COMPUGEN
Innovate. Inspire. Impact.

The State of IT Sustainability

Going paperless doesn't necessarily equal achieving sustainability. The resources and devices that we use to conduct business activities and get work done digitally also have a significant impact on the planet.

The pandemic has accelerated the acquisition of electronic devices — spending for smartphones increased in 2021 after a decreasing trend since 2016. But recent events such as the 2021 United Nations climate change conference (COP26) have brought renewed attention to sustainability in everything from manufacturing practices to supply chain management.

Global technologies players are making strides:

- Samsung achieved the goal of meeting 100% of its energy needs from renewable sources at all operations in the US. (ITI, 2021)
- Apple achieved carbon neutral status across its global operations. (Apple, 2021)
- IBM gets 59.3% of its electricity from renewable sources, surpassing its goal of using 55% renewable energy by 2025. (ITI, 2021)
- HP plans to eliminate 75% of single-use plastic in its packaging by 2025. (HP, 2021)
- Microsoft aims to be carbon negative by 2030 and Amazon is driving toward net-zero carbon by 2040.

Over the next decade, the importance of IT sustainability is only going to grow. Companies that fail to act on this critical trend will do so at their own peril.

In this white paper, we'll discuss why sustainability is essential for business success, how to incorporate sustainability into your tech refresh strategy, and the top IT sustainability trends for 2022 and beyond.

THE NEW SUCCESS EQUATION: SUSTAINABILITY = PROFITABILITY

Today's CEOs have discovered that "sustainability" and "profitability" are synonymous. Not only is sustainability good for the planet, but it's also an essential element in a successful business strategy for attracting customers, employees, and investors.

In 2021, 65% of companies listed on the Dow 30, EURO STOXX 50, and FTSE 100 have set net-zero commitments. The number was up from 44% in 2020 and 20% in 2019. Meanwhile, the percentage of companies that leverage voluntary carbon offsetting to reduce their environmental footprints increased from 25% in 2020 to 36% in 2021.

Here's why sustainability is the new success formula for organizations of any size:

Sustainability Strengthens Brand Image and Attracts Customers

Even though sustainably manufactured products account for 16.1% of the consumer packaged goods (CPG) market, they were responsible for 54.7% of its growth between 2015 and 2019. As consumers become more conscious about their environmental impact, they demand brands to lower their carbon footprints — and they're voting with their wallets.

65% of consumers say they want to buy from purpose-driven brands that advocate sustainability, and 73% are willing to change their consumption habits to lessen their negative impact on the environment.

In particular, Millennials are willing to pay more for products that contain sustainable ingredients or have social responsibility claims. Committing to sustainable practices can help you gain market share by converting sustainability-minded customers.

Meanwhile, the global green technology and sustainability market size is projected to reach $74.64 billion by 2030, growing at a CAGR of 21.9% from 2021 to 2030. The growth of this market encourages innovation, helping companies adapt to market demands and drive revenue growth.
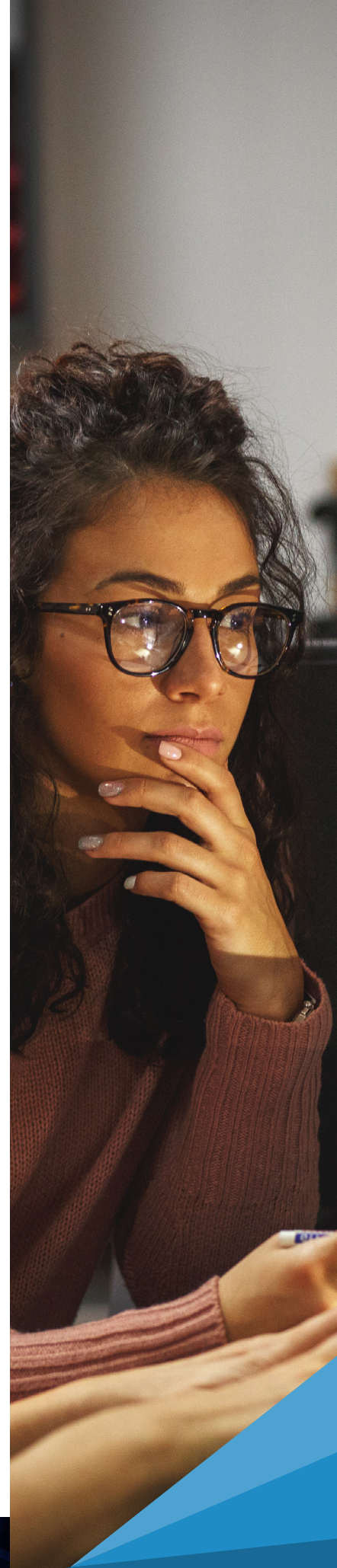
Sustainability and Purpose-Driven Culture Attracts Talent

In today's tight labor market, companies must invest in hiring and retaining talent. The good news is that sustainability isn't only good for sales — it also gives you a competitive advantage in attracting high-quality employees.

In particular, the younger generations want to be part of an organization with a sustainability platform. 44% of millennials and 49% of Gen Zs choose their career and employers based on their ethics, such as social and environmental responsibilities.

89% of executives believe that an organization with a shared purpose will achieve higher employee satisfaction. Meanwhile, 85% of employees say they're more likely to recommend a purpose-driven company to others.

Infusing your company's mission and operations with a sustainability vision can help you attract a motivated and skilled workforce, the foundation of financial success. Not to mention, employees who consider your company more than a place that provides a paycheck are more loyal and productive in the long run.

This is not a time for organizations to rest on their laurels. Creating a modern workspace will be key to the future of work. Integrating strategy with policy, technology with change management, and collaboration with employee engagement—the future of work is now.

Sustainability Drives Innovation and Attracts Investors

Sustainability drives innovation, which not only meets customer demand but also allows companies to adapt to fast-evolving market conditions (e.g., shifts in the supply chain.) It also helps organizations reduce their environmental footprints and stay ahead of regulatory compliance (e.g., emissions standards) that will become more stringent.

Meanwhile, investors are attracted to ESG (environmental, social, and governance) companies because they have lower volatility and are better protected from various risk factors. Return on sustainability investment (ROSI), a metric that evaluates the gains produced by corporate sustainability initiatives, is also gaining more attention.

Additionally, investors (especially the younger generations) want to support organizations that align with their values. For instance, 95% of Millennials consider sustainability when making their investment decisions.

A Sustainability Quick Win: Your IT Infrastructure

Most ESG and sustainability initiatives involve material sourcing, labor, supply chain, green energy, etc. These are all well and good and necessary, but it could take years of preparation and orchestration to realize their social and environmental impact.

In the meantime, any company in today's digital age can tackle one low-hanging fruit in its operation to reduce its carbon footprint. And that's its IT infrastructure.

Outdated equipment, from servers and laptops to smartphones and IoT devices, can lower employee productivity, increase energy usage, and hamper innovation that can lead to a more sustainable business model.

But the process of upgrading equipment isn't without its challenges. For example, batteries and plastics must be handled and recycled safely to minimize the environmental impact, while the proper procedure must be taken to ensure data security.

For example, CSI's Green4Good program helps corporations turn IT wastes into good causes. We have so far diverted 1,900,000 IT assets from landfills and supported over 225 charities through the proceeds of selling refurbished equipment.

Now you may wonder, how long should you hang onto IT equipment and workplace technology? Let's look at what you need to know about tech refresh cycles.

HOW LONG SHOULD I HOLD ONTO WORKPLACE TECHNOLOGY? THE 411 ON TECH REFRESH CYCLES

Using outdated IT equipment lowers productivity and impacts your environmental footprint because old technologies tend to be less energy efficient.

Refreshing your workplace technology systematically and strategically can help you lower operating costs, improve efficiency, and keep up with market demand while reducing your carbon footprint.

What Is a Tech Refresh Cycle?

A tech refresh strategy establishes a predictable cycle of updating components in your IT infrastructure to optimize performance and lower operating costs.

How Long Should a Tech Refresh Cycle Be?

Until recently, most organizations adhered to a four- to five-year cycle. However, the "if it ain't broke" mentality is no long a sustainable strategy for a number of reasons.

As companies leverage new technologies to accelerate digital transformation, meet customer expectations, and support a underline hybrid work IT environment, they recognize that long tech refresh cycles are costing time and money.

As such, tech-savvy and forward-thinking organizations are moving to a two- to three-year tech refresh cycle.

Why You Need a Tech Refresh Strategy

Here are the key drivers for tech refresh strategies and their benefits:

Improve User Experience and Increase Productivity
Two out of three employees say that outdated technology has the most significant impact on their productivity. Over 60% of employees using work-issued computers say that the devices have prevented them from getting work done, while 70% say they'd enjoy their job more if they had better equipment.

Lower Total Cost of Ownership (TCO)
The TCO of PCs goes beyond the cost of hardware. It has to cover installation, software, networking, communications, applications, maintenance, technical support, etc., which increase as a piece of equipment ages. Refreshing PCs every three years reduces TCO by 24% compared with hanging onto them longer.

Reduce Cybersecurity Risks

Over 10,000 new malware threats are discovered each hour. An old device is more susceptible to security incidents and runs a higher risk of malware infection. Moreover, software vendors and hardware manufacturers often stop supporting older versions of their products, which means you can no longer get security updates to protect against new vulnerabilities.

Improve Sustainability

Recycling legacy technology and giving devices a second life can reduce greenhouse gas emissions by 17% per laptop. A comprehensive tech refresh strategy ensures that e-wastes are properly treated while precious metals such as lead, lithium, nickel, cadmium, and copper are removed, recycled, and reused.

Attract and Retain Talents

64% of millennials would turn down a job from a company that doesn't invest in environmental and social initiatives. Not to mention, workers stuck with legacy technologies are 136% less productive, less satisfied with their job, and four times more likely to quit.

Key Considerations When Planning Your Tech Refresh Strategy

Good planning is the key to optimizing the ROI of your tech refresh strategy. Here's how:

- Take an accurate and complete inventory of your current technology. Create a database of all the equipment by serial number and keep track of existing software.
- Identify critical items and prioritize their refresh. These include outdated hardware and software that pose security risks.
- Consider asset recovery and buyback options to reduce the cost of your tech refresh plan. For example, committing IT assets to a second life can save you 20% on initial acquisition cost through CSI's FutureValue™ program.
- Ensure data security by partnering with a vendor that adheres to the highest standards, such as NIST 800-88, to thoroughly "sanitize" all disk drives to ensure that sensitive data won't fall into the wrong hands.

Streamline Your Tech Fresh Cycle with Green4Good

Orchestrating tech refresh involves many moving parts. Working with a trusted partner can help you lower the costs while maximizing the ROI of your strategy.

CSI's Green4Good program offers North American enterprises an effective way to solve end-of-first-life™ IT asset disposition challenges.

CSI conducts a receiving audit to confirm that the equipment received matches what was shipped to track all data-bearing assets. Then, disk drives are "sanitized" according to the NIST 800-88 standard to ensure data security.

Equipment is manually dissembled to remove all hazardous materials for special handling. The extracted metals are re-smelted and refined to yield raw materials for new products. Dust created during processing is captured and reprocessed for further metal recovery. Meanwhile, the air is filtered before being released into the atmosphere.

You can contribute the monies earned through this program to charities or use it to purchase new equipment. You can also earn carbon credits. The program helps you recycle your technology sooner, lower lifecycle costs, and reduce security risks.

Technology refresh, when done right, can be a win-win strategy that benefits your bottom line and the environment.

TOP 3 IT SUSTAINABILITY BUSINESS TRENDS FOR 2022

Sustainability is good for business. But it's such a big topic, so where should you begin?
Here are some key IT sustainability trends that can help you prioritize your efforts and get the highest ROSI.

1. IT Procurement and Post-Consumer Materials

More organizations have implemented policies on green procurement and established environmentally preferable purchasing programs for electronics.

The good news is that more manufacturers are incorporating post-consumer materials and other sustainability practices into their products, so it's easier than ever to procure equipment with a lower environmental footprint.

In 2007, Dell's Optiplex desktops were the first PCs made with recycled materials. Today, they contain up to 60% recycled content. In 2021, the company engineered its first Latitude PCs with tree-based bioplastic and bio-based rubber. Additionally, it makes 87% of its packaging materials from recycled or renewable content.

Meanwhile, HP created the world's first notebook using EPEAT-certified ocean-bound plastic. The company also made the most sustainable CarbonNeutral-certified home printing system that contains over 30% recycled content by weight of plastic. Moreover, the HP Pavilion range uses ocean-bound plastic, upcycling over 92k bottles annually.

When choosing IT equipment, look for devices that adhere to the EPEAT standard. These products meet environmental performance criteria that address material selection, greenhouse gas emissions reduction in the supply chain, design for circularity and product longevity, energy conservation, end-of-life management, and corporate performance.

Most OEMs provide the carbon information of their devices to show the greenhouse gas emissions associated with the manufacturing process (e.g., the extraction of resources, creation of components) and day-to-day device usage.

Procurement departments can use this data to select equipment that meets their business needs while maintaining a minimal environmental impact and lowering energy use requirements. For organizations that purchase tens of thousands of devices, this step can dramatically reduce the overall carbon footprint while creating significant cost savings.

2. Data Center Services

From powering servers to cooling facilities, data centers use up a lot of power. The rise of video streaming, AI applications, and virtual conferencing is also driving up energy consumption. In fact, data centers consume nearly 3% of the world's power production.

The good news is that traditional data centers have decreased energy usage by nearly 50% from 2015 to 2021 as more organizations recognize that green data centers are the key to reducing the environmental impact of IT. In one survey, 54% of respondents have a decommissioning and reuse policy for their facilities.

Shorter tech refresh cycles can help companies take advantage of power-usage improvements offered by new equipment. For example, 45% of companies in North America replace their servers every two to three years. In 2020, only 8% of companies kept their servers for more than six years.

However, decommissioning equipment comes with the challenge of increasing e-waste, which can be a major hurdle when moving toward a greener data center. That's why more companies are incorporating recycling into their strategies to facilitate a circular economy (more on that below.)

Meanwhile, modern data centers are moving toward disaggregated servers in which components and resources are divided up into subsystems. They can be updated individually without replacing the entire hardware. This replacement approach helps shorten refresh cycles, improve performance, lower energy usage, reduce CAPEX, and minimize e-waste.

3. A Circular Economy

E-waste is the fastest-growing component of the municipal waste stream in the United States. The circular economy reimagines IT asset management by incorporating sharing economy models, product-as-a-service, product use extension, resource recovery, and more. Here's an example of a closed-loop:

- **Sourcing:** Use innovative raw materials and products to reduce environmental impact, for example, by moving from traditional mining and extraction to using post-consumer or low-carbon materials.
- **Designing:** Create products with durability and reusability in mind by incorporating safe refurbishment and recycling capabilities from the start.
- **Manufacturing:** Implement waste and carbon reduction initiatives while repurposing materials, components, and packaging scraps for new devices.
- **Usage:** Choose devices with a smaller carbon footprint and higher energy efficiency. Ensure proper maintenance and application to extend the life of a device.
- **Life extension:** Partner with an IT asset disposal provider to refurbish and give second lives to devices by making them available to underserved communities.

Circularity Through CSI's FutureValue™ Program

Circularity should start at procurement. The FutureValue program leverages the circular economy principle to help companies lower upfront costs of new purchases. Businesses can save up to 20% on new equipment when they return the devices at the end of use to ensure that they get a second life. Besides discounts on new device purchases, businesses can redirect some of their trade-in revenue towards good causes through CSI's Green4Good program for sustainable asset disposition. Companies can inject the trade-in value back into their IT infrastructure or pay it forward to create positive social outcomes.

CONCLUSION

Sustainability is the new business success formula. It can help you strengthen your brand image while attracting more customers, talents, and investors.

IT sustainability will play a critical role in reducing your environmental footprint in today's digital business world. The good news is that you can take impactful action right away, no matter where you are in your sustainability journey.

Recycling IT equipment can be good for business and good for the environment.
When you partner with CSI's Green4Good program, you can rest assured that your data is secure while your equipment is put into good use.

Learn more about <u>Green4Good</u> and get in touch to augment your IT sustainability initiatives.