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Collaborating for Value Chain Decarbonisation

A SCOPE 3 GUIDE

With Support From
Scotiabank

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Collaborating for Value Chain Decarbonisation

A Scope 3 Guide

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INTRODUCTION

This guide helps companies to support their suppliers, logistics partners, customers, and other value chain partners to decarbonise. The call to action is clear. Global emissions must be halved by 2030 and reach net zero by 2050, if not sooner.[1] Rapid decarbonisation of our economy will be essential, and companies will need to take an active role in helping to reduce their Scope 3 (upstream and downstream value chain) emissions.

While companies are setting Scope 3 goals and rolling out those expectations to supply chain partners, those further along their journey are collaborating, not just mandating, and are actively supporting their value chain partners. The key to rapid decarbonisation across the value chain will be collaboration.

To assemble this guidance, we spoke with Chief Procurement Officers (CPOs), category managers, contract managers, and sustainability experts supporting procurement and supply chain teams to understand how leading companies identify leverage points and collaborate to support and accelerate value chain decarbonisation. We also reviewed hundreds of other guides, programs, and case studies to identify resources and examples to help you and your team take action.

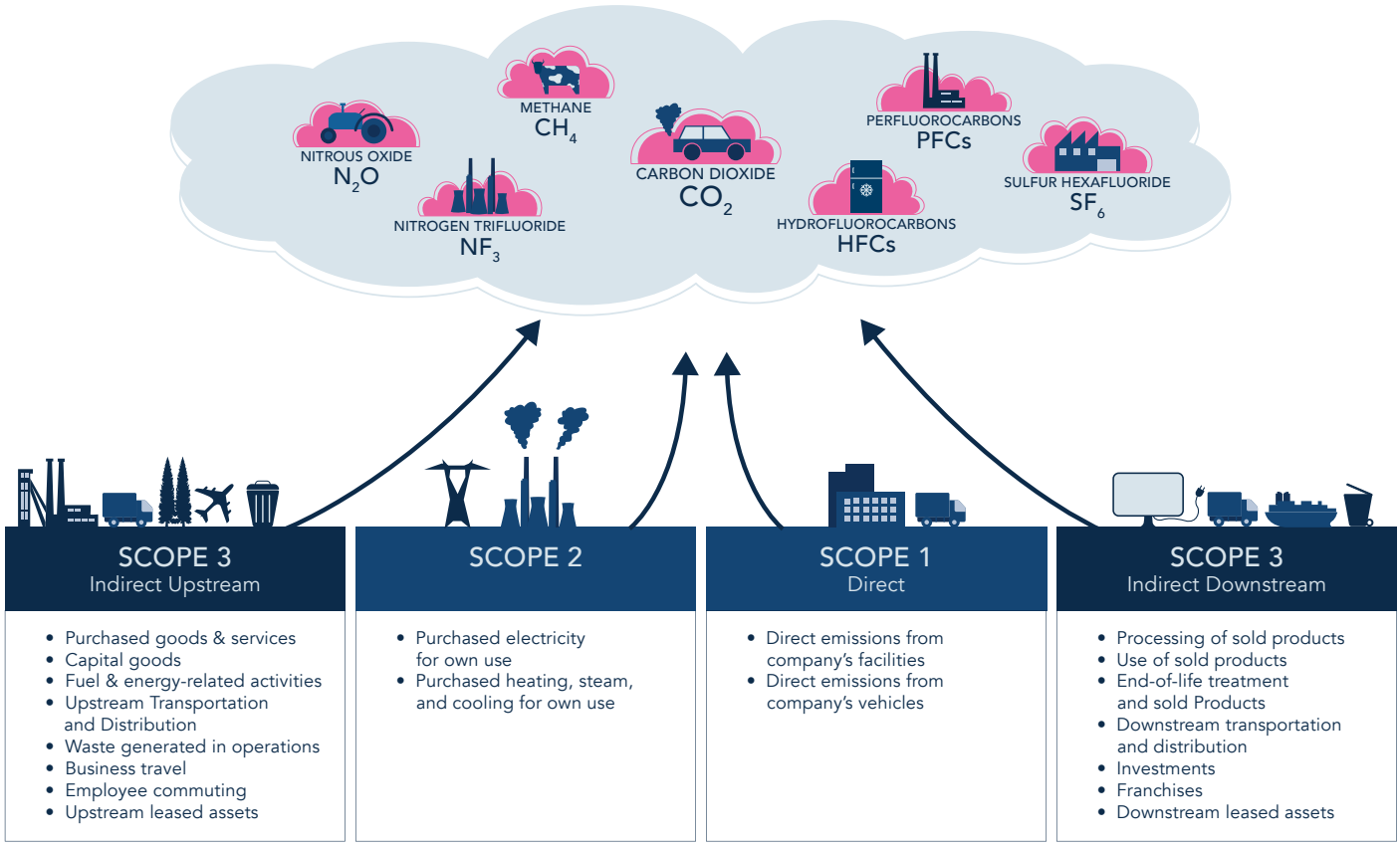
WHY IS VALUE CHAIN DECARBONISATION SO CRUCIAL?

The call to action is clear: we need rapid decarbonisation of our global economy. There is widespread scientific consensus that global surface temperatures are rising faster than in any other 50-year period over the past 2,000 years.[2] This warming is already affecting many weather and climate extremes in every region across the globe and is impacting our planetary support systems in ways that are irreversible on timescales of centuries to millennia.

Climate change is real. It is global, the consequences are severe and intensifying, and humans are driving this impending crisis. Climate change is already significantly impacting the stability of global supply chains, global financial markets, and the wellbeing of communities. No business, regardless of the sector, is immune.

While companies need to rapidly find ways to eliminate their operational emissions (known as scope 1 emissions) and those from their purchased energy (known as scope 2 emissions), to address this crisis, they must also support the rapid reduction of all the other indirect emissions upstream and downstream in a company's value chain[3] (known as Scope 3 emissions). This includes the emissions from buying goods and services from your suppliers, employee commuting and business travel, waste generated from your operations, and customer use of your products and services.

[1] https://www.ipcc.ch/sr15/chapter/spm/
[2] https://report.ipcc.ch/ar6syr/pdf/IPCC_AR6_SYR_LongerReport.pdf
[3] https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf



Graphic by Embedding Project (Adapted from GHG Protocol)

This means that your Scope 3 emissions are also your value chain partners' scope 1 and 2 emissions, and your scope 1 and 2 emissions are Scope 3 emissions for your suppliers and customers. The overlap of scopes 1, 2, and 3 creates a considerable opportunity for shared alignment and collaboration. Now that companies are setting Scope 3 reduction targets, they are also considering how to support suppliers and customers in achieving their own reductions.

On average, supply chains produce **11 times**[4] more carbon emissions than companies' direct emissions. In most industries, indirect emissions from purchasing goods and services account for the highest proportion of value chain Scope 3 emissions.

Procurement and supply chain professionals must proactively understand the implications of the climate crisis and engage their value chain by taking credible action to support rapid decarbonisation.

The complexity of global value chains makes Scope 3 decarbonisation a challenge that requires new and collaborative thinking. From the need to persuade multiple suppliers and customers to collect data and take action to decarbonise to balancing who pays for the cost of reductions made, simply making demands of your value chain partners is not the answer.

Your value chain partners may be willing to take action. Still, they may lack the expertise and financial resources to gather the necessary data and make the changes and investments required to decarbonise, face competing demands from other value chain partners, or be in regions where it is more difficult to access the necessary means. Those that have had the most success in reducing Scope 3 emissions have recognised these challenges, working with their value chain partners to better understand their needs and collaborating (including with industry peers and others) to address them.

[4] https://www.cdp.net/en/research/global-reports/scoping-out-tracking-nature-across-the-supply-chain

Addressing Scope 3 adds more complexity to your procurement and value chain activities, especially as you increase your collaboration with customers, suppliers, supply networks, and industry groups and keep colleagues engaged and informed throughout the journey. The good news is that supporting decarbonisation in your value chain can also bring business benefits. Efforts to support decarbonisation can improve resource productivity, save money, reduce business disruption risks, unlock innovations and collaborations, and meet the growing expectations of investors, consumers, and society for sustainable business operations.

While this guide specifically focuses on how you can collaborate for decarbonisation, many other sustainability issues can also be addressed in value chains through collaboration, including improving labour conditions and human rights, addressing waste and pollution, protecting water and ecosystems, materials stewardship, addressing Indigenous rights, and supporting community resilience, among others. Some of the ideas presented here may also spark ideas for collaboration around these issues.

Before you continue... how carbon literate is your organisation?

In our conversations with senior procurement and supply chain leaders, we heard that one of the key barriers to maximising the potential of decarbonising supply chains is a lack of understanding among procurement professionals and other decision-makers about the fundamentals of climate change and Scope 3 emissions. Without this understanding, working on collaborative strategies to reduce and prevent emissions or even to capture and sequester carbon is challenging.

Ahead of engaging suppliers and value chain partners on decarbonisation, consider your own knowledge and whether you need to increase awareness of Scope 3 emissions in your organisation. Support your colleagues by explaining what Scope 3 emissions are, why they matter, and how they impact your carbon footprint and decarbonisation strategies. Use real-life examples relevant to your industry to make it more relatable. Emphasise the business advantages of addressing Scope 3 emissions and show how it can contribute to long-term sustainability and competitiveness in your value chain. Encourage collaboration by involving colleagues from different departments in cross-functional discussions to identify and find ways to support addressing Scope 3 emissions.

In speaking with early leaders, they stressed some fundamental activities that need to happen as you engage your supply chain: gathering data, mapping out leverage points and hotspots, identifying where the opportunities for the greatest reduction potential lie, and setting targets.

These crucial steps and background on climate change and Scope 3 emissions are addressed in our companion guide Addressing Scope 3: A Start Here Guide and in the A4S Essential Guide to Incentivizing Action Along the Value Chain.

1 MOVING TOWARDS VALUE CHAIN DECARBONISATION

Our conversations with those working at the leading edge of value chain decarbonisation globally have stressed the need to move beyond the traditional procurement approach of placing demands on suppliers enforced through contract conditions. While these can be levers for action, they can also push the burden onto your value chain partners. Instead of simply mandating action, think about how you can collaborate with value chain partners by offering support and bringing tangible resources to the table.

Collaboration is the only path forward with the speed and energy to support rapid decarbonisation throughout the economy. As you consider your own strategy, think about these four key sets of actions:

1.1 PROMPT

Ask and listen
Socialise the need for action
Collaborate to gather the right data

DESCRIPTION

At the early stages of engaging your value chain partners on decarbonisation, signal your commitment to collaboration by engaging in two-way dialogue; when required, help partners to understand why action on decarbonisation is urgent; and begin to gather the data that both sides need to take action.

Ask and listen

Engagement begins with taking the time to listen and learn. In some cases, your value chain partners may be at the early stages and will have concerns about the implications for their business. In other cases, you may learn that your value chain partners are further along the decarbonisation journey than you thought and may have insights to share. Encourage two-way communication to foster engagement, identify concerns, address questions, and highlight your commitment to collaboration.

Asking the right questions can build awareness and understanding of Scope 3 and decarbonisation, promote knowledge sharing and best practices, help to identify challenges and barriers, foster collaboration and synergy, align goals and expectations, strengthen relationships, and support the development of shared solutions.

CLIMATE CHANGE DUE DILIGENCE QUESTIONNAIRE

The Climate Change Due Diligence Questionnaire for Suppliers is one of several sample clauses provided by the Chancery Lane Project that can be incorporated into an RFI. The clause asks potential suppliers to provide information regarding climate change-related issues so that procurement teams can better understand supplier approaches to climate-related risks and impacts while raising awareness and encouraging suppliers to disclose their climate-related practices, performance, and commitments.[5]

Seek to co-design solutions with value chain partners by listening and creating an open and communicative environment where challenges, needs, and carbon hotspots can be openly discussed. Allow suppliers to share their experiences and ideas through conversations, collaborative workshops and forums. Prioritise feasible and impactful solutions that align with carbon reduction goals and consider what role each party can play in implementing them.

[5] https://chancerylaneproject.org/climate-clauses/climate-and-net-zero-due-diligence/

ASKING AND LISTENING FOR SUSTAINABILITY AND INNOVATION IN THE APPAREL INDUSTRY

Manufacturer Forums are collaborative events organised by the Sustainable Apparel Coalition (SAC) to facilitate engagement and knowledge-sharing among manufacturers within the apparel, footwear, and textile industry. The forums provide a platform for manufacturers to come together and discuss sustainability challenges, best practices, and innovations in the sector. The goal is to foster a collaborative learning environment where manufacturers can ask questions, share experiences, and co-design solutions to address environmental and social impacts in their operations.

Help to socialise the need for action

You may need to help some of your value chain partners understand that stemming the worst impacts of climate change requires urgent action and that regulatory pressure for disclosure is making its way down the value chain, necessitating emissions transparency.[6]

Exchanging knowledge and expertise with your value chain partners can raise understanding, including bolstering carbon literacy and identifying potential solutions. Your messaging needs to be consistent and convey your intent to be collaborative. When first addressing decarbonisation in communications, keep the concepts simple and concise. Use familiar and relatable language that your partners can easily understand. Visualise data and share concrete and relatable examples to make the concepts more tangible.

Consider developing a master statement of intent that sets the tone for collaborative efforts, aligns actions, and reinforces the importance of addressing Scope 3 emissions. You can use various channels and formats to convey the need, such as webinars or workshops (and later, more formal means such as contracts, codes of conduct, and policies). Outline practical actions suppliers can take along with what role you will play to contribute to value chain decarbonisation. You can also use frameworks and standards to support socialising the need, such as the CDP Supply Chain program[7] or the EcoVadis Carbon Action Module.[8]

Collaborate to gather the right data

Sharing emissions data between value chain partners is crucial so that each organisation can develop a comprehensive carbon footprint, identify hotspots, and prioritise where to take action. Sharing data fosters supplier engagement and collaboration, emphasising transparency and shared responsibility in achieving emission reductions.

When requesting emissions and related data, especially from SMEs or suppliers in the global south, consider their resource constraints, data accessibility, and capacity limitations. Simplify reporting requirements, provide guidance and resources, focus on key metrics, and be prepared to be flexible and adaptable.

To get your value chain partners on board, communicate the purpose of the data request and how you will use it, provide guidelines and templates, and ensure data confidentiality. Ensure they understand the ultimate aim is to offer support and resources for collective efforts towards emission reductions and sustainable practices.

[6] https://www.triplepundit.com/story/2023/supplier-engagement-scope-3/772226
[7] https://www.cdp.net/en/supply-chain
[8] https://ecovadis.com/solutions/carbon/

You can use the knowledge you gained from measuring your own emissions and undertaking your own Scope 3 inventory to support key suppliers in improving their data gathering. You can provide access to tools, methods, and third-party services that help them identify and gather their initial data.

Consider starting your engagement with your most significant contracts and suppliers and the products, components, and commodities that account for the most CO2 emissions in your value chain. In the early stages, focus on identifying their needs for data support, and once you have feasible processes established, work to enshrine data collaborations in contracts. Remember that data is a two-way street – share your relevant data and targets with your value chain partners.

AB INBEV INNOVATES FOR DATA MAPPING

AB InBev created Eclipse,[9] a collaboration platform for suppliers and partners to set shared targets, standardise measurement practices, and drive innovation. By leveraging Eclipse, AB InBev incorporates data on materials used, enabling comprehensive life cycle analysis. While suppliers are invited to collaborate, Ab InBev is also building the use of Eclipse into contracts. Collaborations through Eclipse have led to the introduction of alternative fuel delivery trucks and eco-friendly coolers.

[9] https://www.eclipse.ab-inbev.com/

1.2 INFLUENCE

Encourage and support target setting
Leverage solicitation and contract terms
Engage in responsible advocacy and lobbying

DESCRIPTION

You can use your influence to encourage and support value chain partners to set credible emissions reduction targets, reinforce expectations through solicitation and contracting language, and engage in advocacy and lobbying to help create the conditions for your value chain partners to be successful.

Encourage and support target setting

Try to see your value chain partners as more than emitters – take the perspective that they, like you, are on a journey to decarbonise.

The Science Based Targets initiative (SBTi)[10] (currently the key organisation overseeing science-based climate targets) now requires companies whose Scope 3 emissions are more than 40% of total emissions to set either emission reduction or supplier and customer engagement targets that cover at least two-thirds[11] (67%) of their full Scope 3 emissions.

In response, some companies have mandated that suppliers set reduction targets, or more specifically, that they set SBTi approved targets, or even that they cascade this requirement down to lower supply chain tiers. Others have gone even further and have assigned suppliers particular reduction glide paths. In these cases, suppliers can face all the risks and costs of meeting these obligations without the necessary resources and a clear path to get there.

It is also the case that suppliers operating in the global south, particularly in what the UN defines as least developed countries (LDCs), disproportionately bear the burden of climate change impacts, while they have been the least responsible for creating them.[12] From a climate justice perspective, it is important to consider these differences regarding the capacity to decarbonise, risks faced, and whether that warrants differences in expectations and obligations. That includes obligations on the part of northern brands and consumers to support decarbonisation at the base of the value chain.

When it comes to target setting, instead of mandating, try to take a more collaborative approach to encouraging and supporting your value chain partners to set emissions reduction targets.[13] What is their path to deliver on these targets? And what role is there for your organisation to help address some of the pain points to getting there?

MARS ENCOURAGES SUPPLIERS TO SET SBTS

Mars has a goal to reduce GHG emissions across its extended value chain by 27% by 2025 and 67% by 2050. Since 2019 the company has requested that its suppliers set their own goals in line with the Science Based Targets (SBT) initiative. Mars is prioritising engagements on goal setting with its 200 most significant suppliers, 23 of which have already taken

[10] https://sciencebasedtargets.org/
[11] https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf
[12] https://unctad.org/news/unctad-sets-out-actions-support-least-developed-countries-global-low-carbon-transition
[13] SBTi has a free carbon target setting tool: https://sciencebasedtargets.org/resources/files/SBTi-target-setting-tool.xlsx

action.[14] The company is also supporting suppliers and farmers on the decarbonisation journey by researching more efficient practices[15] and helping to reduce the cost of transitioning to regenerative farming systems.[16]

ERICSSON SENDS CLIMATE ACTION LETTER TO SUPPLIERS

Ericsson's climate goal aligns with limiting global warming to 1.5°C as outlined in the Paris Agreement and expects its suppliers to do the same. In a letter to suppliers, the company asked them to set public climate targets of their own and shared guides and tools to get started.[17,18]

Leverage solicitation and contract terms

Both solicitation and contracting offer excellent opportunities to clarify expectations and influence the behaviour of your suppliers and even your customers. Again, the key is to try to be consultative instead of directive.

Integrating clear and transparent expectations about climate action and requesting climate-related data in your solicitation process will make it easier to evaluate which proposals and bids best align with your priorities, can help to raise supplier awareness of the need to take climate action, and can help you to identify opportunities to provide support. For instance, companies are beginning to incorporate minimum standards that suppliers must meet within supplier questionnaires, pre-qualification questionnaires (PQQ), and tender processes, such as requirements to submit carbon data to *CDP* or certifications such as the *Carbon Trust's Route to Net Zero Standard*. Similarly, as a supplier, including climate-related information in bids, even if you were not asked, can send strong signals about your commitment to climate action.

Companies also include climate target setting and carbon data requirements as contractual obligations. Contract conditions can be very effective, especially if you consult with suppliers.

Part of your sustainability responsibility and performance is negotiating and contracting fairly. This includes recognising that the burden of achieving decarbonisation needs to be fairly distributed between you and suppliers. Take the time to discuss sustainability expectations and responsibilities on both sides to ensure that suppliers fully understand what will be expected of them and what support you will offer. Try to agree on specific targets, metrics, and reporting requirements. Then, formalise these arrangements by integrating binding climate clauses into contracts.

USING CONTRACT CLAUSES FOR NET ZERO

The Net Zero Target Supply Chain Cascade Clause, also known as Owen's Clause, aims to align a business' net zero targets with its supply chain and business partners. The clause sets clear performance measures linked to carbon reduction targets and requires suppliers to report their carbon emissions annually. Both parties can achieve net zero goals by incorporating these clauses into contracts. The clause includes definitions related to carbon emissions, obligations for suppliers to set their own net zero targets and develop transition plans, reporting requirements, and consequences for non-compliance. Resources and tools are available to support the implementation of these and other clauses at the Chancery Lane Project.

[14] https://www.mars.com/news-and-stories/press-releases/mars-launches-new-coalition-to-accelerate-climate-change#:~:text=By%20actively%20engaging%20suppliers%20on,2025%20and%2067%25%20by%202050
[15] https://www.mars.com/news-and-stories/articles/sustainably-sourcing-rice-future
[16] https://www.mars.com/news-and-stories/press-releases-statements/mars-partners-worlds-leading-food-farming-businesses-action-plan-regenerative-farming
[17] https://www.ericsson.com/49747d/assets/local/about-ericsson/sustainability-and-corporate-responsibility/responsible-sourcing/general-supplier-climate-letter.pdf
[18] https://www.ericsson.com/en/about-us/sustainability-and-corporate-responsibility/responsible-business/responsible-sourcing/environment/supply-chain-climate-action

BT INCLUDES A CARBON CLAUSE WITH HUAWEI[19]

BT was an early leader in using a contract clause to support emissions reductions by requiring suppliers to benchmark emissions for the supply chain of products and deliver emissions reductions over the term of agreements. First trialled with Huawei in a contract for network hardware, it resulted in Huawei engaging suppliers further down the chain to make savings through switching to LED lighting, more efficient air conditioning, and other energy-saving technologies.

Engage in responsible advocacy and lobbying

A final way to leverage your influence to support your value chain partners to decarbonise is through responsible advocacy and lobbying efforts that support the efficient design and prompt delivery of public policies aligned with a just climate transition. It should be obvious, but this also means ensuring that your company is not lobbying against climate policy and regulation or supporting broader industry associations or business associations that are doing so on your behalf.[20,21]

BUSINESSES LOBBY EUROPEAN COMMISSION TO ACCELERATE GREEN TRANSITION

In May 2022, more than 150 CEOs of major global businesses signed an open *letter* to the President of the European Commission in support of greater climate action, calling on the EU to accelerate the green transition as a way to strengthen energy security. Signed by companies including Microsoft, Unilever, and Iberdrola, the letter recommends specific measures, such as accelerating energy efficiency improvements and moving to renewables.[22]

[19] https://www.greenbiz.com/article/bt-adding-game-changing-emissions-reduction-clause-supplier-contracts
[20] https://climate-lobbying.com/
[21] https://www.ceres.org/resources/reports/responsible-policy-engagement
[22] https://www.corporateleadersgroup.com/files/letter_signatories_updates_150622.pdf

1.3 SUPPORT

Provide training
Provide technical support
Convene and connect

DESCRIPTION

The next level of engagement involves providing training, technical support, and helping to convene and connect communities of practice to support learning.

Provide training

Consider providing training to help suppliers increase their carbon literacy, set credible targets, gather and report emissions data, and learn about and evaluate the suitability of programs, technology, and opportunities to reduce their carbon footprint.

Training can start by helping suppliers to meet your climate-related bidding requirements. Through workshops and educational materials, you can raise awareness about your Scope 3 decarbonisation ambitions, expectations, and commitment to collaborate. Provide suppliers with tools to make contract bids that meet carbon aims, such as developing their own decarbonisation policies and strategies, providing clear guidance on data collection to ensure accurate reporting, or facilitating knowledge sharing and best practice exchange among suppliers.

TRAINING SUPPLIERS TO MEET BIDDING TERMS

The UK Crown Commercial Service (CCS) asks that suppliers confirm their commitment to achieving net zero by 2050, calling on them to submit a carbon reduction plan (CRP) when bidding for government contracts over £5 million. CCS launched regular CRP supplier training sessions. The live, interactive training events address creating a CRP, and suppliers of all sizes can attend the sessions for guidance and clarity.

Consider how you can further support your value chain partners through training. You can develop and offer training or allocate training allowances, enabling partners to access relevant external programs based on their needs. By forming partnership agreements with training institutions, you can also provide discounted or subsidised training opportunities. Some organisations are collaborating to pool their training funding with other value chain players (or even peers with shared suppliers), making training programs more accessible and affordable for all parties involved.

WALMART SUPPORTS SUPPLIERS' ACCESS TO THESIS INDEX

In collaboration with The Sustainability Consortium (TSC), Walmart actively supports its suppliers in utilising and accessing The Sustainability Insight System (THESIS) Index. THESIS helps suppliers understand their sustainability performance by providing them with assessments and insights to identify key social and environmental areas for improvement. Walmart also offers supplier resources such as the THESIS Help Center, Help Desk, and trained service providers to assist in completing assessments, optimising their sustainability performance, and accessing the THESIS platform.

Provide technical support

In addition to training, technical support for decarbonisation can be a way to provide more targeted and specialised assistance to enhance the capacity and capabilities of suppliers. Consider offering your experience, resources, and help in data collection and analysis; conducting carbon footprint assessments; evaluating and adopting low-carbon technologies; regulatory compliance; and data gathering, monitoring, and verification.

SUSTAINABLE ENERGY FOR ALL (SEFORALL) - COOLING FOR ALL INITIATIVE

SEforALL launched the Cooling for All initiative with various partners, including manufacturers, suppliers, and development organisations. This program provides technical support to value chain partners for better cold chains that can help farmers earn higher incomes, create jobs, and reduce malnourishment, while reducing emissions from what is equivalent to the third largest global emitter: food wastage. The initiative includes training sessions, knowledge sharing, capacity building, and access to financing mechanisms.

UNILEVER'S SUPPLIER CLIMATE PROGRAMME

With over 52,000 suppliers, Unilever identified 300 key suppliers whose materials contribute significantly to their upstream emissions. Through the Climate Programme, Unilever offers guidance, tools, and resources to support these suppliers' climate journey. The programme includes tailored approaches for suppliers at different stages of climate maturity and aims to standardise climate asks and methodologies across the industry through participation in the Partnership for Carbon Transparency (PACT). The pilot project demonstrated the value of exchanging data with suppliers and the importance of working together to address climate challenges. Unilever plans to scale up the programme, aiming to engage all 300 identified suppliers by 2024.

Convene and connect

Leverage your network to convene value chain stakeholders, such as suppliers, manufacturers, distributors, and other partners, to engage in discussions, collaboration, and coordinated actions toward reducing carbon emissions. You can even partner with competitors with whom you share suppliers to identify common barriers to decarbonisation and ways to help suppliers overcome them.

Companies have also started to support continuous improvement through supplier collaboration platforms that support knowledge sharing, benchmarking, and peer learning. Other companies are partnering with customers to help them understand the potential for low-carbon innovations and why they may cost a little more.

In some cases, industry groups are coming together to identify key barriers or leverage points and working together to develop policies, standards, or tools, such as reaching a common understanding of how to measure and attribute emissions in a particular sector that can open up the potential for broader action.

FIRST MOVERS COALITION WORKING TOGETHER FOR CARBON ABATEMENT

The First Movers Coalition (FMC) is a collaborative effort by companies to leverage their purchasing power to create early markets for innovative clean technologies in eight hard-to-abate sectors. These sectors account for 30% of global emissions, a number that is projected to exceed 50% by mid-century if urgent progress is not made in clean technology innovation. The FMC launched commitments for the first four sectors (Aviation, Shipping, Steel, and Trucking) at COP26 in November 2021, followed by the Aluminum and Carbon Dioxide Removal sectors at the World Economic Forum Annual Meeting in May 2022, and the Cement & Concrete sector at COP27. The final sector, Chemicals, is scheduled to launch at the Clean Energy Ministerial in July 2023. While formulating purchase commitments and demand aggregation is a crucial focus for the FMC, the coalition also supports its members in fulfilling their commitments and creating an enabling environment for clean technology adoption.

1.4 Invest

Provide incentives
Make financial investments

DESCRIPTION

The highest level of engagement involves providing incentives and making financial investments to help value chain partners take action to decarbonise.

Provide incentives

Providing incentives for suppliers to decarbonise can range from establishing a supplier awards program that highlights and rewards positive performance to offering improved payment terms and longer-term or larger contracts.[23]

Companies can also support and incentivise supplier innovation as a lead customer or pilot testing site. Many practical solutions for decarbonisation are still in pilot form or need to scale up. Acting as a lead customer or partner for potential solutions such as alternative energy sources, less energy intensive manufacturing processes, and carbon capture methods can bring these innovations to market faster and ensure your organisation benefits from the scale up. Companies can also incentivise innovation by providing a reference or proof of demand to help suppliers and customers access government funds and grants to innovate, upgrade, and develop new processes or facilities, run pilot projects and feasibility studies, and improve efficiency.

PIRELLI SUPPLIER AWARDS PROGRAMMES INCLUDES SUSTAINABILITY

Pirelli has 10,000 suppliers and recognises a handful of them annually through its awards programme. It is awarding suppliers that have become true partners and are making Pirelli's products more high value or have shown potential to do so. Traditionally focused on innovation and quality factors, the company introduced a sustainability award in 2019 recognising the alignment between sustainability and its High Value strategy.[24]

Make financial investments

The final and most tangible way to support suppliers is to provide financial resources.

Some companies are willing to pay a small premium for products or services to recognise and support the decarbonisation efforts of suppliers. Through making use of climate-related data in their selection processes, they can select suppliers that can demonstrate they are on a credible path to emissions reductions but may not have the lowest cost bid. Others are extending preferential financing rates if suppliers commit to targets and reporting or can demonstrate they can leverage that financing to reduce emissions.

[23] https://www.wbcsd.org/Programs/Climate-and-Energy/Climate/SOS-1.5/Resources/Reaching-Net-Zero-Incentives-for-supply-chain-decarbonization
[24] https://press.pirelli.com/pirelli-rewards-its-best-five-suppliers-for-sustainability-quality-innovation-performance-and-service/

TESCO PROVIDES SUPPLIER FINANCING

Retailer Tesco provides sustainability-linked supply chain finance, offering suppliers preferential financing rates through partner banks if they commit to science-based emissions targets and carbon reporting and meet or exceed their sustainability goals. Finance rates will be based on each supplier's carbon data disclosure, emissions reduction targets and progress. This initiative is part of Tesco's plan to become a zero-carbon business by 2050, supporting suppliers in making necessary environmental improvements and creating a culture of continuous improvement. By tying the cost of finance to the supplier's environmental performance, Tesco aims to incentivise positive change throughout its supply chain and contribute significantly towards its goal of reducing greenhouse gas emissions.[25]

Increasingly, companies are investing directly in supplier innovation and R&D through accelerator funds and other financial initiatives or collaborating with government, NGO or industry partners. Some are even creating a dedicated fund for sustainable innovation to help suppliers implement improvements and reduce the risk of new technology investment.

BHP INVESTS IN START-UP IN TO HELP REDUCE UPSTREAM EMISSIONS

Most of the mining company's emissions result from the processing of ores by upstream value chain partners. In an effort to address its Scope 3 emissions BHP invested in Boston Metal, a start-up using technology to produce emission free steel.[26]

To scale your impact, consider collaborating with other purchasers, governments, and financial institutions to fund and drive research and development that helps accelerate the uptake of solutions. Using appropriate contractual mechanisms and MoUs makes it possible to ensure that these investments can be effective and lowers risk for all parties.

TESCO AND WWF INVEST IN THE FOOD SECTOR

Tesco and the World Wildlife Fund (WWF) jointly developed a funding accelerator for start-ups to provide solutions for the environmental impact of the retailer's food supply chain. The investments will create innovations in biodiversity management, low carbon fertilisers, technology to monitor emissions and carbon sequestration on farms, and microalgae from food waste.

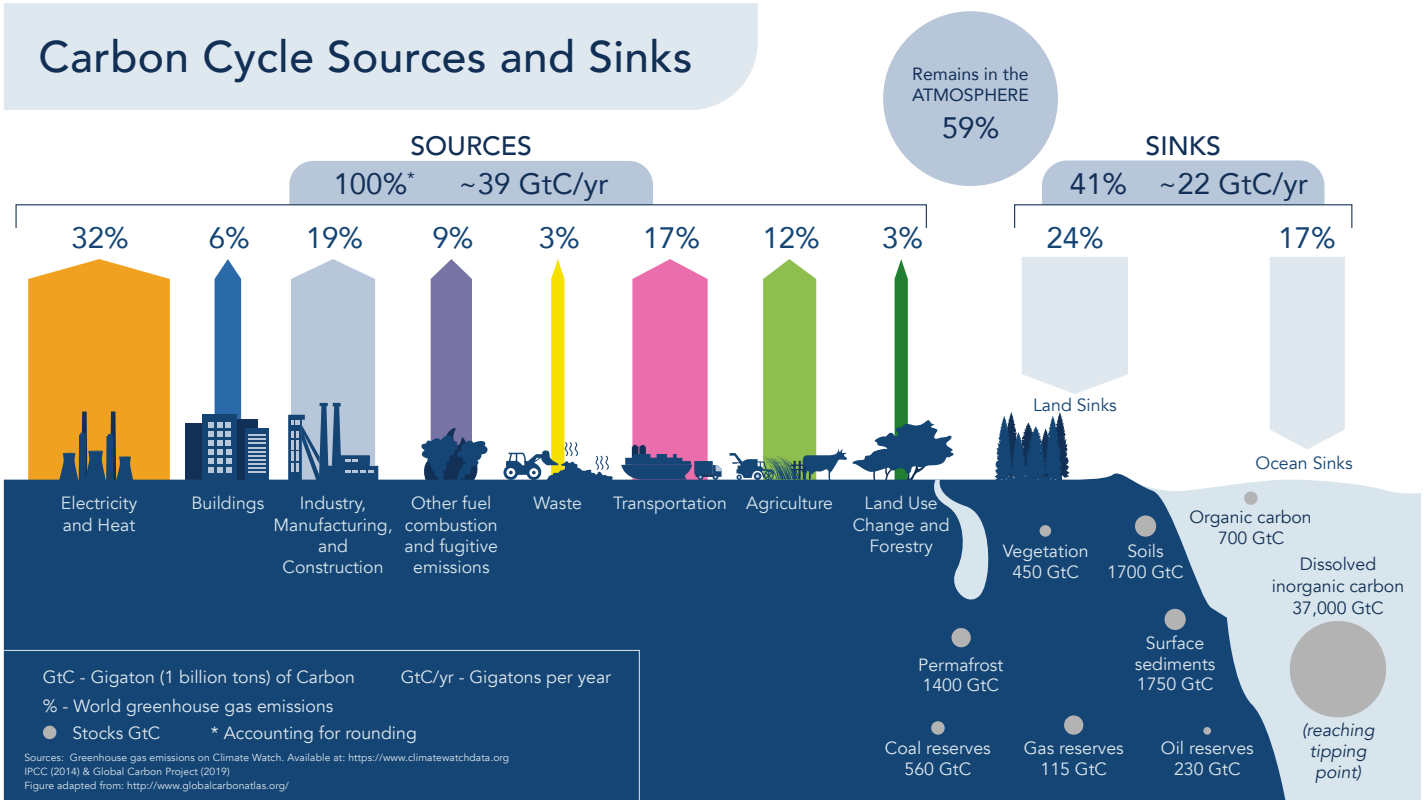
GOOGLE INVESTS IN START-UPS WITH SDG RELATED MISSIONS[27]

Google's Start-ups for Sustainable Development program supports a global ecosystem of impact-focused start-ups. Google chooses start-ups to support based on their past work or their potential to drive progress toward the 169 targets listed under the UN's SDG framework. The program is not time-bound, so it can support start-ups in their mission for long-term impact at scale.

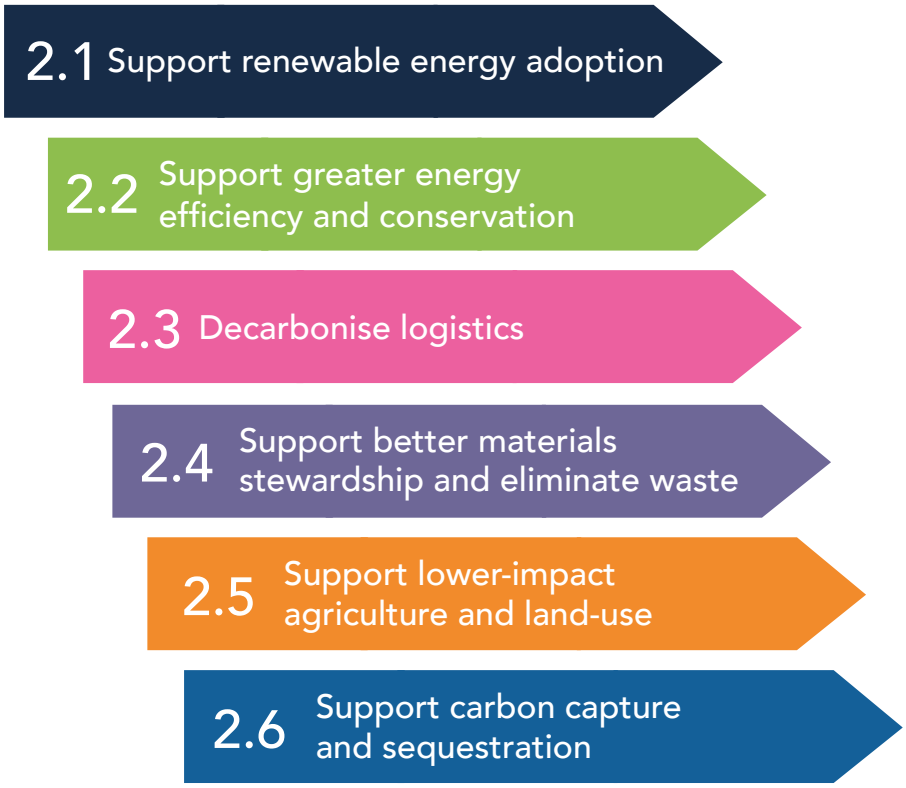
[25] https://www.tescoplc.com/news/2021/tesco-set-to-become-first-uk-retailer-to-offer-sustainability-linked-supply-chain-finance
[26] https://www.bloomberg.com/news/articles/2021-01-11/bhp-invests-in-startup-seeking-to-make-emissions-free-steel
[27] https://events.withgoogle.com/startups-for-sustainable-development/

2 SUPPORTING KEY DECARBONISATION PATHWAYS

In this section, we explore some key decarbonisation pathways in more detail and provide guidance and resources on collaborating with and supporting value chain partners in achieving them.



In reflecting on the key carbon sources and the need for additional carbon sinks, our research identified **six key focus areas** where companies could be supporting value chain decarbonisation:



In each section below, we outline how companies can help to **build capacity, foster collaboration, and incentivise and invest** to support Scope 3 reductions in these key areas.

2.1 SUPPORT RENEWABLE ENERGY ADOPTION

Build capacity among your suppliers and customers to identify and implement renewable energy opportunities through sharing your knowledge and by supporting training

Foster collaboration by helping to connect smaller energy users in your value chain into regional networks and by lobbying for regional policies that support renewable energy

Incentivise and invest in renewable energy through mechanisms such as collaborative power purchase agreements and direct investments in renewable capacity

Why supporting renewable energy in your value chain matters

Electricity production from coal, natural gas, and other combustible fuel sources substantially contributes to global greenhouse emissions, representing almost one third of global emissions. This sector also saw the most significant post-pandemic increase, with electricity and heat production accounting for 46% of worldwide emissions, driven by increased fossil fuel use for electricity demand.[28] Energy insecurity and rising costs make it crucial to support suppliers to transition to lower emissions energy sources like renewables.

Yet suppliers, especially smaller ones operating in the global south and transition economies, need more capacity, access, size, and financial resources. They may require support understanding their options, building the business case, overcoming regional grid limitations, accessing off-grid options, and securing the necessary resources and financing as a small energy consumer. A combination of these factors often prevents a transition to cleaner energy sources.

How to support a transition to renewable energy in your value chain

BUILD CAPACITY

If you have already made progress on switching to renewables, share your experiences and help train your suppliers and customers to identify and optimise renewable energy opportunities,[29] manage installations, negotiate contracts with energy providers, and, where appropriate, obtain credible renewable energy certifications.[30]

Networks and associations dedicated to clean energy can provide education, training, discounted pricing, partnerships, policy and regulatory advocacy and support innovation. Often sector or region specific, networks like the Clean Energy Buyers Association (CEBA),[31] the China based Green Electricity Consumption Cooperative Organisation (GECCO), [32] the International Renewable Energy Agency (IRENA),[33] or the RE100 Group[34] can help you to find ways to support your suppliers.

[28] See the IEA Flagship Report Global Energy Review: CO2 Emissions in 2021: https://www.iea.org/reports/global-energy-review-CO2-emissions-in-2021-2
[29] https://hbr.org/2017/01/energy-strategy-for-the-c-suite
[30] The RE100 group states that credible RE use claims depends on (1) effectively tracking RE attributes, (2) verifying exclusive delivery by generators and suppliers, (3) verifying exclusive ownership of attributes by grid customers buying RE. Read more: https://www.there100.org/sites/re100/files/2020-09/RE100%20Making%20Credible%20Claims.pdf
[31] https://cebuyers.org/
[32] www.wri.org/initiatives/clean-energy/china
[33] https://www.irena.org/
[34] https://www.there100.org/

A Caution on the Use of Renewable Energy Certificates (RECs)

While current greenhouse gas standards allow companies to use renewable energy certificates (RECs) to claim emission cuts, the practice is under considerable scrutiny. Studies indicate RECs purchased by corporations do not always contribute to extra renewable energy production, inflating perceived emission reduction success.[35]

Renewable Energy Certificates (RECs) represent specific attributes of renewable energy production but do not include "avoided emissions", which are not directly measurable and depend on future assumptions. Thus, renewable generators do not 'own' these emissions rights. This separation matters because it can impact the credibility of RECs if estimated avoided emissions are traded as separate carbon offsets.[36]

When buying Renewable Energy Certificates (RECs), ensure real emission reductions by prioritising 'additionality', meaning your purchase directly boosts renewable energy generation. Choose certified RECs such as Green-e[37] in North America, the European Energy Certificate System,[38] or other regional programs (e.g. those under the I-REC Standard[39]). Opt for providers offering impact reports to confirm your sustainability contributions.

BT BUILDS SUPPLIER CAPACITY FOR RENEWABLE ENERGY

To meet a target of 87% emissions reduction across operations by 2030 and 29% in the supply chain by 2030, United Kingdom based BT developed its Better Supplier Future Forum. BT shares high-quality expertise, experience, and tools with its 18,000 suppliers through the initiative. As the UK's largest energy buyer, BT encourages suppliers to buy renewable energy and can provide them favourable energy prices by partnering with energy supplier Npower.

IKEA EMPOWERS SUPPLIERS TO ACCESS CLEAN ENERGY AND DRIVE CLIMATE ACTION

IKEA has a program to support suppliers in accessing clean energy through power purchase agreements (PPAs) and providing finance mechanisms for onsite projects, aiming for affordable renewable electricity. The program has reduced IKEA's climate footprint and increased China's renewable electricity usage. IKEA plans to expand this to suppliers in 10 more countries, working towards 100% renewable energy in its value chain. The company uses training and financial solutions to facilitate suppliers' transition to clean energy, building lasting relationships around shared sustainability goals.

FOSTER COLLABORATION

Power purchase agreements: A power purchase agreement (PPA) is a long-term contract between an energy buyer and seller for energy from a yet-to-be-built renewable project. PPAs demonstrate a market for renewable power and help power developers finance and build more renewable facilities. Your company can facilitate access to renewable energy for value chain partners through PPAs, sharing energy demand, creditworthiness, contract length, and other risks. Energy providers and renewable technology manufacturers offer collaborative offsite PPA structures for smaller buyers, providing guidance[40] and working with large companies.[41]

[35] https://www.nature.com/articles/s41558-022-01379-5
[36] https://www.irecstandard.org/download/difference_rec_offset/
[37] https://www.green-e.org/about
[38] https://www.aib-net.org/eecs
[39] https://www.irecstandard.org/about-us/
[40] www.walmartsustainabilityhub.com/climate/project-gigaton/energy
[41] https://gigatonppa.com/

Larger companies are also developing programs, using co-investor models to achieve renewable power for their suppliers.[42]

WALMART ENABLES SUPPLIER ACCESS TO RENEWABLE ENERGY

Walmart supports its suppliers to reduce energy demand and transition to renewable energy sources that emit little to no carbon.[43] It has collaborated with Schneider Electric to launch Gigaton PPA (GPPA), [44] aimed at accelerating the adoption of renewable energy for companies in Walmart's supply chain by reducing some barriers that may prevent many companies from participating in the market today. Upon registering, suppliers receive (1) education and training on renewable energy contracts; (2) assessment of their potential and fit for the PPA; (3) potential access to the PPA in collaboration with other Walmart suppliers in the buyer's group.

Extend your rates: In addition to more formal PPAs, if you have favourable rates for your own renewable energy consumption needs, you can negotiate with your energy provider to extend this rate to suppliers in the same region.

COMPANIES EXTENDING RATES TO SUPPLIERS

O2 and SSE collaborated to allow all O2 suppliers and business partners in the UK to buy SSE Green renewable electricity at an exclusive rate.[45]

IKEA EXTENDS ITS RATES TO SUPPLIERS

In 2021, IKEA began offering its suppliers in Poland, China, and India 100 percent renewable electricity by extending green electricity contracts negotiated with IKEA's renewable energy providers.[46]

Advocacy and Lobbying: Your company can advocate for policies promoting renewable energy and transitioning incentives. Join business coalitions like RE 100[47] or sector specific groups to eliminate regulatory barriers and encourage understanding of renewable energy challenges and opportunities among political decision makers. Working with partners to define strategies for renewables implementation in supply chains and amplifying suppliers' voices can speed up government action in regions where it is needed.

CLEAN ENERGY BUYERS INSTITUTE: DEVELOPING CLEAN ENERGY REGULATORY SOLUTIONS[48]

The Clean Energy Buyers Institute (CEBI) is a group of NGOs and businesses that analyse policies and market designs on renewable energy procurement for commercial and industrial customers in eight sample US states. CEBI produces high-level policy and regulatory solutions to mitigate renewable procurement barriers and develop policy reform strategies that could expand corporate renewable procurement.

GOOGLE ADVOCATES FOR RENEWABLE ENERGY POLICY REFORM IN TAIWAN

Google's advocacy led to a landmark amendment in Taiwan's Electricity Act in 2017, enabling direct procurement of renewable energy for its data center and suppliers, manufacturers, and other companies to access clean energy. This effort, aligning with Google's dual goals of reducing carbon footprint and securing cost certainty, facilitates a power purchase agreement (PPA) for long-term fixed energy prices. The policy change fosters regional clean energy transition and supports Google's sustainability targets.[49]

[42] https://www.apple.com/newsroom/pdfs/Apple_Supplier_Clean_Energy_Program_Update_2022.pdf
[43] https://www.walmartsustainabilityhub.com/climate/project-gigaton/energy
[44] https://gigatonppa.com/
[45] https://news.virginmediao2.co.uk/archive/o2-and-sse-business-energy-launch-new-offer-to-help-supply-chain-switch-to-renewable-energy/
[46] https://about.ikea.com/en/behind-scenes/commitments/2021/06/30/making-renewable-energy-a-habit-for-ikea-suppliers
[47] https://www.there100.org/sites/re100/files/2020-10/RE100%20Global%20%20Policy%20Message.pdf
[48] https://cebi.org/
[49] https://sustainability.google/progress/projects/supply-chain-energy-emissions/

INCENTIVISE AND INVEST

You can also incentivise suppliers or customers to adopt renewable energy or directly purchase renewable energy infrastructure for suppliers, with agreements on how you will share the benefits through carbon credits. For example, your company can offer grants or subsidised loans to suppliers willing to invest in generating renewable energy onsite.

MICROSOFT AND IFC PARTNERSHIP: AIMING FOR 50% SUPPLY CHAIN EMISSIONS REDUCTION BY 2030[50]

Microsoft has partnered with the International Finance Corporation (IFC) to reduce carbon emissions in its supply chain by 50% by 2030. The initiative involves collaborating with Microsoft's suppliers, primarily in Asian markets, to discover and fund technical solutions for reducing greenhouse gas emissions. It builds on Microsoft's emissions disclosure in its Supplier Code of Conduct, empowering suppliers and demonstrating the economic benefits of sustainability.

APPLE'S SUPPLIER ENERGY EFFICIENCY AND CLEAN ENERGY PROGRAMS

Apple's Supplier Clean Energy Program[51] funds and supports suppliers' transition to clean, renewable electricity. As of March 2022, 213 manufacturing partners in 25 countries have committed to 100 percent renewable electricity for Apple production. Apple has invested directly in nearly 500 megawatts of renewable electricity projects, avoiding 13.9 million metric tons of carbon emissions in 2021. By allocating a dedicated Green fund for this, Apple is accelerating its progress towards a 2030 goal of climate neutrality. Apple retains the environmental attributes of each project, while the suppliers and, in some cases, their communities benefit from the energy and cost savings.[52]

SALESFORCE'S INNOVATIVE APPROACH TO CLEAN ENERGY PROCUREMENT[53]

Salesforce is utilising Distributed Renewable Energy Certificates (DRECs), a new financial tool, to support small-scale renewable energy projects in emerging markets. The company has committed to purchase 280,000 megawatt-hours of clean power over eight years from projects in Brazil, India, Southeast Asia, and Sub-Saharan Africa. Developed by Powertrust, these projects align with U.N. Sustainable Development Goals, prioritising climate resilience, energy access, and gender equality. Salesforce uses blockchain to validate data and earn credits for its investments, projected to be part of a $65 million solar capacity investment.

[50] https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=26505
[51] https://www.apple.com/environment/pdf/Apple_Supplier_Clean_Energy_Program_Update_2022.pdf
[52] https://www.environmentalleader.com/2022/04/apples-suppliers-double-their-use-of-renewable-energy/
[53] https://www.greenbiz.com/article/salesforce-microsoft-get-creative-clean-energy-procurement

HELPFUL RESOURCES

2.1 Support Renewable Energy Adoption

RECS INTERNATIONAL: UNDERSTANDING ENERGY ATTRIBUTE CERTIFICATES (EACS)
Provides open descriptions for procurers' basic understanding of EAC markets, standards for trading energy attributes, and the role of consumers in driving renewable energy growth.

RE100
A global corporate renewable energy initiative that brings together hundreds of large and ambitious businesses committed to 100% renewable electricity.

ENVIRONMENTAL JUSTICE IN RENEWABLE ENERGY PROCUREMENT
Microsoft outlines its strategy to direct a percentage of revenue from renewable energy projects towards community-led initiatives that address negative historical fossil fuel impacts while driving positive environmental justice outcomes.

2.2 SUPPORT GREATER ENERGY EFFICIENCY AND CONSERVATION

Build capacity through funding and connecting suppliers with resources for energy audits and energy management systems

Collaborate to help suppliers to make emissions saving retrofits and lower the impact of industrial processes

Incentivise and invest in operations and technology for suppliers to have space, options, and rewards for decarbonisation now and in the near future

Why support greater energy efficiency and conservation

Industrial processes still represent a significant proportion of global Scope 3 emissions, creating materials with embodied energy that make their way into value chains. Beyond shifting to renewable energy sources, greater energy efficiency and conservation are urgently needed. You can look for opportunities to help your value chain partners to improve industrial processes and address embodied energy.[54]

How to support greater energy efficiency and conservation

BUILD CAPACITY

The lowest emissions energy is the energy not consumed in the first place. Energy conservation initiatives help reduce emissions and can also help suppliers reduce costs. Many measures are no or low cost, but your suppliers may not know where to start. Direct delivery or funding of third-party online training and energy audits delivered using virtual facility walkthroughs[55] or site visits can upskill suppliers to make effective changes to operations.

PHILIPS PROVIDES ENERGY ASSESSMENTS FOR SUPPLIERS

Through onsite assessments in countries such as China, Philips identifies energy efficiency opportunities that enable its suppliers to make cost-effective carbon reductions. It tells them, for example, that their facilities have outdated lighting systems or that the insulation may be inadequate. Philips calculates the cost impact and the return[56] for the supplier, helping to demonstrate the financial case for improvements.

SCHNEIDER ELECTRIC'S ENERGIZE PROGRAM IN THE PHARMACEUTICAL SUPPLY CHAIN

The *"Energize" program* for pharmaceutical suppliers, launched by Schneider Electric, is a comprehensive sustainability initiative to reduce energy consumption and carbon emissions in the pharmaceutical supply chain. The program provides suppliers with tools, resources, and expertise to identify energy efficiency opportunities, implement renewable energy

[54] https://www.iea-ebc.org/Data/publications/EBC_Annex_57_Guideline_for_Manufacturers.pdf
[55] https://guidehouse.com/capabilities/industries/energy-sustainability-infrastructure/solutions/supplier-leadership-on-climate-transition
[56] https://images.philips.com/is/content/PhilipsConsumer/Campaigns/CO20180412-Assetlibrary/Supplier-Sustainability-Performance-SSP-brochure-v181026_updated.pdf

solutions, and optimise operational processes. Through collaborative partnerships and data-driven insights, Energize enables suppliers to enhance their sustainability performance, achieve cost savings, and contribute to a more sustainable and resilient pharmaceutical industry.[57]

COLLABORATE

Partner with suppliers to identify energy efficiency opportunities, like energy management systems (EMS), insulation, HVAC[58] retrofits, implementing passive heating and cooling techniques and upgrading equipment. EMS, particularly those using real-time data analytics, can help suppliers adapt to changing utility rates, optimise renewable resources, and minimise demand peaks. Analyse industrial processes and product design to enhance operations efficiency. Joint initiatives with industry partners can outline transformation opportunities for energy productivity and foster innovation through piloting suppliers' products and solutions.

APPLE ACTS AS THE LEAD CUSTOMER FOR LOW CARBON ALUMINIUM[59]

Apple collaborated with ELYSIS, the joint venture between Alcoa and Rio Tinto, to use low carbon aluminum in Apple products. The aluminium production method produces oxygen instead of greenhouse gases (GHGs), with considerable decarbonisation potential, as it is one of the world's most widely used metals. Apple purchased the first batch of commercial-purity, low-carbon aluminium from ELYSIS for use in iPhones. This aluminium is produced by ELYSIS at its Industrial Research and Development Centre in Quebec using hydropower.

INCENTIVISE AND INVEST

Many suppliers may find the up-front costs and time scale of returns for energy efficiency measures restrictive. Demonstrate a long-term commitment to key suppliers by helping fund research and development or directly investing in technology upgrades.

INVESTING IN SUPPLIER R&D TO IMPROVE ENERGY EFFICIENCY AT TECK

Teck invests in R&D to reduce the emissions impact of mining operations in all areas of the value chain and works with large original equipment manufacturers (OEM) to field test and improve battery powered machinery options. Other equipment related initiatives include shovel-mounted sensors that can tell valuable ore apart from waste rock, greatly improving mill efficiency and reducing waste and energy use. Teck partnered with MineSense for the first full scale trial of the bucket-mounted ShovelSense technology in 2017 at its Highland Valley Copper Operations in British Columbia. ShovelSense is now rolled out across all operations.[60]

[58] Heating, ventilation, and air conditioning systems
[59] https://www.lightmetalage.com/news/industry-news/smelting/elysis-and-apple-collaborate-to-use-carbon-free-aluminum-in-the-new-iphone/
[60] https://www.teck.com/news/stories/2018/building-a-smarter-shovel

HELPFUL RESOURCES

2.2 Support Greater Energy Efficiency and Conservation

THE 1.5°C BUSINESS PLAYBOOK- PILLAR 2

Helps companies to set a strategy and move to action to reduce their value chain emissions. The guide highlights key measures to reduce emissions from materials, transport and the use of products.

PROJECT DRAWDOWN: SECTOR SUMMARY – INDUSTRY

Outlines pathways for improving industrial processes and materials produced. It could provide procurers with ideas and methods for suppliers to make use of waste and move toward flows of substances that are efficient and circular. It includes vigorously researched and referenced data and approaches for each solution category.

TRANSFORMATION GUIDE: BUYER-SUPPLIER ENGAGEMENT TO REDUCE Scope 3 EMISSIONS

Unilever, Nike, and Microsoft, all of whom included Scope 3 reduction in their net zero commitments, share their approach to engaging suppliers to bring them along in the decarbonisation journey.

2.3 DECARBONISE LOGISTICS

Build capacity by encouraging a shift towards lower-carbon transport, optimising ordering, delivery, and packaging processes, and promoting energy-efficient practices like eco-driving, effective route planning, and using cleaner fuels and vehicles.

Foster collaboration for joint planning for optimised routes and schedules, strategically located warehouses and production facilities, and participation in collaborative initiatives focused on green freight programs and alternative fuel networks.

Incentivise and invest through subsidies for energy-efficient transitions, sustainable fuel pricing, infrastructure upgrades with alternative fuel stations, utilising third-party logistics (3PL) for optimisation, and tech investments for improved logistics and planning.

Why Decarbonise Logistics

Logistics are a significant component of supply chain carbon emissions, accounting for 17% of Scope 3 carbon globally.[61] Additionally, emissions from transport are projected to grow between 50% to 250% by 2050.[62] Procuring logistics elements are often where you have more discretion and control as a buyer. You also have this control as a supplier when getting your products and services to others in the value chain. Most companies buy freight and logistics services from providers, who, in turn, often subcontract smaller carriers.[63] Collaboration with suppliers can increase the visibility of new and existing low-carbon innovations, reduce risks associated with adopting new solutions, and open up access to finance. Innovative collaborations can also help to increase the efficiency of local fulfillment and the 'last mile'.[64]

How to Decarbonise Logistics

BUILD CAPACITY

Understanding mode shifting: Help suppliers shift to lower carbon modes of transport through education and understanding options for new vehicles, vessels, and locomotives, as well as infrastructure for fuel production and distribution.

SIEMENS' EMPOWERING SUPPLIERS TO OPTIMISE LOGISTICS[65]

Siemen's "Carbon Reduction @ Supplier" approach is designed to support suppliers in target setting and action plans for reducing their climate footprints. The "Guide to Carbon Reduction Management"[66] offers support material for suppliers, including optimising logistics. The guide builds capacity for energy-saving training for drivers and fleet managers, adopting new drive systems and smart technology for trucks, and transitioning transport operations to less CO2-intensive modes.

[61] Greenhouse gas emissions on Climate Watch, Available at: https://www.climatewatchdata.org; IPCC (2014); & Global Carbon Project (2019)
[62] https://unfccc.int/news/world-nations-agree-to-at-least-halve-shipping-emissions-by-2050#:~:text=International%20shipping%20account%20for%20around,the%20Paris%20Climate%20Change%20Agreement.
[63] There are approximately 5m trucks in the world, with majority of trucking companies owning 1-3 trucks (source - Suzanne Greene, MIT: https://www.youtube.com/watch?v=xD0OJEBepF8&t=1753s)
[64] https://clean-mobility.org/wp-content/uploads/2022/07/SRG_Last_Mile-FINAL.pdf
[65] https://new.siemens.com/global/en/company/sustainability/sustainablesupplychain/carbon-reduction-suppliers.html
[66] https://assets.new.siemens.com/siemens/assets/api/uuid:012aa6cf-8cba-470b-9eab-47332890c907/carbon-reduction-management-guide-siemens-en.pdf

Adapting processes: Engage suppliers to understand and explore how and when to order, how and where to deliver, what packaging options could optimise loads and make the vehicles lighter, and possibilities for backhauls and other optimisations.

VEJA'S INFLUENCE ON VALUE CHAIN PARTNERS FOR AIRFREIGHT REDUCTION[67]

In 2019, VEJA observed that although 81% of their transportation was done by sea and only 19% by air, the latter accounted for 95% of their CO2 emissions during distribution. VEJA took action, reducing airfreight to 7% of their transportation. However, their largest retailers still requested priority shipment via air. In response, VEJA committed to banning airfreight for shipping pairs from Brazil to retailers in 2021. They prioritised cargo boats for transportation from factories to retailers, effectively influencing their value chain partners and promoting more sustainable practices.

Promote Energy-Efficient Practices: Encourage your partners to adopt energy-efficient practices such as eco-driving, route planning or using cleaner fuels and energy-efficient vehicles.

Understand the last mile: Explore the impacts of last-mile delivery in your value chain.

COLLABORATE

Joint Planning: Coordinate with partners on efficient route planning and scheduling to reduce unnecessary transportation, lower emissions, and save costs.

Optimise Locations: Work with your partners to strategically locate warehouses, distribution centers, and production facilities. Proximity to key suppliers, customers, and transport hubs can significantly reduce travel distances.

Collaborative Programs: Engage in joint initiatives or programs that promote emission reduction in the supply chain. For instance, join or form green freight programs that aim to improve fuel efficiency and reduce emissions from freight transport. Governments have also developed roadmaps for building hydrogen and electric refuelling networks, which you can consider partnering with or investing in.

ABINBEV'S 'BEER TRAIN' REDUCES KILOMETRES AND CARBON IN LOGISTICS

ABInbev partnered with Delhaize to launch a 'beer train' in Belgium, annually reducing up to 5000 lorries from the roads. The train transports Jupiler beer three times per week between the brewery and the distribution center, replacing multiple daily lorry journeys. ABInbev collaborated with Remitrans, Lineas, and regional authorities. They also expanded to river barges and other breweries, saving over 1 million kilometres since the initiative's inception.[68,69]

Support supplier improvement: Work with suppliers to provide optimised logistics, driver training programs, and route planning. Sharing information through resource planning tools gives greater levels of business intelligence on both sides, reducing mismatches in product quantities and excess stock and creating better timings of the delivery of goods or services.

INCENTIVISE AND INVEST

Financial support for mode-shifting: Offer subsidies or low-interest loans to suppliers that invest in energy-efficient vehicles or practices. Your support can be used to fund new modes and remove and decommission high-emission transportation equipment. Investing in supplier retrofits of existing vehicles can be less expensive and more circular, eliminating the need for new equipment.

[67] https://project.veja-store.com/en/single/emissions
[68] https://www.thebulletin.be/beer-train-replace-thousands-lorries-and-help-cut-co2
[69] https://www.dpworld.com/en/antwerp/news/news-events/new-beer-train-for-port-transport-of-stella-artois

DHL SETS UP GREEN FUNDING FOR SUPPLIER LOW CARBON UPGRADES

In Sweden, DHL has set up the "Skicka Grönt" (Send Green) funding mechanism for their suppliers to upgrade their transport modes. Customers using the program pay a surcharge for every green shipping, with the income from these surcharges fully invested in suppliers' clean technologies.[70]

WALMART'S GREEN FINANCING FOR SUSTAINABLE TRANSPORTATION INVESTMENTS

Walmart has implemented a Green Financing Framework to allocate the net proceeds from Green Financing to a portfolio of Eligible Green Investments, including Sustainable Transport projects and technologies in its supply chain. Walmart intends to invest in vehicles with low CO2 emissions and supporting infrastructure to reduce emissions and promote sustainable transportation within its operations, supply chain, and customers.[71]

Invest in fuel switching: Support carriers' transition to sustainable fuels through pricing mechanisms. This approach allows organisations to calculate a journey's emissions, buy the equivalent of green fuel, and bear the premium cost. Like RECs schemes, this system enables the indirect purchase of carbon reduction options.[72,73]

BMW'S MARINE BIOFUEL INITIATIVE

BMW is trialling marine biofuel (BFO) on "Roll on-Roll off" (ro-ro) car carriers, claiming a CO2 emission reduction of over 400 tons. BFO uses regular fuel tanks, is virtually free of sulphur oxides (Sox), and offers 80-90% tailpipe CO2 reduction. BMW partners with GoodShipping,[74] replacing fossil fuels in cargo ships with sustainable biofuel made from residuals. GoodShipping's mass balance principle ensures partners' decarbonisation commitments are met by enabling carbon reductions on any oceangoing vessel, not necessarily the one carrying the cargo of partner companies.

Logistics infrastructure: Investing in your infrastructure with electric charging and hydrogen filling stations can allow your supplier's fleets to deliver in low-carbon modes. Consider hydrogen filling station solutions for individual transportation, long-haul trucking, rail transit solutions, shipping, and ship bunkering.

BHP PILOTS LNG POWERED SHIPS WITH PARTNERS

BHP, the world's largest miner and shipper of dry bulk commodities, is targeting net zero greenhouse gas emissions from its value chain by 2050.[75] In 2022, it launched a fleet of LNG-powered bulkers to reduce emissions of carbon dioxide and other pollutants over the near term. BHP worked with several value chain partners to design and create innovative vessels and ensure infrastructure availability for LNG gas at ports.

Utilising third-party logistics (3PL): A third-party logistics (3PL) provider can support suppliers by optimising transportation, enhancing supply chain visibility, integrating technology systems, managing inventory, providing value-added services, and mitigating risks. 3PLs can act as strategic partners, leveraging their network and capabilities to drive supply chain optimisation for suppliers.[76]

[70] https://www.dhl.com/se-sv/home/vara-divisioner/frakt/hallbarhet/skicka-gront.html
[71] https://s201.q4cdn.com/262069030/files/doc_downloads/ESG/WMT-Green-Financing-Framework-FINAL.pdf
[72] Book and Claim is a chain-of-custody model in which the administrative record flow does not necessarily connect to the physical flow of material or product throughout the supply chain (Source: ISO 22095:2020)
[73] https://www.irecstandard.org/what-are-recs/
[74] https://goodshipping.com/
[75] https://www.theceomagazine.com/executive-interviews/transportation-logistics/rashpal-singh-bhatti/
[76] https://www.shopify.com/enterprise/third-party-logistics-3pl

SHOPIFY PARTNERS WITH 3PL PROVIDERS FOR VALUE CHAIN EFFICIENCY

As an e-commerce platform, Shopify works with third-party logistics (3PL) providers to enable merchants to access a network of fulfillment centers strategically located for efficient order processing and shipping. This approach reduces transportation distances, lowers emissions, and optimises inventory management. Additionally, 3PLs assist in packaging optimisation, reducing waste, and implementing sustainable packaging practices. Through these collaborations, Shopify leverages the expertise of 3PLs to support its merchants in achieving more sustainable and efficient logistics operations, aligning with their commitment to environmental responsibility.

HELPFUL RESOURCES

2.3 Decarbonise Logistics

SMART FREIGHT CENTRE: WHITE PAPER: CARBON INSETS FOR THE LOGISTICS SECTOR

The white paper explores how freight carbon insets can accelerate the decarbonisation of global freight networks. The paper proposes procurement relevant solutions, such as a REC type scheme (book and claim) for sustainable fuel investments within supply chains.

GLOBAL LOGISTICS EMISSIONS COUNCIL

GLEC was set up to establish and implement a global, transparent framework for calculating, reporting and reducing logistics emissions. EcoTransIT World is the first emission calculation tool accredited to be compliant with the global GLEC framework.

BOOK AND CLAIM CHAIN OF CUSTODY SYSTEM FOR TRANSPORTATION

Smart Freight Centre (SFC), World Economic Forum and partner companies are developing a framework and accounting guidelines for a book and claim chain of custody system for transportation emission reduction actions. CH Robinson, Deutsche Post DHL Group (DPDHL), GoodShipping, Maersk, PepsiCo, and Torvald Klaveness have all committed resources and technical expertise to make the project a reality.

FLEXPORT

Flexport is a free tool that helps companies measure, analyse, and reduce their carbon footprint in their freight shipping activities. It provides detailed emissions reports, assisting users in understanding their environmental impact, identifying improvement opportunities, and aligning their operations with global decarbonisation goals.

SMARTWAY

The SmartWay program and collaborative network promotes sustainable freight transport by offering tools and resources to monitor and reduce GHG emissions and enhance fuel efficiency. SmartWay provides best practices, performance benchmarks, and carrier rankings to guide companies in making more sustainable logistics choices.

2.4 SUPPORT BETTER MATERIALS STEWARDSHIP AND ELIMINATE WASTE

Build capacity by performing or funding waste audits, applying industry scorecards, and making use of waste schemes in your sector.

Foster collaboration at the planning stage to design for less waste, JIT delivery, sustainable materials choices, circularity, and repair.

Incentivise and invest through waste reduction technologies, education, infrastructure for circular systems, and sustainable materials research.

Why support better materials stewardship and eliminate waste

Unrecoverable (landfill) waste is a significant source of methane emissions globally.[77] Wastage happens at sourcing, production and distribution, and at the use or consumption phase. Global annual waste production is expected to grow 29% by 2030 and nearly 70% by 2050.[78] The GHG Protocol for Scope 3 emissions includes third-party disposal and treatment of waste generated in the reporting company's owned or controlled operations in the reporting year. A low waste value chain for companies involves bringing the right product to the right shelf at the right time and partnering to reduce wastage related inefficiencies.

How to support better materials stewardship and eliminate waste

BUILD CAPACITY

Support supplier education and resources on efficient material use and supply chain optimisation to prevent overproduction. Encourage technological adoption for waste reduction, establish policies enforcing good practices, and promote collaboration for shared best practices and waste management partnerships. Audit your value chain to identify waste from packaging, logistics, transportation, and product usage post-consumption. Raise awareness of and emphasise obtaining certifications like ISO 14001 for environmental commitment.

THE UP SCORECARD PROMOTES SUSTAINABLE CHOICES

The UP Scorecard,[79] a science-based tool, guides users in selecting sustainable food ware and packaging. Developed with food service companies, NGOs, and technical experts, it supports reuse and reduction efforts, like Upstream,[80] a collective advocating for reuse.

FOSTER COLLABORATION

Engage with suppliers to explore alternative materials and encourage innovation through new technologies, processes, or materials with lower carbon footprints. Collaborate with suppliers on R&D for systems and methods that enhance material efficiency and recycling at the design stage. Component and product redesign can stimulate demand for efficient materials and production. Influencing manufacturing and packing efficiency can reduce environmental impacts, inspired by strategies such as Project Drawdown's efficient and circular substance flows.[81]

[77] https://www.epa.gov/lmop/basic-information-about-landfill-gas
[78] https://www.alliedmarketresearch.com/press-release/waste-management-market.html
[79] https://upscorecard.org/
[80] https://upstreamsolutions.org/
[81] https://single-market-economy.ec.europa.eu/industry/sustainability/sustainable-product-policy-ecodesign_en

Explore closed-loop recycling schemes with suppliers to enhance recycled plastics' properties and expand takeback programs. In heavy industries, materials recirculation and higher efficiency standards can decarbonise production. Utilise just-in-time delivery to reduce waste, maintaining strong supplier relationships. Evaluate circular procurement effects on your products/services, identifying key value chain partners, their locations, and business models. Simpler supply chains, like textiles, may be able to close the loop more easily. In contrast, complex chains, like ICT, require diverse supplier collaboration for innovation.

DELL CREATES CLOSED LOOP SYSTEMS FOR E-WASTE[82]

Dell is tackling the fast-growing global e-waste issue by sourcing post-consumer recycled plastics and establishing a closed-loop supply chain for plastics from used electronics. Through takeback schemes with various supply chain partners, Dell aimed to use 22m kg of recycled plastics and sustainable materials in its products by 2020. Plastics are sorted out of the different takeback streams, further processed and then sent to a manufacturing partner in Asia. Collected e-waste is processed into new Dell products in less than six months.

THE CIRCULAR FASHION PARTNERSHIP[83]

The Circular Fashion Partnership trialled circular commercial collaborations and partnerships between brands, manufacturers, and recyclers in Bangladesh. It was found that the Bangladesh textile industry could save half a billion USD by just using its cotton waste as a raw material. Quantifying textile waste at a country level for the first time demonstrated the opportunity for the circular economy and a strong and practical business case for circularity.

INCENTIVISE AND INVEST

Investing in waste reduction, recycling, and material efficiency technologies can enhance supplier sustainability. Funding for education and training for suppliers on material usage and recycling, coupled with infrastructure for waste elimination and circular systems like product takeback, can foster a sustainable supply chain. Allocation of a budget for research into sustainable materials and waste reduction techniques encourages innovation and mutual benefits, highlighting the value of collaboration in sustainability goals.

NESTE AND ITS PARTNERS DEVELOP RENEWABLE AND RECYCLED PRODUCTION MATERIALS

Neste is developing a chemical recycling capacity with several plastics value chain partners and uses Neste RE. This 100% renewable and recycled material reduces fossil oil-based material in polymer and chemical production.[84]

AJINOMOTO WORKS WITH VALUE CHAIN PARTNERS TO REDUCE WASTE THROUGH R&D AND INNOVATION[85]

Ajinomoto brings together and collaborates with key value chain partners for R&D and works with the government on technical, legal and behavioural barriers to increasing the packaging recycling rate. Ajinomoto utilises ecolabels and scoring indexes to assess proposed packaging from suppliers, considering factors like material use, recyclability, distribution efficiency, and food loss reduction.

[82] https://i.dell.com/sites/doccontent/corporate/corp-comm/en/Documents/circular-case-study.pdf
[83] https://globalfashionagenda.org/circular-fashion-partnership/
[84] https://www.neste.com/products/all-products/plastics/neste-re/renewable-and-recycled#63d51269
[85] https://www.cdp.net/en/research/global-reports/global-supply-chain-report-2018/supply-chain-case-studies#7c29d00b2e6f9ac71a2aed3693f9d86b

BRASKEM INVESTS RESOURCES IN WORKERS AND COOPERATIVES TO CREATE RECYCLED RAW MATERIALS[86]

Braskem's Ser + Realizador program supports Brazilian cooperatives in managing supply chain waste and strengthening recycled raw material input. It has trained 1,300 waste pickers and invested in 35 cooperatives to upgrade infrastructure, increasing their incomes by 70%. The program aims to enhance work conditions for 4,000 workers and has launched resins produced entirely from recycled bags and sacks.

LULULEMON INTRODUCES T-SHIRTS FROM PLANT-BASED NYLON

lululemon, in partnership with sustainable materials firm Genomatica, has launched a new T-shirt made from plant-based nylon, a significant step towards the company's sustainability goals for 2030. Utilising biotechnology and fermentation, the companies transformed plant-based ingredients into nylon, a material conventionally produced using environmentally harmful fossil fuels. These first plant-based nylon products comprise 50% biologically sourced nylon, 40% recycled polyester, and 3% elastane, containing 30% plant-based content.

[86] https://www.cdp.net/en/research/global-reports/global-supply-chain-report-2018/supply-chain-case-studies#edf3ddd7424987266b8c6ac13a8a623f

HELPFUL RESOURCES

2.4 Support Materials Stewardship and Eliminate Waste

THE SCOPE THREE CHALLENGE: SOLUTIONS ACROSS THE MATERIALS VALUE CHAIN

Offers strategic insights and practical solutions for addressing Scope 3 emissions, including six levers for reducing Scope 3 emissions.

COMPLETING THE PICTURE: HOW THE CIRCULAR ECONOMY TACKLES CLIMATE CHANGE

Background and starting point for the circular economy. It aims to highlight how the circular economy can be applied and contribute to reducing GHG emissions. It focuses on the food and industrial sectors but applies to procurement and business strategy in all sectors.

CIRCULAR PROCUREMENT IN 8 STEPS

Aimed at both public and private sector procurers, it provides a practical approach to integrating circular economy principles into procurement. Starting with the 'why' of circularity, the following steps include internal collaboration, procurement procedures, developing criteria, and contract management.

2.5 SUPPORT LOWER-IMPACT AGRICULTURE AND LAND-USE

Build capacity by providing suppliers with education and technical support for regenerative practices and more sustainable land-use.

Collaborate with industry partners; respect Indigenous wisdom, Traditional knowledge, and land rights; and promote knowledge-sharing for a more sustainable and regenerative agricultural model.

Leverage **incentives and investments,** technical assistance, certification systems, risk management tools, and infrastructure investments to promote sustainable farming and reduce deforestation among suppliers.

Why support lower-impact agriculture and land-use

Soil is the largest terrestrial carbon sink but can be degraded by agricultural products, particularly livestock, manure, and rice cultivation.[87] There is a pressing need for regenerative agriculture, sustainable land use, and improved soil health. Agriculture and land use contribute significantly to carbon emissions, but they also have the potential to be important carbon sinks. Nature-based solutions could halve emissions by 2030 and store significant carbon by the century's end. Supporting suppliers, especially smaller holdings in the global south, in land and ecosystem management, such as protecting forests and improving agricultural practices, is a crucial decarbonisation strategy.[88,89]

How to support lower-impact agriculture and land-use

BUILD CAPACITY

Build supplier capacity for lower-impact agriculture and land use through education, training, and technical assistance that can improve agricultural production. Provide suppliers with workshops, seminars, and field demonstrations to transfer knowledge on sustainable farming practices, agroecology, soil conservation, and efficient land-use techniques. Offer onsite visits, farm assessments, and tailored recommendations to guide suppliers in implementing sustainable agricultural practices that optimise productivity while minimising environmental impacts. Farmers financially benefit from practice changes that boost crop productivity and resilience in the longer term. Still, initial costs and perceived risks in changing practice must be overcome.

DANONE SUPPORTS REGENERATIVE FARMING PRACTICES

Danone is working to improve smallholder farmer livelihoods and help meet its sustainable sourcing goals by partnering to enhance farmer production through regenerative practices. Small scale farmers have learned new techniques that promote reforestation and carbon storage, reducing their emissions by 13%.[90]

COLLABORATE

Work jointly with industry partners and competitors to ensure the sector is heading towards a more regenerative and sustainable model. Learn from local and Indigenous populations for sustainable agriculture and land use by approaching with cultural respect, collaborating through community engagement, and creating knowledge-sharing platforms. Recognise and value their Traditional

[87] https://www.iucn.org/resources/issues-brief/land-degradation-and-climate-change
[88] https://www.ceres.org/news-center/press-releases/measure-chain-managing-ghg-emissions-agricultural-supply-chains
[89] https://exponentialroadmap.org/wp-content/uploads/2019/09/ExponentialRoadmap_1.5_20190919_Single-Pages.pdf
[90] https://www.technoserve.org/blog/partnership-helps-small-scale-producers-and-environment/

Ecological Knowledge, let it inform mainstream approaches, and support capacity building and empowerment. Respect land rights and tenure, and foster inclusive partnerships to integrate Traditional wisdom and practices into sustainable initiatives.[91]

INDUSTRY AND SUPPLIER COLLABORATION ENDS DEFORESTATION FOR SOY AS SALMON FEED

Since 2020, Brazilian soy suppliers to the salmon industry, CJ Selecta, Caramuru, and Imcopa/Cervejaria Petrópolis, have achieved a 100 percent deforestation-free soybean supply chain, influencing much of the global salmon industry to source sustainably. The 'Aquaculture Dialogue on Sustainable Soy Sourcing from Brazil' group motivated the collaboration, reaching customer-facing companies like Tesco, Ahold Delhaize, and Marks and Spencer to back the initiative and reduce supply-side risk financially.[92]

COCOA INDUSTRY JOINS FORCES TO END DEFORESTATION[93]

The Côte d'Ivoire and Ghana governments and 35 cocoa and chocolate companies have partnered in the Cocoa & Forests Initiative to combat deforestation and rehabilitate forests. This collaboration involves training 620,000 farmers and providing financial access to 240,000 farmers. It also ensures the traceability of cocoa and promotes agroforestry by distributing over 10.4 million trees since 2018.

INCENTIVES AND INVESTMENTS

Financial incentives like grants, loans, and subsidies, including payments for ecosystem services, can make sustainable farming economically feasible for suppliers. Direct incentives and investments can economically encourage suppliers to practice reduced-impact logging and promote forest regrowth. Suppliers of essential commodities, often in deforestation-prone regions, require support in reducing deforestation.[94] Complementing this with technical assistance and training enhances their capacity for sustainable practices. Certification systems like Fairtrade, Rainforest Alliance, or Organic can provide access to premium markets. Risk management tools, such as insurance schemes, help manage transition risks, and infrastructure and equipment investments, like better irrigation systems or greenhouses, can boost yield and lessen environmental impact.

INSETTING FOR METHANE EMISSIONS REDUCTION AT BEN AND JERRY'S

Ben & Jerry's invested in manure separators for some of its dairy suppliers, reducing the methane emissions of dairy production facilities. The equipment is expensive, but Ben & Jerry's insetting investment saved its Scope 3 emissions and helped suppliers to spend less on transporting and spreading manure.[95]

BARRY CALLEBAUT SUPPORTS SUPPLIER INNOVATION[96]

A global chocolate and cocoa producer, Barry Callebaut, incentivises suppliers with discounts to enhance social and environmental sustainability. Suppliers meeting Barry Callebaut's sustainability standards can access discounted rates on short-term financing, with higher performance resulting in more significant savings. The initiative is part of IFC's global trade supplier finance program that offers short-term financing to emerging market suppliers, supporting sales to influential buyers by discounting approved invoices. Initially launched among sugar suppliers in Mexico, the initiative will expand to other countries and cover suppliers of a broader range of ingredients used in Barry Callebaut products.

[91] https://www.iied.org/indigenous-peoples-food-systems-hold-key-feeding-humanity
[92] https://globalsalmoninitiative.org/en/our-work/sustainable-feed/responsible-soy/
[93] https://www.worldcocoafoundation.org/initiative/cocoa-forests-initiative/
[94] https://wwflac.awsassets.panda.org/downloads/wwf_bcg_deforestation_and_conversion_free_supply_chains_a_guide_for_action_3_.pdf
[95] https://secrhub.co.uk/carbon-insetting-can-it-help-your-business-get-to-net-zero/
[96] https://www.demica.com/barry-callebaut-partner-with-demica-and-the-ifc-to-establish-sustainable-financing-facility-for-ingredient-suppliers/

HELPFUL RESOURCES

2.5 Support Lower-impact Agriculture and Land-use

GLOBAL SECTOR STRATEGIES: RECOMMENDED INVESTOR EXPECTATIONS FOR FOOD AND BEVERAGE

Covers sources of GHG in agricultural chains, mitigation levers and key considerations for a transition to net zero, recommendations for company engagements, and sector-specific implications.

INTERNATIONAL PLATFORM FOR INSETTING: PRACTICAL GUIDE TO INSETTING

Shares insights and provides recommendations for sustainability professionals from experienced insetting practitioners to help companies transform their supply chains towards a net zero, resilient, regenerative future.

PROJECT DRAWDOWN: FARMING OUR WAY OUT OF THE CLIMATE CRISIS

Reviews key aspects of how food, agriculture, and land use contribute to climate change and can be addressed by reducing greenhouse gas emissions from this sector and creating new carbon sinks on agricultural lands.

WBCSD: THE BUSINESS CASE FOR INVESTING IN SOIL HEALTH

A good introduction to the topic and includes an overview of supply chain cooperation, public-private partnerships and landscape alliances that spread costs, innovation and knowledge exchange, and place appropriate solutions.

2.6 SUPPORT CARBON CAPTURE AND SEQUESTRATION

Build capacity among suppliers in carbon capture, sequestration, and nature-based solutions through training and technical assistance and developing clear guidelines and standards for sustainable sourcing, biodiversity conservation, and ecosystem restoration.

Collaborate to drive demand through commitments, collective purchasing, policy advocacy, partnerships, and third-party verification for carbon removal, investment, innovation, and supplier participation.

Incentivise and invest in carbon capture through financing and insurance, acting as early buyers of carbon removal certificates, mitigating risk for carbon-storing ecosystems, and leveraging government incentives for support.

Why support carbon capture and sequestration

While energy efficiency and renewable energy are crucial levers, greenhouse gas emissions continue to rise. We are reaching the tipping point of natural sinks such as oceans and permafrost, and there is a higher incidence of forest fires releasing stored carbon. Carbon removal and storage as an industry needs to develop quickly, with the finance, insurance and re/insurance industries as crucial players alongside corporations. While many companies are working on engineered solutions, nature-based solutions to remove carbon dioxide from the atmosphere are solutions that can be implemented now and involve conserving or restoring forests, coastal wetlands, and peat bogs as well as improving soil health. Investing in your value chain for carbon removal will give suppliers and innovative companies more confidence in their project plans and help spread the short-term financial risk.

How to support carbon capture and sequestration

BUILD CAPACITY

Your company can build supplier capacity for carbon capture and sequestration by offering education and training programs on appropriate methods and technologies. Additionally, you can provide a practical guide for supplier initiatives by sharing successful case studies and best practices. Offer technical assistance, including access to expert consultants or technology platforms, to aid suppliers in understanding, selecting, and implementing appropriate carbon capture and sequestration technologies.

Develop clear guidelines and standards for suppliers that promote adopting nature-based solutions. You can include sustainable sourcing, biodiversity conservation, and ecosystem restoration criteria. Encourage suppliers to align their practices with these guidelines and provide support to help them meet the requirements.

COLLABORATE

Collaborate to send joint signals by forming collective commitments, leveraging collective purchasing power, advocating for supportive policies, making public commitments, and engaging in industry partnerships. These actions create a unified voice and strong market pull for carbon removal solutions, driving investment, innovation, policy and the scaling up of these crucial climate mitigation technologies.

You can share the associated costs and benefits by forming partnerships for joint investments in carbon capture projects, driving supplier participation. Additionally, companies can aid suppliers in obtaining third-party verification or certification, giving them recognition for their efforts and enhancing their market standing.

Support and advocacy for government incentives, like tax credits and funding programs, can further support carbon removal initiatives.[97]

CHEVRON, MICROSOFT, AND SCHLUMBERGER NEW ENERGY COLLABORATE ON CARBON NEGATIVE BIOENERGY

Chevron, Schlumberger New Energy, Microsoft, and Clean Energy Systems are building a plant in California that turns agricultural waste into renewable gas, generating electricity while capturing and storing carbon. The process results in net-negative emissions, removing around 300,000 tons of CO2 annually. The project supports regulations to phase out agricultural burning and is expected to create hundreds of jobs.[98]

INCENTIVISE AND INVEST

By financing carbon capture projects and infrastructure, you can help drive carbon innovation. You can act as an early buyer of carbon removal certificates, fostering market growth. Insurers and reinsurers can mitigate risk through coverage for carbon-storing ecosystems against extreme weather events.

SWISS RE INVESTS IN CARBON CAPTURE TECHNOLOGY[99]

Swiss Re has partnered with Climeworks for the world's first long-term purchase agreement for direct air capture and storage of carbon dioxide, worth USD 10 million over ten years. The initiative advances Swiss Re's goal of reaching net-zero emissions in its operations by 2030 while supporting the carbon removal industry. The partnership signals demand to developers, investors, and buyers for carbon removal, offering early access to new risk pools and asset classes.

SHOPIFY'S INNOVATION FUND FOR CARBON CAPTURE

E-commerce platform Shopify supports over 20 new entrepreneurial, tech-driven companies through its Sustainability Fund and has invested over 32m USD to date.[100] The investments include becoming the first paying customer of direct air capture (DAC) company Carbon Engineering in a deal to remove 10,000 tons of carbon from the atmosphere. The removal will be undertaken by CE's plant development partner, 1PointFive, at CE's first industrial-scale facility. That site is due to be completed in 2024.[101] Other investments for carbon sequestration include forest[102] and soil[103] sinks, mineralisation[104] and storage.[105]

MICROSOFT AND ØRSTED COLLABORATE ON CARBON CAPTURE AND STORAGE

Microsoft and Ørsted partner to capture and store 3 million tonnes of CO2 emissions from Ørsted's Asnaes Power Station in Denmark. With ambitious climate targets, Microsoft aims to remove historical emissions by 2050. The project will prevent 400,000 tonnes of CO2 annually from entering the atmosphere starting in 2026.

[97] https://wholesale.banking.societegenerale.com/en/insights/news-press-room/news-details/news/carbon-capture-moves-fulfil-its-decarbonisation-potential/
[98] https://www.chevron.com/newsroom/2021/q1/chevron-microsoft-and-schlumberger-partner-on-carbon-negative-bioenergy
[99] https://www.swissre.com/media/press-release/nr-20210825-swiss-re-climeworks-partnership.html
[100] https://www.marketscreener.com/quote/stock/SHOPIFY-INC-22283351/news/Going-All-In-To-Get-Carbon-Out-Shopify-s-Commitment-to-Climate-Entrepreneurs-Reaches-32M-39885712/
[101] https://www.datacenterdynamics.com/en/news/shopify-becomes-first-customer-carbon-engineerings-carbon-removal-service/
[102] https://droneseed.com/
[103] https://www.loambio.com/
[104] https://carbinminerals.ca/
[105] https://4401.earth/

OTHER HELPFUL RESOURCES

ENGAGEMENT FOR SUPPLY CHAIN SUSTAINABILITY: A GUIDE
This guide aims to help corporate procurement and supply chain professionals to reflect on their existing supplier engagement approach(es) and identify the approach(es) most suited to addressing sustainability issues.

GREENHOUSE GAS PROTOCOL
Corporate Value Chain (Scope 3) Accounting and Reporting Standard provides requirements and guidance for companies and other organisations to prepare and publicly report a GHG emissions inventory that includes indirect emissions resulting from value chain activities (i.e., Scope 3 emissions).

THE 1.5°C SUPPLIER ENGAGEMENT GUIDE
A freely accessible guide for companies seeking to reduce GHG emissions in their supply chains.

SME CLIMATE HUB 2022 CORPORATE TOOLKIT
SME Climate Hub developed this Corporate Toolkit for large businesses and corporations looking to engage SMEs in their value chain in climate action.

SME CLIMATE HUB REPORTING TOOL
A reporting tool for SMEs, based on a simplified Climate Disclosure Framework, developed by the CDP, Exponential Roadmap Initiative, and Normative.

FINANCIAL SUPPORT GUIDE FOR SME EMISSIONS REDUCTION
This interactive resource, developed in collaboration with BSR and the Cambridge Institute for Sustainability Leadership (CISL), offers practical tools, templates, and success stories.

NET ZERO TOOL LIBRARY
Curated by Oxford University's Net Zero team, this library compiles external resources SMEs can use to enhance their knowledge of climate action and sustainability.

MARKET DRIVEN DECARBONISATION: THE ROLE OF DEMAND-LED INNOVATION IN SUPPORTING EMISSION REDUCTIONS IN FOUNDATION INDUSTRIES
A policy briefing by the Cambridge Institute for Sustainability Leadership (CISL) that examines how markets can better drive decarbonisation in foundation industries such as steel, cement, and glass.

THE JUST TRANSITION POWERFORCE
Supports collaboration between environmental justice leaders and corporations to transition to a regenerative economy, investing in frontline community sustainability and promoting self-determination and transformative justice.

SUPPLIER TEMLATE LETTER FOR 1.5°C AMBITION

A letter template asking suppliers to set climate targets in line with the Paris agreement. The template is based on best practices from Ericsson's letter to suppliers and is supported by the UN Race To Zero.

SUPPLIER ACTION GUIDE

This guide by the Exponential Roadmap Initiative offers a framework for working with suppliers to set and reach climate goals in line with limiting global temperature rise to 1.5°C.

SUPPLIER TRANSFORMATION FRAMEWORK

This guide by Transform to Net Zero provides an action-oriented framework on aligning supplier expectations for net zero transformation to accelerate Scope 3 reduction efforts.

ENGAGING SUPPLY CHAINS ON THE DECARBONIZATION JOURNEY

This guide by the Science Based Targets Initiative provides insights on developing and achieving Scope 3 supplier engagement targets.

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