GEP INSIGHT DRIVES INNOVATION®

HOW TO ACHIEVE TRUE NET-ZERO EMISSIONS

AN ACTION PLAN FOR SUPPLY CHAIN LEADERS

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INTRODUCTION

Corporate Social Responsibility (CSR) and Environment, Social & Governance (ESG) issues are at the forefront of the minds of corporate leaders everywhere, and many organizations have a plan to reduce greenhouse gas (GHG) emissions — or, more ambitiously, to become net-zero emitters — in the future, if they are not already proclaiming themselves as such.

However, while the plans may be in place, achieving them is easier said than done. Of the organizations that have established goals to reduce emissions or become net-zero emitters in the next few decades, only a small number of them are on track to achieve those goals. Where's the disconnect?

It may be helpful to think first about where these emissions come from. An organization's emissions are broadly categorized into three main scopes. Scopes 1 and 2 generally refer to emissions an organization either directly generates through its facilities or indirectly generates through the purchase of electricity or other power sources for its own use. Scope 3, on the other hand, refers to emissions that arise up and down the value stream, from suppliers upstream to distributors and customers downstream.

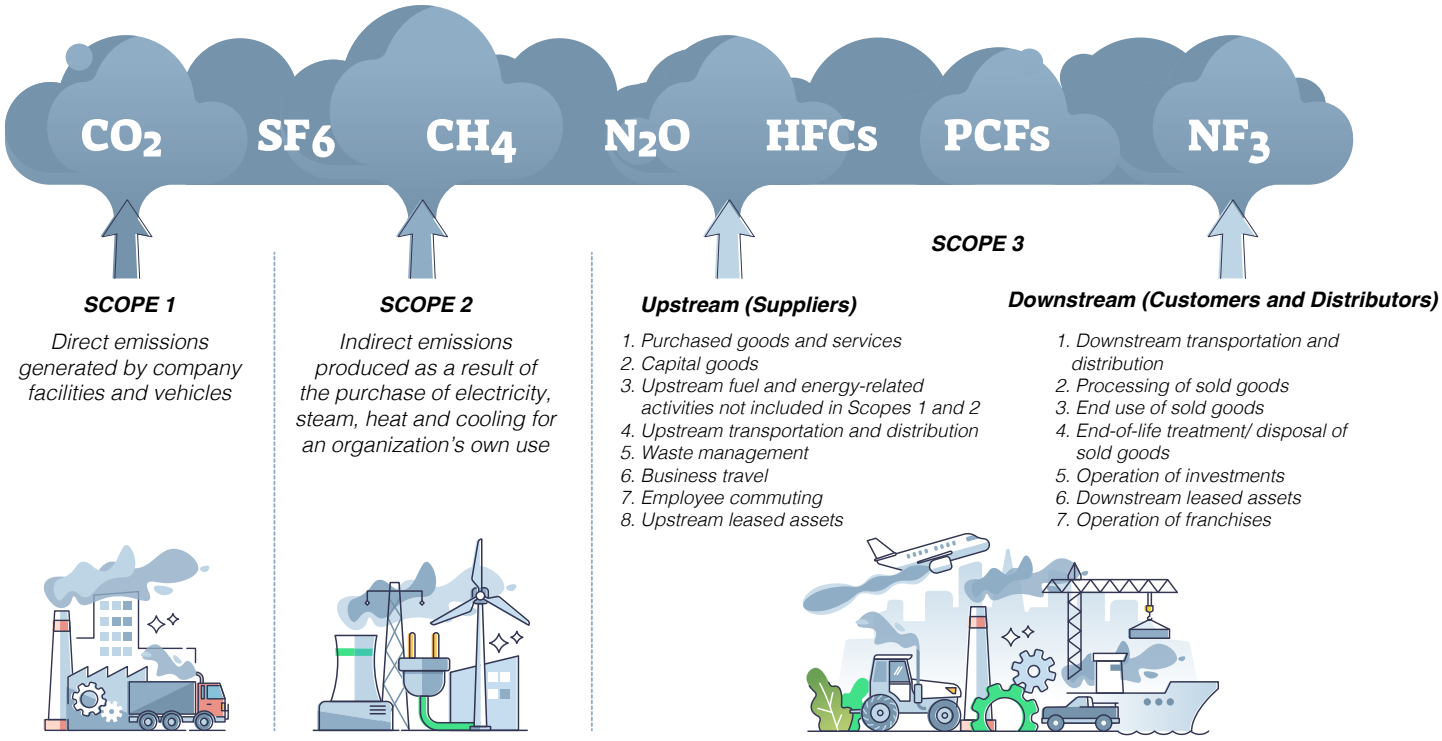

Figure 1: Definitions of Scopes 1, 2, and 3 Emissions

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More than 2,000 businesses and financial institutions are working with the Science Based Targets initiative (SBTi) – a coalition that validates companies' emissions reduction pathways as in line with the latest climate science to meet the goals* of the Paris Agreement)[1]. In 2021, a record-breaking 13,000+ companies (representing over 64% of global market capitalization) disclosed their emissions impacts and reduction plans through CDP**[2]. A significant number of companies are now focusing on their scope 3 emissions reduction targets, having realized that true net zero could not be achievable otherwise.

Tesco, for example, has recently announced a new commitment of net-zero emissions across its value chain by 2050 (in addition to their net-zero target for their own operations by 2035), including those generated by the products it sells across its supply chains.[3] In June 2020, Ford Motor Company announced its commitment to achieving net-zero carbon by 2050 and developing science-based targets for its Scope 1,2, and 3 emissions.[4] Foxconn, a Taiwanese company and one of the world's largest electronics manufacturers, is working to ensure GHG policies across its value chain are consistent with those of the Paris Agreement.[5]

Several of GEP's past and present clients are already on their path to emissions reduction

A multinational pharmaceutical and life sciences company has recognized the risks posed by global climate change. The firm has joined the **Science-Based Targets Initiative (SBTi)**, which reviews their reduction targets on a regular basis. It is committed to achieving **net-zero by 2050, including the entire value chain (Scopes 1-3).**

A multinational tech conglomerate has recently achieved the goal of becoming **100% carbon neutral in its operations** and **sourcing all its electricity from 100% renewable sources**. It **is reducing CO_2 emissions in the entire value** chain in line with SBTi and CDP-approved* targets by actively engaging with suppliers.

A multinational pharmaceutical company will implement **100% renewable electricity** usage by 2030. By 2040, the company plans to be **carbon neutral in its direct and indirect emissions** and reach targets of equitable water use, zero waste to landfill and an **all-electric vehicle** fleet.

A multinational food manufacturing company has reduced Scope 1 and 2 emissions by 9.5% since 2015 toward the goal of a 65% reduction by 2050. The firm has also **engaged 80% of their direct suppliers** to report their emissions, with the goal of reducing **Scope 3 emissions by 50% by 2050.**

Figure 2: GEP clients' efforts to reduce GHG emissions

** CDP- Carbon Disclosure Project- a global non-profit organization which helps companies disclose their environmental impact.*

** Limiting global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C*
*** CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts*

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However, understanding, measuring, reporting and ultimately reducing Scope 3 emissions remain challenges for most organizations. Considering that these emissions often make up a considerably high percentage of the total emissions associated with a company (over 80%[6]), an organization's noble net zero aspirations will never become a reality without taking concrete intervening and corrective actions with respect to their value chains.

WHY THE TIME TO ACT IS NOW

Climate change poses an existential threat to all of us — no country, or segment of society, is exempt. Flooding, hurricanes, drought and wildfires are all consequences of the climate crisis that could cause extreme damage to people, property and transport links, causing disruptions in business operations and supply chains. 81% of executives agree that businesses should make even greater efforts to protect the environment[7]. Despite that, many are unable to take significant strategic steps with operational implications, because executives today are too focused on achieving short-term goals and solving each problem in front of them instead of looking at the bigger picture. However, companies can't afford to neglect the bigger picture for much longer before taking action. Our society and planet as we know it are at risk, and the private sector bears an important responsibility in addressing this threat.

Here are 3 additional reasons for companies to take immediate action:

1. To prepare for future legislative requirements
2. To strengthen your organization's reputation and improve customer and brand value
3. To drive cost and efficiency improvements

EU: The newly proposed European Commission Corporate Sustainability Reporting Directive, which is to be adopted in 2023, will introduce mandatory reporting standards, affecting 49,000 entities, as well as address supply chain emissions.[8] Most European Union countries mandate reporting across Scopes 1 and 2 for companies that meet certain criteria, and they recommend Scope 3 reporting. France, for example, mandates reporting across Scopes 1 and 2, and recommends Scope 3 reporting for publicly listed and non-listed companies with at least 500 employees and a minimum turnover of 100 million Euros (since 2016).[9]

United Kingdom: As of August 2020, only one type of Scope 3 emission — fuel burned during business-related travel — is compulsory to report, and it is only required for large unquoted companies and large LLPs. Currently, these companies do not have to report any other kind of Scope 3 emissions, although it is strongly encouraged.6 Scope 1and 2 reporting is mandatory.

Switzerland will soon join the ranks of countries boosting sustainability reporting requirements. Starting in 2024, large Swiss firms, both public and private, will be legally bound to report on their climate-related risks. Switzerland's Finance Ministry is set to prepare a legal text on mandatory reporting by the end of summer 2022.[10]

Australia has mandated Scopes 1 and 2 reporting since 2007 under the National Greenhouse Emissions and Energy Reporting Scheme, while Scope 3 reporting remains voluntary.[11]

The United States has required facilities emitting at least 25,000 metric tons or more of carbon dioxide to report their Scopes 1 and 2 GHG emissions to the Environmental Protection Agency since 2009. Scope 3 reporting is not mandatory.[12] However, the Securities and Exchange Commission (SEC) has recently (22 March 2022) proposed a new rule on climate disclosure which, if approved, would require all registrants that have a target in place which includes Scope 3 emissions to report these in gross terms (without consideration of any offsets) starting from 2024 or 2025 depending on their size[13]. Smaller reporting companies would be exempt from reporting on Scope 3 emissions but would still be required to report on Scopes 1 and 2.

Japan has had a Mandatory GHG Accounting and Reporting System for large-emitting companies since 2006. In 2015, Sony became the first Japanese company to join the Science-Based Targets Initiative (SBTi). Since then, 44 Japanese companies have committed to SBTis across 18 sectors.[14] In 2017, Japan's Ministry of Environment began supporting Japanese companies' low-carbon innovation through a dedicated budget that helps them set targets with the SBTi. It is also actively encouraging companies to report Scope 3 emissions by providing specific guidelines and tools. Examples of Japanese companies that currently report these emissions include Fujitsu, Panasonic and Suzuki.[15]

Figure 3: Legislative Trends in Selected Countries

1. To Prepare for Future Legislative Requirements

Regulatory requirements for Scope 3 reporting are on the way, and your business needs to be future-proof. While Scope 3 reporting is not presently mandated, increased reporting will likely be required in the future.

During the most recent United Nations Climate Change Conference held in 2021 in Glasgow, Scotland, the goal of aggressively reducing GHG emissions was firmly back at the top of its participants' priority lists.

2. To Create Value for the Full Range of Stakeholders

A company must create value for, and be valued by, its full range of stakeholders in order to deliver long-term value to its shareholders.

Every industry and company will be transformed by the transition to a net-zero world. Companies that fail to do so risk being replaced by competitors. Transparency around a company's planning for a net-zero world is an important consideration in this context.

Sustainability matters more than ever to **consumers**. 32% of U.S. consumers prioritize companies that are actively reducing their impact on the environment, while 68% are planning to step up their efforts to identify brands that reduce their impact.[16] For example, sustainable living brands accounted for 70% of Unilever's turnover growth in 2018; they also grew 46% faster than the rest of the business.[17]

Furthermore, recent peer-reviewed studies have shown that **job seekers** are attracted to companies with sustainability commitments in place. According to a 2020 U.K. survey commissioned by Reuters, 65% of respondents said that they were more likely to work for a company with strong environmental policies, while 83% claimed that their workplaces were not doing enough to address climate change.[18]

3. To Drive Cost and Efficiency Improvements

Addressing your firm's Scope 3 emissions represents a great opportunity to engage with suppliers and build valuable relationships that may result in increased efficiencies, reduced costs and, perhaps, even previously unimagined innovations throughout your firm's upstream and downstream value chain. For example, shortening the supply chain and/or nearshoring would result in not only a reduction of GHG emissions but also increased responsiveness of the supply chain to unexpected disruptions and savings on freight costs.

Case Study #1: Warehouse Optimization

GEP partnered with a Fortune 500 client in the chemicals industry to deliver a pilot network optimization program that reduced annual carbon emissions as well as delivered economic benefits

APPROACH

Network Design Considerations

Facility Location	Capacity Allocation	Supply/Demand Allocation
• Location identification • # of in-scope facilities • Nature of each facility	• Size of facilities • Capacity based on regional/ country requirements	• Plant <-> Distribution Center (DC) movements • DC <-> Customer region movements

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OUTCOME

Client saved ~ €340k and reduced annual carbon emissions by ~ TCO_2

ENVIRONMENTAL

REDUCE EMISSIONS

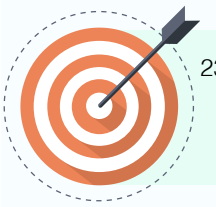
BEFORE	AFTER
Annual emissions from logistics over in-scope routes	Annual emissions from logistics over in-scope routes
1008 TCO_2	769 TCO_2

23% ↓

ECONOMIC

CAPTURE SAVINGS

BEFORE		AFTER
Annual spend	19% ↓	Annual spend
€1.8 million	→	€1.5 million
Total # of shipments	11% ↓	Total # of shipments
14,695	→	13,081



23% direct reduction in carbon footprint alongside 18% cost reduction via optimization

Run Carbon Emissions

As a separate component, forklift electrification allowed for a substantial reduction in 'run' carbon emissions alongside 19% in cost savings

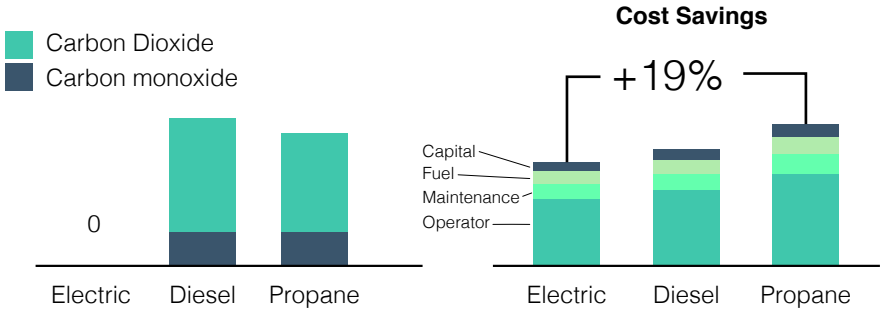


Figure 4: GEP executed a warehouse optimization project that delivered both cost savings and GHG emissions

REPORTING ON SCOPE 3 EMISSIONS COMES WITH CHALLENGES

Supply chain leaders looking to start the journey to achieving Scope 3 net-zero emissions face issues that are typical of any new program or initiative. These are further exacerbated by the fact that Scope 3 emission reduction programs are, by their very definition, dependent to a great degree on collaboration with external organizations. Here are the most important aspects to consider:

- **Data collection and reporting** — Firms often face challenges associated with data collection, since data needs to be gathered from organizations that are external to the firm. Furthermore, it could be difficult to ensure and verify data quality since suppliers often self-report these metrics. Data gaps and estimates are the bane of driving meaningful change.

- **Data analysis** — One needs to understand the data before it can be analyzed, and some initial questions need to be answered, such as: What insights are we looking for? What KPIs should we look at? Which ones should be prioritized? How do we know what good performance means, and what is good performance benchmarked against? What tool should I use for the analysis? Answering these questions leads to the need to consider the potential gap in skill.

- **Skill gaps** — Supply chain teams unfamiliar with working in this space require upskilling to make them sufficiently proficient at managing and addressing these issues with suppliers as well as gleaning and acting on insights from the data collected.

- **Supplier considerations** — In terms of supplier coverage, value chains can be extremely complex, and reaching out to all suppliers requires substantial time and effort. In addition, some suppliers may be resistant to this initiative. What if suppliers are not willing to be held accountable for their emissions? Change is hard no matter the context, and suppliers may have to invest a great deal of time, effort and money to take appropriate action.

  One key point to consider is the power balance in the relationships between your firm and its various suppliers. The power balance will determine how difficult it might be to demand or mandate cooperation from your suppliers, particularly if you want to extend your program at some point to Tier 2 and Tier 3 suppliers.

- **Business model and pricing considerations** — Suppliers may structure their pricing in a way that forces customers into buying because it makes economic rather than environmental sense. In logistics, for example, discounts are often offered for bulk purchases, thus nudging firms to purchase more than needed. This results in waste and unnecessary emissions from production and transportation. Therefore, sustainability and cost-effectiveness may not necessarily go hand-in-hand as first thought, and difficult decisions may need to be made according to your organization's priorities.

While these challenges may appear daunting at first, they can be addressed by following a well-thought-out plan of action. We have created a detailed 5-step process that firms in any industry can follow — including those that are starting from scratch — to address their Scope 3 emissions.

STARTER PLAN OF ACTION FOR ORGANIZATIONS AT THE EARLY STAGES OF SCOPE 3 REPORTING

The plan outlined below can be especially useful to firms that are just starting out on their Scope 3 emissions reporting journey. Following these steps is the best way to overcome the challenges mentioned above, mitigate potential risks and achieve the desired results and targets quickly and efficiently.

Step 1: Education

1.1 Understand what emissions are classified as Scope 3 emissions (see Figure 1), the different categories that fall under this scope and which ones are most applicable to your business. Familiarize yourself with the GHG Protocol.

1.2 Explore competitors' reporting, customer expectations in the industry, local legislation, etc. Use the information gathered to assess your current state and find out what needs to be done to stay ahead of the competition. Look for opportunities to exchange knowledge with partners and industry peers. Cross-sector collaborations may ensure pooling of resources, expertise, and contacts to address and speed up the reduction of Scope 3 emissions.

Step 2: Preparation

2.1 Set up a **cross-functional team** to take ownership of the project. Executive ownership and involvement of key stakeholders from various departments (marketing, product, brand, etc.) will ensure true organization-wide buy-in and are essential to ensure that all employees are on the same page.

Furthermore, purchasing and supplier management implications that result from your firm's new Scope 3 mandates will impact users across the business, so executive sponsorship is crucial.

As your program matures, consider expanding the cross-functional team to include your wider ecosystem of key external partners and collaborators.

2.2 Baseline your current Scope 3 emissions. Tracking the current emissions due to your supply base is invaluable, as it helps create a reference point for your Scope 3 emissions reduction program. While this may appear daunting, particularly for organizations starting from scratch, there are several approaches to creating an initial estimate. The approach that best suits your organization depends on the data that you have to start with.

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METHODS		DESCRIPTION	PROS & CONS	DATA SOURCE
SECONDARY DATA	**Spend-based method**	• It estimates emissions for goods and services by collecting data on the **economic value** • Multiplication by relevant secondary (e.g., industry average) emission factors	• Efficient and simple method • The least specific method • Results should be considered informed estimates	• Spend data • Spend-based method emission factors • Quantis, National indices
SECONDARY DATA	**Average-data method**	• It estimates emissions for goods and services by collecting data on the **quantities/units** • Multiplying by the secondary emissions factors (e.g., average emissions per unit)	• Relatively precise method. • Requires collecting information on quantities/units	• Quantities/Units required • Average-data emission factors
SECONDARY DATA / PRIMARY DATA[1)]	**Hybrid method**	• The hybrid method uses a combination of **supplier-specific** activity data and secondary data • **Secondary data** are used to fill the gaps	**Combination**	**Combination**
PRIMARY DATA[1)]	**Supplier-specific method**	• It collects product-level **cradle-to-gate** GHG inventory data from suppliers' processes and reporting • The most specific (accurate) but also the most labor- and time-intensive method	• Most specific/precise method • Most work-intensive, time-consuming	• Suppliers' disclosures

Specificity/Precision

Source: Technical Guidance for Calculating S3 Emissions;
1) Primary data – data from specific activities (value chain), Secondary data – data not from specific activities within a value chain.

Figure 5: GEP's spectrum of approaches to creating a Scope 3 Baseline

The spend-based method is usually the best starting point for organizations at the early stages of their Scope 3 emissions reduction journey. This requires classified and categorized spend data, which is then multiplied by emission factors for each category, to arrive at an initial estimate of your emissions. This is a relatively straightforward approach that does not require specific ESG-related supply chain technology. However, it is the least specific one, and the results should be treated as informed estimates.

As you progress on your maturity journey (by following the steps below), you will be able to refine your initial model with supplier-disclosed data to arrive at a more comprehensive and precise figure.

2.3 Technology considerations: Consider leveraging automated reporting software and tools to enable faster data collection and processing, make accurate emissions calculations, correctly measure and compare KPIs across suppliers, keep track of progress, identify improvement opportunities, and benchmark against forecasts,

competitors, and targets. Start thinking about the format you will use to produce the reports. Using the right technology will ensure the mitigation of risks mentioned above associated with data collection, analysis and data quality. In the long term, the best solution is to embed these metrics into your existing procurement tool.

Step 3: Reporting and Engagement

3.1 Identify strategic and/or mature suppliers for initial focus. As mentioned earlier, supply chains can be extremely complex, and attempting to address all suppliers at once may result in unnecessary inefficiencies and complexity. Ideally, these initial suppliers would be big enough to influence the organization's future Scope 3 reduction targets to a large extent. These suppliers should already possess the necessary knowledge and maturity around ESG and/or already be reporting on their Scope 1 and Scope 2 emissions, and they should have a demonstrable plan for emissions reductions.

You may also choose to identify hotspots, or categories, that are responsible for the majority of the GHG emissions. For example, the transportation and logistics and real estate categories are often major sources of emissions, and you may choose to address these categories first.

Make sure to bear in mind the power balance between your firm and the suppliers, as this will impact the extent of cooperation that you can expect.

3.2 Start engaging with these suppliers. Are they already reporting on Scope 1 and Scope 2 emissions? Do they have emission reduction targets in place and what are they doing to meet them? Explore category-specific nuances as well (e.g., the expectations of transportation and logistics suppliers are very different from those of professional services suppliers). See whether your suppliers already provide GHG emission reports to any of their other customers and get information about their format and content. It may be more efficient to obtain access to readily available reports that can be adapted to your needs, instead of requiring completely new ones tailored to your organization. Keep an eye out for collaboration/co-innovation opportunities as you speak to your suppliers.

(See Figure 6 at the end of this section for an example of a process for selecting partners to improve your sustainability score; this case study is not restricted to emissions.)

3.3 Determine the metrics that you will request or require your suppliers to report. These metrics must be aligned with the overall strategy and goals of your organization's Scope 3 net-zero carbon agenda. Below are sample KPIs that may be used when evaluating supplier performance.

	KPI examples:
Science-Based Targets Initiative	Has the net-zero target of your supplier been approved by the Science-Based Targets initiative?
Climate Disclosure Project (CDP)	Is your supplier currently reporting climate data to CDP, and what is the score? How has this score progressed over recent years?
Energy	kWh of electricity consumed and percentage of energy from renewable sources
Logistics	Gallons of fuel consumed, miles of distance traveled, percentage of vehicles with low CO_2 emissions/electric, loading rate of vehicles
Purchased goods/ Capital goods	Tons of material purchased and consumed in manufacturing and emission factors of materials purchased
Waste management	Tons of waste generated and percentage of recycled input materials used to manufacture primary products

Figure 6: Sample KPIs

These metrics will not only give an idea of the total amount of GHG emissions emitted throughout the supply chain but also serve as a standardized way of benchmarking and comparison between suppliers down the line. In addition, they will help identify previously unanticipated reduction opportunities.

Step 4: Expansion

4.1 Expand reporting to include more of your incumbent suppliers. The goal should be to provide key supply chain statistics (e.g., number of suppliers consuming renewable energy, percentage of green energy use across your supplier base, gallons of gasoline used for transportation, etc.)

4.2 Categorize the suppliers into tiers, such as "carbon/GHG friendly" (organizations with advanced carbon reporting capabilities and a solid GHG reduction strategy) and "unsustainable" (no steps have been taken to report or reduce GHG emissions). You can then take appropriate action, such as training and co-innovation, depending on their ranking as well as add GHG-friendly suppliers to your approved/preferred supplier list.

4.3 As you expand your program and it — along with your team and suppliers — becomes more mature in this space, consider expanding to **Tier 2 and Tier 3 suppliers** (your suppliers' suppliers). This is a proven way to drive change and societal impact.

4.4 Periodic reviews and supplier assessments: Making sure that progress is tracked is crucial for the achievement of any goal.

Step 5: Set Targets

5.1 Set targets for the supply chain function — e.g., by 202X, Y percent of your supply base's energy consumption will be from renewable sources; by 20XX, emissions from transportation and distribution will be reduced by Y percent. Consider signing up to SBTi.

5.2 Bake targets into:

- **Tender Process:** Increase the weight of sustainability criteria when selecting suppliers as well as include specific contract clauses and ensure compliance with your code of conduct.

- **Ongoing Supplier Relationship Management:** Collaborate with suppliers and work together toward achieving targets. This process is crucial for both sides. In terms of supplier resistance, make sure you enter into meaningful conversations to convince suppliers that they will benefit from increasing their awareness about their GHG emissions and taking action to reduce them. As more businesses are keen to begin decarbonizing their supply chains in the near future, carbon-reliant suppliers will not be able to stay competitive for long. Suppliers should also reconsider their business model if they are to take sustainability issues seriously, and they should adjust prices in order to minimize the trade-off between sustainability and cost for their customers.

5.3 Adjust targets as you expand reporting and gain more insights.

CONCLUSION

An increasing number of organizations around the world are making commitments to net-zero carbon emissions in order to not only do the "right" thing or adhere to regulations but also improve their reputations, increase engagement with investors, retain and attract new customers and stay ahead of the competition. However, they are still not paying enough attention to Scope 3 emissions even though they account for the majority of the total emissions that organizations are accountable for.

Without taking appropriate action, firms will fail to meet their targets. While starting to report on Scope 3 emissions may appear daunting given the challenges relating to data collection and analysis as well as ongoing supplier management, businesses can address these by implementing GEP's well-considered plan of action. By making use of the right technology, upskilling your team where required and collaborating with partners, your organization will be able to reduce Scope 3 emissions and reap the rewards.

REFERENCES

[1] "Companies taking action," SBTi | https://sciencebasedtargets.org/companies-taking-action

[2] "2% of companies worldwide worth $12 trillion named on CDP's A List of environmental leaders," CDP, December 7, 2021 | https://www.cdp.net/en/articles/media/2-percent-of-companies-worldwide-worth-12-trillion-named-on-cdps-a-list-of-environmental-leaders

[3] "Tesco commits to net zero emissions from its supply chain and products by 2050," Tesco PLC, September 23, 2021 | https://www.tescoplc.com/news/2021/tesco-commits-to-net-zero-supply-chain-and-products-by-2050/

[4] "Ford Expands Climate Change Goals, Sets Target to Become Carbon Neutral by 2050: Annual Sustainability Report," Ford Media Center, June 24, 2020 | https://media.ford.com/content/fordmedia/fna/us/en/news/2020/06/24/ford-expands-climate-change-goals.html

[5] "Hon Hai's Climate Action 100+ Net Zero Goal and Commitment," Foxconn, November 5, 2020 | https://www.honhai.com/en-us/press-center/press-releases/latest-news/473

[6] "Scope 3 emissions: your frequently asked questions," The Energy Advice Hub, August 25, 2020 | https://secrhub.co.uk/scope-3-emissions-your-frequently-asked-questions/

[7] "Organization Are Feeling The Pain Of Climate Change: Here Are Five Ways It's Affecting Their Business", Forbes, April 16, 2021 | https://www.forbes.com/sites/deloitte/2021/04/16/organizations-are-feeling-the-pain-of-climate-change-here-are-five-ways-its-affecting-their-business/

[8] "Corporate Sustainability Reporting Directive," Allen & Overy, May 11, 2021 | https://www.allenovery.com/en-gb/global/news-and-insights/publications/new-corporate-sustainability-disclosure-directive-csrd-proposed

[9] "All sectors: Regulatory GHG balance sheets," Greenhouse Gas Balances Resource Centre | https://www.bilans-ges.ademe.fr/fr/accueil/contenu/index/page/art75/siGras/1

[10] "Mark Segal, "Switzerland Announces Mandated Climate Reporting for Public Companies, Financials," ESG Today, August 19, 2021 | https://www.esgtoday.com/switzerland-announces-mandated-climate-reporting-for-public-companies-financials/

[11] "Greenhouse gases and energy," Australian Government Clean Energy Regulator, May 25, 2021 | http://www.cleanenergyregulator.gov.au/NGER/About-the-National-Greenhouse-and-Energy-Reporting-scheme/Greenhouse-gases-and-energy

[12] "Learn About the Greenhouse Gas Reporting Program (GHGRP)," United States Environmental Protection Agency | https://www.epa.gov/ghgreporting/learn-about-greenhouse-gas-reporting-program-ghgrp

[13] "SEC Proposes Rule to Enhance and Standardize Climate-Related Disclosures for Investors," U.S Securities and Exchange Commission, March 21, 2022 | https://www.sec.gov/news/press-release/2022-46

[14] Nate Aden, "Japan is Leading on Business Climate Engagement. Will Ambitious Policies Follow?" World Resources Institute, June 28, 2019 | https://www.wri.org/insights/japan-leading-business-climate-engagement-will-ambitious-policies-follow

[15] "Accounting Information," Green Value Chain Platform | https://www.env.go.jp/earth/ondanka/supply_chain/gvc/en/accounting_information.html

[16] "Empowered Consumers Call For Sustainability Transformation," Forbes, January 21, 2021 | https://www.forbes.com/sites/forrester/2021/01/21/empowered-consumers-call-for-sustainability-transformation/?sh=797546ca2042

[17] "Unilever's Sustainable Living Plan continues to fuel growth", Unilever, May 10, 2018 | https://www.unilever.com/news/press-and-media/press-releases/2018/unilevers-sustainable-living-plan-continues-to-fuel-growth/

[18] Leyla Acaroglu, "Employees want climate-positive action from companies. Here's how they can deliver," Reuters Events, December 16, 2020 | https://www.reutersevents.com/sustainability/employees-want-climate-positive-action-companies-heres-how-they-can-deliver

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