

Gartner Research

# Respond to Three Sustainability Trends to Shape Your Competitive Strategy

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1 October 2021

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## Respond to 3 Sustainability Trends to Shape Your 2021 Competitive Strategy

Published 1 October 2021

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Enterprises are increasingly focusing on sustainability within the value chain. Executive leaders can use this research to assess and respond to three 2021 sustainability trends to gain a competitive advantage.

### Overview

#### Key Findings

- Shifting stakeholder expectations for greenhouse gas (GHG) emissions reduction are increasing the pressure on executive leaders to take action in the enterprise and value chain.
- Use of finite natural resources continues to increase in line with consumer demand and population growth, coupled with an uncertain trading landscape, and environmental impacts from extraction, driving executive leaders to explore circular economy material flows.
- The economy is built on ecosystems and biodiversity. Ecosystem services from pollination, land quality and provision of clean water are being eroded through overexploitation of natural capital.

#### Recommendations

In response to these three trends, executive leaders focused on sustainability strategy, leadership and governance should:

- Maintain alignment with shifting stakeholder expectations by prioritizing emissions management and taking both mitigative and adaptive actions to reduce GHG emissions, and creating a sustainable strategy.

- Accelerate the shift to the circular economy by designing a circular economy strategy that considers the full product life cycle from raw material selection and product design to end-of-life management. Assess how new business models, such as product as a service, can expedite the shift to circular economy activities while driving long-term growth.
- Identify the risks associated with the loss of biodiversity and habitat degradation by establishing a system for regular assessment of ecosystem services.

## Introduction

Organizations face multiple challenges with regard to environmental stewardship. Historic approaches to sustainability have focused on the organization's operational control and concepts like the triple bottom line of profit, people and planet. However, these approaches have not been sufficient to limit the growth in GHG and the loss of resources and biodiversity.





However, executive leaders responsible for shaping the organization's sustainability strategy need to put in place governance and resources to track all of these trends in the context of impact on their operations and broader remit. Additionally, they must focus on the following three key trends (see Figure 1) to set or advance the organization's strategic ambition for sustainability:

- **Greenhouse gas emissions management:** The Task Force on Climate Related Financial Disclosures (TCFD), consisting of 31 members across the G20, is lobbying for increased transparency of risks and opportunities created by climate change through climate-related financial information. This will allow the financial markets to price climate-related risks and opportunities, facilitating a transition to a low-carbon economy. <sup>1</sup>
- **Resource accessibility:** Short-term constraints in trade and medium-term concerns about primary resource availability highlight the need to look for alternative options to increase security of supply. Our research shows that 51% of supply chain professionals expect the emphasis on the circular economy to increase in the next two years, following the COVID-19 pandemic. <sup>2</sup>

- **Biodiversity and ecosystem impacts:** Supply chains rely on resources that are extracted from natural ecosystems. This in combination with other factors, such as increased urbanization, is leading to the loss of species and ecosystems. The environmental and ecological contribution of species to sustaining food production, curing diseases and providing resilience is endangered by human intervention. Given the high impact, organizations need to understand and prepare for the rising interest from various stakeholders on this topic.

**Figure 1: Key Sustainability Trends in 2021**

## Key Sustainability Trends in 2021

	Accelerating Trends		Emerging Trends (Next Two Years)
 <b>Trend</b>	Greenhouse gas emissions management	Resource accessibility	Biodiversity and ecosystem impacts
 <b>Driver</b>	Stakeholder expectations for emissions management	Resource constraints driven by trade, price and availability	Anticipated stakeholder pressure to preserve and restore ecosystems
 <b>Business Implications</b>	Increasing costs associated with emissions and climate change impacts	Long-term availability of finite raw materials	Loss of ecosystem services to supply chain
 <b>Types of Solutions</b>	Environmental/ecosystem		
	Engineering		
	Digital		

Source: Gartner  
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**Gartner.**

Although some of the responses to these trends are unique, organizations are also applying environmental/ecosystem, engineering and digital solutions in response:

- Environmental/ecosystem solutions include investing in ecosystems to build resilience; for example, restoring ecosystems to sequester GHG emissions.
- Engineering solutions refer to the application of analog fixes; for example, carbon capture, utilization and storage (CCUS).

- Digital solutions give insight into impacts and potential actions; for example, installing an energy management system within operations.

In this research, we will explore how executive leaders can work with supply chains to create opportunities to reduce costs and respond to stakeholder needs, including those of the end consumer, by responding to these trends with three tailored approaches.

## Analysis

### Maintain Alignment With Shifting Stakeholder Expectations by Prioritizing Emissions Management

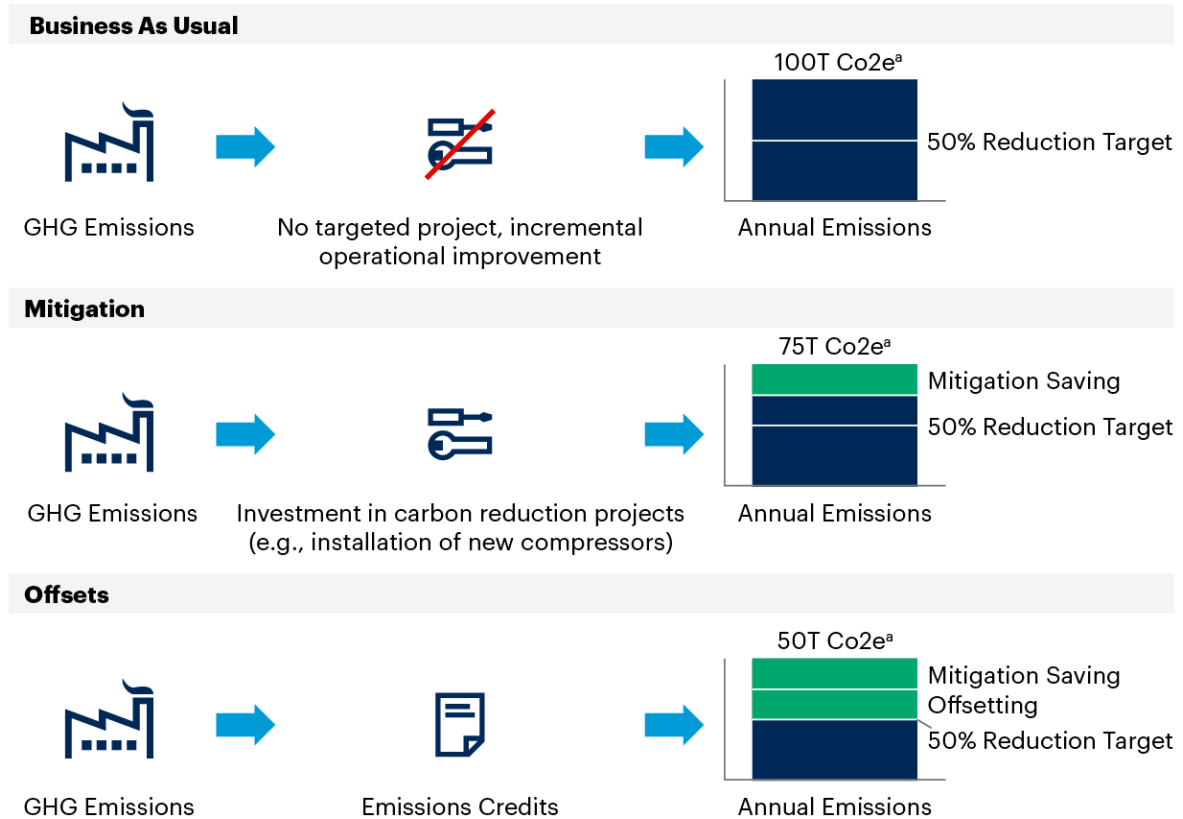
The Paris Agreement (see Note 1), adopted in December 2015, committed the 196 Paris signatories to limit global warming to well below 2 degrees Celsius, and preferably to 1.5 degrees Celsius compared to preindustrial levels.<sup>3</sup> The commitment to emissions reduction outlined in the Paris Agreement has short-, medium- and long-term impacts for business:

- **Short-term impact:** A lack of action may have reputational impacts through alienation of climate-change-concerned stakeholders.
- **Medium-term impact:** Organizations may face increased costs through poor risk management, including supply chain, due to climate change events. Insurance companies may also increase premiums or make exclusions for climate-related risks – pushing the risk back onto the organization.<sup>4</sup>
- **Long-term impact:** Business may not keep pace with changes in regulations, meaning that it is left with an offering that is no longer relevant to the new operating context.

However, the findings of the recent IPCC Report (AR06) indicate that the goals set out through the Paris Agreement are unlikely to be met without deep reductions in carbon dioxide.<sup>5</sup> It is likely that businesses will see increased pressure from stakeholders to take action on GHG emissions (see Figure 2).

Figure 2: Comparison Between GHG Mitigation and Offset Strategies

## Comparison Between GHG Mitigation and Offset Strategies



Source: Gartner  
<sup>a</sup> Carbon equivalent  
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### Actions for Executive Leaders

Executive leaders can take two types of actions to manage emissions: mitigation and adaptation. These responses will be expressed through different solutions, including environmental/ecosystem, engineering and digital.

**Mitigate emissions.** Mitigation efforts focus on reducing GHG emissions. Executive leaders must set ambitious emissions reduction goals that cover both operations and aspects of the value chain where there are material impacts. Be mindful that sufficient resources and financial mechanisms are in place to reach these goals. Assess how emissions performance can be communicated to key stakeholder groups and leveraged for competitive differentiation.

**Invest in adaptation.** Adaptation is based on the premise that climate changes will have a material impact on weather and ecosystems, and it is, therefore, focused on building resilience and managing risks. Adaptation actions include the following:

- **Capital investment:** Executive leaders must review current capital investment decisions to understand the risk of stranded assets. These are investments that are subject to premature write-downs due to changes in the operational context.
- **Network design:** Suppliers, categories and raw materials need to be reviewed against climate change risks. A globalized network may lead to increased risk exposure compared to regionalization. Be aware that customer wants and needs will also change as the impacts from a changing climate are felt.

## Solutions to Manage GHG Emissions

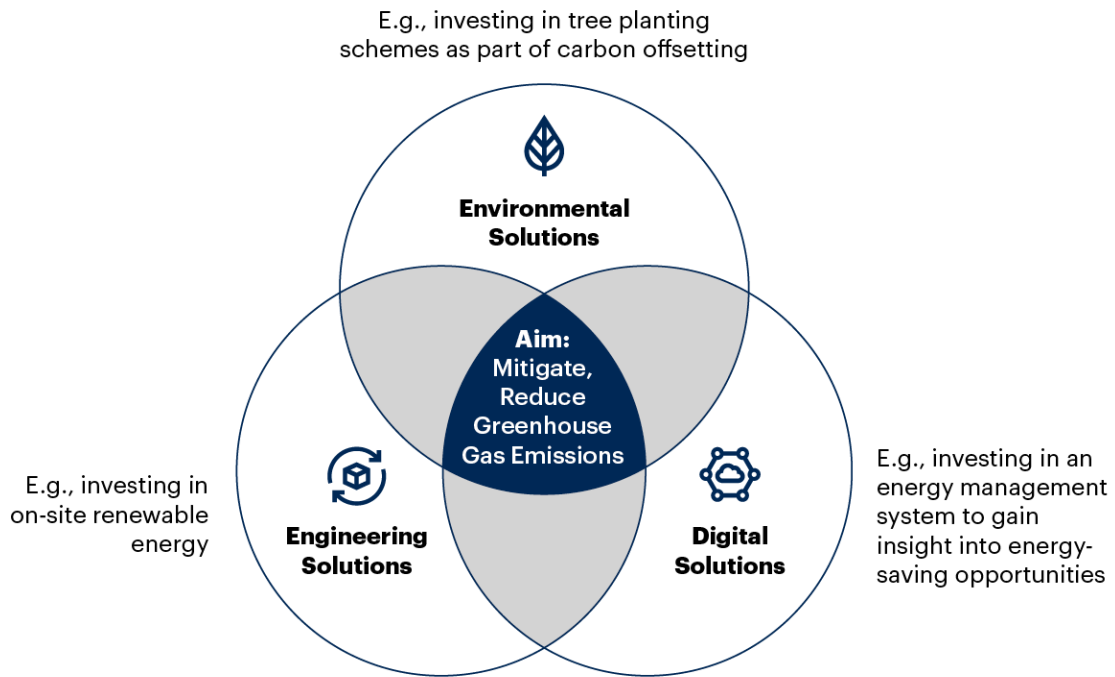
Executive leaders are applying the three types of solutions to manage GHG emissions in the following ways:

- **Environmental/ecosystem solutions:** Some organizations are investing in the environment to reduce emissions and adapt to climate change. For example, Unilever has committed 1 billion euros to a climate and nature fund focused on carbon sequestration, water preservation and landscape restoration, and eliminating deforestation in the supply chain. <sup>6</sup>
- **Engineering solutions:** Organizations may apply engineering solutions to reduce emissions. For example, U.K. retailer John Lewis & Partners and Waitrose & Partners announced that all heavy delivery trucks will switch to low-carbon biomethane by 2028, cutting heavy goods vehicle (HGV) emissions by 80%. <sup>7</sup>
- **Digital solutions:** Digital solutions create visibility of GHG emissions. This includes solutions such as applying energy management systems to operations and more advanced techniques like applying sensors to understand real-time emissions. As an example, Google and DeepMind started applying machine learning algorithms to wind power capacity. This enabled predictions for wind power output 36 hours ahead of actual generation, allowing optimization of the grid. <sup>8</sup>

There is a bias toward engineering and digital solutions as the ROI is easier to calculate compared to environmental/ecosystem solutions. Executive leaders must consider the costs, benefits and long-term impact of each solution and how it can be applied to mitigation and adaptation actions. Figure 3 shows how these solutions interact with one another in reducing GHG emissions.

Figure 3: Interaction Between Solutions

**Interaction Between Solutions**



Source: Gartner  
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**Accelerate the Shift to the Circular Economy**

The long-term trend is that natural resource consumption continues to grow, and it has tripled from the 1970s. <sup>9</sup> However, the most pressing challenge is getting access to resources. The global trading environment is dynamic. The dispute between the U.S. and China saw the imposition of tariffs in 2018-19 amounting to billions of U.S. dollars. <sup>10</sup> The initial response to COVID-19 has also led to disruption, highlighting limitations of globalized supply chains.

For executive leaders, this changing operational context is creating challenges to getting raw materials to the right parts of the value chain. Although logistics has a part to play, there is also a question about how raw materials can be used more effectively. The purpose of the circular economy is to decouple raw materials consumption from growth.

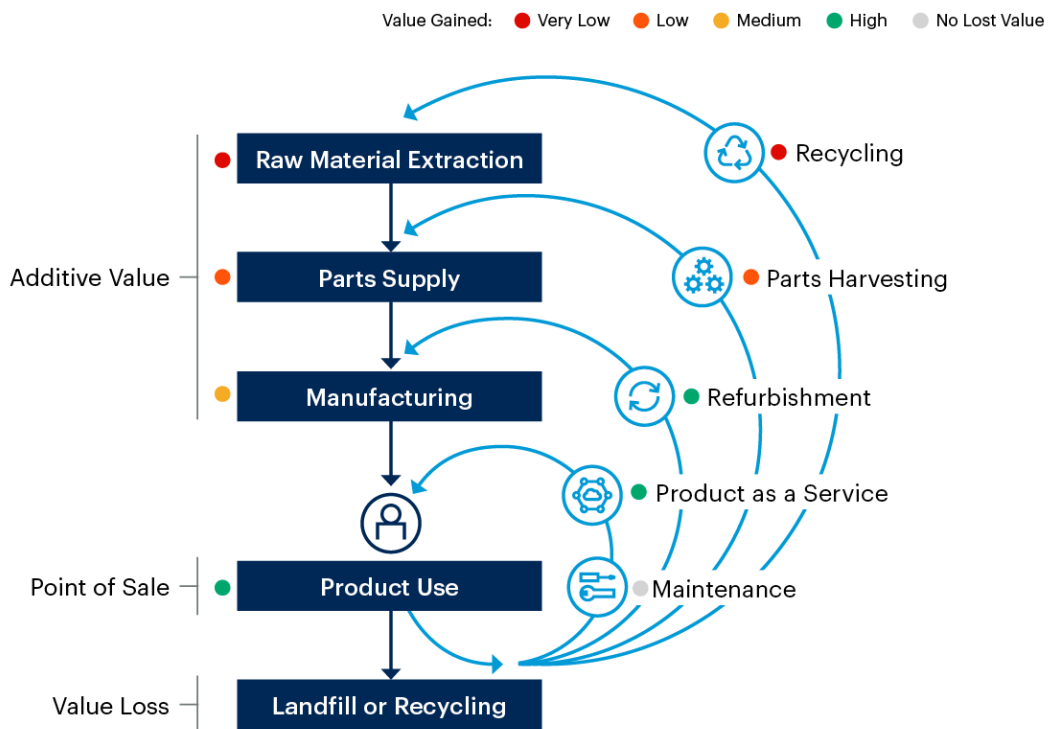


The benefits of the circular economy include increasing efficiency, creating new revenue streams through the resale of products or offering products as a service, and increasing customer engagement. A circular economy can increase raw material security, with localized raw material reuse, and when a holistic approach is taken, it can also reduce environmental impacts. A circular economy approach can also influence the product design process, materials selected and collaboration on product remanufacturing routes, and has the potential to increase security.

Figure 4 contrasts the linear flow of materials with the circular economy, showing opportunities where product life could be extended and raw materials reused. This figure also shows how value is gained and lost through both a circular economy and a linear economy.

**Figure 4: Linear Versus Circular Economy**

### Linear Versus Circular Economy



Source: Gartner  
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### Actions for Executive Leaders

Executive leaders can take two actions to advance circular economy strategies — create resilience and value and foster collaboration — using three types of solutions to enable desired outcomes.

**Create resilience and value.** The circular economy can increase resilience by giving the enterprise a new stream of raw materials through recycling and building value through the resale of products (see [3 Circular Economy Interventions That Will Mitigate Supply Chain Disruption](#)). The first step is to assess which materials will increase supply chain resilience or create additional value. Take this step by addressing three principal areas:

- **Raw materials access:** Access new streams of materials by pulling product back at the end of life. To understand the opportunities and barriers to gain access to end-of-life materials, see [Supply Chain Executive Report: Close the Loop to Create Future-Fit Raw Material Strategies](#)
- **Business model opportunities:** Explore opportunities to create value through the circular economy by shifting business models. For example, Caterpillar's Reman Program is focused on remanufacturing components at the end of life for resale.<sup>11</sup> Philips offers lighting as a service (LaaS) that delivers energy savings with no upfront costs. Users pay for the lighting they need.<sup>12</sup> For more information on business models for the circular economy, see [Sustainable and Circular Supply Chain Evolution or Revolution](#).
- **Customer acceptance of circular products:** Selling refurbished products reduces the need to pull primary materials for products and can create resilience. The success of this strategy is determined by customer acceptance of circular products. Profiling customer acceptance criteria for circular products will ensure customer engagement and uptake. The organization risks losing value and increasing environmental impacts from reprocessing if customer acceptance criteria around performance and aesthetics are not met.

**Foster collaboration.** Delivering the circular economy is a more complex endeavor than one company can achieve on its own. Defining a collaboration governance model with the right data and information mechanism represents a key strategy of success. New dimensions of collaboration are required to build partnerships with raw material suppliers that enable product design that leverages recycled and reclaimed materials. For instance, to enable parts harvesting and refurbishment, companies must turn to an ecosystem of third-party service providers, such as material recovery facilities (MRFs) and plastic reclamation facilities (PRFs), government agencies, and the end consumers themselves.

## Solutions to Advance Circular Economy Strategies

Executive leaders are applying the three types of solutions to enable their circular economy strategies in the following ways:

- **Environmental/ecosystem solutions:** This encompasses the application of new materials on the basis of reduced environmental impacts should they be disposed of to landfill. For example, some retailers are looking to use biodegradable plastics.
- **Engineering solutions:** Engineering solutions are being applied to raw materials management. For example, H&M's Loop service in-store recycling machine takes spent clothing and reprocesses it into a new garment. <sup>13</sup>
- **Digital solutions:** The circular economy represents a raw materials ecosystem. For any ecosystem to work effectively, communication strategies need to be in place. The application of digital technology enables insights into how products are used but can also speed up refurbishment and remanufacture, enabling the product to be returned to market. For example, Hewlett Packard Enterprise (HPE) uses advanced analytics to make decisions about a product's fate at the end of life and determine if it will be recycled or refurbished.

## Identify the Risks Associated With Loss of Biodiversity and Habitat Degradation

In the next two years, an emerging trend that will impact enterprises is the endangerment of the natural ecosystems. Supply chains rely on natural ecosystems and biodiversity for raw materials and services. Biodiversity especially represents a key challenge for organizations as their supply chain footprint directly or indirectly competes with natural habitats and species. Hence, regarding this topic, executive leaders are likely to see increased stakeholder pressure in the coming years.

An example of a direct impact could include a loss of pollination, leading to loss of raw materials and crops, and, therefore, increasing costs of food production. Indirect impacts could be generated by poor agricultural practices leading to soil quality degradation, requiring more land utilization to reach previous crop volumes. That could contribute to the loss of rainforests and increased fertilization, and, therefore, chemical utilization destroying the habitat for species such as insects.

## Actions for Executive Leaders

Executive leaders need to position the organization to understand its exposure to risks arising from loss of natural ecosystems. They can take two actions: identify material issues where they can intervene to halt ecosystem decline and set goals to take actions to restore lost biodiversity. Solutions – engineering, environmental/ecosystem and digital – can provide insight into where to best make interventions.

**Identify material environment ecosystem issues and potential intervention points to halt decline.** Work with the supply chain to identify the most material environmental issues across the value chain, noting hot spots of impact, and consider what species fall on “red” lists. Start by prioritizing supplier engagement by reviewing their impacts on natural ecosystems and biodiversity. Identify risks and potential countermeasures.

**Set goals to take actions to restore lost biodiversity.** Drive performance improvement by leveraging the materiality approach to set goals to limit environmental impacts within the value chain. For instance, in its 2030 sustainability commitments, L’Oréal states that it plans to operate within planetary boundaries. This encompasses four areas of focus: fighting climate change, managing water resources, respecting biodiversity and preserving natural resources. <sup>14</sup> PepsiCo has committed to improving water efficiency within its agricultural supply chain by 15% by 2025 (focused on corn and potatoes). <sup>15</sup>

## **Solutions to Position the Organization to Assess Exposure to Risks From Loss of Natural Ecosystems**

Executive leaders can apply environmental/ecosystem, engineering and digital solutions to gain insight, reduce environmental impacts and restore ecosystems. These examples highlight how solutions can be applied to deforestation:

- **Environmental/ecosystem solutions:** The U.K. retailer Tesco aimed to prevent biodiversity loss by achieving net-zero deforestation by 2020 through certification schemes and seeks to ensure that soy comes from regions that are verified as deforestation-free by 2025. <sup>16</sup>
- **Engineering solutions:** Cargill, in collaboration with the World Resources Institute (WRI) Global Forest Watch, is investing in satellite mapping and radar technology to monitor deforestation in the palm supply chain. <sup>17</sup>
- **Digital solutions:** Unilever and Google’s partnership combines cloud and satellite technology to monitor ecosystems connected to raw materials that are purchased. These images will monitor forests, biodiversity and water cycles that intersect the supply chain. This technology will be used to help Unilever meet its goal of regenerating nature and ending deforestation by 2023. <sup>18</sup>

## Evidence

**Gartner Future of Supply Chain Survey, 2020.** In September and October 2020, Gartner Supply Chain Research sent invitations to complete an online survey to its community members, to Gartner clients, and to a wider group of practitioners in supply chain and other functions globally. We received 1,346 completed responses during the survey period for this survey. We had participants across industries; for example, high tech (20%), healthcare and pharma (14%), consumer packaged goods (CPG; 11%), industrial (10%), food and beverage (9%), and retail (9%). Most participants worked in supply-chain-related functions; for example, supply chain (49%), logistics/transportation and distribution (9%), purchasing/procurement (9%) and operations (7%). Of the respondents, 57% were from North and South America, 29% were from EMEA, 13% were from Asia and Australia, and the remainder were from the rest of the world. All told, 63% of the participants were from companies with revenue above \$10 billion. Additionally, 62% of the participants were at VP/director level or above.

<sup>1</sup> [About](#), Task Force on Climate-Related Financial Disclosures, TCFD.

<sup>2</sup> **Gartner Opportunity After Crisis Survey, 2020.** In May and June 2020, Gartner Supply Chain Research sent invitations to complete an online survey to Gartner clients, to community members and to a wider group of practitioners in supply chain and other functions globally. We received 528 completed responses during the survey period for this Opportunity After Crisis Survey. We had participants across industries; for example, high tech (15%), industrial (14%), CPG (12%), and food and beverage (10%), and most worked in supply-chain-related functions, for example, supply chain (36%), purchasing and procurement (10%), and logistics/transportation and distribution (9%). Of the respondents, 44% were from EMEA, 37% were from North and South America, 18% were from Asia and Australia, and the remainder were from the rest of the world. More than half (55%) of the participants worked for companies with revenue above \$10 billion. Additionally, 54% of the participants were at VP/director level or above.

<sup>3</sup> [What Is the Paris Agreement?](#) United Nations.

<sup>4</sup> [Climate Change: Can the Insurance Industry Afford the Rising Flood Risk?](#) Financial Times.

<sup>5</sup> [Headline Statements from the Summary for Policymakers](#), Intergovernmental Panel on Climate Change (IPCC).

<sup>6</sup> [Unilever Sets Out New Actions to Fight Climate Change, and Protect and Regenerate Nature, to Preserve Resources for Future Generations](#), Unilever.

<sup>7</sup> [John Lewis Partnership Announces Ambitious Plan for Reducing HGV Emissions During Green GB Week](#), John Lewis & Partners.

<sup>8</sup> [Machine Learning Can Boost the Value of Wind Energy](#), DeepMind.

<sup>9</sup> [Global Resources Outlook](#), International Resource Panel.

<sup>10</sup> [A Quick Guide to the U.S.-China Trade War](#), BBC.

<sup>11</sup> [What Is Remanufacturing?](#) Bangla Trac (BanglaCAT).

<sup>12</sup> [Light as a Service](#), Philips.

<sup>13</sup> [From Old to New With Loop](#), H&M.

<sup>14</sup> [Our Sustainability Commitments for 2030](#), L'Oréal.

<sup>15</sup> [2020 Sustainability Report: Goals & Progress](#), PepsiCo.

<sup>16</sup> [Tackling Deforestation](#), Tesco.

<sup>17</sup> [Protecting Forests and Native Vegetation](#), Cargill.

<sup>18</sup> [How Google Will Help End Deforestation in Our Supply Chain](#), Unilever.

## Note 1: Paris Agreement

The Paris Agreement's aim is to strengthen the global response to the threat of climate change by keeping the global temperature rise below 2 degrees Celsius above preindustrial levels and pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

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## Recommended by the Author

Some documents may not be available as part of your current Gartner subscription.

[Define Sustainability and Leverage Materiality to Drive More Effective Strategy](#)

[Navigate 5 New Realities Shaping Future Supply Chains](#)

[Supply Chain Top 25: 3 Strategies to Accelerate Circular Economy Outcomes](#)

[Supply Chain Brief: Set and Invest in Radical Goals for Greenhouse Gas Emissions Reduction](#)

[Maverick\\* Research: Treat Climate Change as the Biggest Business Opportunity Since the Dawn of Time](#)

[Sustainability: What to Do When Stakeholders Want You to Save the World](#)

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