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Guidelines for setting a net zero-aligned internal carbon price

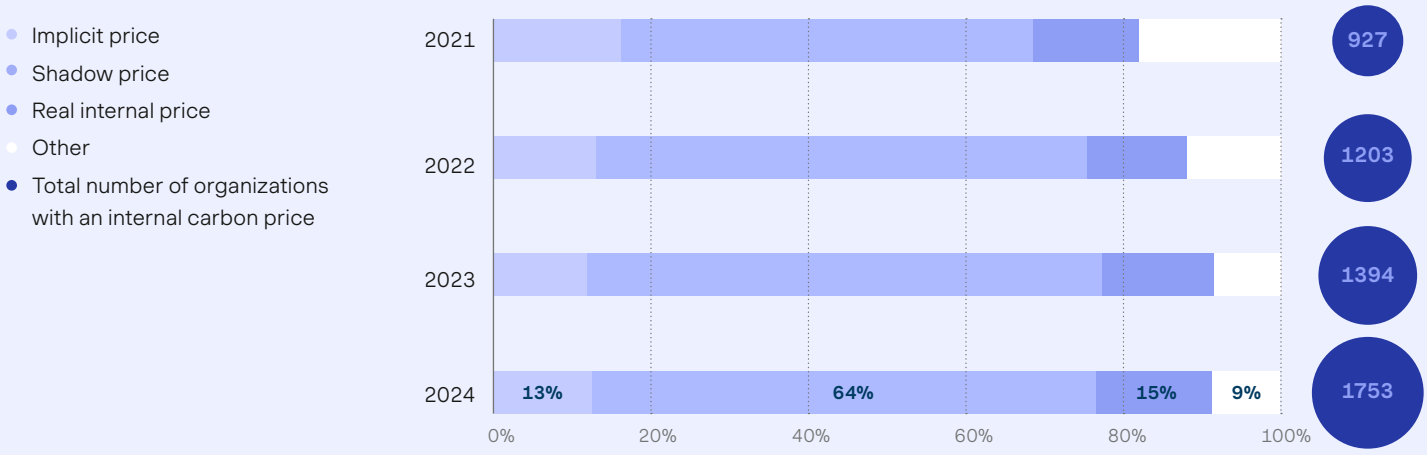
Introduction

In the evolving landscape of corporate sustainability, internal carbon pricing has emerged as a pivotal instrument for driving decarbonisation and aligning business operations with global climate objectives. Setting an internal carbon price (ICP) involves assigning a monetary value to greenhouse gas emissions before they have been emitted, thereby **internalising the external costs of carbon pollution**. ICPs represent a shift toward a proactive strategy where carbon becomes a core business consideration rather than an afterthought, enabling it to genuinely shape strategic decision-making and lead to tangible emissions reductions.

Initially used by a relatively small group of early adopters, internal carbon pricing is now becoming a widely recognised tool for managing climate risk, incentivizing low-carbon investment, and preparing for emerging regulatory requirements. According to data reported to CDP, 1,753 companies across 56 countries reported using internal carbon pricing in 2024 — an 89% increase on the 927 companies that reported using an internal carbon price in 2021 (Figure 1). Among them, nearly half of the world's 500 largest companies, including Microsoft, Ørsted, and Mitsubishi Corporation, have integrated it into their business strategies.[1]

1 CDP. "Carbon Pricing: CDP Disclosure Best Practice CDP Corporate Questionnaire." CDP Technical Note, 12 March 2025

Figure 1:
Number of organizations using an internal carbon price and share of type of internal carbon price used, 2021-2024[2]
(Adapted from the World Bank)



There are three main forms of ICP:

Implicit ICP, where the price is inferred retrospectively from the cost of emissions reduction activities

Shadow ICP, where an ICP is applied hypothetically to guide planning and risk assessment

Real ICP,* where actual financial charges are levied and revenues are allocated to climate action

Many companies begin with shadow pricing as a practical on-ramp — helping teams understand the business implications of carbon and build internal support. Over time, leading organisations are evolving toward **real internal carbon prices** that drive tangible changes in capital allocation, procurement, product design, supplier engagement, and help to prepare organisations for a net-zero future.

The empirical record on internal carbon pricing suggests that while shadow prices are increasingly widespread, their effectiveness depends critically on price levels, governance, and linkage to decision-making authority. In the development finance sector, for example, most development finance institutions have introduced ICPs to inform economic analysis.[3] However, these prices are often set below levels consistent with net zero transition pathways, and in practice fewer than 5% of investment proposals have been materially affected by the application of shadow prices.

2 World Bank. 2025. State and Trends of Carbon Pricing 2025. Washington, DC: World Bank. DOI: 10.1596/978-1-4648-2255-1.

3 Fankhauser, Sam, et al. "Net zero portfolio targets for development finance institutions: Challenges and solutions." Global Policy, vol. 14, no. 5, 2023, pp. 716-729

***** Some companies use the term "internal carbon fee" instead of "real ICP"

This dynamic mirrors findings in the private sector. **In Microsoft's case, a progressively escalating internal carbon fee linked to real budget transfers has helped finance significant decarbonisation investments.** Conversely, oil and gas majors have applied shadow carbon prices largely for sensitivity analysis, with limited observable impact on capital allocation outcomes. These divergent experiences suggest that the behavioural efficacy of shadow pricing depends not merely on the existence of a carbon price, but on its magnitude, binding nature, and integration into governance frameworks.

Table 1: Comparing ICP approaches

ICP Approach	Impact on business decisions	Influence on emission reductions	Fund allocation and effectiveness	Strengths	Limitations
Implicit ICP	**Retrospective:** May inform future planning by revealing real costs of abatement, but typically applied after the fact and does not shape ex-ante decisions	**No direct correlation:** Highlights the cost-effectiveness of past interventions but does not proactively incentivize new reductions	**Variable:** Based on actual spend on abatement; not usually structured to direct future funding	Builds internal awareness of abatement costs and can support evolution toward shadow or real ICP	Retrospective only; lacks strategic direction unless embedded in forward planning
Shadow ICP	**Limited:** Primarily used for forecasting and long-term strategy but may not directly change financial decisions	**Low:** Since no real cost is incurred, there's limited ability to incentivise reductions in emissions	**None:** Shadow prices are not tied to a fund, so money must be drawn from a separate budget	Easier to adopt than a real ICP and can serve as a stepping stone toward establishing a real ICP	Lacks enforcement, and could fail to drive change without a concrete plan for a transition to a real ICP
Real ICP	**High:** Incorporated into capital allocation, procurement, and operational strategy, influencing key financial decisions	**High:** Drives direct investment in low-carbon technologies, efficiency improvements, and supply chain transformation	**Significant:** Funds are allocated to internal abatement projects, external climate action measures, or transition planning	Can demonstrate a genuine commitment to achieving net zero emissions	Can be politically challenging to implement, requiring strong governance and internal buy-in, and fees must be high enough to drive meaningful change

3 Fankhauser, Sam, et al. "Net zero portfolio targets for development finance institutions: Challenges and solutions." Global Policy, vol. 14, no. 5, 2023, pp. 716-729

It is important to recognise that there have been various guidelines and frameworks for setting ICPs over the years, many of which are referenced throughout this document, which we have built on to reflect the current climate context. Contemporary guidance is essential to assist organisations in establishing ICPs that are effective, relevant, and aligned with today's environmental and social imperatives.

This paper delineates five foundational principles for setting a net zero-aligned internal carbon price:

Principle
01

Climate-compatible:
Anchor the ICP in a robust, science-aligned net zero target.

Principle
02

Contextual:
Adapt global best practices to maximise the ICP's impact.

Principle
03

Clear:
Ensure the ICP is effectively integrated into the organisation.

Principle
04

Committed:
Invest ICP funds for maximum impact.

Principle
05

Catalytic:
Be prepared to ratchet up ambition over time.

Each principle is designed to provide a strategic framework, enabling companies to implement an ICP that is not only reflective of their sustainability goals but also responsive to the exigencies of the current climate landscape.

Principle

01:

Climate-compatible

Anchor the ICP in a robust, science-aligned net zero target

Establishing a comprehensive ICP that encompasses all emissions scopes and is firmly anchored in a science-aligned net zero target is crucial for ensuring that an organisation's financial strategy aligns seamlessly with its sustainability goals. This process begins with the integration of a science-aligned net zero commitment into the corporate strategy, ensuring that sustainability is not treated as a peripheral concern but is embedded as a core component of business operations.[4] **A well-structured ICP provides companies with a quantifiable mechanism to internalise the financial risks associated with carbon emissions, translating environmental impact into a tangible economic signal that influences business decisions at all levels.**

An ICP serves as a dynamic tool to accelerate progress toward net zero by embedding carbon costs into financial decision-making, **effectively steering the organisation toward its short- and long-term reduction targets**. By assigning a monetary value to emissions, the ICP incentivises operational efficiencies, promotes clean energy choices, and drives strategic investments in low-carbon technologies. These financial signals expedite emissions reductions that might otherwise be delayed due to perceived cost barriers or other competing priorities. Over time, an effective ICP can also drive behavioral and cultural shifts within an organisation, ensuring that sustainability considerations are factored into every aspect of business planning, from capital expenditures to product development.

Beyond internal decision-making, an ICP plays a crucial role in shaping supply chain strategies and procurement policies. By factoring carbon pricing into supplier evaluations and procurement criteria, companies can favor low-carbon alternatives, reduce scope 3 emissions, and drive value chain-wide decarbonisation. This approach is particularly powerful in sectors with complex global supply chains, where emissions reductions at the supplier level can significantly impact an organisation's overall carbon footprint.

Ultimately, when effectively integrated into a net zero target, an ICP does more than just signal intent — it actively drives business transformation, making sustainability a financial imperative rather than a voluntary commitment. By leveraging ICPs as a catalyst for emissions reductions, companies can achieve their net zero targets faster and more efficiently, maintaining competitiveness in a decarbonising economy while demonstrating true climate leadership.

"Start small, where the cost is real and the signal is clear. Don't run a marathon before a 5K — begin with scope 1, put a price on emissions where non-compliance already has a price tag, and earn your way into scope 3. Build credibility by making carbon cost tangible, one business case at a time."

Lucas Joppa
Former Chief Environmental Officer, Microsoft
(currently Chief Sustainability Officer, Haveli Investments)

4 Best practice is to set a science-aligned target validated by internationally recognised standards such as the Science Based Targets initiative (SBTi) and ISO Net Zero Guidelines. For financial institutions, sector-specific frameworks like the UN-Convened Net-Zero Asset Owner Alliance (NZAOA) provide additional guidance. Some industries, such as automotive manufacturing, face unique challenges in obtaining full net-zero target validation under certain standards, primarily due to heavy scope 3 dependencies. In these cases, companies are encouraged to set ambitious near-term targets and long-term net zero commitments while aligning with emerging sector-specific pathways as they are developed.

Principle

02:

Contextual

Adapt global best practices to maximise the ICP's impact

Benchmark global best practices
Organisations should benchmark their ICP against comprehensive carbon pricing frameworks, integrating economic modeling, regulatory standards, scientific methodologies, and sector-specific financial considerations. This ensures the ICP remains competitive, relevant, and aligned with evolving carbon pricing mechanisms. Below are some key approaches to consider when setting an ICP.

01 **Implicit price approach:** Marginal Abatement Cost Curves (MACC)

02 **Policy-driven approach:** Emissions Trading Schemes (ETS)

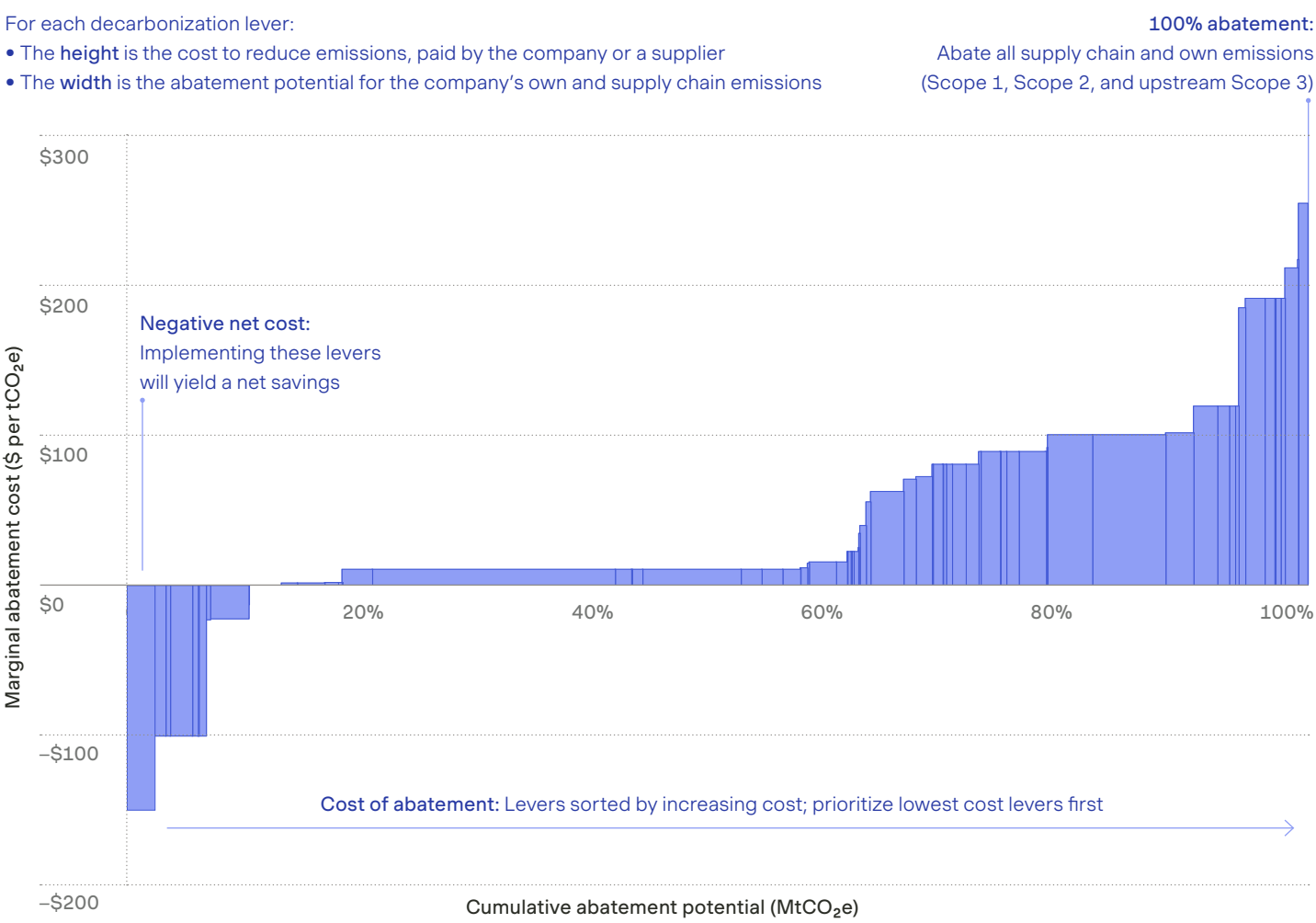
03 **Marginal damage approach:** Social cost of carbon

04 **Ability-to-pay approach:** Profit/tonne

01 **Implicit price approach:** Marginal Abatement Cost Curves (MACC)

The implicit carbon price represents the cost per tonne of CO_2 avoided through internal decarbonisation efforts, reflecting what an organisation effectively pays to reduce emissions. This approach is closely linked to Marginal Abatement Cost Curves (MACCs), which visually rank mitigation measures by cost-effectiveness and scale. By analyzing MACCs, companies can determine their implicit carbon price, ensuring that their ICP reflects the true cost of internal emissions reduction measures rather than an arbitrary figure. **Integrating MACCs into ICP-setting helps companies prioritise cost-effective mitigation strategies, optimise capital allocation, and anticipate future regulatory costs, ultimately aligning financial decisions with long-term climate targets.**

Figure 2:
A marginal abatement cost curve helps prioritize decarbonization levers by showing their cost and abatement potential (illustrative)[5]



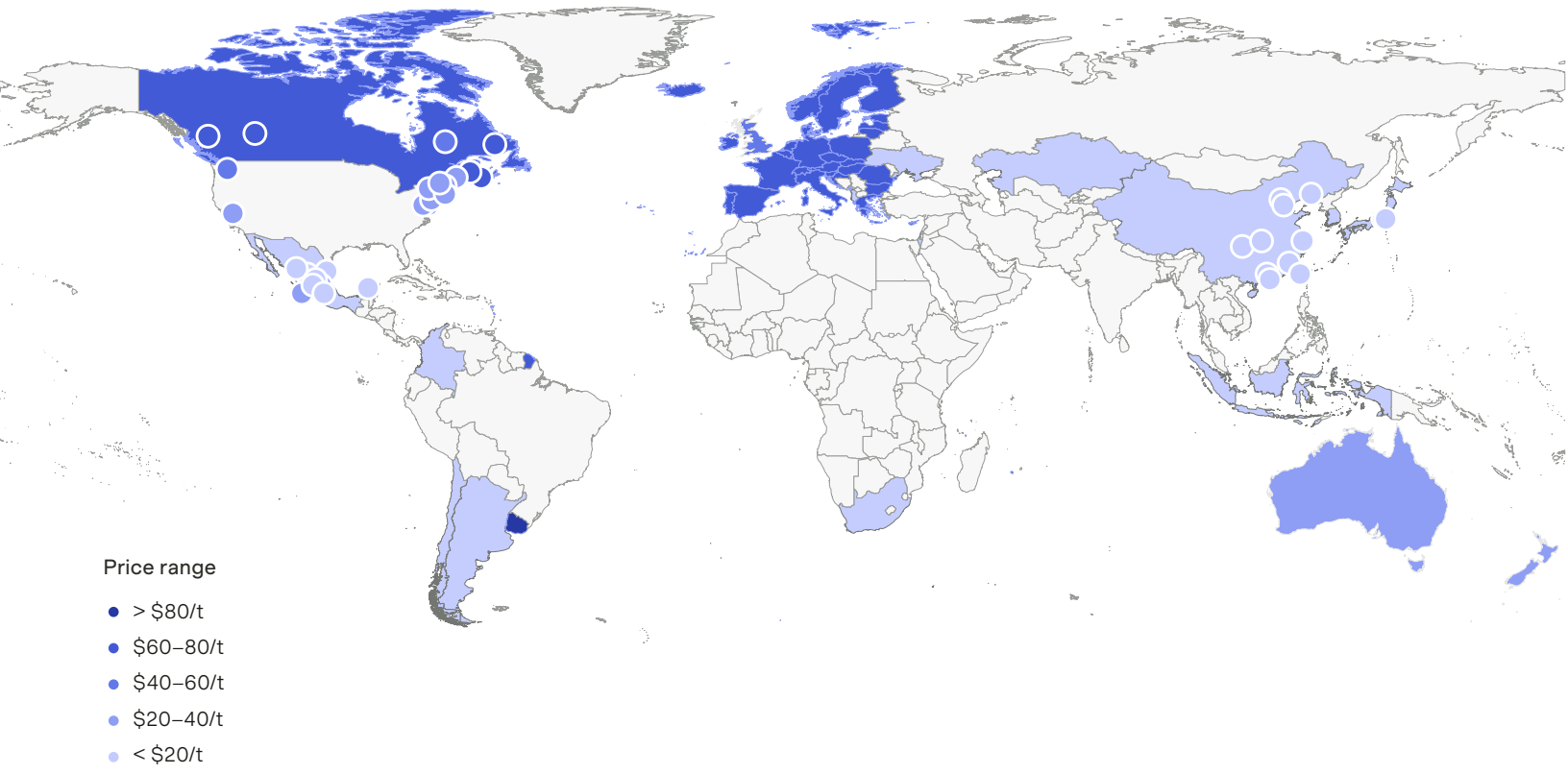
Note: Downstream Scope 3 emissions not included

5 BCG (2022). US Inflation Reduction Act: Significant Cost Savings for Corporate Decarbonization. BCG, 2022.

02 **Policy-driven approach:** Emissions Trading Schemes (ETS)

Emissions Trading Schemes (ETS) establish a market for carbon allowances, capping the total level of emissions and permitting organisations to buy and sell allowances as needed. Carbon prices under these mechanisms vary significantly across jurisdictions, with some markets maintaining fairly minimal pricing levels, while others exceed US$160 per metric tonne of CO_2e, as per the World Bank's State and Trends of Carbon Pricing Dashboard. For instance, the EU Emissions Trading System (EU ETS) — widely considered the world's largest carbon market by traded value and regulatory scope — currently prices carbon at approximately €70 (around US$75) per tonne. **By benchmarking their ICP against these external carbon prices, companies can ensure that their internal strategies reflect real-world economic conditions, thereby driving more effective and financially sound emission reduction initiatives.**[6]

Figure 3: Price per tonne of carbon around the world, 2025
Heat map shows the level of the main price set by emissions trading systems or carbon taxes in each jurisdiction (US dollars/tCO_2e).



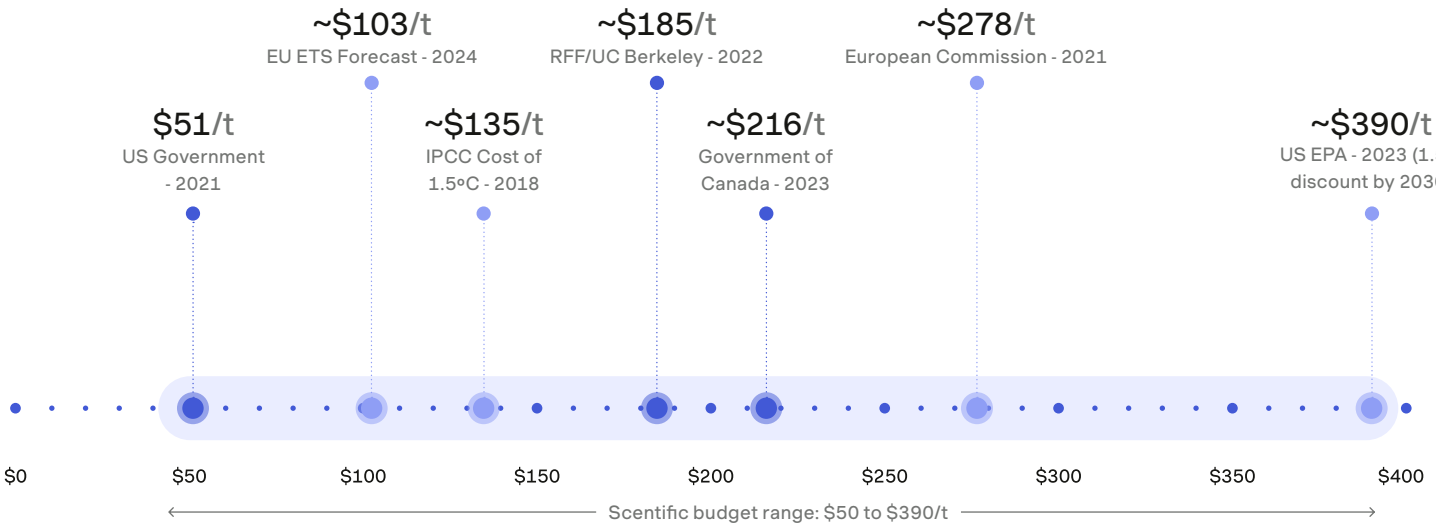
6 World Bank. (2024). Carbon Pricing Dashboard: Compliance Carbon Prices. Retrieved from https://carbonpricingdashboard.worldbank.org/compliance/price.

03 **Marginal damage approach:** Social cost of carbon

The social cost of carbon (SCC) quantifies the economic damages of emitting an additional ton of CO_2, factoring in agricultural losses, health risks, property damage, and ecosystem disruptions. Policymakers use SCC to evaluate the benefits of emission reductions and shape climate regulations, while companies can apply it to emissions within their direct control to inform decision-making and drive operational change. SCC estimates vary widely, but the RFF-Berkeley Greenhouse Gas Impact Value Estimator (GIVE) model offers a more advanced, open-source approach, incorporating the latest climate science, socioeconomic projections, and damage assessments. A 2022 Nature study using the GIVE model estimates a central SCC of $185 per metric ton of CO_2.[7]

Figure 4: What are the scientific ranges for pricing a tonne of carbon?[8]

- **Social cost of carbon (pegged to 2020 figures)**
  The cost of doing nothing
  The total calculated economic damages of one tonne of CO_2
- **Carbon cost of 1.5°C by 2030**
  The cost of doing something
  The total economic cost of the global effort to achieve 1.5°C, per tonne of CO_2



7 Rennert, K., Errickson, F., Prest, B. C., Rennels, L., Newell, R. G., Pizer, W. A., & Kingdon, C. (2022). Comprehensive evidence implies a higher social cost of CO_2. Nature, 610, 687–692.

8 Hansen, Erik, and Bee Hui Yeh. "Carbon credit playbook for Chief Sustainability Officers." Patch, 2024

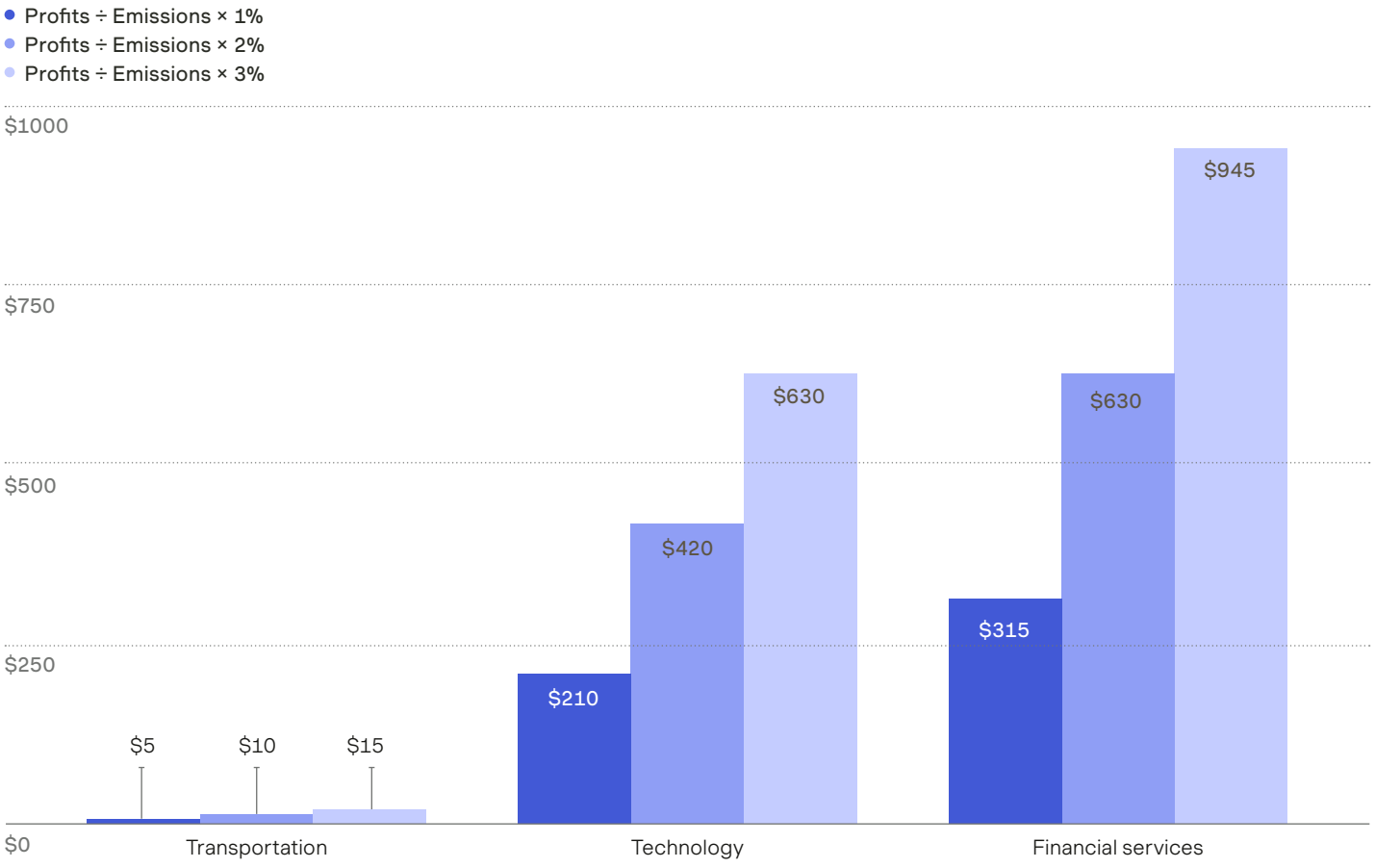
05 Ability-to-pay approach: Profit/tonne

The ability-to-pay approach to internal carbon pricing aligns an organisation's carbon price with its profit per tonne of CO_2 emitted, ensuring contributions to climate action are financially sustainable. This method recognises that carbon intensity and profitability vary across industries, making a one-size-fits-all approach impractical.

High-emitting, low-margin sectors (e.g., energy, mining) may need to prioritise internal decarbonisation, while low-emission, high-margin industries (e.g., tech, finance) can set higher internal carbon prices to support external climate projects. This structure balances financial feasibility with climate ambition, preventing undue financial strain while driving meaningful emissions reductions.[9]

Figure 5: Which industries have the highest ability to pay for carbon credits?[10]

Based on: PACC (Pragmatic Abatement Cost Curve) by sector
Price per tonne of emissions (since 2018)



9 Carbon Gap, Who Can Pay for Carbon Removal?, accessed April 29, 2025.

10 Ross, Keeton. "5 tips for setting a high-integrity climate action budget." Patch, 2023.

Strike a practical balance

Formulating an actionable carbon pricing strategy requires recognising that **absolute accuracy is unattainable** — future variables are unpredictable, and not every input can be accounted for. The key is to strike a balance between rigor and implementability, ensuring the ICP is robust enough to drive decision-making while flexible enough to adapt over time. Organisations should establish a tangible carbon price that directly influences financial decisions, investment strategies, and operational behaviors. Employing scenario modeling can aid in assessing various future scenarios, enabling companies to anticipate regulatory changes and market shifts. This proactive approach facilitates strategic financial planning and resource allocation, positioning the organisation advantageously in a low-carbon economy.

One way to achieve this practical balance is by **differentiating carbon prices across emission scopes to reflect varying levels of control and responsibility**. For example, companies may choose to tie their scope 1 and 2 emissions to a SCC, reflecting their full accountability for direct emissions. Meanwhile, scope 3 emissions, which are influenced by suppliers and external partners, could be priced in line with the average voluntary carbon market rate. This acknowledges that given companies do not have direct control over these emissions, they can take a differentiated approach to pricing their accountability. By structuring tiered internal carbon prices, organisations can drive deep decarbonisation in areas they control while maintaining a realistic and economically viable approach to managing broader value chain emissions.

"At Klarna, we follow a tiered model for our internal carbon fee ($200 per tonne for Scope 1 and 2 emissions, $100 for business travel, and $10 for other Scope 3 emissions) to reflect the different levels of control we have over each emission category and the shared responsibility for some emissions across the value chain. We regularly review and update these levels to ensure they continue to align with the best-available science and support our climate strategy."

Alexander Farsan
Head of Climate and Environment
Klarna

Principle

03:

Clear

Ensure ICP is effectively integrated into the organisation

It is important to note that implementing an ICP requires adjustments to existing business practices, as it introduces new tools and methodologies that may necessitate the development of different processes and working models. This shift involves **comprehensive planning and cross-functional collaboration** to effectively embed the ICP into existing financial and operational frameworks.

Ensuring that an ICP is effectively integrated into an organisation requires a structured and strategic approach. Companies must embed the ICP into key decision-making processes, ensuring it influences investment strategies, asset allocation, and overall resource management.

"Our internal carbon price ensures every business unit feels accountable for its emissions. The tiered system gives decision makers a clear incentive to stay within their carbon budgets and keeps us on track to meet our climate goals."

David Webb
Chief Sustainability Officer
BCG

Successful integration also depends on cross-functional engagement. Involving Finance, Procurement, and Corporate Affairs early in the design process helps align the ICP with the organisation's broader financial and strategic priorities. Since each function has distinct incentives and roles, fostering early buy-in **ensures that the ICP is not perceived as a sustainability-only initiative but as a core business tool**. This collaborative approach creates shared ownership and accountability, increasing the ICP's credibility and effectiveness.

To reinforce this integration, companies should establish a **clear ownership and accountability framework**. Leadership — including the board and C-suite — should champion the ICP, with defined reporting lines that extend beyond the sustainability team to key business functions. Breaking down silos ensures that carbon pricing becomes **embedded in everyday decision-making rather than remaining an isolated initiative**.

Finally, to maximise impact, organisations must invest in robust reporting and governance capabilities. **Strengthening data management, performance tracking, and internal oversight** will ensure that the ICP delivers measurable emissions reductions and drives continuous improvement. By integrating these elements, businesses can ensure that their ICP is a clear, effective tool for driving decarbonisation and aligning financial decisions with climate goals.

Table 2: Examples of ICP usage across a company's business units or departments (illustrative)

HR	Price commuting, travel, and workplace location strategies to inform low-carbon policies (e.g. remote work, transport benefits).
Marketing	Compare emissions costs of digital vs. print campaigns or virtual vs. in-person events to shape channel choices.
Finance	Integrate ICP into investment appraisals, supplier selection, and ROI models to steer capital toward low-carbon options.
Sales	Apply ICP to evaluate trade show travel, client meetings, and emissions from sales enablement activities.
Operations	Use ICP to prioritize energy efficiency, recycling, and facilities upgrades based on emissions-adjusted cost-benefit.
Production	Factor ICP into material sourcing, manufacturing decisions, and supply chain logistics to surface hidden carbon costs.
R&D	Apply ICP to assess the emissions of field testing, data storage, and travel to guide project design and experimentation.

Principle

04: Committed

Commit to strategically investing the funds the ICP generates

To maximise the impact of an ICP, **organisations must commit to strategically investing the funds it generates.** Allocating these resources effectively ensures that the ICP is not just a pricing mechanism but a catalyst for real emissions reductions. Without a ringfenced climate fund, ICP can unintentionally reward cost savings over climate action, forcing decarbonisation and carbon removal initiatives to cannibalise each other instead of advancing in parallel.

Establishing an Internal Carbon Fund ensures that revenues generated from the ICP are strategically reinvested in sustainability initiatives that drive measurable emissions reductions within and beyond the value chain. This fund can support a range of projects, including energy efficiency upgrades, renewable energy adoption, supply chain decarbonisation efforts, employee sustainability programs, and investments in high-integrity carbon credits. **Importantly, the ICP level will serve as a key determinant in where funds will be allocated — if the marginal abatement cost of scope 1 and 2 emissions is lower than the ICP, it makes financial sense to invest in internal reductions first.** Conversely, if internal abatement costs exceed the ICP, companies may find greater impact by allocating funds to high-quality external carbon solutions. Organisations could consider an initial fixed proportion between these two buckets, and keep this under review as abatement costs and opportunities evolve along their science-aligned pathway.

Figure 6: When to invest on internal vs. external options when ICP is $50 (illustrative)
Marginal abatement cost vs. internal carbon price

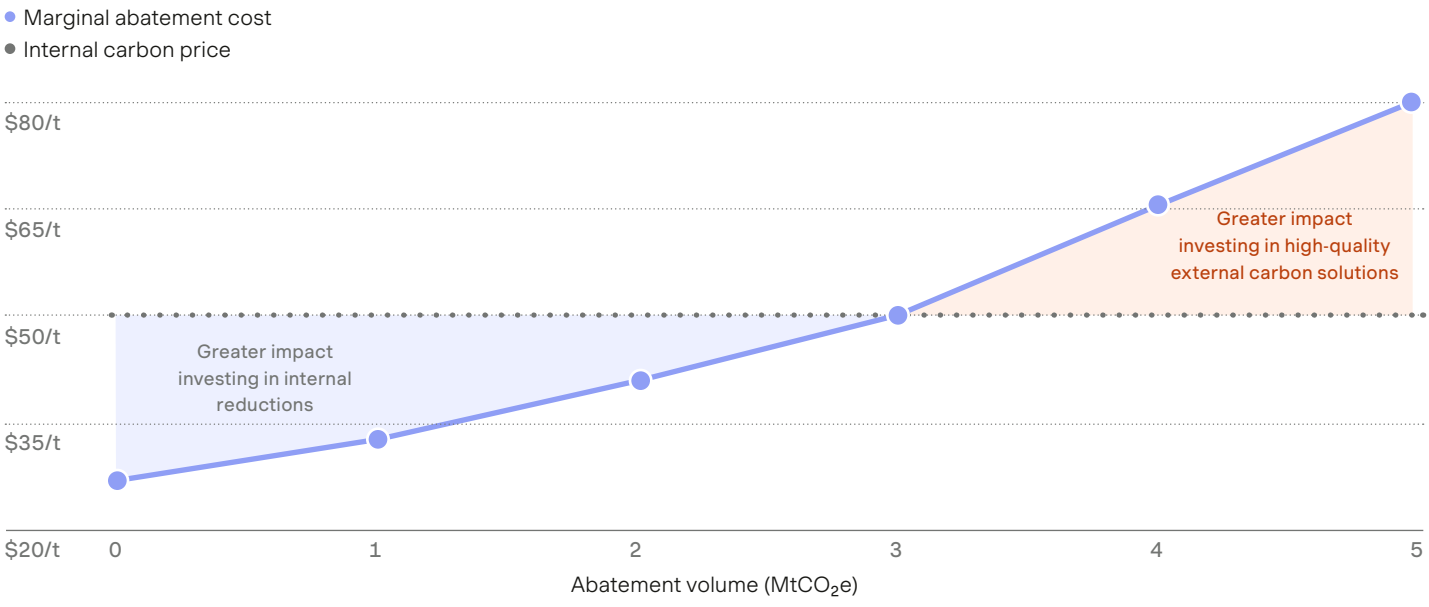
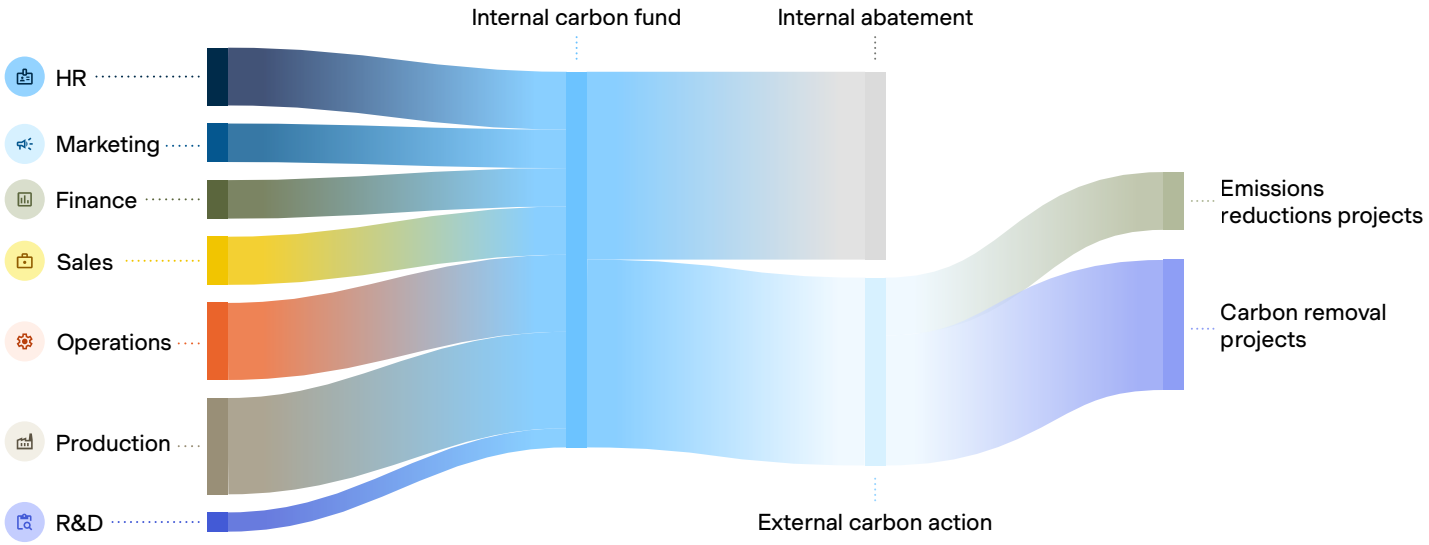


Figure 7: Flow of funds from business units to internal carbon fund and beyond (illustrative)



Note: This chart is illustrative only and not intended to prescribe exact fund allocations.

It shows one way an internal carbon fund could be structured — including how contributions might flow from business units and how investments could be distributed across abatement and external carbon actions. Actual design choices should reflect the company's carbon footprint, sustainability maturity, governance preferences, and strategic goals.

For emissions that are difficult to reduce within the value chain, companies should ensure that their compensation and/or contribution efforts maintain high environmental integrity. Investing in high-quality carbon credits for unavoidable emissions should align with best practices, such as the **Oxford Principles for Net Zero Aligned Offsetting**, which outline the necessity to shift offsetting portfolios over time to ensure that durable carbon removal compensates for all residual emissions.[11] These principles emphasise the importance of charting the path to organisational net zero, and ensuring there is a clear pathway to secure sufficient volumes of (durable) carbon removal in the interim. By adhering to rigourous standards and prioritising durable removals, organisations can **enhance the credibility of their climate strategies while actively contributing to the broader net zero transition.**

A well-structured investment approach also reinforces the business case for an ICP by **demonstrating tangible returns**, whether through cost savings from efficiency gains, regulatory risk mitigation, or reputational benefits. By committing to a disciplined, impact-driven reinvestment strategy, companies ensure that their ICP serves as both a financial mechanism and a strategic tool for accelerating decarbonisation.

11 Axelsson, Kaya et al. "The Oxford Principles for Net Zero Aligned Carbon Offsetting (Revised 2024)." University of Oxford, Feb. 2024

Principle

05: Catalytic

Be prepared to ratchet up ambition over time

"Carbon pricing at Autodesk isn't about penalties — it's about priorities. By putting a price on emissions, we hardwire sustainability into our decisions and drive innovation that aligns with the future we're committed to building."

Jean Shia
Managing Director
Autodesk Foundation

An organisation's internal carbon price should not remain static but evolve in response to changing regulatory landscapes, scientific advancements, and corporate climate commitments. As emissions reduction pathways become clearer and compliance mechanisms such as ETS tighten, organisations must ensure their ICP reflects these shifts by **regularly assessing its effectiveness and recalibrating the price accordingly.**

To maintain alignment with a net zero trajectory, companies should establish a structured review process, integrating **annual assessments that evaluate how well the ICP is driving emissions reductions and influencing decision-making**. By taking a dynamic approach, businesses can ensure their ICP remains a credible and effective driver of transformation.

Importantly, organisations should embed a clear **escalation mechanism within their governance structure to ensure the ICP strengthens over time.** This could involve predefined triggers — such as reaching specific emissions reduction milestones, changes in regulatory requirements, or industry best practices — that prompt adjustments to the price.

Figure 8:
Hotelling's price path

This ratcheting logic is also broadly consistent with economic theory. The Hotelling Rule, originally applied to non-renewable resource extraction, suggests that prices for scarce resources should rise over time at a rate at least equal to the prevailing interest rate, reflecting the opportunity cost of deferring use. Applied to carbon pricing, this implies that internal carbon prices might escalate over time to reflect the tightening carbon budget and the cost of delayed emissions reductions.[12]

Regularly increasing the ambition of an ICP reinforces its role as a **long-term financial and strategic tool for decarbonisation**, ensuring companies stay ahead of climate risks while maximising the impact of their net zero strategies.

12 Hotelling, Harold. "The Economics of Exhaustible Resources." The Journal of Political Economy, vol. 39, no. 2, 1931, pp. 137–175.

While the Hotelling Rule offers a useful conceptual benchmark, it may not fully capture the complexities of carbon pricing under uncertainty, technological change, or the emergence of carbon removal options. Companies should therefore complement this theoretical logic with practical governance triggers, periodic reviews, and evolving marginal abatement cost considerations.

Deep dive

Case studies

BCG: A case study on business-led ownership and action

Motivation and background

As a global consulting firm, BCG supports clients in embedding sustainability into their operations to drive business value, including by accelerating their net-zero strategies. In parallel, the firm is committed to managing its own environmental impact and delivering internal climate action with a broader net zero strategy and one of the most ambitious carbon reduction programs among peers.

To realise these ambitions at scale, BCG introduced an internal carbon price in 2024 — a charge aimed at driving climate accountability, integrating sustainability into core business decisions, and supporting long-term investment in innovative climate technologies.

Implementation and operations

BCG's ICP mechanism is integrated into a broader carbon budgeting system. Emissions from business travel are BCG's largest source. Each year, carbon budgets for business travel are allocated across regions and business units, aligned with decision rights and BCG's overall travel emissions target. Budget owners are supported with reduction plans tailored to their contexts and a network of leaders driving thoughtful reduction efforts. Owners are also equipped with emissions dashboards and planning tools to provide clear visibility into budget performance and support them in staying on track. This empowers leaders to define their own roadmaps aligned with their business context, prioritise client value while minimising climate impact, and create a clearer sense of shared ownership.

BCG applies a tiered carbon price to regions and business units based on performance against their assigned carbon budget. Regions and business units achieving higher reductions against targets are charged a lower rate more aligned with a blended average carbon price ($35/t$CO_2$e), while those falling short may face charges exceeding $300/t$CO_2$e.

These price levels are linked to the costs associated with the firm's net-zero strategy and climate commitments. $35 represents the cost of BCG's current credit portfolio, which is expected to reach $80 in 2030 as they shift to 100% high quality removal credits, and the $300 price tier is aligned with the cost of sustainable aviation fuel (SAF) as they realise their science-based reduction target. This pricing model effectively internalises and distributes carbon costs, incentivises the implementation of climate-related policies and targets, and advances climate objectives.

Impact and behavior change

Since launching its ICP model, BCG has achieved several notable outcomes:

100%

On track to achieve internal climate targets and remove 100% of the emissions that they are unable to reduce by 2030, using the most effective nature-based and engineered carbon removal

58%

Reduced scope 3 business travel emissions per full-time employee in 2024 by 58% since 2018 (exceeding target of 48.5% by 2025), with 50% driven by behavior changes

92%

Reduced absolute scope 1 and scope 2 emissions in 2024 by 92% since 2018 (exceeding target of 85% by 2025)

Overachieved

All carbon budget owners overachieved on behavior-driven reduction targets

100%

Transitioned to 100% renewable electricity for offices since 2019

Top-ten

Became a top-ten global buyer of durable carbon dioxide removal credits, helping to scale the technologies needed in the transition to a low-carbon future

These outcomes reflect the impact of BCG's ICP in guiding investment decisions and incentivising lower-carbon choices.

Microsoft: A case study in corporate climate accountability

Motivation and background

In 2012, Microsoft committed to achieving carbon neutrality across its global operations, encompassing data centers, offices, labs, and business travel. This pledge was driven by a combination of factors: the escalating urgency of climate change, stakeholder expectations, and a strategic vision to embed sustainability into the company's core operations. To actualise this commitment, Microsoft introduced an internal carbon fee — a self-imposed charge on carbon emissions aimed at fostering accountability and incentivising emission reductions across all business units.

Lucas Joppa, previous Chief Environmental Officer at Microsoft and currently CSO at Haveli Investments, notes that the key business driver for establishing the ICP was seeing the reliance on cloud for business growth and data center build out. Joppa reflects how "powering data centers with fossil fuels would not only threaten our regulatory standing and social license to operate, but [Microsoft] could also use the carbon price to make renewable energy procurement financially viable — effectively turning a long-term risk into a cost-effective solution." By linking the carbon price to its broader net zero and decarbonisation goals, Microsoft created a mechanism to align sustainable operations with business growth, anticipating that this strategy would eventually both reduce costs and ensure future viability.

Implementation and operations

Microsoft's internal carbon fee was designed to be straightforward and impactful. Each business unit is charged based on its carbon emissions, with the fee integrated directly into their profit and loss statements. The collected funds are then invested in renewable energy, energy efficiency projects, and carbon credit initiatives. This approach not only internalises the cost of carbon but also aligns environmental responsibility with financial accountability.

Over time, Microsoft has adjusted the carbon fee to reflect its evolving sustainability goals. In 2019, the company nearly doubled the fee to $15 per metric tonne to bolster its sustainability initiatives. By 2020, the fee was expanded to cover all scope 3 emissions — a feat rarely done given supply chain complexity — further embedding sustainability into the organisation's financial model.

Impact and behavior change

Since implementing the internal carbon fee, Microsoft has achieved significant environmental milestones:

9.5m

Eliminated over 9.5 million metric tonnes of CO_2 emissions

14b

Purchased more than 14 billion kilowatt-hours of green power

60+

Invested in over 60 employee-driven sustainability projects across 23 countries, ranging from electric bike programs in Finland to energy management systems in Chile

63%

Became by far the largest corporate buyer of carbon dioxide removal (CDR) credits, accounting for approximately 63% of all CDR purchases in the voluntary carbon market, securing 5.1 million metric tonnes of credits in 2024 alone, and nearly 69 million metric tonnes of carbon removal credits since 2020

The fee has also catalysed a cultural shift within Microsoft. By making carbon costs visible and tangible, it has encouraged departments to seek innovative ways to reduce emissions beyond optimising energy use and reducing air travel, like building Circular Centers to improve materials management and designing products for repairability, striving to be water positive by 2030, and investing in large-scale carbon removal projects to accelerate their technological development. This integration of environmental considerations into financial planning has fostered a company-wide ethos of sustainability and accountability.

Microsoft's internal carbon fee exemplifies how corporations can proactively address climate change by embedding environmental costs into their financial structures, driving both accountability and innovation.

Autodesk: A case study in climate impact

Motivation and background

Autodesk, a global leader in design and engineering software, has long recognised the imperative to address climate change proactively. Autodesk introduced its ICP in fiscal year 2021 as part of a broader strategy to achieve net-zero greenhouse gas (GHG) emissions across its operations, most notably to integrate sustainability into the company's core operations and decision-making processes.

By assigning a monetary value to carbon emissions, Autodesk sought to internalise environmental costs and drive investments in emissions reduction initiatives.

Implementation and operations

Autodesk's internal carbon price applies to its scope 1, 2, and 3 emissions. The company established the Autodesk Carbon Fund, which collects fees based on the internal carbon price and allocates these funds to projects aimed at reducing GHG emissions. In fiscal year 2022, the ICP was set at $10 per metric tonne of CO_2e, which was then increased to $20 in fiscal year 2023, and further to $33 in fiscal year 2025. This incremental approach reflects Autodesk's commitment to aligning with the rising SCC and enhancing the effectiveness of the carbon price as a signal for change. (Corporate Climate Finance Playbook, 2023; Autodesk Impact Report, 2025)

The funds collected have been used to finance various sustainability initiatives, including investments in renewable energy, energy efficiency projects, and carbon offset programs. For example, the Carbon Fund has supported the expansion of rooftop solar installations and the procurement of renewable energy certificates to offset emissions.

Impact and behavior change

The implementation of the ICP has led to several notable outcomes:

Operational improvements

The carbon fee has incentivised departments to identify and implement energy-saving measures, leading to increased operational efficiency.

Investment in renewable energy

Funds from the Carbon Fund have been directed towards renewable energy projects, contributing to Autodesk's goal of sourcing 100% of its electricity from renewable sources (Autodesk CDP Report, 2022)

Enhanced decision-making

By incorporating the cost of carbon into financial analyses, Autodesk has improved its investment decisions, favoring projects with lower carbon footprints.

These outcomes demonstrate the effectiveness of the internal carbon price in driving organisational change and advancing Autodesk's sustainability objectives.

Autodesk's internal carbon pricing strategy exemplifies how companies can proactively address climate change by embedding environmental costs into their financial structures, thereby promoting accountability and fostering sustainable innovation.

Disclaimers

The Guidelines for setting a net zero-aligned internal carbon price delineate five foundational principles to ensure internal carbon pricing is effective, relevant, and aligned with the best understanding of today's environmental and social imperatives at the time of publishing.

The Guidelines aim to inspire and support sustainability leaders across sectors to adopt or evolve internal carbon pricing mechanisms within their organizations, and provide actionable insight grounded in real case studies to bridge the gap between ambition and implementation.

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