

Sustainability

# How to Talk to Your CFO About Sustainability

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**Summary.** By now most companies have committed to sustainability efforts—and yet many CFOs still see those efforts as a cost rather than a source of value. That makes it hard to unlock the internal financing needed to scale them up. The authors—the director and a senior... [more](#)

**By now most companies have** committed to improving their environmental, social, and governance performance. Such sustainability efforts have increasingly become table stakes. And yet

many CFOs still see them as a cost rather than a source of value. That makes it hard to unlock the internal financing needed to scale them up.

Most recent studies show a correlation between sustainability and financial performance. Our own research finds that for many companies, nonfinancial metrics such as carbon emissions can reveal hundreds of millions of dollars in sustainability-related savings and growth. In large companies it can be billions.

Why don't more CFOs see the connection?

First, they are thrown off by the language and metrics used by their sustainability colleagues. CFOs talk about EBIT and ROI; sustainability people focus on measures such as reductions in wastewater or emissions. The separate reporting of sustainability and financial metrics both internally and externally exacerbates the problem. There is little clear connection between the two worlds under current management, reporting, and accounting structures.

Second, few companies adequately track the returns on their existing sustainability investments or carefully assess those on future ones. Among the reasons for this omission are poor communication between the people in charge of sustainability initiatives in various units; the difficulty of measuring intangible benefits; the limited availability of accounting systems designed to capture sustainability performance data; the use, when returns are measured, of different metrics by different units; and the finance function's belief that the monetary benefits of sustainability activities aren't sufficient to warrant tracking them. But as the links between sustainability and economic performance become clearer, pressure will mount from investors, boards, and executive leadership to track and report the payoffs.

Our work at the NYU Stern Center for Sustainable Business focuses on making those links explicit and providing the tools companies need to monitor and improve the returns on their sustainability investments. To that end we have identified nine drivers of corporate financial performance that can be bolstered by sustainability strategies: innovation, operational efficiency, sales and marketing,

customer loyalty, risk management, employee relations, supplier relations, media coverage, and stakeholder engagement. We call the drivers *mediating factors*. Good management of any type can improve financial performance through the mediating factors; however, good management of sustainability risks and opportunities is one of the most powerful ways to do so.

### **Mediating Factors: How Sustainability Improves Performance**

Sustainability strategies can contribute to nine mediating factors that drive financial results. Innovation A focus on sustainability can spark innovation in design, process, products, and ...



In studying the automotive sector, for example, we found 16 sustainability strategies and related changes in practices (such as reducing carbon emissions) that, by boosting one or more of the mediating factors, contribute to astonishing returns by generating new revenue or reducing costs or both. In one company they yielded more than \$5 billion in net benefits in a single year.

### **The ROSI Methodology**

Working with firms across sectors, we developed the Return on Sustainability Investment analytic method, which companies can use to measure the financial returns on their sustainability activities (you can find ROSI resources and tools on the NYU Stern Center for Sustainable Business's website). It can be deployed to look retroactively at the value created by sustainability strategies, to track sustainability-related financial performance in real time, and to assess the potential ROI of future sustainability initiatives at both the firm and the division level.

Let's look at how to implement ROSI—a five-step process. Particularly when this is a cross-divisional effort, you will need the C-suite's support. Point to increasing investor and consumer demand

for better sustainability performance, opportunities to build on the company's existing sustainability efforts, and the need to monetize returns on those investments.

## **Nonfinancial metrics such as carbon emissions can reveal hundreds of millions of dollars in sustainability-related savings and growth.**

In our work with companies, we start by conducting one-on-one interviews with executives, either in person or—especially during the pandemic—online. We use a standard set of questions to learn what benefits the company is seeing from its sustainability activities and, if those activities are not generating measurable financial returns, how they could do so. The overall ROSI process should be led by a senior executive; the chief sustainability officer would be a good choice, for obvious reasons and also because he or she generally has relationships across the organization. Ideally the CSO is joined by a leader from finance. (If a company doesn't have a CSO, a senior executive from finance, strategy, or operations can fill that role.) It's critical to engage participants from finance, investor relations, marketing, human resources, operations, and, if appropriate, procurement and manufacturing, along with representatives from any other division that's especially important to your business. Each C-suite office should choose a lead to assist the CSO in the process.

**1. Identify your current sustainability strategies.** Surprisingly, in our experience many firms have not clearly articulated their material sustainability strategies: those that address sustainability issues on which the company has a significant impact or that have a significant impact on it. These might include activities with sustainability components that haven't been identified as such—for example, a logistics program ensuring that trucks are fully loaded, which may be aimed at efficiency but also reduces the fleet's greenhouse gas emissions.

If your firm has a materiality matrix—a map of sustainability issues laid out according to their importance to the business and its stakeholders—you will find it helpful. If you don't have a matrix, this is a good time to create one, working as needed with your cross-divisional team, outside consultants, and external stakeholders. With a matrix for reference, you can more easily identify existing activities that address relevant but not immediately obvious sustainability issues. The Sustainability Accounting Standards Board and the Global Reporting Initiative, which have identified material sustainability metrics by industry, can help you get started.



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As mentioned earlier, applying ROSI in the automotive sector case, we identified 16 strategies that address material sustainability issues; they include waste management, a focus on innovative products (such as electric vehicles), and water conservation. Broad strategies like these tend to encompass many activities that have not been formally identified as components of them but should be included in the ROSI accounting that will follow. In the auto industry many activities contribute to the waste management strategy, such as hazardous materials disposal, wastewater management, and product end-of-life management.

In many companies the practices associated with a given strategy

## **2. Identify the related changes in operational or management practices.**

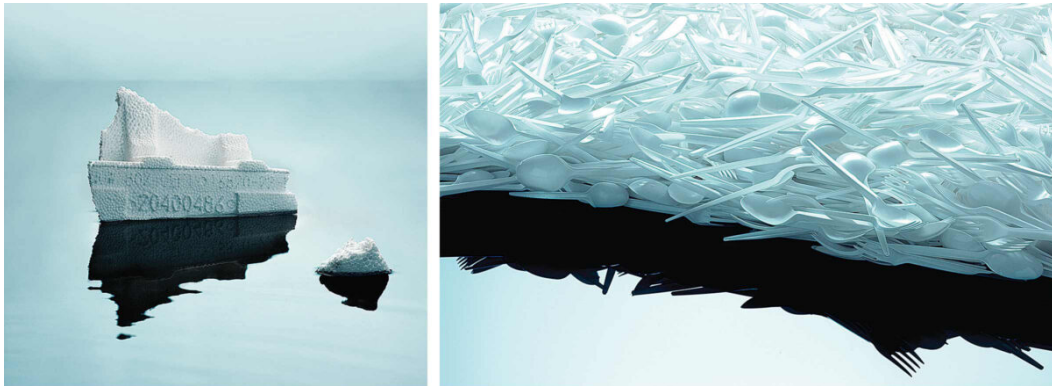
were implemented organically over time—and nobody has a full view of what has changed. If your company has emissions-reduction targets, for example, what specific practices has management changed in order to meet them? Is it shifting the energy mix to include more renewables? Installing energy conservation technologies? Changing manufacturing processes?

You may not be able to immediately identify which changed practices will generate financial returns. In that case, identify as many changed practices as you can for each strategy without regard to their financial impact. In our study of the automotive sector, we identified 240 changed practices. One, under the waste management strategy, reduces volatile organic compound (VOC) emissions by recycling paint and solvents. That may seem like a small change, but as we'll see shortly, it can generate tens of millions of dollars in savings. In a study of sustainable ranching practices, we identified dozens of changes, including increasing the number of cattle per hectare, rotating pastures, and stopping deforestation. We similarly identified dozens of new practices in the apparel sector, including the use of more-sustainable materials, the certification of fair labor practices in supply chains, reduced packaging, and “circular” solutions such as the return and repurposing of garments.

Your cross-divisional team will be essential to the tallying. Small groups in each division should review actions taken in their areas to implement sustainability strategies. To facilitate their brainstorming, illustrate what's needed by providing a few examples of changed practices at the start.

**3. Determine the resulting benefits.** Next, explore the nonmonetary benefits of your sustainability strategies and changed practices by looking at how the changes contribute to the mediating factors; we'll get to the financial impacts later. For example, better waste, energy, and water management generally improves operational efficiency. One pharmaceutical company redesigned a drug

production process using “green” chemistry principles, which reduced the energy, chemicals, and water required by about 80% and cut waste generation and greenhouse gas emissions by about 75%.



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Some of the benefits you find may not be obvious. For instance, mining companies are notoriously bad neighbors—often polluting the environment, exploiting local labor, and placing demands on water supplies and other community infrastructure. But by creating goodwill, a robust community-engagement effort (which falls under the stakeholder relations mediating factor) can speed regulatory approval and reduce the time needed to move projects forward.

**4. Quantify the benefits.** Having identified your nonmonetary benefits, next determine how to assess their financial worth. You can often do so by comparing a new practice with an established benchmark. To measure the value of recycling solvents in the auto industry, a team collected data on kilograms of solvent reclaimed and recycled, the unit cost of virgin solvent, the unit cost of reclaiming and recycling solvents, and the cost of water-based substitute solvents—information that was readily available but had never previously been collected for analysis. To measure the value of sustainable ranching practices, another team gathered data on factors including the reduced acreage needed, the change in the cost of renting land, the amount of beef sold before and after the introduction of sustainable practices, and the difference in price between conventional and sustainable beef.

**5. Calculate the overall monetary value.** As we’ve mentioned, each broad strategy is made up of many separate practices. By totaling the financial value created (or lost) by each of the practices in a strategy, you can identify which strategies generate the most value and where

you might want to focus resources. We collected data at one auto company on the impact of reducing VOC emissions, including by improving filtration systems and implementing the solvent reuse and substitution described above. To value the benefits resulting from production efficiencies, we multiplied the year-over-year reduction in the volume of solvents used by the average cost of virgin solvent; this translated to annual savings of \$72 million. Applying the same cost of virgin solvent to the amount of solvent reused revealed additional savings of \$8 million. And to gauge the value of using more-sustainable water-based solvents, we compared the unit cost of the substitutes to the unit cost of traditional virgin solvents and multiplied the difference by the quantity of substitutes used. The result was an additional \$10 million in savings, bringing the total to \$90 million.

Reducing VOC emissions also creates intangible benefits that have a financial impact. Consider regulations addressing pollution and employee safety, which can increase costs. The potential value of abiding by them can be estimated by tallying the annual average number of incidents over five years that resulted in VOC-related fines and multiplying that by the average size of fines. It's also possible to calculate year-over-year reductions in health and safety costs, such as VOC-related health and workers' compensation claims. These intangible benefits add another \$2 million in annual savings for our auto company, for a total of \$92 million.

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Finally, we estimated the total return on investment in these new VOC practices. For simplicity, we assumed a five-year time horizon, similar benefits achievable in each year, and the same recycling costs and level of capital investment required each year (totaling \$3.8 million annually). This gave us a net yearly benefit of \$88 million, or \$440 million over five years. Discounting that at a rate of 10% results in a five-year ROI of \$334 million.

Now let's return to our pharmaceutical company. For every 100 tons of product manufactured with the new green chemistry principles, we estimated savings of about \$1.5 million in production costs (\$943,000 in reduced energy and water consumption, \$364,000 in reduced waste generation and disposal, and \$240,000 in avoided carbon-emissions charges). And the company retained a larger-than-usual share of revenue in markets where it had lost exclusivity. In the year after loss of exclusivity, revenue from sales of the product in question typically decreases by 60%. In this case, in part because of the more-efficient and less-expensive production process (and in part because of a price reduction), the company retained 65% of its revenue from the previous year.

## **Engaging the CFO**

We've shown the power of ROSI in evaluating the returns on existing sustainability initiatives. But bringing the CFO fully onboard requires showing that *proposed* sustainability activities will meet the company's required ROI on a project.

A Canadian utility was considering whether to cut coal power generation from its portfolio before the government's deadline of 2030. The CSO asked us to work with her and the CFO on a ROSI analysis of making the shift sooner. We began by holding a two-day workshop with a cross-functional team to determine where to focus and to develop the relationships needed to flesh out the analysis. Through this we identified potential benefits (such as improved employee relations and a lower cost of debt and equity) and calculated their value using a mix of company data and assumptions built on the academic and industry literature.

The CFO found the analysis compelling enough to engage his team in tightening up the starting assumptions and the resulting performance projections. The expected reduction in the cost of debt and equity soon emerged as a major benefit, amounting to 3 million Canadian dollars annually. Along with the value of the expected 20% to 33% decline in greenhouse gas emissions and associated regulatory risks (particularly those related to forecasted carbon prices), this persuaded the CFO and the executive team to accelerate the transition away from coal. A key equity analyst cited their decision as the reason for increasing his estimate of the target stock price by 10%. Indeed, the company's stock rose immediately after the change was announced, in June of 2019, and for the remainder of the year it increased more than 50% faster than the rate of growth of the Dow Jones utility index. Impressed by ROSI's predictive power in evaluating its coal strategy, the company has since applied the tool to an analysis of future solar projects, concluding that the predicted returns warrant substantially lowering the hurdle rate.

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There are few limits to how your organization can use ROSI to better understand the returns on its sustainability investments and drive smarter decision-making. Particularly now, as companies scrutinize budgets threatened by the Covid-19 pandemic, ROSI analysis can help CFOs improve organizational finances through sustainability investments that create value for investors, employees, customers, and the world at large.

## TW

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## ED

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