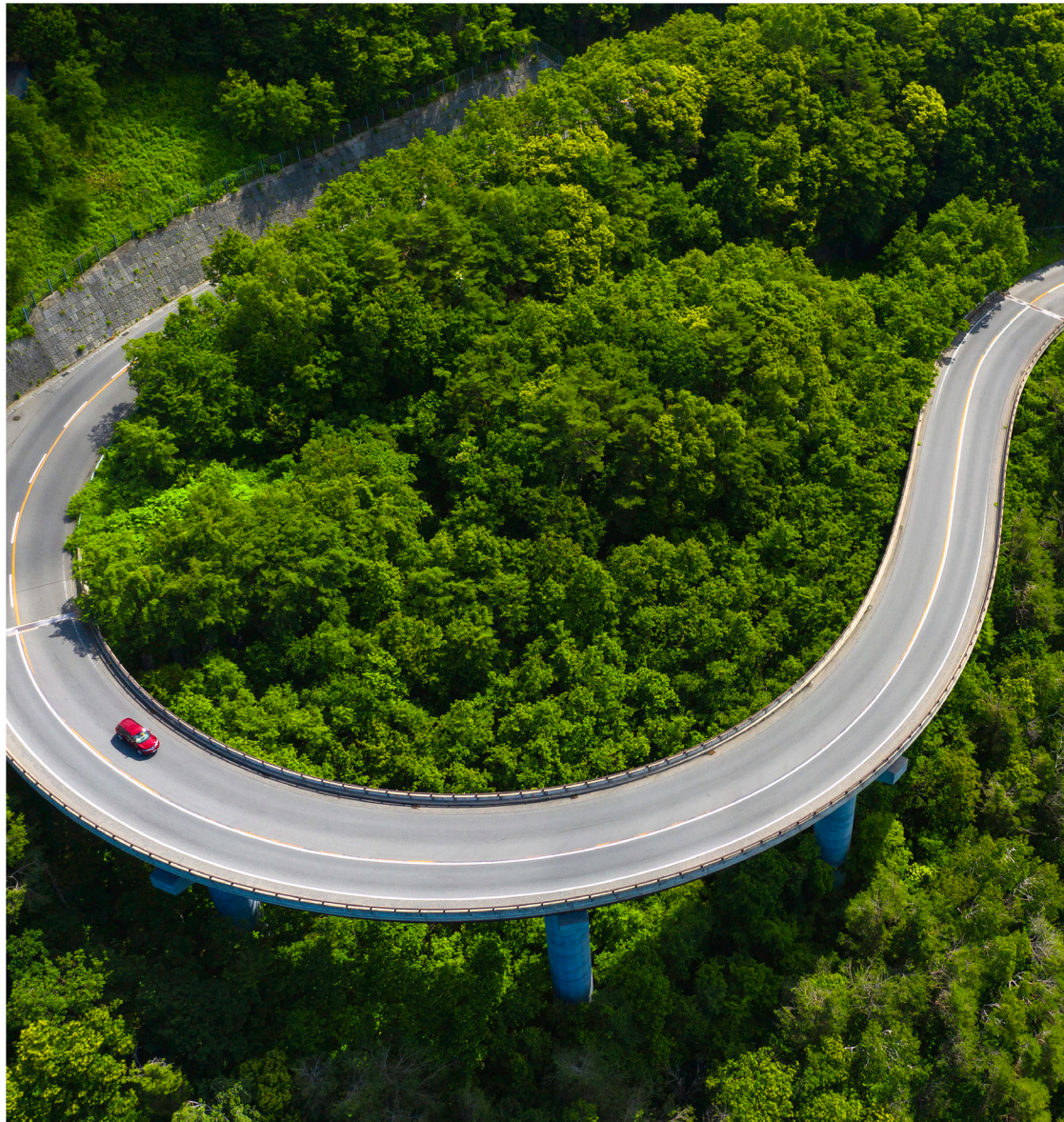# Building trust in the climate transition

The 'uncomfortable truths' about the data behind corporate climate reporting

The concern and mistrust about the data behind corporate reporting on greenhouse gas emissions and ideas for how to respond to the challenge.

November 2021

The Business
Briefings series

This series

The Business Briefings series is a new series of papers by PwC that provides a constructive breakdown of causes of mistrust in climate reporting by businesses today. Its intention is to support business leaders, boards and financial markets to build trust and support the flow of capital that will drive the transition to a net zero economy.

This paper

There is growing pressure on businesses to play their part in tackling climate change, and an increasing number of companies are making commitments to reduce their greenhouse gas emissions. But how reliable are the data and metrics that companies disclose?

Not very, according to voices from financial markets to civil society, who are increasingly raising questions about the quality of the data underpinning corporate climate reporting. Without trust in the data, doubts will grow about businesses' ability to tackle the problem and whether they are delivering on their promises to reduce emissions. Companies, consumers, policymakers and investors all require trustworthy data to make informed decisions on climate change as we ratchet up action towards global reduction commitments.

This paper explains where the mistrust is coming from, the questions to ask of companies, and the steps that businesses and others can take to increase the robustness of the data.

Executive summary

The data behind corporate climate reporting carries some uncomfortable truths. As the heat on companies to disclose the greenhouse gas intensity of their products and services ratchets up, a range of voices from financial markets to civil society are questioning the accuracy and quality of their disclosures. Behind the headline figures, the picture is opaque and often data is approximated or simply unknown – especially in the supply chain.

Accurate measurement of corporate greenhouse gas emissions is critical to guide company action, provide investors with the information needed to direct their capital, and help inform whether the world is on track to limit warming to no more than 1.5°C. At PwC, our hope is that bringing greater attention to the issue now will help create the space to develop a solution. And in doing so, help build trust in the climate transition and support businesses to fulfil their own net zero climate commitments.

This paper outlines seven challenges to trust in corporate climate data, ranging from an overreliance on models and assumptions, to a lack of standardised metrics and poor quality data along the value chain. Taken together, these challenges pose a significant barrier to improving confidence in the reliability and quality of the data on which companies base their reporting.

The implications of not solving the challenges around this data are huge. It matters well beyond corporate reporting cycles and specialist groups. It risks eroding public trust in business, investor confidence in companies' exposure to climate-related risks, and global confidence in the world's effort to halve emissions by 2030. Crucially, if the emissions reporting system continues to be inadequate, there is a risk that capital will be allocated to companies that are not transforming in line with global climate goals, rather than towards those companies that are.

The way forward outlined in this paper is to facilitate better sharing of emissions data between companies, to give better transparency along the value chain and better accuracy of emissions that businesses inherit from their suppliers. This is a step change in the way that companies currently approach climate disclosure. As a business, our net zero commitment includes tackling emissions throughout our supply chains and we are acutely aware of the challenge of tracking and measuring these ourselves.

We believe that the best way to do this is through a common global architecture for data-sharing. This then would give the basis for platforms in which businesses of all sizes provide assured emissions data. This would allow all market participants to have an assured and high quality account of the greenhouse gas emissions behind different products and services.

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1 An uncomfortable truth about corporate climate data

Governments around the world have significantly increased their ambition to tackle climate change, aiming to limit the average rise in temperature to no more than 1.5°C. To do so, the world will need to reduce the net volume of greenhouse gas emitted every year from 51 billion tonnes to zero.

It is increasingly clear that businesses are expected to play a central role. Reducing net emissions to zero will require transforming almost everything about how the world makes, moves, and produces goods and services. And governments are looking to the private sector to drive this transition. At the same time, there is growing pressure from consumers and civil society for businesses to reduce their emissions.

All of this has led to greater demands for transparency from companies about their emissions, and plans for how to reduce them.

A rapidly growing number of companies have committed to achieving net zero emissions, including the more than 3,000 companies that have joined the UN Race to Zero campaign. These companies have committed to reducing their emissions in line with limiting warming to no more than 1.5°C and reporting annually against their progress.

And a far larger number of companies report their greenhouse gas emissions every year. In the UK, many large companies are required to disclose their emissions by law, while many more businesses still voluntarily disclose their emissions in response to demand from stakeholders.

Why is accurate measurement and disclosure of corporate greenhouse gas emissions critical?

It helps inform whether the world overall is on track to limit warming to no more than 1.5°C. **1**

It provides investors, consumers, NGOs, and civil society with useful information – including whether a company is delivering on its commitment to reach net zero. **2**

It provides companies with the right baseline to understand the actions they need to take. **3**

It ensures that capital can be properly allocated to sustainable industry supply chains that will be key to the climate transition. **4**

In regards to the proper allocation of capital, if we take the electric vehicle (EV) industry as an example, significant new capital flows are sustaining massive growth and look set to continue to do so as the global demand for EVs grows. But to be sure of the positive impact the growth of the EV market will have on global emissions, we need greater confidence in the emissions data of the EV supply chain – from the extraction of the cobalt to build their batteries, to the transport of the parts from suppliers to customers, and the regularity with which EV parts are replaced or disposed. We also need some understanding of the greenhouse gas intensity of the cars' usage beyond the point of sale – for example, whether the electricity used to power EVs is generated by renewable energy or coal-fired power stations. Only with accurate emissions reporting across the full value chain can we trust the industry's potential role in limiting global temperature rise, and determine what impact the capital allocated to it is having.

But there is an uncomfortable truth about corporate climate data.

Behind the headline figures, there are some significant challenges around the availability, reliability, and quality of the data on which companies base their reporting.

In turn, this raises questions about the final figures that companies disclose.

This is often a technical and complicated issue, meaning that many people working on, or thinking about, climate-related action are not aware of the challenges. But some expert voices are beginning to point to the problem, including the Network for Greening the Financial System, a group of central banks working on climate change.

At PwC, our hope is that bringing greater attention to the issue now will help create the space to develop a solution. And in doing so, help build trust in the climate transition.

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> Reliable and comparable data is a prerequisite for ensuring trust in climate-related data and avoiding greenwashing… Currently, poor quality and unaudited data, alongside non-transparent methodologies, continue to pose significant limitations to the usability of climate-related data.

Source: **Network for Greening the Financial System**
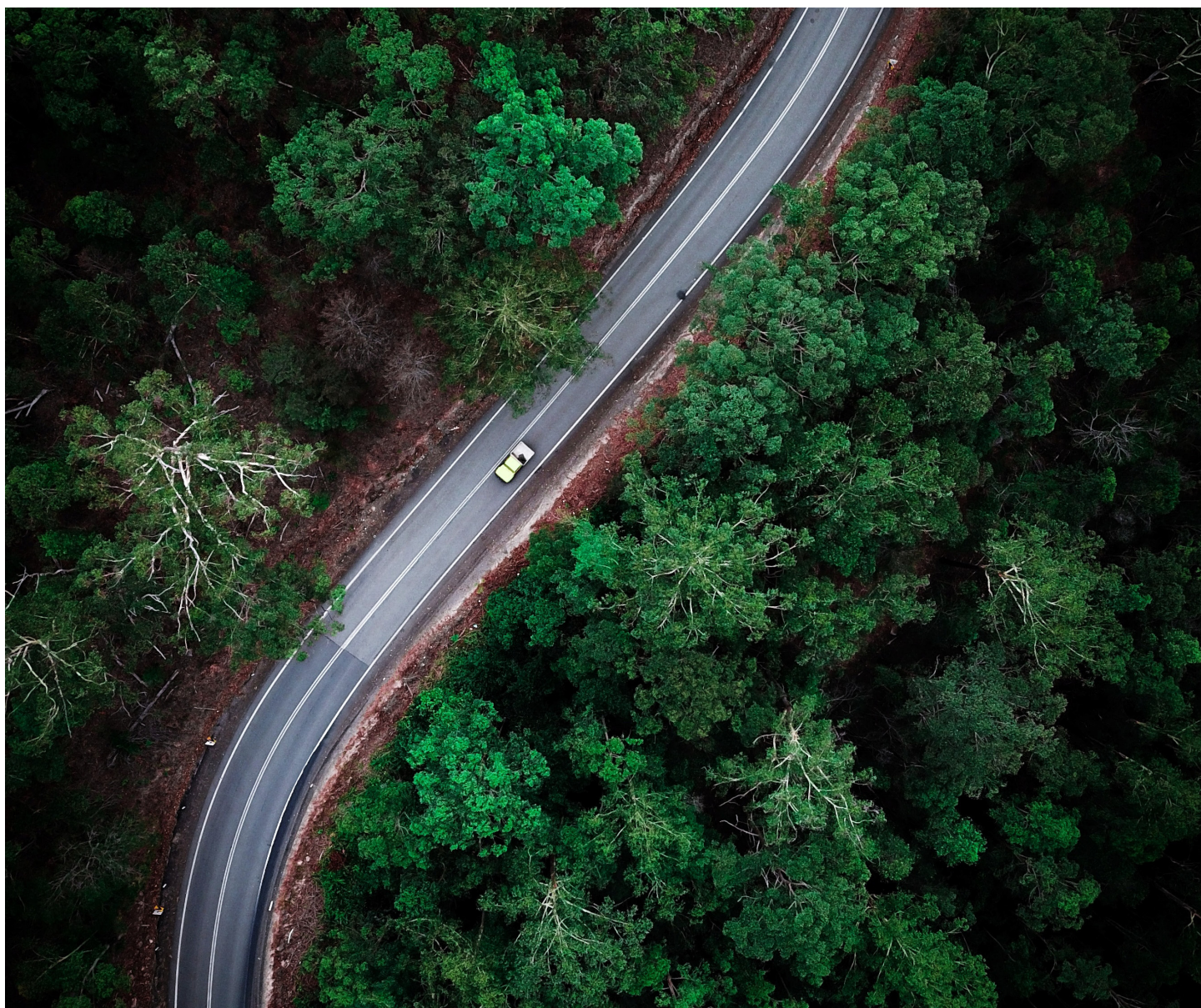
2 Seven challenges to trust in corporate climate data

From our perspective, we see seven core challenges to building trust in climate reporting.

1. The vast majority of companies do not disclose climate-related data

While a proportion of large multinational companies disclose their greenhouse gas emissions and other climate-related data, the vast majority of the world's businesses do not. There is simply very little transparency about corporate greenhouse gas emissions across the globe.

The problem becomes more acute at a regional level. Overwhelmingly, the companies reporting regularly on climate change are concentrated in North America and Europe. As a consequence, the data gaps on companies' emissions in Asia and Africa are particularly significant. This matters because it is exactly these regions which are likely to see the highest growth rate in the coming decades for the economy, and for emissions.

2. Data on emissions in companies' supply chains can be especially poor

For many companies, the vast majority of their climate impact sits in the supply chains of their products and services. For example, for a fashion retailer, the majority of the emissions associated with a pair of jeans come from the production and shipping, not the electricity used to power the shop that sells them. The importance of emissions in supply chains – sometimes called "Scope 3" emissions – is especially critical in sectors with long, complex supply chains, such as transport and the built environment.

Often, the source of the problem is that a company is reliant on its suppliers voluntarily disclosing the detailed information necessary to calculate the emissions of a particular product or service. And even in a digital world, time-consuming supplier surveys remain a common method to try to capture the data. So companies are forced to make assumptions and estimates, which introduces substantial room for error.

And the poor quality data at one company can be carried over into the calculations for other companies. For example, if a supplier has had to estimate the greenhouse gas emissions associated with a product or service, this assumption will be carried through the calculations by every other company in the supply chain that buys or sells that product or service. For supply chains that extend into emerging economies where emissions reporting is even less common, as noted above, then the potential for inaccurate data to be carried along the supply chain is particularly high.

3. In filling data gaps, there is an overreliance on models and assumptions that are also inconsistent

Where companies need to make estimates or assumptions, a common approach is to purchase this data from a data provider. Providers such as Arabesque, Bloomberg and MSCI create models to justify assumptions where data is missing, outdated or likely to be wrong. While these are well-intentioned workarounds, they risk exacerbating the uncertainty around the accuracy and robustness of the underlying data.

This is because assumptions or estimates are not usually marked as such in the final reporting. There is a risk of a false sense of precision.

To complicate things further, differences between the models and calculations used by different providers mean that an additional layer of uncertainty and incomparability is introduced into the system, generating potentially different conclusions about greenhouse gas emissions. Similarly, companies in the supply chain that are providing more accurate or reliable data are still often covered by the application of these models. This cancels out any increase in transparency along the supply chain resulting from the business' actions, with no incentive for other businesses to dig deeper into their own real emissions data set.

4. A lack of standardised metrics means that some data is "comparing apples to pears"

Today, there is no common framework for what standards and metrics climate reporting should follow, hindering credible and consistent reporting across companies and sectors.

This has led to what is referred to as the ''alphabet soup'' of reporting metrics, as the breadth of acronyms that constitutes the landscape of reporting standards fails to provide businesses with a clear framework against which to report. In turn, this means that the data that one company reports could be incomparable with another.

As an example, and as the respected NGO CDP explains, companies can today report their emissions using different "boundaries" such as whether they have financial or operational control of a company or based on their share of equity. In CDP's experience: "In many cases a company's reported emissions will be very different across each of these three boundary choices. When companies have switched their boundary from one year to the next, the emissions have been known to change by as much as 50%".

In addition, it creates a risk that some businesses could take advantage of the range of voluntary standards to cherry pick the metrics that they disclose in order to flatter their performance.

5. Emissions data is subject to a lower standard of scrutiny than financial data, if any

When companies report financial information, there is a requirement for them to provide assurance over the accuracy and integrity of those numbers by appointing auditors.

Most companies that report their emissions do so voluntarily, without a need to have them scrutinised by an independent third party. And where companies do voluntarily ask external experts to provide assurance over the numbers, the level of assurance may not be as robust as that used for financial data

6. The data that is disclosed can often be hard to find

Even when companies do report climate data, it can be located in appendices or obscure parts of their corporate reporting. A company's commitment to reduce its emissions might be in the CEO's letter at the front half of the report, while the data showing the progress they have made might be located in separate corporate filings or the company website, for example.

This kind of reporting, including any changes in the key performance indicators used from year to year, can prevent stakeholders from getting access easily to the data they want – inhibiting shareholders from holding companies to account and potential investors from making informed investment decisions.

And this is particularly true for consumers, who lack an easy and obvious way to find the environmental impact of the products they are buying. As the trend towards more environmentally sustainable and socially responsible purchases continues, consumers will demand more and more of this kind of information.

7. Data tends to be disclosed in technical ways that are confusing for many stakeholders

Finally, even where emissions data is easy to find it can be disclosed in a way that is difficult to understand.

This is particularly true for consumers, where it would not be enough to simply print the existing emissions data on a product. A breakdown of the "Scope 1, Scope 2, and Scope 3" emissions for a pint of milk is unlikely to be of much use.

There is a pressing need to develop a "common marker" of a product or service's greenhouse gas emissions, that can sit alongside the detailed technical reporting.

3 Why the challenges to trust matter

Collectively, these challenges to trust in the underlying data behind corporate climate reporting present a real risk.

Today, it is a small number of deeply expert voices pointing to the challenge. But over time, the risk is that a growing number of stakeholders lose trust in the data and therefore in the reporting.

And this matters well beyond corporate reporting cycles because:

It risks false confidence in the world's effort to halve emissions by 2030 if there are potentially significant errors in company and industry data.

It risks eroding public trust that businesses are preparing adequately for the carbon transition and delivering on their promise to reach net zero emissions.

It risks eroding investor confidence if there is doubt about a company's exposure to climate-related risks

Crucially, if the non-financial reporting system continues to be incomplete and opaque, then it risks misallocating capital to companies that continue to emit heavily, in contrast to global climate goals. The climate transition relies on capital being directed toward clean, sustainable companies that make positive contributions toward keeping global temperatures within 1.5°C, as well as greenhouse gas intensive companies that are transforming their businesses in line with the transition. This is why trusted emissions reporting is absolutely critical to tackling climate change.

The importance of accurate emissions will only grow over time for companies as their emissions fall, as any errors will represent a larger percentage of the overall amount.

4 The road ahead: Ideas for solutions

This is a stubborn problem, but not an insurmountable one.

Many of these challenges echo those faced by financial reporting several decades ago, which also underwent a significant change to improve quality and reliability. The success in improving the robustness of financial data should give us confidence that a solution is possible for climate data.

At PwC, we wanted to propose ideas for what a potential solution could look like.

There will be no silver bullet, no single solution owned by one company or organisation which will solve the challenge alone. But we think there are ways to approach the problem

Firstly, we need a common recognition that this is a systemic and widespread problem – and that it therefore requires bold and collective action.

- Simply changing reporting standards or coalescing around one single standard – while important for comparability purposes – will not suffice, as it does not change the quality of data being reported against those standards.

Secondly, the fundamental crux of the challenge is about better sharing of data between companies, to give better transparency along the supply chain and better accuracy of the emissions they inherit from their suppliers.

- This would substantially reduce the need for assumptions and models, and therefore remove a key source of uncertainty about the underlying data. It is also a prerequisite for the ability to compare companies on their emissions data.
- However, for this to be possible we will need to develop a common global architecture for data-sharing, and a framework for data assurance.
- Once agreed this would allow for the development and adoption of new data sharing platforms.
- It may be that a small set of platforms serve companies of different sizes, similar to the different reporting platforms that are designed for different sizes of entities, e.g. SAP/Oracle for large companies and Quickbooks for small businesses. These multiple platforms could then have methods of communication between one another to ensure that data is accessible across the full supply chain.

While this solution will require a global regulatory approach, given the urgency of the challenge, our belief is that market participants coming together now to develop new platforms and processes that regulators can then engage with is the most constructive way forward. The

right combination of regulation and incentivisation to mobilise business engagement with the platform will take some time – and the involvement of multiple players (e.g. banks introducing this into their lending covenants) – but the development of the platforms and a common architecture across them is an important step in the right direction.

Thirdly, mobilising consumer demand for accurate climate data would be a powerful lever to encourage companies to disclose their emissions.

Many consumers have a preference for more environmentally sustainable products, but do not have easy access to understand the impact of the products they buy.

If there is a core data platform, or small set of data platforms, it should be possible to create an easy to use "marker" for products to show their impact for consumers. This could be limited to data on the greenhouse gas emissions, but could also be extended to cover other kinds of social and environmental data. Shared data platforms could be topic-neutral and could also capture data across each of the UN Sustainable Development Goals (SDGs), in respect of which investors and other stakeholders are working to uncover more reliable data.

Steps also need to be taken to agree a global common framework for the standards and metrics that climate reporting should follow. We will address this issue in more detail in the next paper in this series.

5 Taking action: Where next to deliver a solution?

At PwC, we want to bring more attention and dialogue to this issue as an important topic at the core of the climate transition. But it will take many actors working together to develop a solution.

In the short term, alongside the development of a common framework for data-sharing platforms that facilitate accurate and transparent disclosures along value chains, we see a small set of critical first moves to start the journey.

Companies
Examine the robustness of your current emissions data and assessments of climate risk (transitional and physical) to which your business is exposed. Approach your supply chain with a dedicated and frank commitment to uncover areas of greenhouse gas intensity and map emissions through the supply chain from source to consumer. Explain areas of continued opacity, so that investors are truly aware of the "known unknowns".

Investors and stakeholders
Kickstart and develop engagement with companies on their confidence in emissions data, focusing in detail on where they have and do not have confidence in the underlying data.

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