

# Exploring the Paths to Net Zero

Survey reveals how sustainability leaders  
reduce emissions and drive business  
performance



As the threat of climate change continues to grow, NTT and ThoughtLab, a global research firm, set out to find out where corporations around the world stand when it comes to environmental sustainability. What are their commitments and goals, and what progress are they making?

We surveyed 500 firms ranging from \$500 million to over \$100 billion in revenue and found that many have committed to reaching a goal of net-zero greenhouse gas emissions by 2050. Some plan to get there as early as 2030. They know it's essential to hit those deadlines to prevent catastrophic changes in the global climate. They also understand that focusing on their net-zero goals can help to drive business performance in a world where customers, investors, employees, and other stakeholders expect companies to be environmentally responsible.

However, many aren't making the progress they thought they would. **More than two-thirds of the companies surveyed report that they are already behind schedule**, just a few years into their net-zero programs. A more comprehensive examination suggests it could even be as many as 95 percent that are behind schedule. This includes companies from all different industries, regions, and revenue sizes – some more than others. For instance, while 66 percent of automotive/industrial firms report that they are behind target, that rises to about 75 percent of healthcare/life sciences companies. In Europe, 62 percent of firms report being behind, compared with more than three-quarters of those based in Asia Pacific.

But there is hope: a group of leading companies are ahead of their plans, and there is much that others can learn from them.



Figure 1  
Self-reported progress on net-zero plans

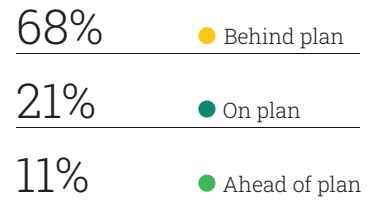


Figure 2  
Self-reported progress by industry

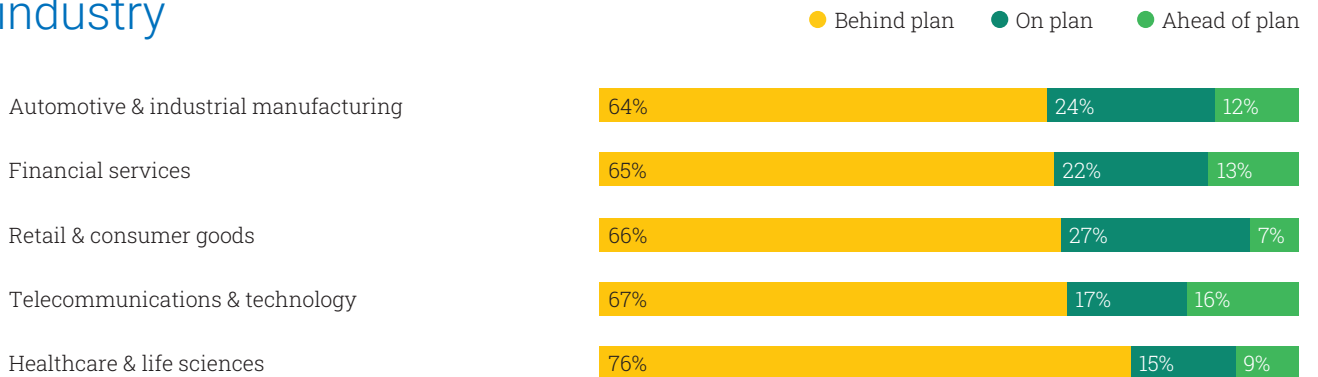


Figure 3  
Self-reported progress by region



## Lagging on the **road to net zero**

Of those that are behind, **many are struggling because they leave critical assumptions out of their net-zero plans**. This may include such things as economic and geopolitical disruption, value and supply-chain constraints and disruptions, and the fluctuating price of carbon offsets. Most firms surveyed haven't considered these factors, even though they can blow companies off course.

Firms do realize that there are risks to their net-zero plans if conditions prove more negative than expected. For example, if carbon removal technologies are not available, or if there is a lack of access to renewable energy, or if the cost of decarbonization rises, then emission-reduction plans may be at risk.

## The environmental impact of a **rapid increase in AI use and data**

Importantly, more than half of companies surveyed have not accounted for the exponential growth of data in their plans. This is a problem, since the volume of data around the world doubles every two years. Technology executives in our study—Chief Information, Technology, and Digital Officers—recognize the challenge: **65 percent say that their company's large increase in data usage makes it difficult to achieve their net-zero goals**.

To manage their enormous data pools, the firms surveyed typically have more than three data centers, either on-premise, co-located, or on public cloud platforms. On average, corporate data centers account for 20 percent of a company's carbon emissions, according to our research. Although 60 percent of technology leaders report that reducing emissions from their data centers is a top priority, emissions from data centers continue to rise for most organizations, on average by 1.5 percent over the last two years.

## How **internal obstacles** hinder net-zero plans

Almost **two-thirds of companies in our survey said the greatest internal challenge they face when it comes to their net-zero plans is balancing net-zero and business goals**. They need to find a way to shoulder the cost of transitioning to sustainable practices while also meeting quarterly profit expectations of shareholders. This challenge is greatest for large-scale enterprises with more than \$50 billion in revenue.

In addition, more than **half of companies say they have insufficient access to the emissions data they need**, while almost as many **lack a roadmap and implementation plan**—a testament to just how unprepared many companies are for their net-zero journeys.

# What sets the fast-track net-zero leaders apart

At the same time, however, our study identified 44 companies—nine percent of the 500 we surveyed—that are on the fast track to net zero. These firms, which we call “leaders,” are either on target or ahead of their net-zero plans, despite setting tougher goals for themselves.

Our analysis found that leaders do three things better than other companies: (1) they **excel at using artificial intelligence (AI) and other tools for gathering and analyzing emissions data**, while also minimizing data’s overall carbon footprint; (2) they **leverage advanced technologies** such as Internet of Things (IoT), digital twins, and photonic networks to reduce their carbon emissions; and (3) they are **committed to establishing the management structure**, skills, and processes to drive decarbonization within their organizations and into their extended network of suppliers and partners.

“As a firm, we learn from each other—sharing peer experiences, successes, and challenges in reducing carbon emissions.”

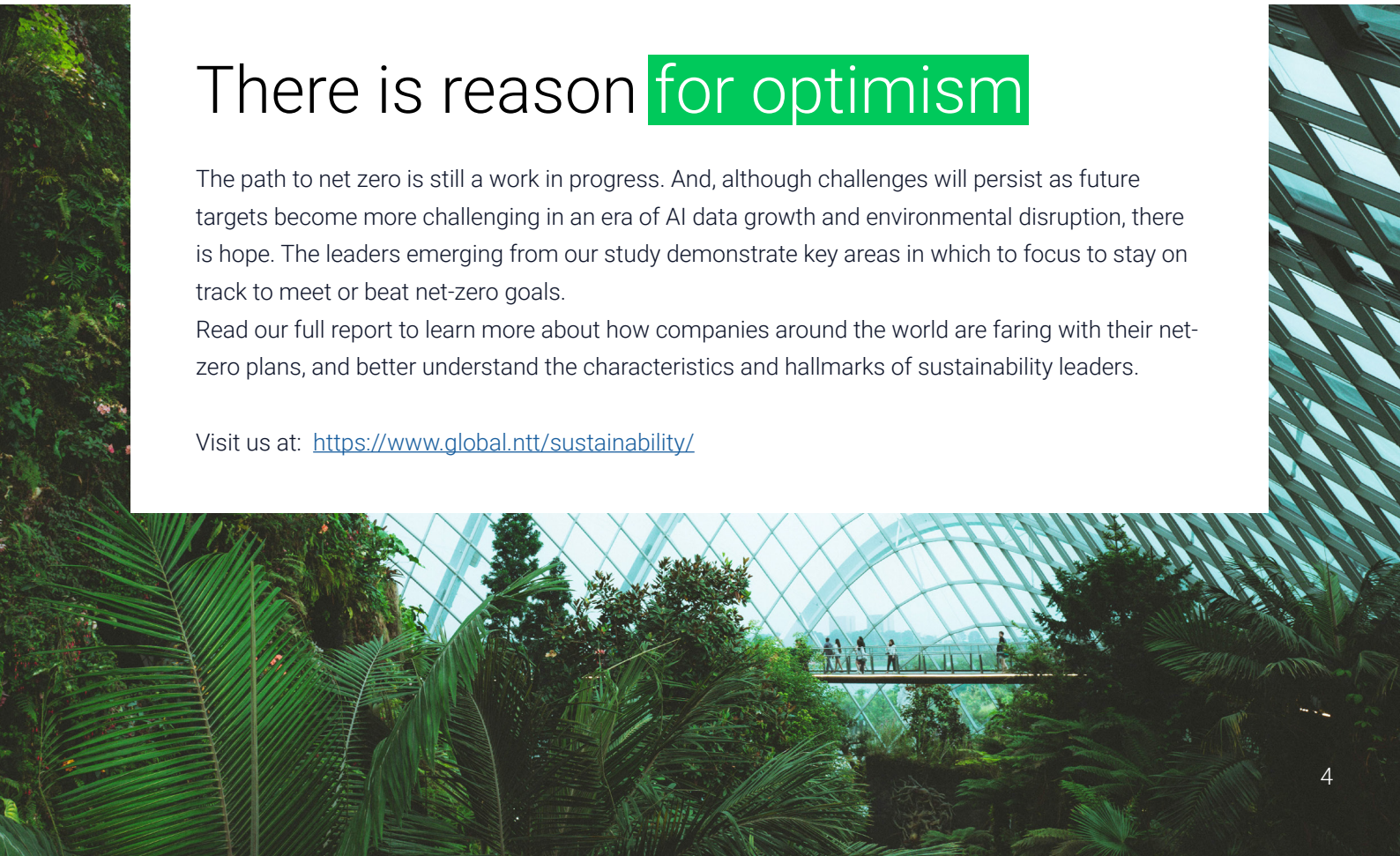
Chief Operating Officer, Canadian financial services provider

## There is reason for optimism

The path to net zero is still a work in progress. And, although challenges will persist as future targets become more challenging in an era of AI data growth and environmental disruption, there is hope. The leaders emerging from our study demonstrate key areas in which to focus to stay on track to meet or beat net-zero goals.

Read our full report to learn more about how companies around the world are faring with their net-zero plans, and better understand the characteristics and hallmarks of sustainability leaders.

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