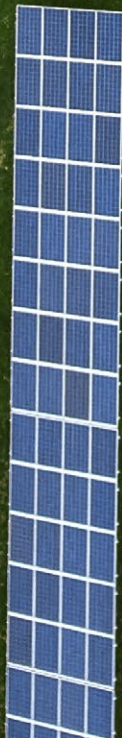


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Gartner for Supply Chain

**3 Sustainability
Trends Shaping
Supply Chains
in 2021**



Introduction

The expectations of stakeholder groups for supply chain sustainability strategy have transformed in the last 10 years, with increased demands for transparency and action.

While some supply chains convert sustainability into a competitive advantage, others struggle to meet core stakeholder expectations.

Chief supply chain officers (CSCOs) can position the supply chain to respond to the accelerating trends of greenhouse gas emissions management and the circular economy while also planning for future stakeholder interest in the areas of environmental ecosystem impacts and water stress.

This report examines the actions CSCOs can take to respond to three key trends in sustainability and ultimately enable a transition to a low-carbon, resilient and resource-efficient economy.

Trend No. 1

Greenhouse gas emissions management

Type of trend:

Accelerating

Driver:

Stakeholder expectation for emissions management

Supply chain

implications:

Both mitigation and adaptation actions needed

In the Gartner 2020 Future of Supply Chain Survey, 84% of CSCOs told us they plan to invest in climate adaptation and mitigation measures in the next 18 months. What actions should these supply chains take to maximize their approach?

- **Adaptation.** Adaptation is focused on building resilience and managing risks. Adaptation actions include review of capital investments for stranded assets (those that are subject to premature write-downs due to changes in the operational context) and review of suppliers, categories and raw materials against climate change risks.
- **Mitigation.** While investment to improve emissions efficiency measures and the switch to renewable energy are the most viable long-term mitigation approach, a short-term option is the use of carbon offsets to compensate for residual emissions. Mitigation actions focused on reducing emissions can also extend to other parts of the supply chain — e.g., procurement requires suppliers to comply with science-based targets, logistics focuses on reducing transportation emissions in last-mile delivery.

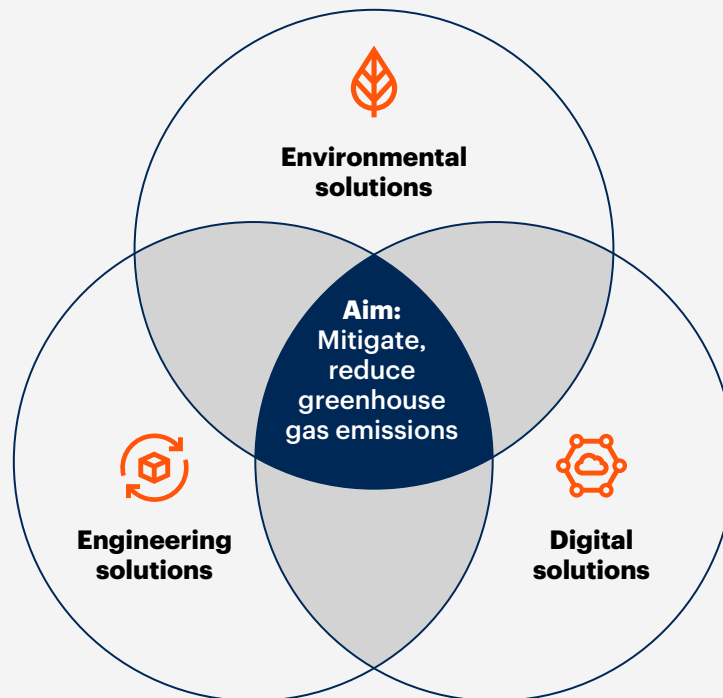
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For both adaptation and mitigation, CSCOs can apply three types of solutions to the challenge of climate change: digital, engineering and environmental. Examples of how these solutions are being applied to greenhouse gas emissions management are:

- Digital solutions create visibility of greenhouse gas emissions. Some supply chains have applied energy management systems to operations; others have applied more advanced techniques like sensors to understand real-time emissions.
- Some supply chains have applied engineering solutions — e.g., investing in on-site renewable energy.
- Some supply chains have applied environmental solutions — e.g., investing in tree-planting schemes as part of carbon offsetting.

There is a bias toward digital and engineering solutions as ROI is easier to calculate compared to environmental solutions. CSCOs must consider the costs, benefits and long-term impact of each solution and how it can be applied to adaptation and mitigation actions.

Figure 1. Interaction between solutions



Source: Gartner

Trend No. 2

Resource accessibility

Type of trend:

Accelerating

Driver:

Resource constraints driven by trade, price and availability

Supply chain implications:

Broader environmental impacts from resource extraction

Before COVID-19, the global trading environment was dynamic, and the initial response to the crisis led to further disruption, highlighting limitations of globalized supply chains.

For CSCOs, this changing operational context is creating challenges to getting raw materials to the right parts of the value chain when needed. Although logistics has a part to play, there is also a question about how raw materials can be used more effectively.

Shifting to a circular economy is key: The purpose of the circular economy is to decouple raw materials' consumption from growth. The benefits of the circular economy versus a linear economy are 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, and when a holistic approach is taken, it can also reduce environmental impacts.

Circular economy continues post-COVID



51%

of supply chain professionals expect the emphasis on the circular economy to increase in the two years following the COVID-19 crisis.

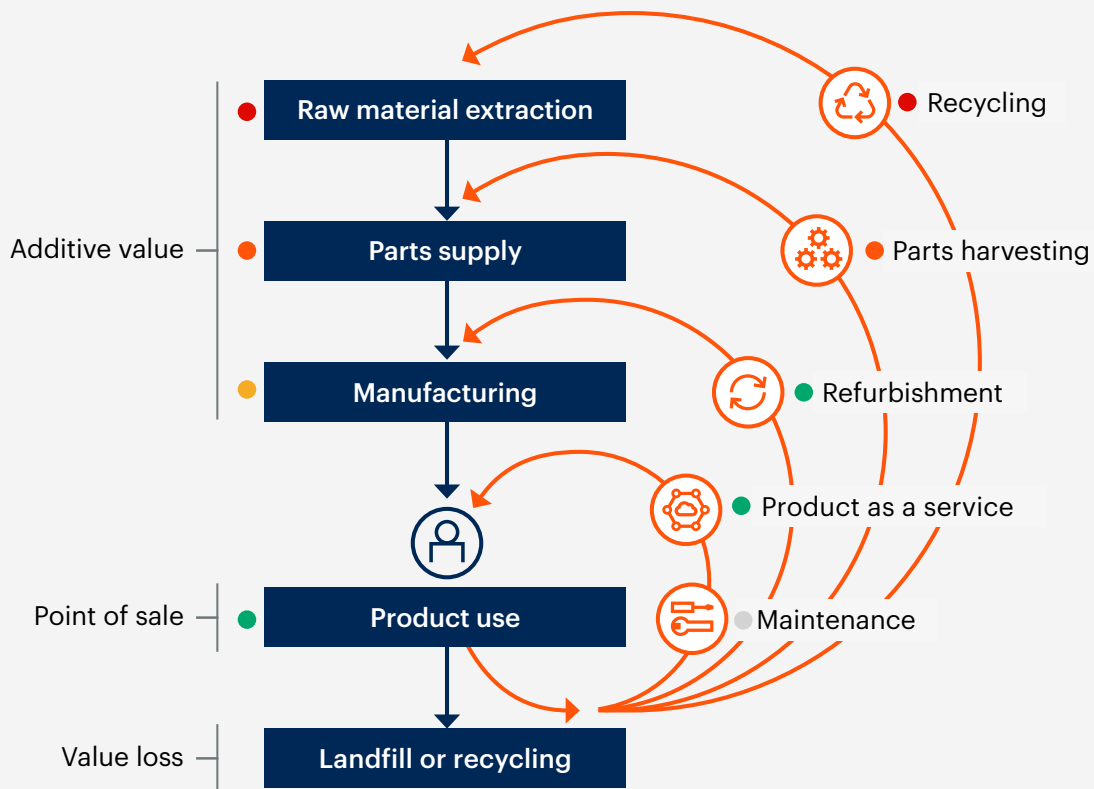
Source: Gartner 2020 Opportunities After Crisis survey

CSCOs can take three actions to advance circular economy strategies:

- 1. Create resilience and value.** Identify products that will deliver additional value.
- 2. Foster collaboration.** Define a collaboration governance model with the right data and information mechanism.
- 3. Apply solutions.** Use digital solutions to advance circular economy activities; engineering solutions for raw materials management; and environmental solutions to understand the impact of raw materials should they get into the environment at the end of life.

Figure 2. Circular versus linear economy

Value gained: ● Very low ● Low ● Medium ● High ● No lost value



Source: Gartner

Trend No. 3

Biodiversity and ecosystem impacts

Type of trend:

Emerging

Driver:

Anticipate stakeholder pressure to preserve and restore ecosystems

Supply chain

implications:

Loss of ecosystem services to supply chain

Supply chains link their business operations into natural ecosystems through the extraction and utilization of resources. As such, endangerment of natural ecosystems significantly impacts supply chains.

Although the endangerment of natural ecosystems is an emerging trend that will strongly show impact in the next two years, CSCOs can take two actions now to position the organization for resilience.

1. First, **understand the threat of biodiversity loss** in the medium and long term to the value chain. The questions CSCOs must answer are: What are the most material environmental issues across the value chain (aka, hot spots)? Are suppliers reviewing their impacts on natural ecosystems and biodiversity? What risks might we encounter over the next two years and what are potential countermeasures?
2. Then, based on your goals (e.g., improve soil quality, increase water efficiency), **identify where to intervene** to halt ecosystem decline and to restore lost biodiversity. Solutions, engineering, environmental and digital can provide insight into where to best make interventions.

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Gartner is the world's leading research and advisory company and a member of the S&P 500. We equip business leaders with indispensable insights, advice and tools to achieve their mission-critical priorities today and build the successful organizations of tomorrow. Our unmatched combination of expert-led, practitioner-sourced and data-driven research steers clients toward the right decisions on the issues that matter most. We are a trusted advisor and an objective resource for more than 14,000 organizations in more than 100 countries — across all major functions, in every industry and enterprise size.

Supply chain sustainability: How Gartner can help

Supply chain sustainability delivers business value, but too few supply chain leaders today have well-developed supply chain sustainability initiatives. Common obstacles to supply chain sustainability include limited resources, conflicting priorities, lack of understanding of sustainability concepts and low visibility on early wins. Turn to Gartner for the support to overcome these obstacles: We are a partner to hundreds of supply chain leaders who have successfully reduced waste in operations, improved energy consumption, and managed supplier relationships for responsible sourcing, and we deliver back to our clients the winning insights and tools. We will assess where you are with supply chain sustainability and guide you in prioritizing the right supply chain sustainability investments, from smarter packaging to responsible sourcing to strategic materials usage. Visit gartner.com to learn more.

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