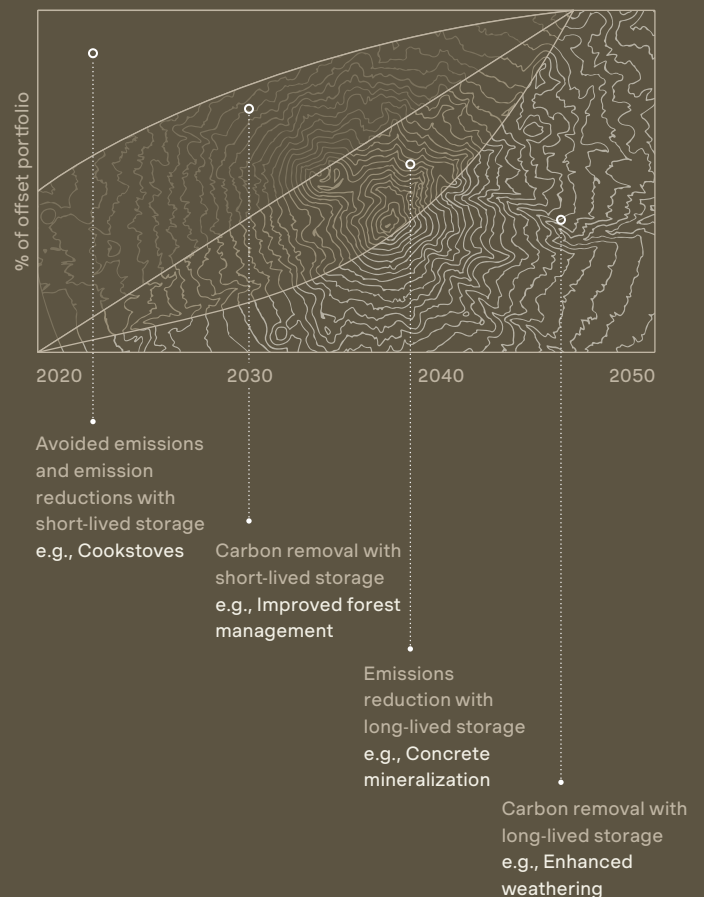


Exhibit 7 | Sample net-zero portfolio (per Oxford Principles)



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Get in touch with our climate team

Whether you have an established climate strategy or are just getting started, let's talk.

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