

THE ROAD FROM CONCEPT TO SHELF: UNDERSTANDING PACKAGING CHANGE TIMELINES

THE STEPS INVOLVED IN CHANGING PACKAGING DESIGNS

Packaging plays a critical role in maintaining product integrity and safety. Even minor changes require rigorous testing, careful evaluation, and regulatory review to protect both the product and the consumer. The full process can take years, often up to a decade, and involves multiple organizations and regulatory agencies across the value chain.



STEP 1: Market Need Identified

*(Supply Chain Impacted:
CPG Company
Estimated Timeline:
1-5 years)*

Companies assess consumer demand, safety requirements, and feasibility before, or sometimes alongside, development.



STEP 2: New Package Development: Lab Testing

*(Supply Chain Impacted:
Raw Materials Supplier
Estimated Timeline:
1-2+ years)*

New materials must be tested for:

- Safety
- Performance
- Consistency
- Regulatory compliance

This requires multiple tests, and when regulatory approvals are needed, can add several years.



STEP 3: Packaging Development & Regulatory Review: Lab Testing

*(Supply Chain Impacted:
Packaging Supplier/
Converter
Estimated Timeline:
~1 year)*

Packaging is documented for regulatory use and tested for:

- Durability
- Shelf life
- Distribution

There are established standards for testing packaging integrity. Results must be completed before regulatory filing, and additional testing may be required.

Some products require regulatory authorization. Approvals for consumer use may involve federal and state agencies, depending on the product and its intended use.



STEP 4: Equipment & Performance Testing: Lab Testing

*(Supply Chain Impacted:
Packaging Supplier
and/or Contract Packager
Estimated Timeline:
6 months-2 years)*

- Packaging must run safely and efficiently on manufacturing equipment.
- New materials often require equipment modifications or capital investment.



STEP 5: Product & Shelf-Life Testing: Large Scale Commercial Testing

*(Supply Chain Impacted:
Back to the CPG
Estimated Timeline:
1-2 years)*

Finished packages undergo:

- Shelf-life testing
- Quality validation
- Safety verification
- Consumer testing

If packaging changes use existing, already-approved materials (such as PCR or compostable formats), companies may begin the design process at this stage; however, full testing, equipment validation, regulatory documentation, and supply chain adjustments still typically require 18-24 months before commercialization.



STEP 6: Commercialization

*(Supply Chain Impacted:
CPG to Retailer
Estimated Timeline:
9-18 months)*

Once validated, production scales and products enter distribution.



THE ROAD AHEAD

Policy decisions should account for development timelines, regulatory review, capital investment cycles, and supply chain coordination.