



The Role of the Circular Economy in Sustainable IT Procurement

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IDC Opinion

Organizations are making sustainability a top business priority, and they are correlating their performance on their sustainability goals with their brand reputation, improvements in operational efficiency, and costs. They see technology as an important enabler for sustainable transformation, with 83% of respondents to an IDC survey agreeing that sustainability is one of the most important criteria for IT buying decisions.

IDC conducted a study for Dell Technologies to explore organizations' awareness of the circular economy and how sustainability life-cycle principles impact their IT planning processes. In addition to a survey of 300 IT and business decision makers in the North America, Europe, and Asia/Pacific regions, IDC also interviewed four organizations to understand their successes and challenges in achieving their sustainability goals. This white paper shares the results of the IDC research, analyzes trends driving sustainability, and explores how enterprises are incorporating circular principles into their sustainability planning goals.

While sustainability is important to most organizations and many have committed to milestones to achieve these goals, IDC's data uncovers the key findings that can help organizations implement a more sustainable IT procurement strategy:

- **Obtain global support for responsible and environmentally conscious practices.** IDC encourages enterprises and governments to name sustainability leaders to C-suites and include sustainability progress on their agendas to underscore the importance of these initiatives.
- **Vendor trust is paramount.** Reputation matters, and IT leaders are relying on their vendor partners to help with knowledge transfer and guidance for their sustainability endeavors. Organizations are also looking at an IT vendor's/supplier's own sustainability achievements and strategy as an evaluation criterion and to evaluate if they share like-minded goals and objectives.

- **IDC found that 79% of respondents globally across different functions and industries ranked sustainability as “important” regarding the planning and procurement decisions for IT equipment in their organization.** Respondents already correlate the IT equipment decisions with sustainability impacts, and the majority have already built these factors into their procurement processes.
- **Sustainability needs to cover the entire life cycle.** The vendor selection process is tied to goals of building a sustainable equipment life cycle from design and material selection to energy intensity in the use phase and end-of-life disposal and recycling. Concerns about power usage and carbon emissions are also top of mind, but most need help establishing the best metrics for comparison as well as credibility to protect against the rising scrutiny associated with environmental claims (i.e., greenwashing).
- **Choosing products that use sustainable materials is viewed as important.** Organizations rely on vendors to vet all materials to guarantee equipment reliability and quality. For most IT decision makers (ITDMs), the most important topic around materials is that the equipment works as promised. They trust the vendor to pick the most reliable sustainable materials to create equipment that delivers on quality expectations.
- **There are different regional viewpoints to consider.** For global organizations, it’s important to get feedback from all stakeholders to build out sustainability policies. Drivers and concerns vary based on location:
 - **EMEA:** The focus is on net-zero carbon emissions and reduction of power consumption.
 - **North America:** IT buyers say they primarily work with suppliers and partners that have shared sustainability goals and preference for renewables like bamboo and bio-based materials.
 - **APAC region:** Respondents indicated their sustainability-related buying decisions for IT equipment focus primarily on packaging and reducing plastics.

Methodology

This white paper is based on IT end-user insights that IDC collected in 2021 and 2022. This research included a large, global IT buyer survey sponsored by Dell Technologies with responses from 300 IT and line-of-business (LOB) decision makers in the North America, Europe, and Asia/Pacific (APAC) regions, as well as qualitative in-depth interviews (IDIs) with several IT and business decision makers focused on their perception of the importance of circular economy principles and materials used in IT equipment, buying decision-making criteria, and perceptions of IT vendors.

Overview of Respondents

- **IT decision makers:** IT infrastructure and operations roles are key decision makers or part of the decision team regarding sustainability efforts (e.g., circularity, equipment selection, product design, and life-cycle management) in their organization or part of the team that drives sustainability initiatives for their organization.
- **Line-of-business decision makers:** Within this survey, line-of-business respondents are defined as non-IT roles who are aware of their organization's sustainability efforts and have knowledge of whether their goals/KPIs are tied to corporate efficiency/sustainability objectives. Common line-of-business roles would include marketing, communications, corporate strategy, and product development. They are not involved in the IT equipment selection process.

In This White Paper

This white paper discusses the importance of circular economy principles for buying decisions in the IT equipment space. As sustainability-related considerations are increasingly determining the vendor perception and decision making of IT buyers, IDC provides insights into what is driving those perceptions and buying decisions, how mature IT buyers are in terms of their understanding of the importance of environmental factors related to the overall value that IT products provide, and differences between different business lines and geographies.

Situation Overview

The Growing Importance of ESG for IT Buyers

According to recent IDC surveys, environmental, social, and governance (ESG) factors are perceived as important value drivers for organizations worldwide. In 2021, 74% of global corporate sustainability decision makers said that ESG factors are “very important” for the enterprise value of their company (source: IDC’s *ESG Business Services Survey, 2021*). IDC data also shows that the circular economy and other ESG-related value chain and product life-cycle issues are top sustainability priorities for decision makers, given their complexity and impact on IT buyers’ own sustainability performance.

The importance of sustainability as a top business priority is driven by the increased attention that these issues are getting from a variety of stakeholders, including investors, governments and regulators, customers and consumers, and employees. Organizations already correlate sustainability goals with their brand reputation, but also with improvements in operational efficiency and costs, improving employee experience, attracting talented Gen Z and millennial employees, and overall employee retention by demonstrating sustainability milestones and goals. Unlike in the past, when corporate sustainability efforts were mostly focused on “doing good” and were seen as a cost to the business, the key factors shaping organizations’ sustainability goals today are primarily driven by looking at the upside that sustainable operations and products can provide, as a way for companies to “drive positive business and societal impact.”

Business Drivers for Sustainability

Organizations have many reasons to pursue sustainability initiatives that go beyond a concern for the environment (see **Figure 1**, next page). Among the many business drivers are the following benefits:

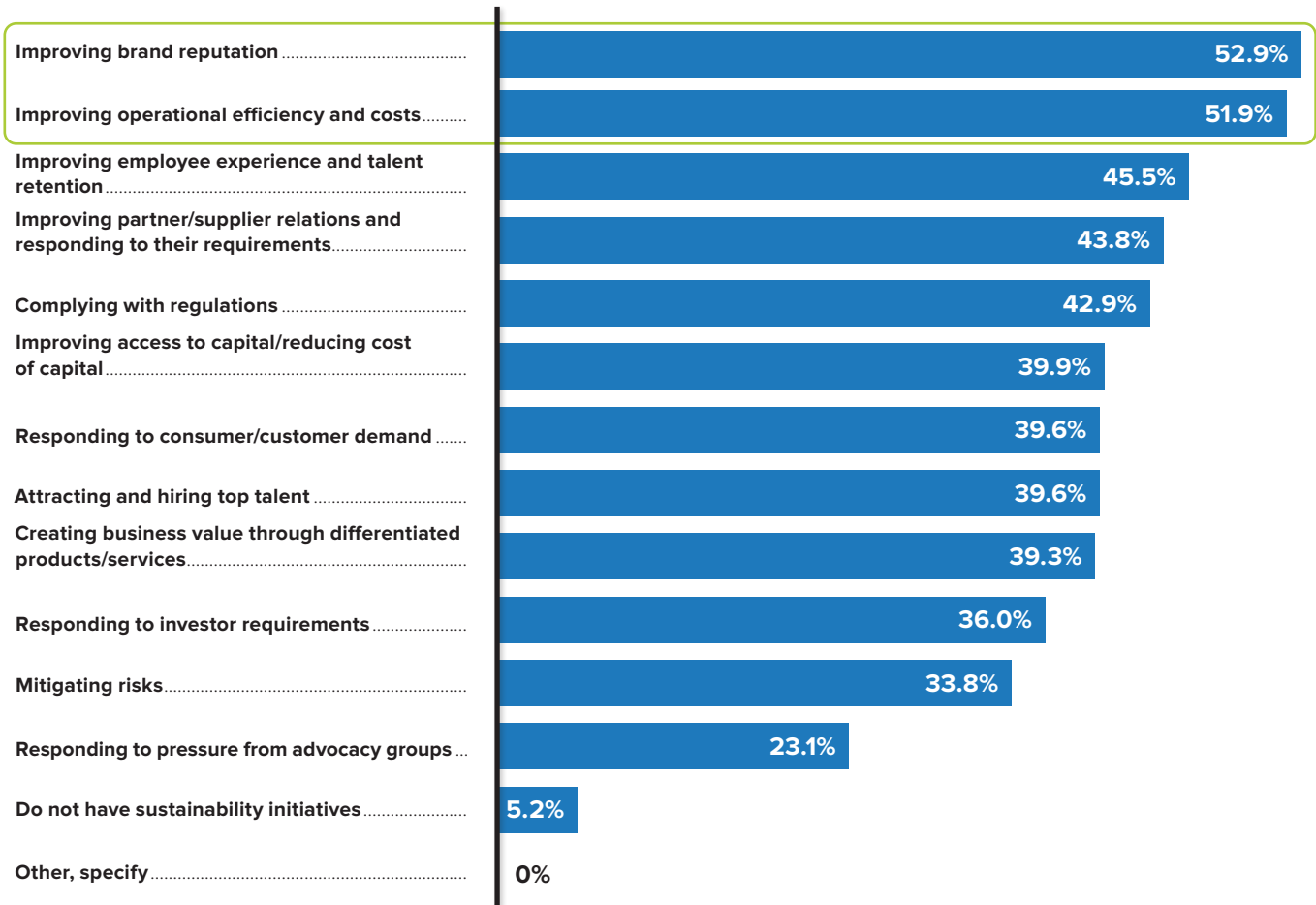
- **Improved operational efficiency and costs:** Strategic approaches to ESG help organizations use resources more efficiently.
- **Improved brand reputation:** Organizations with a differentiated, sustainability-centered value proposition can establish brand leadership and competitive advantage.

- **Responding to customer demand:** Customers and consumers are making more deliberate buying decisions, which may upend traditional behaviors but also provides a potential competitive advantage if approached proactively.
- **Hiring/retaining top talent and improving employee experience:** Talent attraction and retention are key contributors to an organization’s ability to remain innovative and competitive, and employees are increasingly making their decisions to work for an employer based on its culture, values, and commitment to environmental and social sustainability goals.

FIGURE 1
Top Drivers of Sustainability Initiatives

(% of respondents)

Q: What are the most important factors driving your organization’s sustainability initiatives?



n = 300, Source: IDC's Dell Circular Economy Survey, December 2021

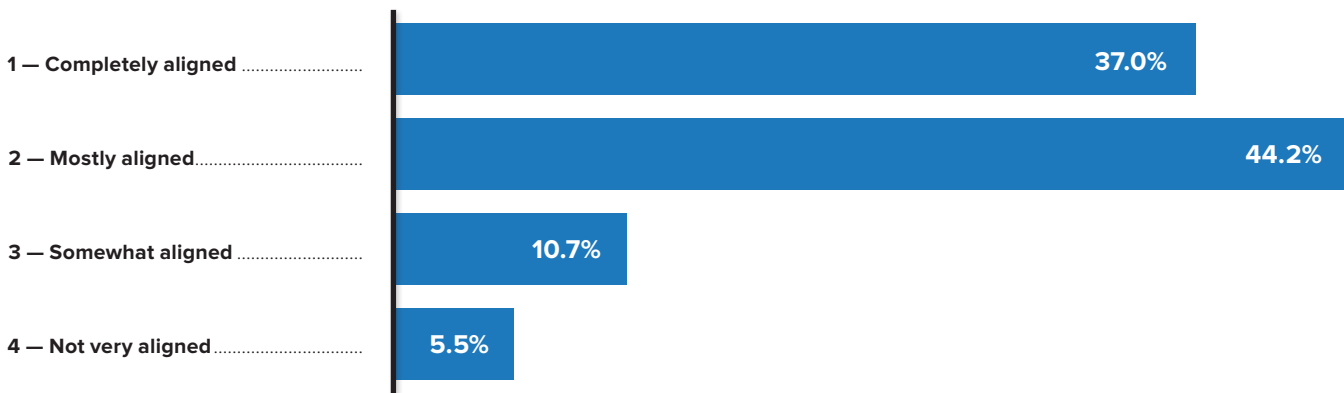
Sustainability Shapes Procurement Decisions

When it comes to procurement, IT buyers need to make deliberate decisions in terms of factoring nonfinancial value drivers into their IT planning and purchasing and approach sustainability with a strategic business mindset. IDC asked respondents to assess their current levels of improvements in business value due to implementing sustainability into their operations, and 51% said they have achieved improvements in operational efficiency and financial returns. This response shows that the right technology can generate a positive ROI, financially and non-financially (ESG-related).

When asking decision makers about sustainability-related IT purchases, IDC found that 79% of respondents worldwide across different functions and industries ranked sustainability as “important” regarding the planning and procurement decisions for IT equipment in their organization. This demonstrates that respondents already correlate IT equipment decisions with sustainability impacts and that the majority have already built these factors into their procurement processes. In addition, 81% of respondents expected an alignment of their sustainability strategy with the IT planning and procurement processes within the next two years (see **Figure 2**). This is an increase from the 73% of respondents who believed they are currently aligned or almost aligned today.

FIGURE 2
Strategy Alignment: Sustainability Versus IT Planning and Procurement
 (% of respondents)

Q: How aligned will your organization’s sustainability strategy be with IT planning and procurement strategies two years from now?



n = 300, Source: IDC’s *Dell Circular Economy Survey*, December 2021

A large global financial services firm said that establishing guidelines and deadlines and building a decision-making framework ensures that all stakeholders are on the same path. This financial services firm shared the following observations:

- The roles of procurement, IT, and sustainability must ensure that the right information and weightings are available in purchase decisions.
- Sustainability should be added along with cost, quality, and other existing considerations.

Overall, sustainability is perceived as a critical selection criterion and investment area. However, the survey showed that gaps exist when considering the strategic importance of sustainability and in some of the phases of execution and differences in priorities among line-of-business and IT decision makers.

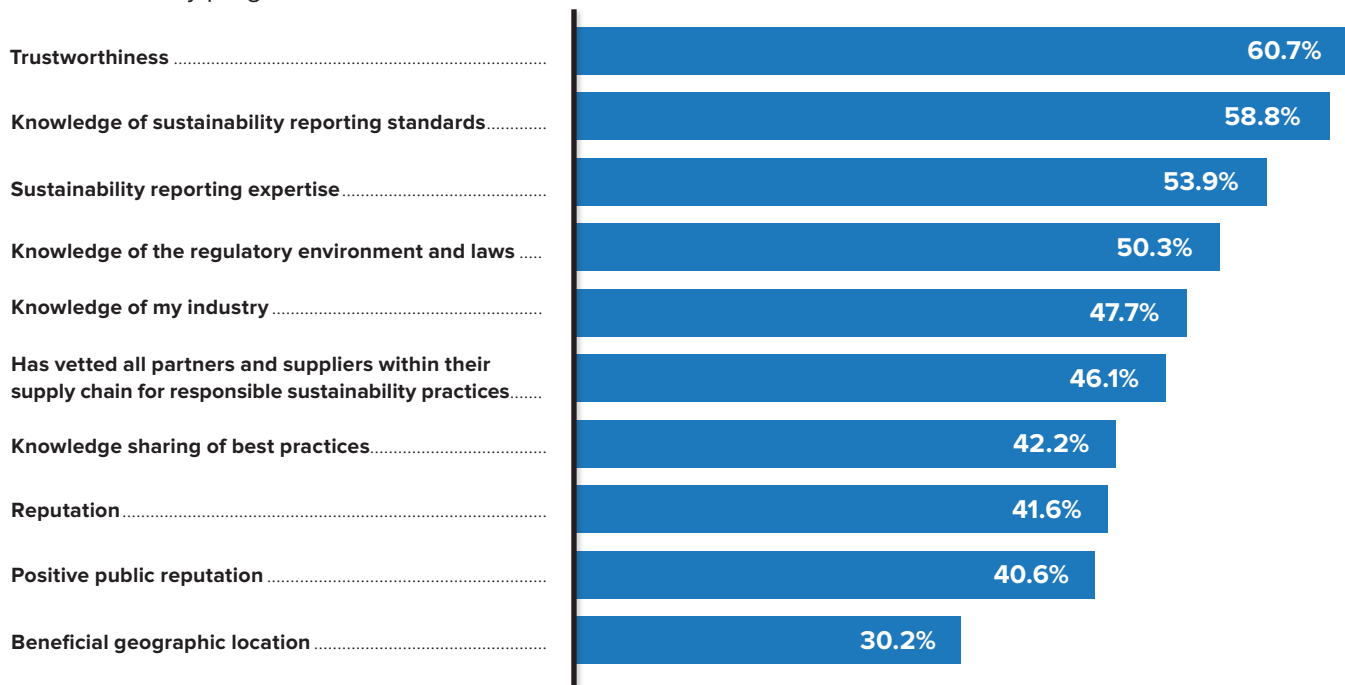
“Technology plays a crucial role in helping us reduce our emissions, so [there is] thinking particularly for us around digitization and automation of processes to drive operational efficiency and in sustainable ways.”
— *Global head of sustainable operations, global financial services company*

Future Outlook

Worldwide support for responsible and environmentally conscious practices encourages enterprises and governments to name sustainability leaders to C-suites and include sustainability progress on their agendas. IDC views the investment in sustainability leaders and initiatives as a major trend that will continue to gather momentum in the coming years. Most IT leaders are focused on improving their sustainability metrics and developing comprehensive strategies that focus on improving the usage metrics of infrastructure investments. The first step for IT decision makers is the selection of their vendor partner on this journey, and the data in **Figure 3** provides an overview of the top attributes that IT leaders are using to inform their selection process.

FIGURE 3
Top 5 Vendor Evaluation Attributes
 (% of respondents)

Q: Please identify the five most important attributes when evaluating whether a technology vendor has a credible sustainability program.



n = 300, Source: IDC's *Dell Circular Economy Survey*, December 2021

Clearly, the top criteria are related to trust and knowledge of all aspects of sustainability, from reporting to the current laws and regulations. Reputation matters, and IT leaders are relying on vendor partners that can help with knowledge transfer and guidance for their sustainability efforts.

Another survey finding was that IT organizations are also looking at a vendor's/supplier's own sustainability achievements and plans as an evaluation criterion. Organizations indicated that they would increase spending with vendors that are like-minded about environmental issues. Yet how are organizations evaluating vendors? What are the metrics they use to determine that vendors are like-minded in this area?

Most organizations surveyed are doing their own research. The sources they turn to vary, but the three most common are publications from standards boards, online research, and vendor briefings. It was also important to respondents that they understand a vendor's transformation story and how these changes shaped their own goals. Asked specifically to identify the most important evaluation criteria for selecting vendors, respondents cited the following:

- Positive vendor perception based on its own sustainability transformation efforts
- Overall sustainability ratings across an entire portfolio of IT equipment products
- The vendor's understanding of ESG reporting standards and procedures

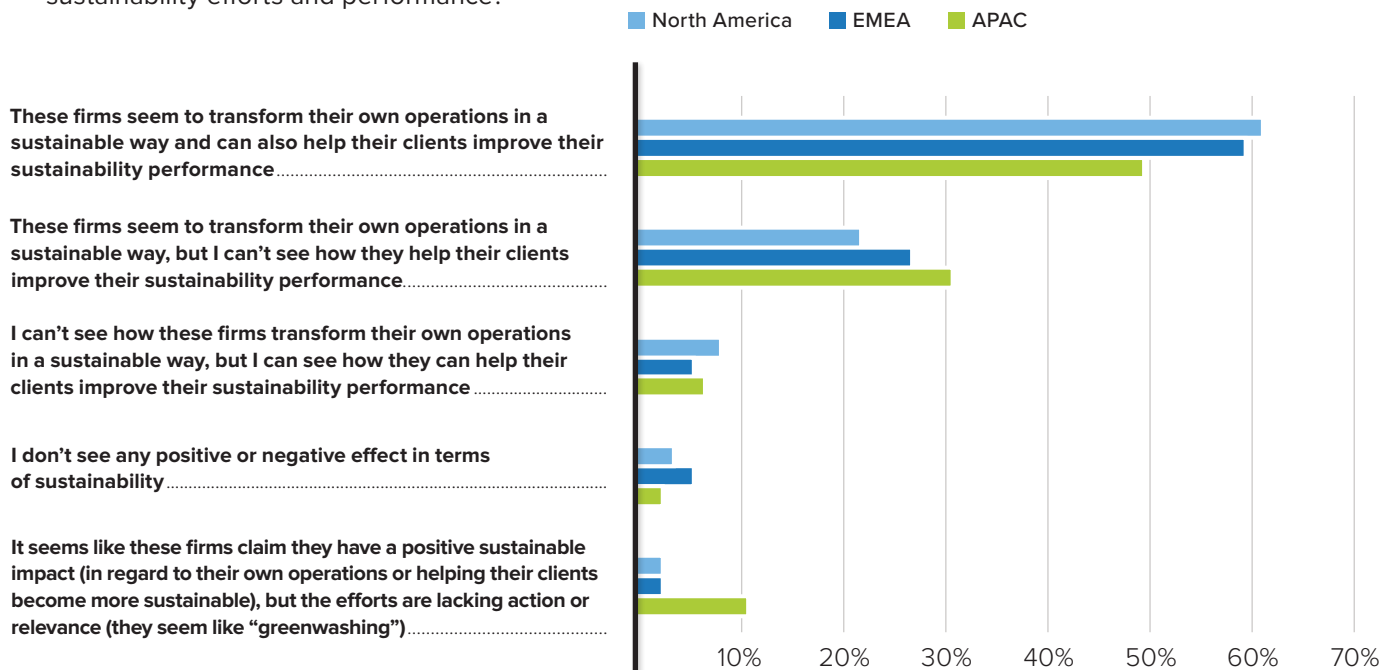
Organizations are also looking at an IT vendor's/supplier's own sustainability journey as an evaluation criterion to evaluate if they share like-minded goals and objectives. As part of the survey, we provided respondents with a list of the top IT vendors and asked them about their perception of the vendors' sustainability strategies.

Figure 4 (next page) shows the results for this question by region.

FIGURE 4
Perception of Top IT Vendors’ Sustainability Strategies

(% of respondents)

Q: Based on your knowledge of these vendors, which of the following statements best describes their sustainability efforts and performance?



n = 300, Source: IDC's Dell Circular Economy Survey, December 2021

These sustainability strategies not only determine an organization’s vendor partner; 70% of respondents are also very likely/somewhat likely to spend more with vendors that meet and will help organizations achieve sustainability goals. Organizations view this as a critical alliance that will ensure that sustainability goals are achieved. As one of the IT leaders we interviewed explained: “We see growing collaboration with our supply base on this topic — we want to work together to meet these goals.”

Planning and Establishing Standards

Most IT organizations have established design standards that align with the corporate goals often driven by the CTO and IT planning functions. The next step after standards is building consensus within the entire organization and sharing all metrics and targets; this collaboration is critical to meeting sustainability goals. Building consensus is an important first step, and while most are on the path to this enterprise-wide integration, there is still work to be done.

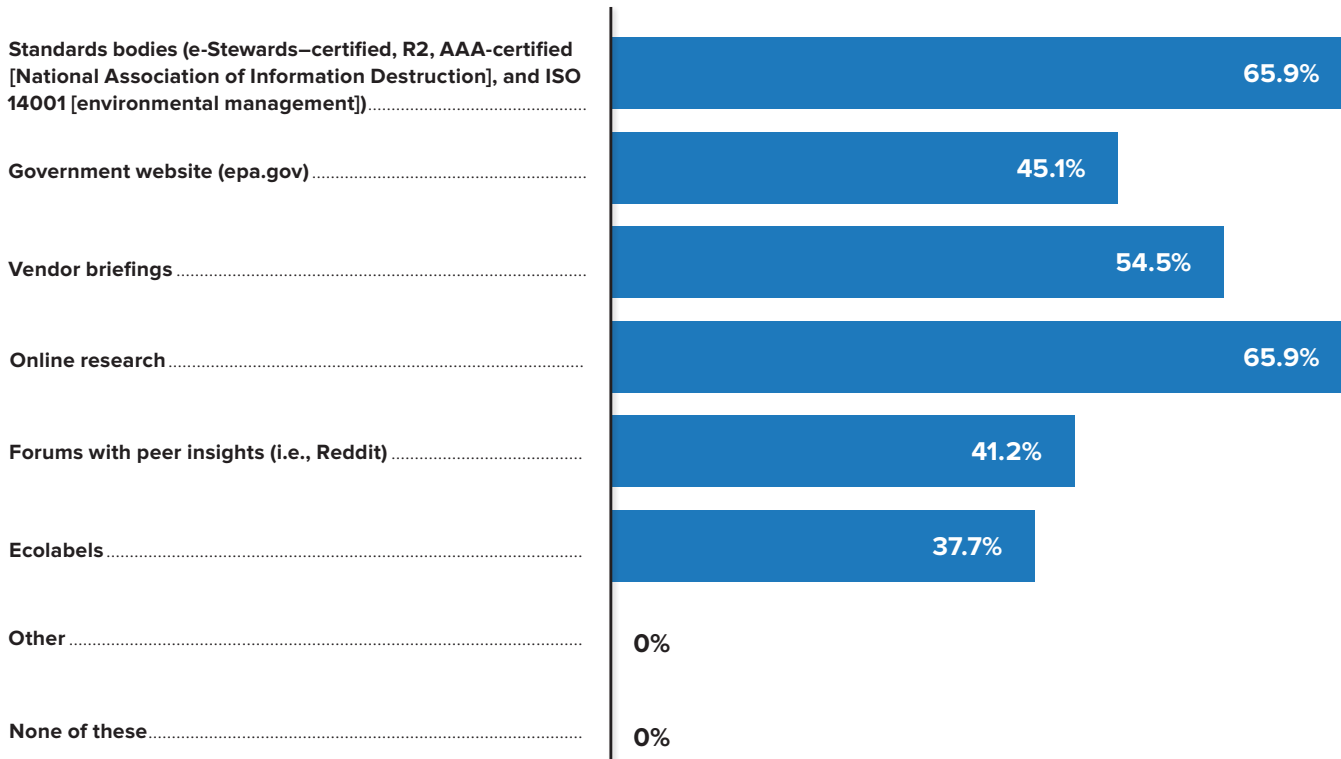
Comparing Vendors and Metrics Remains a Challenge

As we enter the next phase of sustainability market awareness and progress, organizations are still grappling with the evaluation and reporting phase of sustainability. Many of these challenges center around the lack of common metrics to evaluate different suppliers and the lack of transparency from their vendors and partners about all phases of the equipment life cycle. Currently, ITDMs are relying on a combination of standards bodies, government websites, vendor briefings, and their own research (see **Figure 5**). One of the common discussion topics was that the lack of a clear standard for evaluation was a challenge for ITDMs, and they need an accepted industry standard to streamline the assessment process.

FIGURE 5
Standards Boards and Research Common Sources

(% of respondents)

Q: What sources do you use to research the different types of sustainable materials (recycled, renewable, low-carbon, reclaimed) and their relative strengths and weaknesses?



n = 300, Source: IDC's Dell Circular Economy Survey, December 2021

In an interview with the IT sustainability lead at a large credit-card processing firm, concerns were voiced around evaluating and selecting a vendor partner with like-minded sustainability goals; because relevant evaluation tools are still unavailable, the firm has established a baseline for the vendor evaluation process. The top criteria often revolve around:

- Low carbon: Details about design plans to reduce carbon emission levels
- Power usage: Servers and storage performance per watt
- Packaging that is 100% recyclable

The lack of accepted industry standards for comparison and risk prevention is an area of concern for organizations, but it's also clear that these metrics are fundamental to building out a sustainability strategy. The issue of accepted standards is an area that will require significant intervention from government and industry leaders to establish common evaluation metrics.

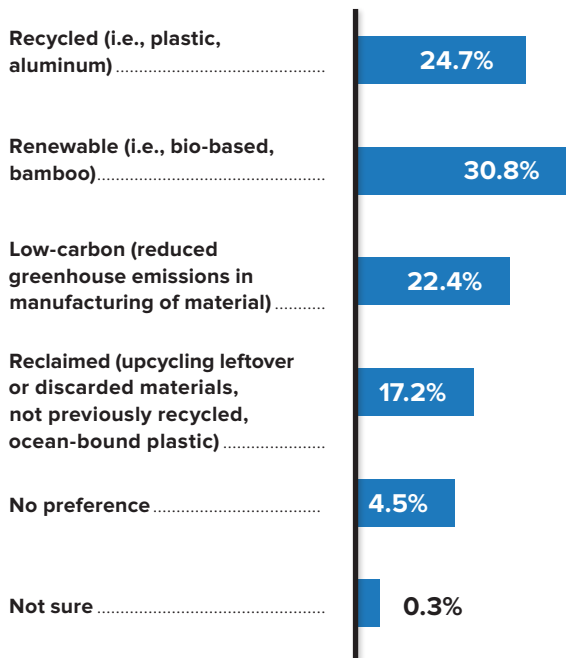
Review of Sustainable Materials

Preferences regarding more sustainable materials revealed that renewables (e.g., bio-based, bamboo) were furthest up on the list impacting IT purchasing decisions. Recycled and low-carbon materials that emitted fewer greenhouse gases in the manufacturing process also featured in the top 3 rankings (see **Figure 6**).

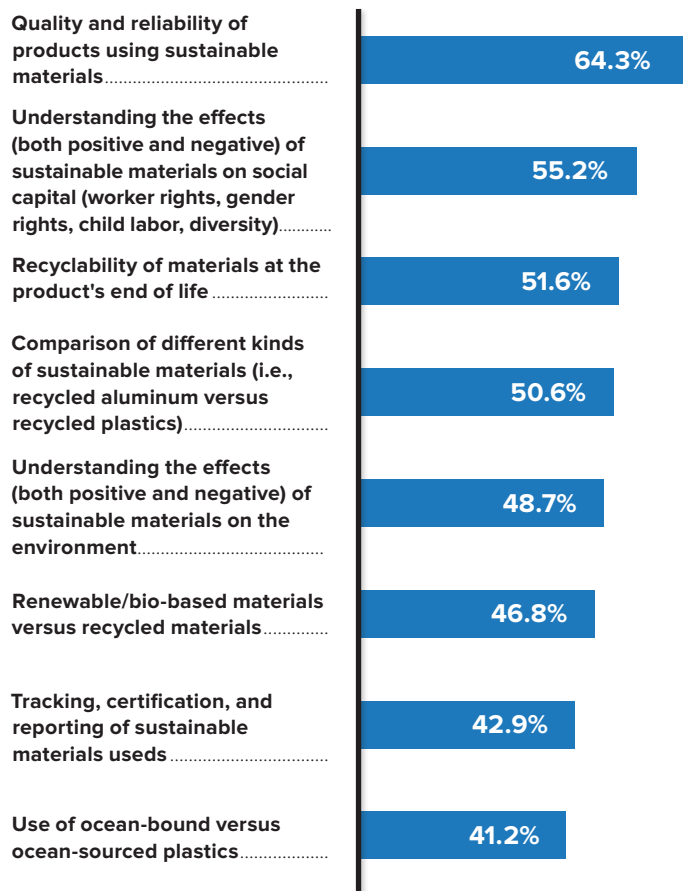
FIGURE 6
Sustainable Material Preferences

(% of respondents)

Q: What type of sustainable material do you most prefer to have used in IT equipment purchases?



Q: What topics around the sustainable materials are you most interested in learning more about?



n = 300, Source: IDC's *Dell Circular Economy Survey*, December 2021

Secure End-of-Life IT Asset Decommissioning and Circular Economy

Secure asset decommissioning and disposal is another important topic for most of the organizations we interviewed. IDC research reveals that most organizations are focused on scrutinizing end-of-life disposal services and ensuring that all practices meet regulatory requirements to reduce the risk of financial penalties.

Specifically, they need more visibility about:

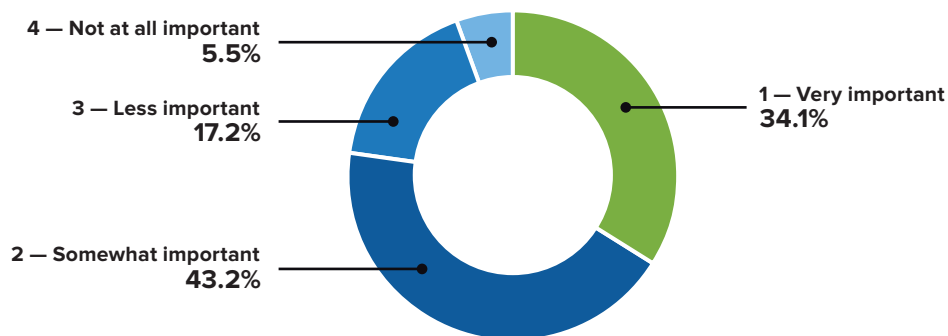
- Recyclability, reuse, and end-of-life materials breakdown
- Granularity around IT asset disposition (ITAD) — certain certifications and standards are presented
- Alignment to carbon accounting standards and Scope 3 emissions credits associated with reuse

When asked specifically about the importance of recycled content and overall recyclability, 77% of respondents viewed this as very or somewhat important to their decision-making process. IDC notes that buyers want more from their vendors than just perception, ratings, and understanding: Vendors are expected to pursue initiatives to reduce ewaste and toxins and improve overall IT equipment design. Among respondents, the quality and reliability of the IT equipment are top concerns. Awareness of the materials used is of interest, but more important factors are reducing ewaste and toxins and secure end-of-life disposal procedures. Organizations will select a vendor to support sustainability initiatives that they trust is building a sustainable equipment life cycle from materials to end of life (see **Figure 7**).

“I think as we continue to develop, going for that circular-economy approach of closed-loop materials I think is important, as well as equipment buyback programs. I think that is that next evolution.”
— Director of IT sustainability, multinational financial services company

FIGURE 7
Sustainable Equipment Life-Cycle Importance Ratings
 (% of respondents)

Q: If a product is made from recycled content, how important is it to you that it is also recyclable at the product’s end of life?



n = 300, Source: IDC’s Dell Circular Economy Survey, December 2021

Considering Dell Technologies

Dell Technologies has been committed to sustainability for decades, with a focus on taking action on climate change and accelerating the circular economy.

Its focus on sustainable design takes into consideration every stage in the product life cycle: extending the life of its products and materials, reducing the energy intensity of products, and ensuring responsible recovery, reuse, and recycling at end of life.

This not only reduces emissions and waste for the planet but also helps its customers reduce their own IT carbon footprint. Beyond products, Dell Technologies is evolving services to increase takeback of out-of-use or legacy IT equipment and offering as-a-service and subscription solutions to drive positive business and societal impacts at scale.

Challenges

Organizations have embraced sustainability. Over the past few years, many of the previous challenges such as lack of budgets and C-suite representation to lead progress toward sustainability have been largely reduced. However, for IT buyers, internal and external challenges remain. Some of the most critical are:

- **Lack of common metrics and measurements for supplier comparisons:** There is a lack of common metrics to evaluate different suppliers, and more transparency is needed from vendors and partners about all phases of the equipment life cycle. Currently, ITDMs are relying on a combination of standards bodies, government websites, vendor briefings, and their own research. There is also a lack of metrics and tools to help with vendor assessments and comparisons. It was clear from both the survey and the interviews that this remains an area of frustration for IT buyers, because without accuracy and transparency about materials, end-of-life disposal, and ewaste details, corporate sustainability goals can be jeopardized.
- **A disconnect between business and IT goals:** Alignment between different functions is necessary for organizations to be able to execute on their sustainability business strategy. Fragmented approaches can lead to misinformed IT investment efforts and insufficient ESG reporting. IDC's survey data shows that both IT and LOB decision makers felt that their organizations lack clearly defined requirements

for the use of sustainable materials in IT equipment purchases (only 20% said that their organizations' requirements are "very well defined"), but there was a notable difference between the IT and business functions: 28% of respondents in an IT function said their organizations' requirements are "very well defined" while only 12% of LOB decision makers shared that sentiment.

- **A need for IT decision makers to understand the strategic importance of procurement decisions:** While IT professionals seem to have a good understanding of their organizations' requirements, they also need to be aware of the contribution that their buying decisions make in establishing the overall sustainability business strategy and the role that technology and IT equipment play in that context beyond material usage.
- **Help needed for organizations to meet objectives:** Most organizations already correlate sustainability goals with their brand reputation, improvements in operational efficiency, and costs. But they also need to consider the organizational implications, for example, regarding the employee experience and retention by demonstrating sustainability milestones and goals.

Opportunities

Organizations are focused on reaching their sustainability goals, and most are engaging with their IT vendors to help them navigate this next phase of adoption. For IT buyers, clear and concise metrics about all aspects of equipment usage will be required to improve their reporting standards. IDC believes the need for metrics represents an excellent opportunity for the industry to help and support their customers' initiatives in the area of sustainability. Our research uncovered some top priorities for organizations as they focus on reaching the next milestones in their journey:

- Industry consensus is required on evaluation tools (like Energy Star ratings for PCs and servers). IT leaders want an industry-wide evaluation tool and metric that is used by all organizations for comparison. More metrics and established benchmarks are needed to vet and compare vendor/supplier claims.
- There is a need for sustainability ratings through the entire product portfolio of IT equipment products beyond monitors and PCs.
- Transparency is critical for all equipment recycling, decommissioning, and end-of-life breakdown of all processes to ewaste.

Conclusion

IDC predicts that by 2024, 75% of G2000 digital infrastructure requests for proposals will require vendors to prove progress on ESG and sustainability initiatives with data, as CIOs rely on infrastructure vendors to help meet ESG goals.

Overall, sustainability is perceived as a critical selection criterion and investment area, with direct ties to business outcomes. Organizations already correlate sustainability goals with their brand reputation, improvements in operational efficiency, and costs. In addition, the success of a well-executed sustainability road map is expected to improve the employee experience and retention by demonstrating an overall concern for the environment. This is a topic that has significant implications for organizations with external and internal pressures to meet objectives.

However, there are some gaps regarding the general importance of sustainability and parts of the execution — for example, the importance of end-of-life recyclability and perception/priorities among line-of-business and IT decision makers. IDC sees an increasing distribution of responsibilities across functions but also varying maturity levels across industries and geographies. Therefore, IT vendors need to put their sustainability-related value proposition in the context of buyers' sustainability transformation efforts while addressing the various internal and external stakeholders that will hold them responsible. Overwhelmingly, the key lesson learned from the survey and interviews is that organizations need help and are relying on their vendor partners to help them achieve these goals. Organizations will select a vendor that they trust is building a sustainable equipment life cycle from design to asset retirement.

Definitions

- **Circular economy:** The “circular economy” concept as outlined by the Ellen MacArthur Foundation asks us to redefine waste as a resource for another process. It is a systems solution framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution. It is based on three principles driven by design: eliminate waste and pollution, circulate products and materials (at their highest value), and regenerate nature.
- **Recycled:** This involves transforming a product or component into its basic materials or substances and reprocessing them into new materials.
- **Renewable materials:** These are materials that are continually replenished at a rate equal to or greater than the rate of depletion.

About the Analysts

**Susan G. Middleton****Research Vice President, Flexible Consumption and Financing Strategies for IT Infrastructure, IDC**

Susan Middleton leads IDC's worldwide research on IT equipment, software, and services financing markets. As research vice president for IDC's Flexible Consumption and Financing Strategies for IT Infrastructure research, her analysis provides insight from both a supply-side and a buyers' point of view. Susan's core research coverage includes the evolution of procurement models from purchasing, leasing, and financing to the new as-a-service models, also known as flexible consumption. Based on her analysis and expertise on procurement strategies and IT equipment lifecycles, Susan's research helps vendors and buyers understand the top drivers of the new flexible consumption models and the impact of these new buying behaviors on long-term IT equipment values and forecasts.

[More about Susan G. Middleton](#)

**Bjoern Stengel****Global Sustainability Research and Practice Lead, Sustainable Strategies and Technologies, IDC**

Bjoern Stengel is IDC's global sustainability research lead. His research focuses on how environmental, social, and governance (ESG) topics impact and shape business strategies and technology usage. He provides insights into market opportunities, adoption strategies, and use cases for sustainability-related technologies and services. Bjoern helps IDC's clients understand the impact of technology-enabled, sustainable transformation processes in the context of sustainable business strategies, operations, and products and services through research reports, news publications, and speaking engagements at industry events such as Climate Week NYC. Bjoern also supports IDC's Worldwide Business Consulting and Environmental, Social, and Governance (ESG) Business Services research.

[More about Bjoern Stengel](#)

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