

Beyond *Ambition*

Academic
Partnerships
Driving
Corporate
Net-Zero
Success

The Introduction

With climate change posing an existential threat to the planet, the concept of achieving 'Net-Zero' has emerged as a critical global goal. As a result, both the public and private sectors are investing capital and resources to address this challenge. In the public sector, academia is observing increased investment and allocation of resources towards rigorous scientific research across disciplines such as economics, environmental sciences, and policy analysis. These efforts have resulted in many breakthroughs, including improved strategies towards decarbonization pathways. In the private sector, greater capital is being funneled towards climate-related solutions, particularly looking at innovative technologies leveraging Artificial Intelligence (AI) to support the optimization of needs across an organization; ranging from business strategy, financial planning, or energy usage. There remains however, a significant gap between emerging climate-related innovations and corporate decarbonization progress.

NotedSource and Manifest Climate have partnered to investigate this challenge from the perspectives of corporations, with a shared mission to allow companies the ability to leverage the expertise and tools they need.

NotedSource's mission is to help drive innovation within companies through greater collaboration with academic professionals. For companies, it's a place to find qualified research talent – both short and long term – to advance projects quickly. Manifest Climate is purpose-built to help management teams accelerate their climate strategies and disclosures. With Manifest Climate's AI-powered platform, companies access real-time climate-related insights, analytics and recommendations.

This white paper navigates the challenges faced by corporations looking to move towards a Net-Zero future, and highlights accessible strategies, from the use of innovative technologies, to collaboration between academia and industry, that can be employed along this journey. We also contrast how challenges and solutions vary across organizations, based on size and industry, highlighting the need for curated tools and expertise. While emerging innovations in the public and private sector are indicative of a broader positive shift towards Net-Zero, it is the goal of this white paper to demonstrate that for corporations, exploring interdisciplinary collaboration between the public and private sectors can help them get there.

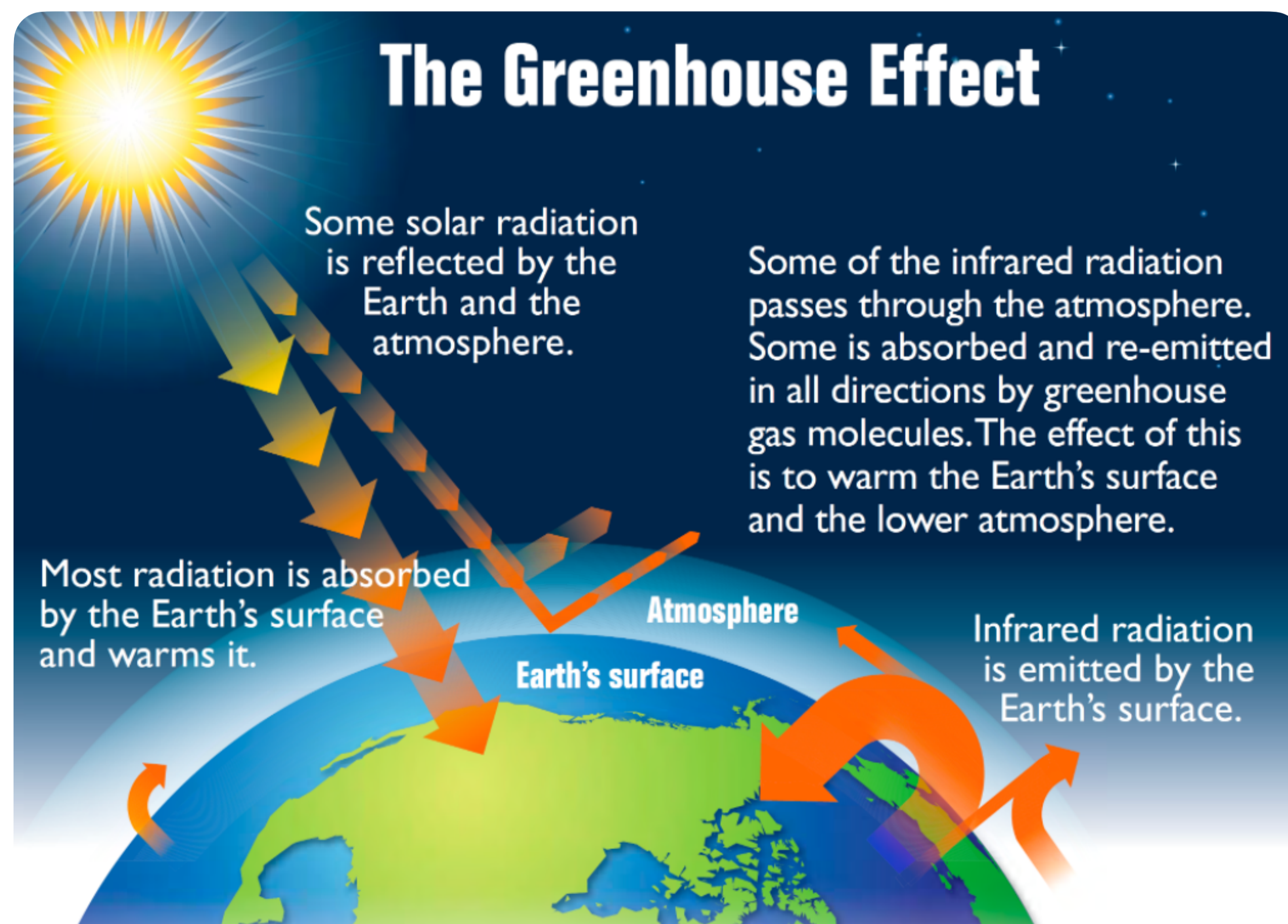


Beyond Ambition: Academic Partnerships Driving Corporate Net-Zero Success

Net-Zero is an intrinsically scientific concept - the balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere. Beyond this, it is a frame of reference for structuring and understanding global action against climate change, with Net-Zero being achieved by counterbalancing any carbon emissions produced by human activities with an equivalent amount offset. This objective is not only environmentally necessary, but also a strategic business advantage.

This balance is essential for mitigating the effects of climate change, a global phenomenon characterized by rising temperatures, erratic weather patterns, loss of polar ice, acidification of our oceans, and rising sea levels. These environmental shifts have significant implications not only ecologically, but also economically.

The urgency to address climate change is driven by its profound and far-reaching impacts. Climate change is being triggered by higher levels of greenhouse gasses (GHG) in the atmosphere. The greenhouse effect explains the warming of the Earth's surface and the air above it due to gasses in the atmosphere trapping energy from the sun. The most common GHGs are water vapor, carbon dioxide (CO₂), and methane, with CO₂ being the most abundant of all GHGs. Climate change leads to drastic changes in weather patterns that ultimately pose significant public health challenges as well as risks to businesses, including operational disruptions, supply chain vulnerabilities, and shifts in consumer behavior. Consequently, climate change directly affects the bottom line of businesses. ★



Global temperatures have been steadily increasing, and are on track to increase as much as 2.7°C by 2100 based on current worldwide policies. With the current 1.2°C increase compared to the pre-industrial era we're already facing erratic weather patterns.

★ NotedSource is a strategic business partner to fortune 500 companies as well as SMB's. We augment your existing team to staff initiatives and work at the speed of innovation. Our experts help your team pursue your most crucial initiatives faster.

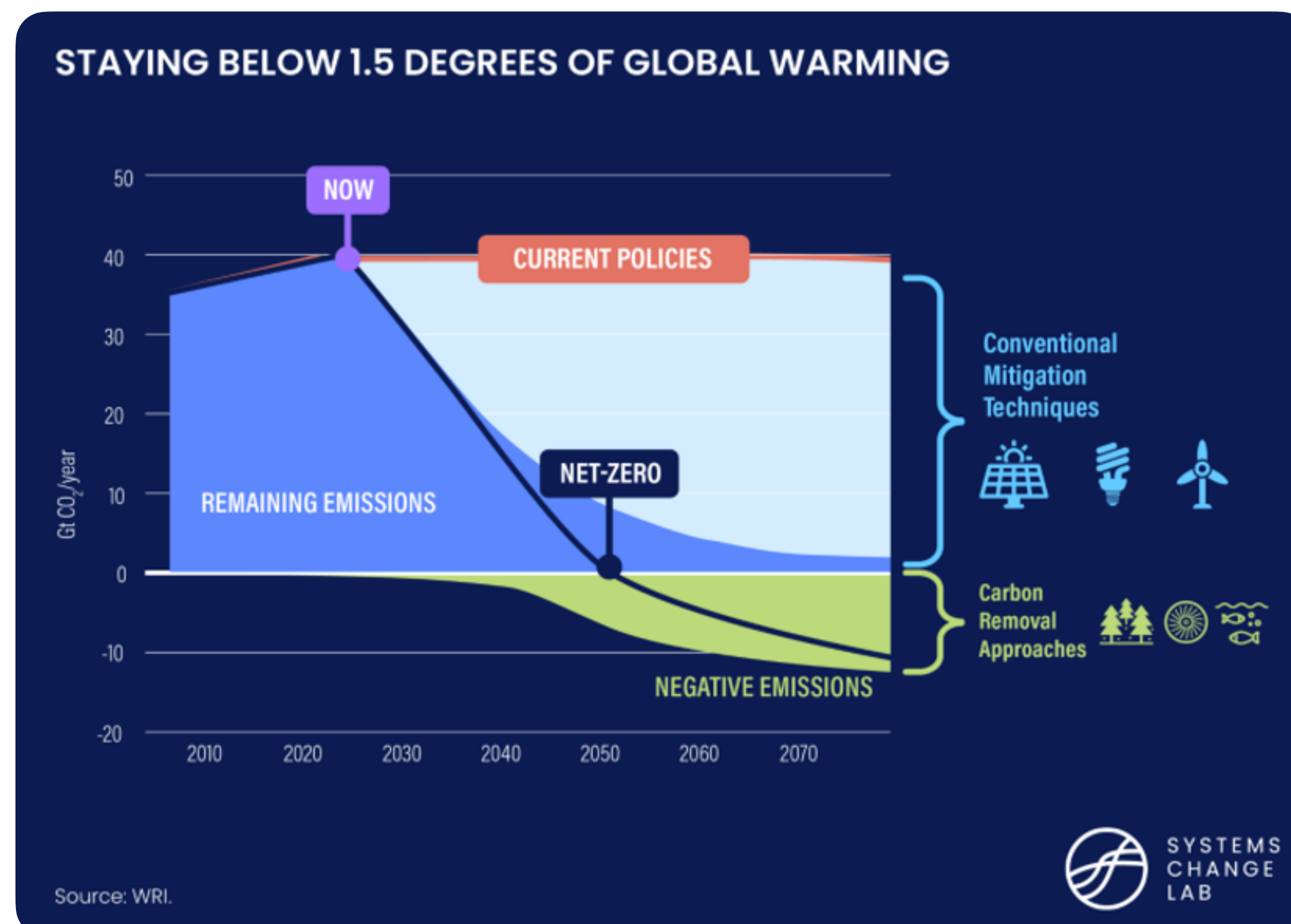


The 2015 Paris Agreement adopted by 196 countries underscores the collective commitment to limit global warming to below 2°C and ideally not more than 1.5°C compared to pre-industrial levels. For industry, this agreement translates into a mandate to drastically reduce carbon emissions. The commitment to the Paris agreement objectives has made the pursuit of Net-Zero not just an environmental responsibility but a strategic business imperative. Companies are increasingly recognizing that failure to adapt to a low carbon economy, one that is based on energy sources that produce low levels of GHG emissions, poses significant risks, including regulatory penalties, investment losses, and reputational damage.

With the objective of keeping the rise in global average temperatures within certain limits, there is a limit of carbon dioxide and other greenhouse gasses that can be allowed into the atmosphere. Beyond this, any further emissions must be balanced by removal.

Reaching Net-Zero is a complex and multifaceted challenge that requires innovative solutions and collaborative efforts. In this context, academic experts play a pivotal role as they offer fresh perspectives, data-driven insights, and scientific expertise, all of which contribute to industries seeking to effectively reduce their carbon footprint. This collaboration can lead to the development of new sustainable technologies, improved energy efficiency, and strategies for carbon capture and storage.★

Net-Zero and carbon neutral are not interchangeable. Carbon neutral refers to ambition to limit any increase in future carbon emissions while using offsets to neutralize existing emissions. Net-Zero puts more focus on reducing carbon emissions as much as possible first, and then offsetting only unavoidable residual CO2 as a last resort.



★ NotedSource specializes in sourcing and onboarding the leading carbon net zero experts, giving small and large businesses unprecedented access to a global network of 'Net-Zero' experts.

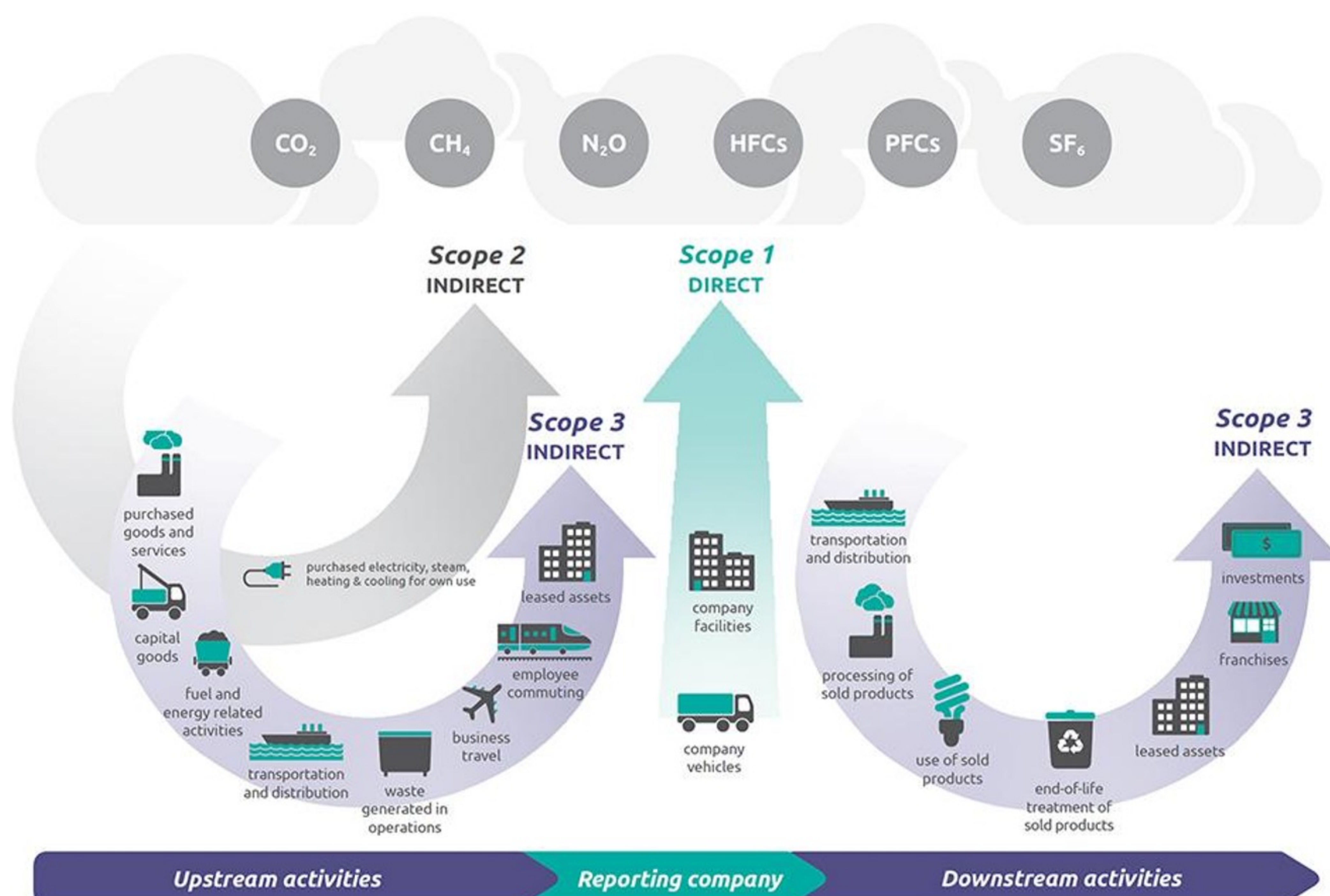


Challenges in Achieving Net-Zero: Navigating the Complex Path to a Low Carbon Economy

For corporations of all sizes, transitioning towards a Net-Zero future involves a series of actionable, yet challenging steps. Across industries, this process begins with accurately measuring carbon footprints, covering direct (Scope 1), indirect (Scope 2), and value chain (Scope 3) CO₂ emissions. Despite the complexity in quantifying Scope 3 emissions, a thorough understanding of the total carbon footprint is fundamental for devising effective emission reduction strategies.

Organizations could then align with public climate disclosure frameworks like the Task Force on Climate-related Financial Disclosures (TCFD). This framework provides overarching guidance for corporations for how best to disclose and manage climate risk and opportunities.

This can include the public disclosure of their climate action plans, maintaining transparency and ensuring accountability to investors, customers, and employees. One key aspect of transparency related to climate disclosures is the setting of reduction targets. Corporations could consider establishing reduction targets by aligning with standards such as the Science based Targets Initiative (SBTi). This necessitates the development of a robust plan, with goals to achieve significant emission reductions within the next decade, encompassing strategies like leveraging renewable energy, enhancing energy efficiency, developing low carbon products, and working with suppliers to reduce emissions. Each phase of this process presents distinct challenges, requiring specific strategies for effective management and progress towards a sustainable future. Transparency is key in this journey.



Source: World Resources Institute, World Business Council for Sustainable Development (2011)¹⁸



Challenge 1:

Accurate Measurement of Carbon Emissions

Accurate GHG emissions measurement is vital for international climate action, yet companies face significant hurdles in this process. Beyond basic calculation, established policies and processes for comprehensive data collection across various business lines is required. This includes adopting sector-specific best practices from industry peers for reporting and verification. ★

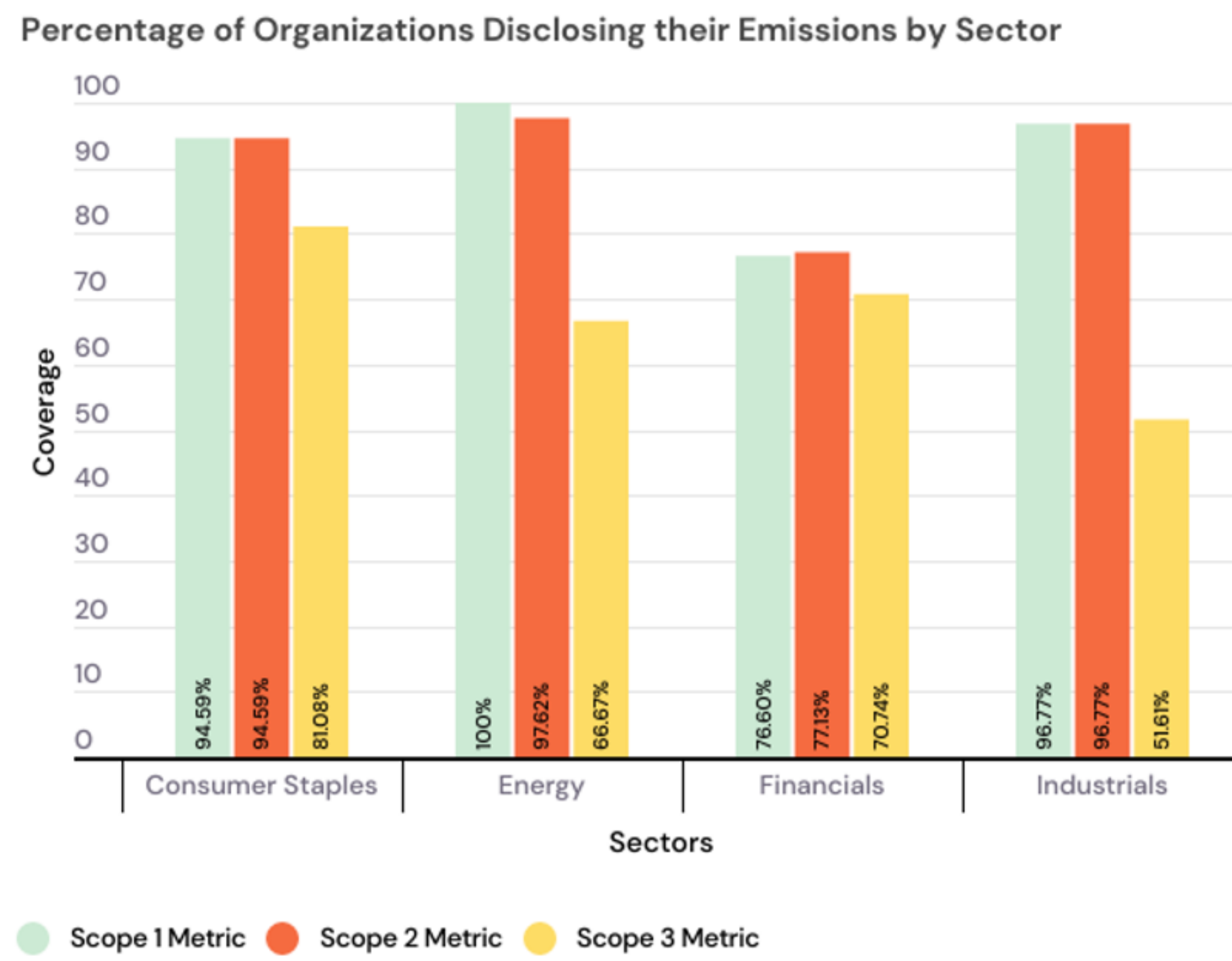
According to climate experts from Manifest Climate, fragmented carbon accounting methods, the absence of regulatory frameworks for emissions disclosures, and inadequate accountability measures contribute to an inaccurate global emissions picture. ★★ Companies face difficulties in gathering and reporting emissions data due to internal governance deficiencies and flawed carbon accounting methods. For example, underreporting of methane and fluorinated gas significantly skews emissions disclosures, amounting to billions of tons of CO₂-equivalent emissions. This problem is exacerbated in many sectors, including oil and gas, due to poor control policies and record-keeping. At the company level, emissions reporting often lacks mandatory accountability mechanisms. While frameworks like the TCFD provide guidance, they do not enforce strict reporting standards, leading to insufficient regulatory oversight and auditing.

A significant gap in emissions reporting exists between large corporations and small- to medium-sized enterprises (SMEs). In some regions like the UK, only large businesses are legally mandated to report CO₂ emissions, leaving a considerable portion of emissions (with SMEs making 99.9% of the UK's business population) unaccounted for by SMEs. This disparity hinders the national effort to achieve Net-Zero by 2050. Research by the Lloyds Banking Group indicates that a considerable portion of small businesses struggle to reduce their Scope 3 emissions stemming from their supply chains. Moreover, for organizations operating within and across multiple jurisdictions with various regulatory requirements, a strategic "multi-standard" view is required to track performance across multiple standards.

To address these challenges, there is a growing call for increased transparency and uniformity in emissions reporting. The United Nations High-Level Expert Group emphasizes the need for uniform emissions reporting. ★★★ This, according to the United Nations High-Level Expert Group, "ensures comparability of disaggregated greenhouse gas emissions data." Collaboration with policymakers, standard-setters, and industry peers is critical for developing uniform carbon accounting standards. Additionally, fostering shared learning and collaboration between SMEs and larger organizations can bridge the gap in emissions reporting capabilities, facilitating collective progress towards Net-Zero goals.

- ★ With Manifest Climate's Tracker tool, organizations can tackle this by seeing how their disclosed emissions and account practices compare to sector and industry benchmarks, alongside a deeper dive into direct peers performance.
- ★★ NotedSource and Manifest Climate are committed to improving the accuracy of the global emissions picture. To find out more visit (joint landing page)
- ★★★ A "multi-standard" view is currently required for many medium to enterprise organizations that operate within and across multiple jurisdictions with various regulatory requirements. Manifest Climate can report against this challenge, tracking performance across multiple standards.





Backward Looking: Percentage of organizations in each sector that are disclosing existing emissions



Challenge 2:

Developing Effective Decarbonization/ Transition Strategies

Developing a strategic decarbonization or transition plan stands as one of the pivotal challenges for companies aiming to achieve Net-Zero goals. This plan, acting as a dynamic roadmap, should address the evolving technological and regulatory landscapes, ensuring adaptability in a world economy shifting towards lower carbon emissions. The urgency in developing these plans stem from both government regulations and market trends converging toward Net-Zero objectives, with companies lagging in this area risking significant financial and reputational losses. According to climate experts at Manifest Climate, businesses contemplating transition need to align themselves with their investors' and creditors' Net-Zero objectives, setting the pace for transition planning. Rather than annual progress updates, organizations need to align with a shift to view their climate roadmaps as a dynamically evolving ongoing process. ★

A growing number of companies, especially among the world's largest publicly traded ones, are committing to Net-Zero targets. Net-Zero Tracker assessed the decarbonization targets of more than 4,000 entities and demonstrated that at least 1,180 have committed to Net-Zero, with a majority being from the world's largest publicly traded corporations on the Forbes Global 2000 list. The report outlines a 68% increase in the number of large public companies setting Net-Zero targets since December 2020 - meaning one-third of the world's biggest public companies are now committed to this initiative. However, there exists a significant gap between these commitments and the implementation of robust, actionable plans. While many publicly traded companies have announced Net-Zero targets, few have developed detailed strategies or aligned their actions to meet these targets. Alarming statistics reveal that only half of these firms have established short-term emission reduction targets, far below what's deemed necessary for curbing global warming. Investor-led initiatives assessing high-emitting companies highlight that a mere fraction have robust decarbonization strategies in place or link their capital expenditure plans to long-term emissions targets.

This disparity extends to reporting standards, where most companies have yet to reflect climate risks and the impact of the Net-Zero transition in their financial statements. The lack of detailed plans and transparency raises concerns about the authenticity of Net-Zero commitments, paving the way for potential legal liabilities for companies engaging in vague or unsubstantiated claims. ★★ The challenge is more pronounced for SMEs, which despite their collective impact on emissions, struggle with limited resources and expertise in comparison to larger corporations. ★★★

Calls for detailed, substantiated transition plans are escalating, with leading asset managers and reports urging companies to offer comprehensive, cost strategies towards Net-Zero. This includes bridging the gap between commitment and action, as well as avoiding the pitfalls of greenwashing through incomplete or misleading disclosures. As the world edges closer to a Net-Zero future, companies must navigate the complex transition to a low-carbon economy, with a focus on genuine, impactful actions.

★ NEEDED: Sentence related to Manifest business objective of collaborating on the paper

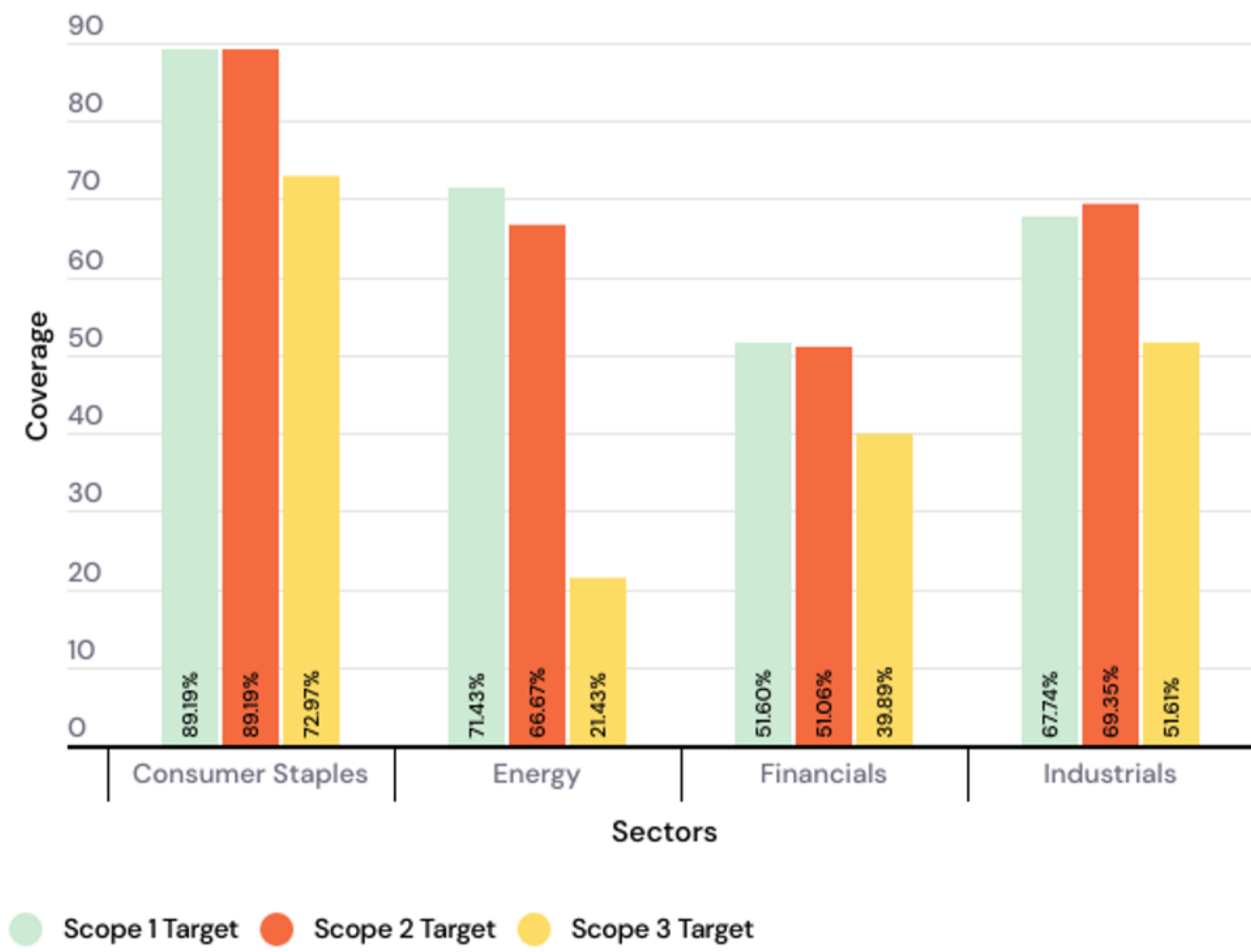
★★ Manifest Climate's Risk Explorer functionality can aid users in understanding how they might impact their own organization. The research tool can assist organizations to explore structured climate related risk data, highlighting specific physical and transition risks

★★★ By cutting out university red tape and connecting the academic expert directly to businesses, NotedSource has made collaborating with academic experts accessible to smaller businesses.

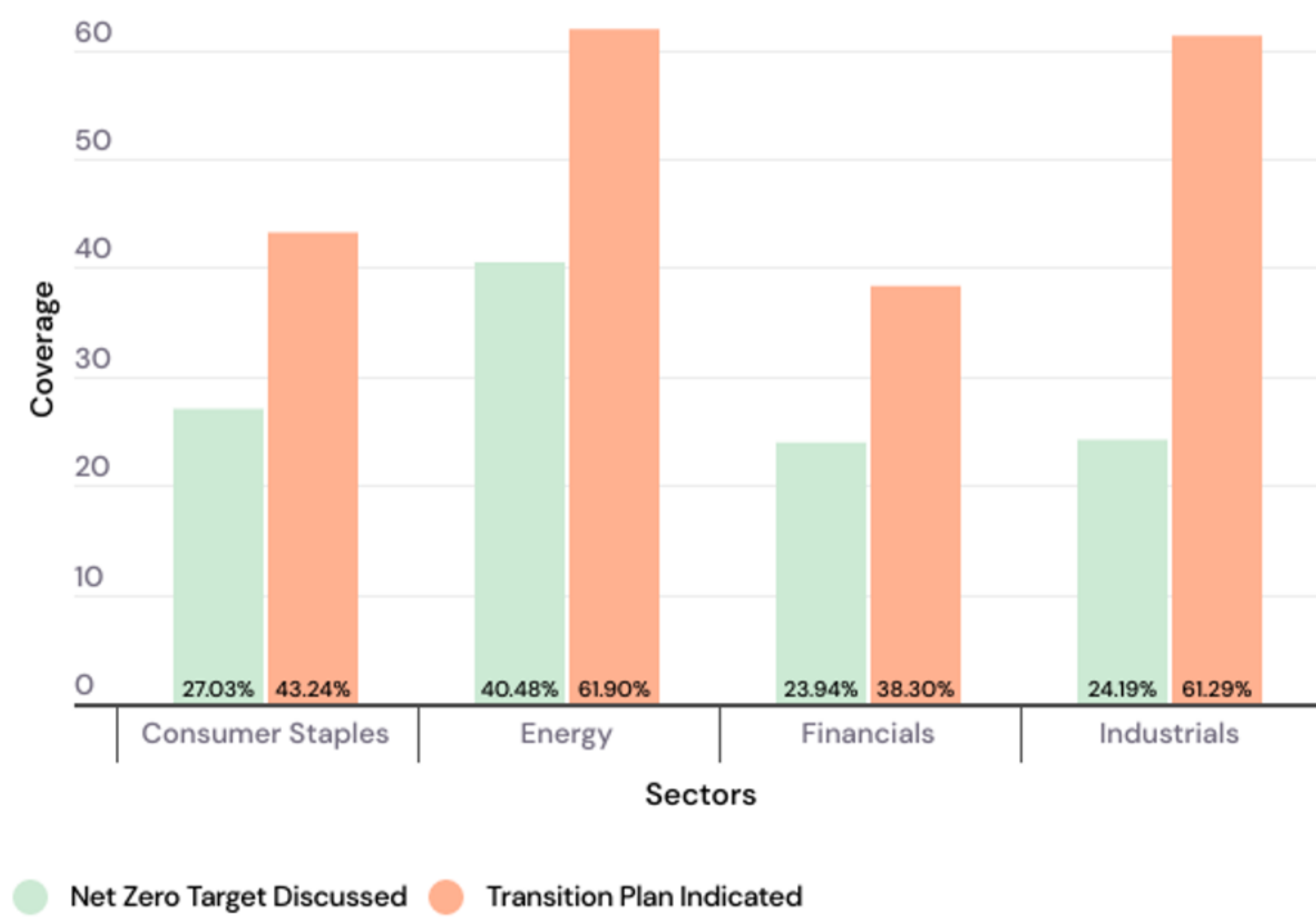




Percentage of Organizations Disclosing their Emission Reduction Targets broken down by Scope, by Sector



Percentage of Organizations Disclosing their Net Zero Targets and Transition Plans by Sector



Backward Looking: Percentage of organizations in each sector that are disclosing existing emissions



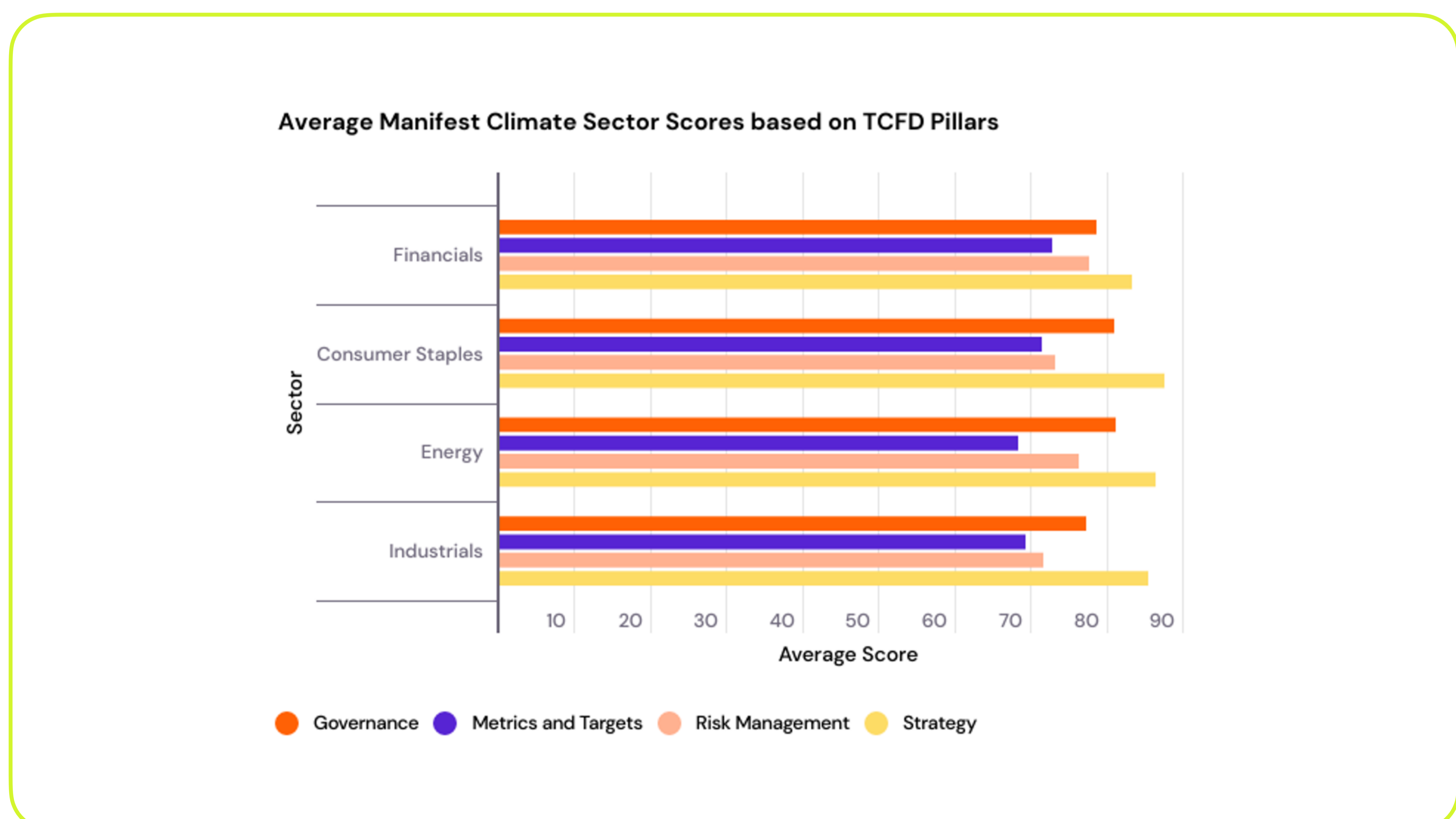
Challenge 3:

Aligning with Official Disclosure Frameworks

Companies today are tasked with the complex challenge of aligning their institutional goals with Net-Zero commitments within official climate disclosure frameworks. This alignment is critical in a financial landscape increasingly focused on climate change risks and opportunities. As highlighted by figures like the Bank of England Governor Mark Carney, “changes in climate policies, new technologies and growing physical risks will prompt reassessments of the values of virtually every financial asset.” This necessitates a reassessment of long-term strategies and capital allocation.

Companies that fail to invest in sustainable practices risk diminished resilience and returns in a low-carbon economy. Simultaneously, short-term neglect of climate risks could also distort current valuations, impacting investors, lenders, and insurers who rely on a comprehensive understanding of a company’s preparedness for the low-carbon transition. Since the Task Force on Climate-related Financial Disclosures (TCFD) recommendations in 2017, there has been a surge in demand for climate-related disclosures. While many financial institutions and investors globally are integrating these disclosures into their decision-making processes with initiatives like Climate Action 100+ encouraging corporate GHG emitters to enhance climate-related disclosures in line with TCFD recommendations, numerous companies, particularly those in carbon-intensive firms, struggle to implement meaningful climate-related matters in their financial statements. This lack of robust disclosure hinders stakeholders’ ability to assess the company’s progress and Net-Zero action plans.

Large companies have a pivotal role in leading the transition to Net-Zero. By sharing expertise and resources, they can influence their customers, suppliers, and smaller businesses, promoting a collective effort towards lower emissions. Early, proactive adaptation can facilitate a smoother transition for both large corporations and their ecosystem of stakeholders.



Average scores on different TCFD pillars (risk management, strategy, metrics and targets) by sector



Challenge 4:

Navigating the Complexities of Carbon Credits

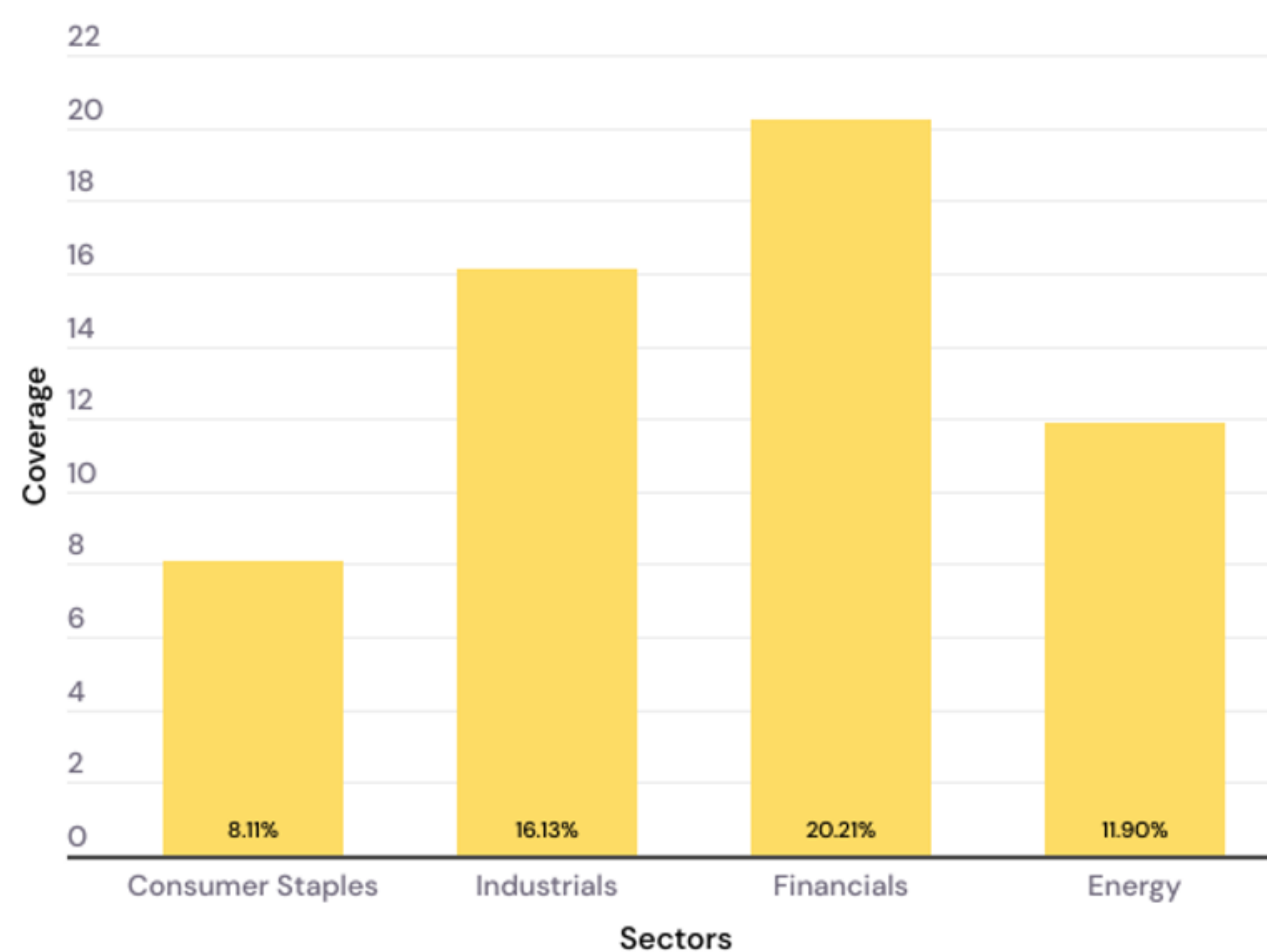
The use of carbon credits is a significant challenge in the corporate journey towards Net-Zero, particularly due to controversies surrounding their real impact. While purchasing carbon credits as "offsets" is a growing trend, it often raises questions about its effectiveness in truly reducing emissions and its ethical implications.

A notable example is Delta Air Lines, which, despite emitting 14.3 million tons of CO₂ in 2020, invested \$30 million in forest preservation projects in Cambodia and Indonesia as offsets. While these projects aim to safeguard forests and communities and create jobs, this highlights a broader issue: many companies rely on forest carbon offsets to achieve their Net-Zero commitments, but the reality of forest offsets is far from straightforward. Some may contribute to conservation, while others could inadvertently perpetuate pollution or infringe on indigenous lands.

The carbon offset market's volatility poses financial risks, and credible offsets might not be enough to counterbalance current emission levels, as highlighted by a recent Oxfam report. Financial institutions may also scrutinize companies overly reliant on carbon offsets to achieve Net-Zero goals, potentially indicating financial risks.

Achieving Net-Zero requires a nuanced understanding of the limitations and controversies surrounding carbon offsets. Companies should view offsets as one part of a broader strategy, complementing rather than substituting for direct emission reduction efforts. This balanced approach is essential for a credible and effective journey towards achieving Net-Zero aspirations.

Percentage of Organizations with Carbon Offsets included in Emission Reduction Plans by Sector



Offset purchases should not serve as an end goal for companies' decarbonization efforts, especially in industries with high pollution rates like commercial airlines. Relying excessively on offsets without concurrently regulating emissions from industries like logging and palm oil risks undermining the transition to a low-carbon economy.



AI/Engineering Solutions in Achieving Net-Zero Goals

As more corporations align with Net-Zero goals, the development of innovative technologies, particularly those leveraging artificial intelligence (AI) [★], will be crucial. In general, technology can support corporate goals across challenge areas. Automated solutions can fill in gaps created by manual efforts lacking precision and granularity to improve the accuracy and efficiency of data collection and verification processes, contribute to more accurate and standardized methodologies, and improve the efficiency of existing infrastructures. Digital Europe predicts a significant role of AI in reducing global CO2 emissions, indicating a reduction of up to 20% by 2030. According to BCG's 2022 Climate AI Survey, 87% of CEOs with AI decision-making power in AI and climate operations believe that AI will be essential in efforts to reverse climate change. The strength of AI lies in the ability to efficiently collect, process, analyze and provide solutions based on large data sets.

Although emerging, AI has versatile applications in supporting the Net-Zero transition across different industries. One key area of application is the quantification, analysis and modeling of emission data. Emerging technologies also showcase potential to support forecasting, simulation, and scenario analysis towards sustainable business decision making in areas including transition planning and financial risk disclosures. To highlight the scope of potential, we spotlight the use of AI in carbon accounting, energy system management, climate insurance, and manufacturing optimization:

Carbon Accounting in the Consumer Staples Sector: Carbon reporting legislation is expanding worldwide and has been positively received by consumers, with over 75% of consumers indicating that they value environmental responsibility from the brands they consume.

A survey from BCG found that businesses manually calculating their carbon footprint had an average error rate of up to 40%. AI can dramatically improve the accuracy and efficiency of carbon footprint measurement in complex supply chains. Automated solutions, like those developed by Altruistiq, leverage AI technologies such as knowledge graphs and natural language models to surpass manual efforts in precision and granularity.

AI-Powered Energy Systems Management: The energy sector is another key industry where AI has been leveraged to augment and elevate operations. Amy Challen, General Manager for Artificial Intelligence at Shell says, "AI can enable greater prediction and optimization, and these are already well-established applications in all areas, (...) I don't think any of us here would claim that AI and digital technologies are really the only solution to the energy transition (...) but I do believe that AI and digital will be really important enablers." AI and machine learning (ML) are being used to optimize power plants, wind turbines, and electricity grids. Using ML, offshore wind farms can be coordinated remotely to act cohesively, rather than individually, maximizing power generation and efficiency. Meanwhile, digital platforms like Tomoni, can monitor and process data from sensor-loaded power plants to adjust and align power generation levels to energy demands, maximizing operational efficiency and taking a step forward towards the full automation of power plants. AI also operationalizes smart grid management; where fuel suppliers can accurately monitor electricity flow in real time while leveraging predictive analytics to anticipate high-demand strains and improve response management. Algorithms like these improve the efficiency of existing infrastructure, contributing to a more sustainable energy landscape.

[★] NotedSource has direct access to a vast multidisciplinary library of researchers in hyper-specific fields, so you can find and retain all the different types of academic experts you need for any project.



Climate Insurance and Machine Learning: Increased frequency and severity of global climate-related disasters has resulted in increasing financial losses for insurance companies. In the first half of 2023, overall insured losses from climate-driven natural disasters came to US\$50bn, and overall economic losses to US\$120bn, almost 50% above the 10-year average. Traditional insurance companies struggle to assess financial risks posed by climate change; currently, there is a \$171 billion gap in climate insurance across the globe, according to Aon. This gap has inspired new technology, leveraging AI for more accurate risk assessment and pricing. Parametric insurance models are powered by ML and real-time data, offering a new approach to climate risk management. This approach automatically pays out a set amount upon the occurrence of a predefined climate related event (like a flood or drought) with predefined conditions (such as a certain number of inches of rain), tailored to the insured parties specific risks. Descartes Underwriting uses ML to underwrite and monitor their parametric policies from real-time data, grabbing data from a variety of sources including satellite imagery, to create a more automated data-driven approach to climate insurance.

Manufacturing and HVAC Optimization: The emissions produced by corporate buildings such as manufacturing plants and office buildings, contribute to approximately 20% of the world's carbon emissions.

90% of an existing building's carbon footprint can be reduced through retrofit strategies, with the largest opportunity lying in Heating, Ventilation and Air Conditioning (HVAC) systems. With HVAC systems accounting for 50% of a building's energy consumption, AI can be leveraged to optimize energy consumption in industrial buildings. Researchers at DeepMind used deep learning to optimize the cooling system of Google's data centers, reducing their energy consumption by up to 40%. Today, there are several startups optimizing HVAC solutions including BrainBox AI, 75F and Nomad Go. These solutions are not only improving energy efficiency, but they are also optimizing for cost efficiency, making them of key interest for corporations within the industry.

While AI innovation can support the Net-Zero transition across sectors, it is also important for corporations to consider the environmental impact of AI systems themselves. Technology involved with the deployment and operations of AI systems, including satellites and data storage systems, involve burning carbon, managing electronic waste and are composed of extensive supply chains, further contributing to carbon emissions. The development of "Green AI" should focus on the efficiency of our computing systems to minimize their carbon footprint.



The Role of Academics

In Corporate Net-Zero Goals

Collaborations between academic researchers and industry stakeholders have the potential to yield innovative methodologies and tools, streamlining the process of data collection and verification. By conducting in-depth studies on best practices across various sectors, academics can contribute sector-specific guidelines for emissions reporting. This aids companies in adopting more accurate and standardized measurement methodologies. Furthermore, academia can play a pivotal role in advocating for regulatory frameworks that enforce stringent emissions reporting standards, addressing gaps in current guidelines like the TCFD. Academic institutions can also design capacity-building programs tailored for SMEs, providing accessible tools and resources to enhance their emissions reporting capabilities. These initiatives significantly improve the accuracy and comprehensiveness of emissions data, fostering a transparent and uniform approach to tracking and reporting GHG emissions across businesses of all sizes.

Academic-Industry collaborations also facilitate the development of robust, tailored decarbonization strategies. Researchers offer specialized knowledge in environmental science, economics, and policy analysis, providing insights into effective technological and regulatory pathways for specific industries. Academic institutions establish platforms for knowledge exchange and capacity-building programs, offering guidance to smaller businesses lacking resources or expertise. Through rigorous analyses and scenario planning, academics assist companies in devising actionable, science-based strategies aligned with Net-Zero objectives, considering financial viability and operational feasibility. This partnership serves as a catalyst for informed decision-making, enabling companies to navigate the complexities of transitioning to a low-carbon economy confidently.

Companies can also leverage academics to yield invaluable research, methodologies, and frameworks providing deeper insights into the climate-related implications on financial valuations. Academics conduct comprehensive analyses, correlating sustainability efforts with financial performance to guide companies in devising robust strategies. Partnerships foster innovation, enabling the development of new technologies and methodologies that streamline the measurement and disclosure of climate-related risks. This collaborative environment significantly contributes to creating comprehensive, standardized disclosure practices demonstrating a company's commitment to Net-Zero goals. It empowers investors and stakeholders with the information needed to make informed decisions.

Academics play a crucial role in addressing complexities surrounding carbon credits and their efficacy in addressing climate change. Rigorous academic research sheds light on the effectiveness of different offset programs, providing a framework for evaluating their environmental impact and ethical considerations. Interdisciplinary studies incorporating environmental science, economics, and social justice perspectives assess carbon sequestration capabilities, community engagement, and long-term sustainability. Collaborations between academia and industry lead to more transparent and accountable offset practices, guiding companies toward informed and responsible decisions in achieving genuine emission reductions rather than symbolic gestures.



In the pursuit of corporate Net-Zero goals, academics serve as catalysts for sustainable change and innovation. Their contribution extends beyond traditional industry partnerships, offering multifaceted expertise and thought leadership critical to steering corporations toward sustainable practices. Academics' diverse areas of expertise provide valuable insights into the complexities of climate change mitigation and sustainability, allowing for a holistic understanding of challenges and opportunities in transitioning toward Net-Zero emissions.

For smaller corporations, academics offer guidance through knowledge-sharing platforms, workshops, and mentorship programs, presenting cost-effective and incremental approaches to sustainability. Larger corporations can benefit from specialized advisory services, in-depth analyses, and joint research initiatives aimed at optimizing operations and reducing carbon footprints. Academics typically provide more affordable collaboration options than consultancy firms, stemming from their primary focus on knowledge dissemination and research. Their commitment to advancing knowledge and fostering innovation translates into more accessible and reasonably priced collaboration avenues for corporations aiming to minimize their environmental impact. Moreover, academics often operate with limited conflicts of interest, allowing them to offer unbiased perspectives and recommendations, prioritizing the common good over individual gains. This integrity in approach is a pivotal asset in guiding corporations toward sustainable practices without compromising ethical standards or agendas.

In an ideal world, academics and corporations would engage in long-term strategic partnerships, co-creating solutions alongside and influencing policy frameworks. This symbiotic relationship would leverage each other's strengths to navigate the complexities surrounding achieving Net-Zero targets while driving innovation, resilience, and sustainable growth.



Solutions to Help Your Business

Meet Net-Zero Emissions

Regardless of Industry, innovative solutions exist for organizations looking to build climate confidence and develop a successful climate strategy. Manifest Climate is an example of an AI-powered software harnessing real-time data to provide data-driven climate recommendations for corporations. It streamlines the data gathering process for climate reporting against multiple frameworks, and offers tailored strategies to improve disclosure alignment, enabling organizations to understand and close gaps in their climate strategies efficiently. At the core of Manifest Climate's service is a comprehensive and meticulously curated database, enriched by years of expert insights to analyze and assess thousands of climate strategies to form the foundation of their AI system. Setting a new standard in climate strategy and risk planning, their innovative AI-driven approach distinctly surpasses traditional manual methodologies. Using machine learning and LLM powered algorithms, Manifest Climate is able to generate personalized and actionable climate strategies tailored to each client organization to improve their disclosure alignment year over year, reaching climate risk reporting requirements 10x faster than manual analysis and 90% cheaper than working with consultants.

Addressing challenges across the three categories outlined above, with Manifest Climate's platform, corporations can detect and analyze their existing climate disclosures as they relate to Net-Zero and generate an action plan to optimize their strategy to reach their Net-Zero targets through versatile functionalities. For example, Manifest Climate's 'peer benchmarking' product, Tracker, allows organizations to compare their disclosed emissions and account practices to sector and industry benchmarks and deep dive into the performance of their direct peers. Meanwhile, their research and

discovery product, Risk Explorer, can assist organizations to explore structured climate related risk data, highlighting specific physical and transition risks to aid users in understanding how they might impact their own organizations.

With climate change being such a prevalent topic around the world, companies are looking for innovative solutions as quickly as possible. NotedSource enables companies to solve these problems in an impactful way by matching them with the most qualified experts in niche areas of this topic. The NotedSource platform combines the use of artificial intelligence to synthesize a researcher's technical knowledge along with meetings to vet their credentials & ensure they are a strong cultural fit for our clients. Clients can then meet the experts themselves as well to ensure they are satisfied with the team's recommendation.

In order to ensure there is a seamless flow from a company wanting to hire an expert to them being able to contribute to their organization, NotedSource provides digital paperwork for onboarding experts which can be filled in just a few minutes. Projects & milestones are easy to track and companies can communicate directly on the platform with their hired experts to ensure there are clear expectations set for the project. The NotedSource team consistently checks-in to set the team up for success and the product simplifies invoicing & payments for experts, which significantly reduces the amount of administrative work needing to be done by a client and enabling them to do more impactful work.



Academic Spotlight

Spotlight on Dr. Tensie Whelan, a NotedSource Expert

Dr. Tensie Whelan, a distinguished figure in sustainability and business ethics, has not only shaped her career through impactful roles but has also forged significant collaborations in the net-zero space. Her leadership as President of the Rainforest Alliance exemplified her ability to bridge business and sustainability goals, engaging thousands of companies worldwide in sustainability efforts.

In her current role as Director of the NYU Stern Center for Sustainable Business (CSB), Dr. Whelan spearheads initiatives to embed sustainability in corporate operations. One noteworthy contribution is the development of the Return on Sustainability Investment (ROSI) methodology. This unique approach identifies, measures, and monetizes sustainability initiatives within a company, addressing the information gap that often hinders decision-making. Analyzing nine mediating factors, including operational efficiencies, supplier relations, risk management, marketing, innovation, and talent, ROSI demonstrates how embedded sustainability strategies can lead to higher financial performance. This methodology has been successfully applied across diverse industries, yielding specific case studies and broader industry frameworks for measurement and monetization.

Moreover, Dr. Whelan's collaborative efforts extend to driving responsible private equity investing. Through comprehensive research involving a literature review and interviews with 40+ investors, CSB identified a lack of understanding among investors regarding the materiality of ESG issues. This insight led to the creation of interactive assessment and strategy tools to help General Partners (GPs) and Limited Partners (LPs) analyze portfolio company performance on material ESG issues, unlocking the potential for sustainability to drive financial value.

Another noteworthy collaboration involves understanding consumer purchases of sustainable products. The Sustainable Market Share Index, a seminal study led by Dr. Whelan and CSB, addresses the gap in empirical data on consumers' purchasing behaviors of sustainable products. This annual report tracks the growth in the US market share for Consumer Packaged Goods (CPG) products marketed as sustainable compared to conventionally marketed counterparts. It also provides insights into price premiums, demographics of consumers, impacts of inflation, innovation, category-specific trends, and more. The study reveals compelling findings, such as an average price premium of 27.6% for sustainable products and one in every two new products introduced having sustainable attributes.

To further understand the market drivers for sustainable purchases, CSB expanded its research to test different sustainability claims against each other and against core category claims. The results demonstrated that adding environmental claims to a category claim had a significant amplifier effect, increasing brand reach by 24-33 percentage points across all demographics. These collaborative efforts showcase Dr. Tensie Whelan's commitment to advancing Net-Zero initiatives and fostering a business landscape where sustainability and profitability seamlessly intersect.

