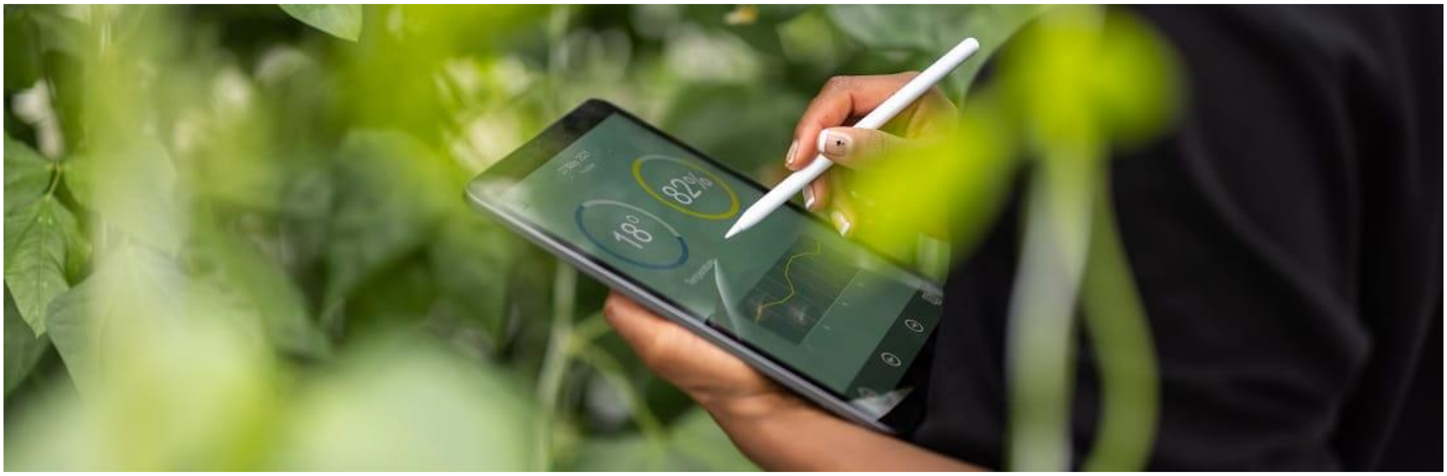

Companies' sustainability goals encourage efficiency

TECHNOLOGY & INNOVATION

Companies show that environmental business practices can be good for business.

Cultural pressures, market realities and an evolving view of climate-related risks have encouraged companies in every economic sector to make moves toward sustainability.

While the meaning and practice can take many shapes, sustainability is a conscientious approach to business processes and personal consumption that is mindful to the finite nature of natural resources. Perpetuity is its ideal. But contrary to popular belief, sustainability goes beyond “doing good” and takes root in “doing well” – for employees, shareholders, and customers. In fact, separated from environmental motives, the quest for sustainability often resembles innovation more broadly – in product efficiency, operational management, or delighting clients.

Here are some of the ways companies have made sustainability part of their business plans:

Zero waste factories

In 2002, the president of the Japanese conglomerate Fuji Heavy Industries announced zero waste as a companywide ideal – landfills would no longer backstop inefficient resource use in Fuji’s manufacturing facilities.

As part of this effort, the company’s Subaru automotive plant in Lafayette, Indiana, became an early and significant success story for sustainability, achieving its five-year goal in two years and sending nothing to a landfill since 2004.

As examples of some of the process changes, damaged polymer bumpers are ground into pieces and reintroduced to the molding process; protective packaging for shipping is reused; metal waste is separated and resold; even waste from the cafeteria is sent home with employees for use as compost. The small portion of materials that cannot be recycled, reused or removed from the manufacturing process is incinerated to generate energy for the plant. The continuing goal is to reduce that percentage of leftover materials even further, not just for the environment, but for lower overhead costs as well.

Other automakers have similar programs at many of their facilities, including Toyota and General Motors, as well as major technology firms, including Google and Microsoft, according to waste management and environmental consulting firm Rubicon.

Powering the information economy

Technology companies are among the highest energy users.

Data centers represent between 1% and 2% of global energy consumption, according to some industry sources, and tech companies stand among the largest global energy consumers. Data center consumption is expected to grow as more firms move computing power offsite to third-party cloud computing providers. But data centers also require high levels of reliability and redundancy. These demands, as well as the industry's high profile, incentivize sustainability as a guard against reputational risk and volatile energy prices. The largest tech firms increasingly invest in renewable and lower-carbon energy sources. Alphabet has committed to running its operations completely on carbon-free energy by 2030. Amazon and Microsoft have also made sustainability commitments – both companies announced notably large wind and solar power purchase agreements in 2022. Some companies are also looking at hydrogen as an option for replacing diesel-burning backup generators for their IT operations.

Computer hardware manufacturers also play an important part, with efficiency and waste heat management being high priorities for their industrial-scale clients. Fans and coolers consume nearly half the energy used in data centers, so reducing the need for their use drives energy costs downward. Computer hobbyists have long experimented with fully passive cooling hacks, which have informed new manufacturer developments, including a method that completely submerges computer components in a nonconductive liquid as part of an efficient heat exchange system, lowering energy consumption by up to 22%.

Tax efficiencies

State and federal tax incentives offer a carrot for companies interested in sustainable initiatives, a nudge on any cost-to-benefit analysis. Examples of these include incentives for more sustainable fleet operations, including a sizable benefit on the purchase of an electric vehicle or on each gallon of fuel powering biodiesel-powered vehicles. Commercial building upgrades – to HVAC systems, the building envelope and lighting, for example – are often eligible for certain tax breaks if they reduce energy usage, as are improvements such as on-location solar panels, hydrogen fuel cells or wind turbines.

Earning and benefiting from consumer trust

Supply-side efficiencies provide a compelling case for sustainability, but so too can the potential rewards on the demand side of the ledger. Consumers have shown loyalty and a willingness to pay a premium to brands that have a sustainability message, so long as the company walks the talk.

Seventh Generation – maker of environmentally friendly paper, hygiene and cleaning supplies – has built its sustainability messaging into its brand name since its 1988 founding. As it has grown into a nationally recognized brand, it maintained its credibility by putting its mission first, setting goals and selecting leaders who are willing to prioritize the company's ecological imperative. The company's success led to its acquisition by personal goods giant Unilever in 2016. Since then, Unilever has expanded Seventh Generation's sustainable best practices, spanning from concentrated laundry detergent, to plant-based baby products, to some of its larger product brands.

Patagonia, maker and seller of outdoor clothing and adventure gear, is another high-profile example of a company whose success derives from its sustainability commitment – though Patagonia adamantly avoids the term "sustainability," according to a 2021 essay by its director of environmental actions and initiatives. As a smaller maker of goods, the company's influence on the supply chain only goes so far, but it isn't giving up on its aspirational goals for carbon neutrality. Patagonia works to partner with other smaller companies to develop shared supply lines to reduce environmental impact without relying on purchasing carbon credits. From releasing Black Friday ads encouraging patrons, "DON'T buy this jacket" to reduce consumerism, to donating 1% of all profits to environmental agencies, Patagonia's success has been continually driven by a core value to "use business to protect nature."

Customers cite the company's commitment to environmentalism, innovation, and transparency as reasons to patronize Patagonia.

Sources: *U.S. Energy Information Administration; U.S. Internal Revenue Service; The Guardian; Bloomberg; Reuters; 3M, Data Center Knowledge; Rubicon Technologies; Forbes.com, Statista.com; Sciencedirect.com*