

The below answer sheet is for your own self-assessment. Please keep your completed questionnaires and answers on file for your record. Sustainability Summit will send you a Refuel certificate once your questionnaire has been submitted.

## A COMPLETE SOLUTION: INVESTIGATING THE PRODUCT LIFE CYCLE

1. What are some recent building product supply chain issues and how can they be overcome?  
Material Shortages

### How To Overcome Material Shortages

In a study by Supply & Demand Chain Executive, 57% of companies surveyed believe that the best way to prevent future disruptions in material supplies is by diversifying the manufacturing supply. However, other strategies include:

- Monitor trends and integrate the latest advancements in supply chain automation.
- Expedite parts when necessary.
- Improve supplier collaboration.
- Focus on inventory management to identify potential shortages in advance.

### Transportation Costs

#### How To Reduce Transportation Costs

Tips to overcome the challenge of high transportation costs include:

- Consolidate shipments whenever possible.
- Search for suppliers in closer geographic proximity and prioritize domestic suppliers.
- Consider dual sourcing to have a more stable supply of materials.

### Material demands

#### Forecasting material demands

The ability to accurately forecast material demand and prepare for future needs can be critical to efficient supply chain management. This is done by:

- Consumer changes to product choices
- Seasonal variations
- Adaptation to competitor activities
- Changes in end-user requirements
- Seasonal swings in supply and demand
- Changes in legal requirements

2. What are the five stages of a product life cycle?

- Development
- Introduction
- Growth
- Maturity
- Decline

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3. What are some things to consider when measuring the environmental impacts of a product throughout its entire life?

- Raw Material Extraction.
- Manufacturing & Processing.
- Transportation.
- Usage & Retail.
- Waste Disposal

4. What should architects/designers look for in terms of the product lifecycles in their designs?

- Customer Requirements
- Functionality
- Cost
- Materials used
- Durability
- Biodegradability
- Modularity of design