



Sustainable Transportation Packaging: An Introduction



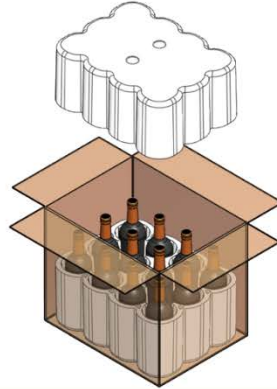


Any of These Could Be Transport Packaging

Primary Package



Secondary Package



Tertiary Package



Primary:

The packaging which contains the product. Provides protection and containment, but is not necessarily suitable for transport.

Secondary:

The packaging which contains one or more primary packages. It aids in containment, handling, unitization, and damage prevention.

Tertiary:

The packaging which is used to group secondary packaging together to aid handling, unitization, transportation, and damage prevention.

Adapted from Sustainable Packaging Coalition's Transport Packaging Working Group, 10/13

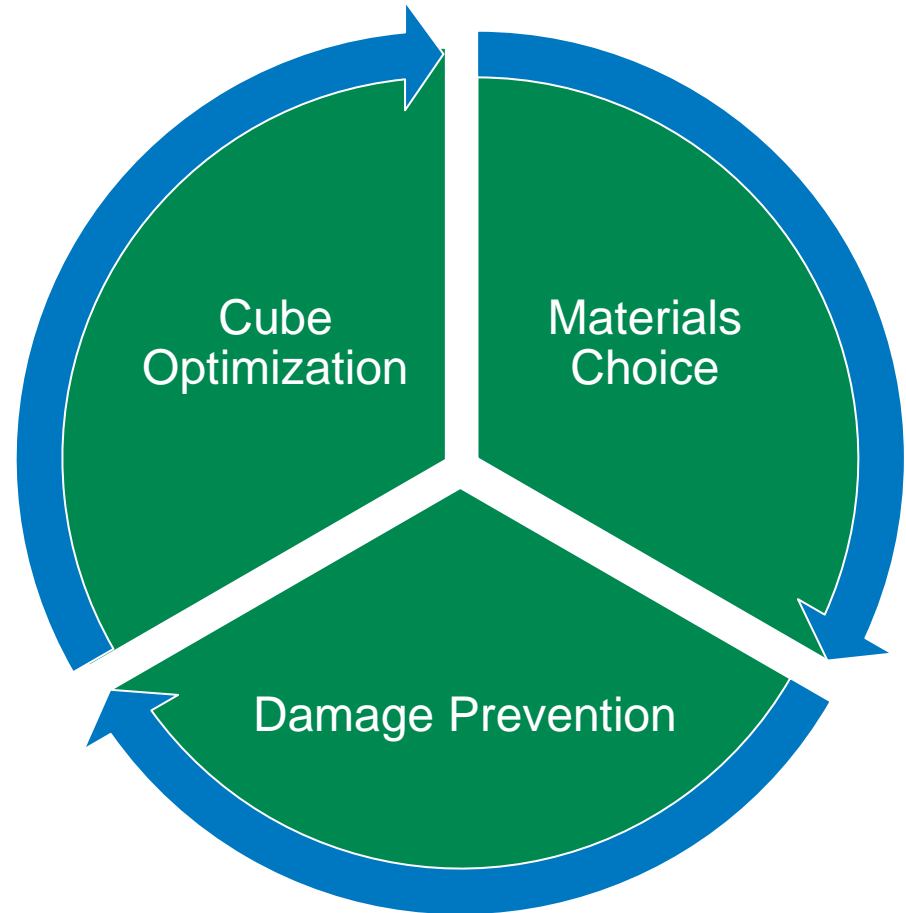


What is “Sustainable Transportation Packaging”?

Packaging that protects its contents from damage while in transit, while using no more material than is necessary. Such packaging will be made of environmentally preferred materials, when feasible.



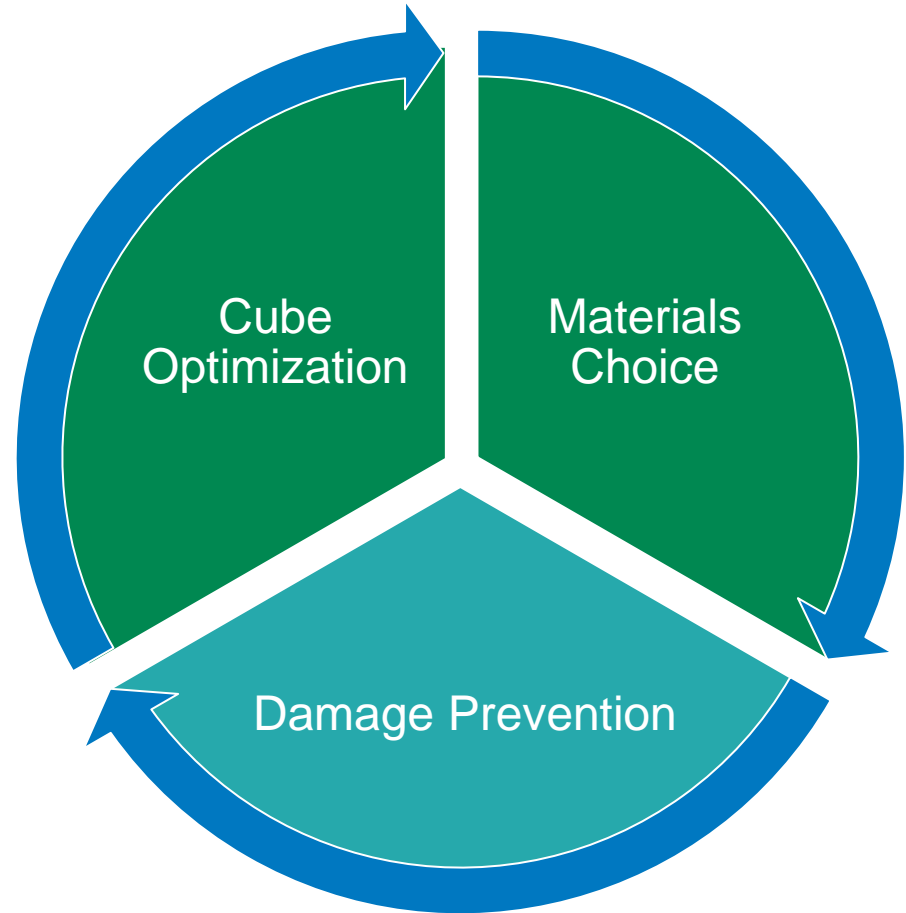
No packaging is inherently sustainable or unsustainable. What matters is the system...how the components work together.





Protecting the contents of your package is the single-most sustainable thing you can do.

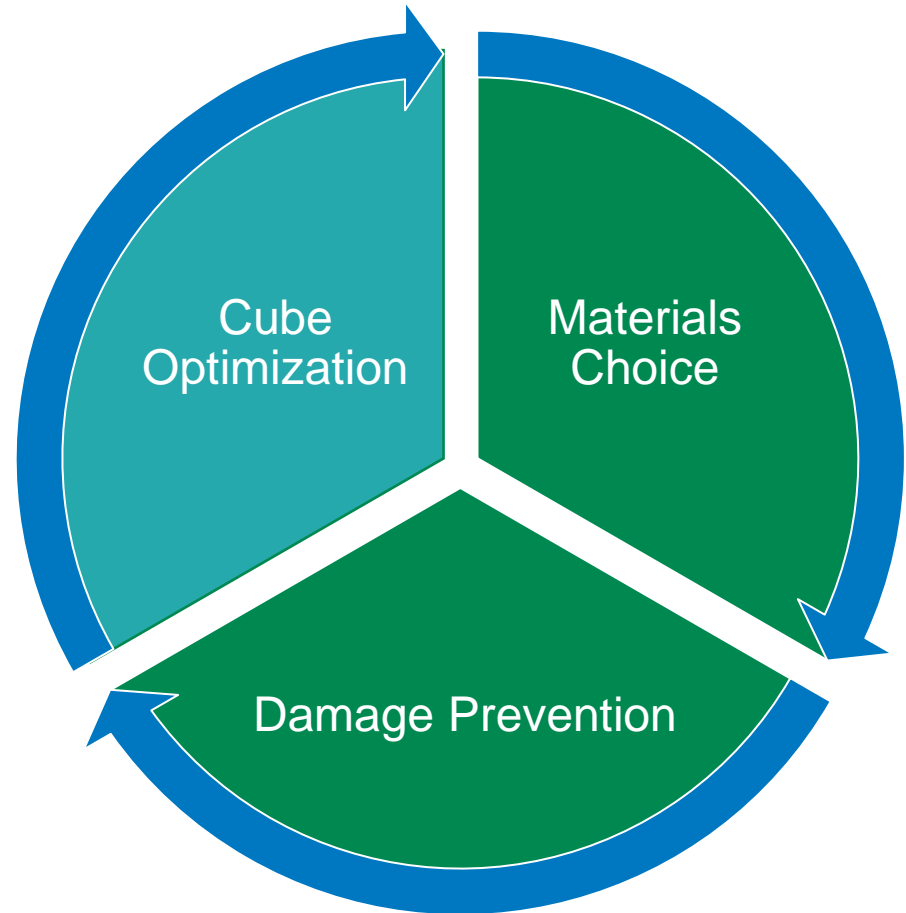
That's because effective packaging will prevent the increased carbon footprint that comes from waste, spoilage, breakage, and the need to manufacture replacement merchandise.





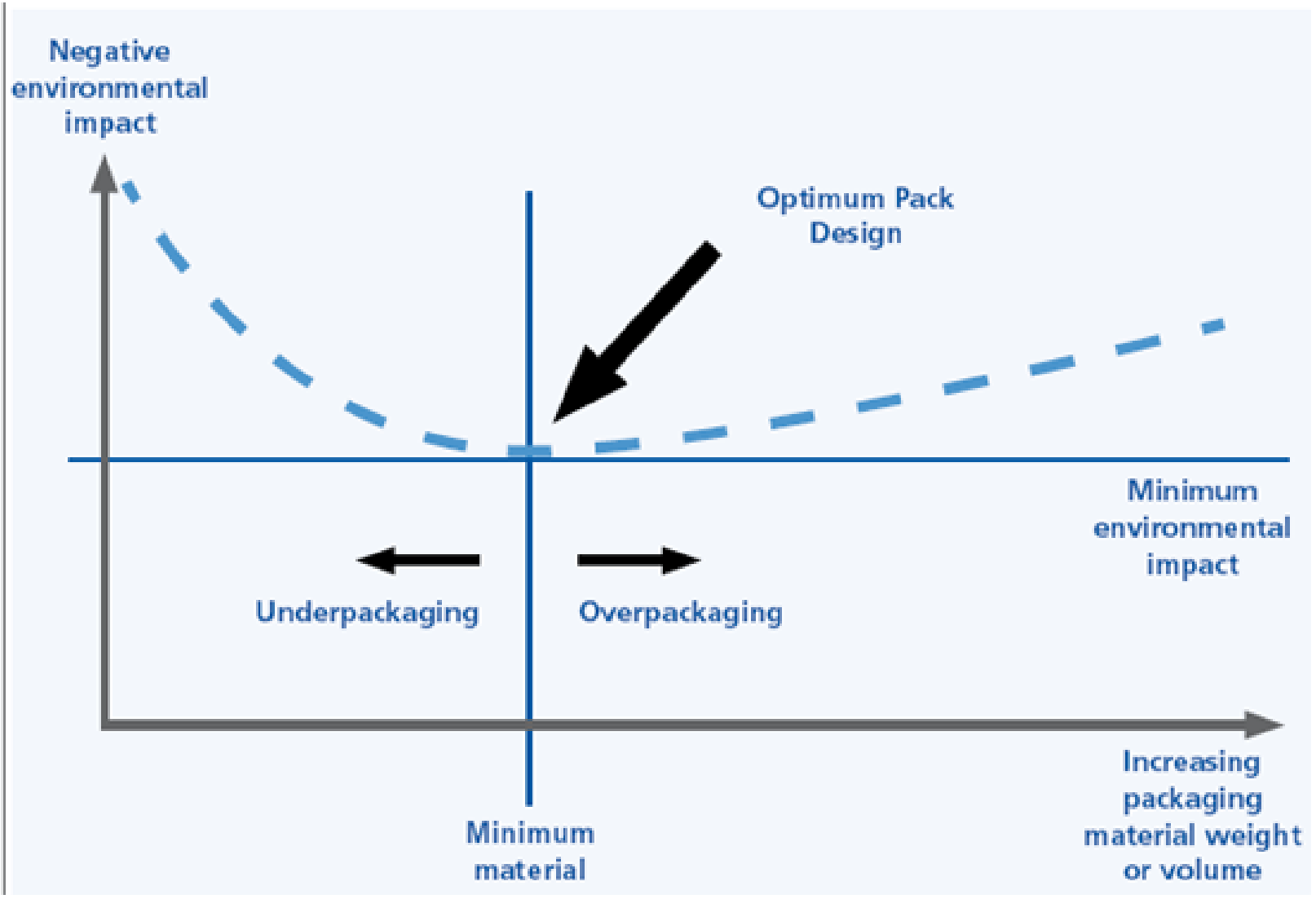
But don't use more packaging material than is necessary to do the job.

Right-sizing uses less box material and less fill material. And when boxes are smaller, more of them will fit on a vehicle, saving fuel.





Don't waste material, but don't increase damages through inadequate packaging

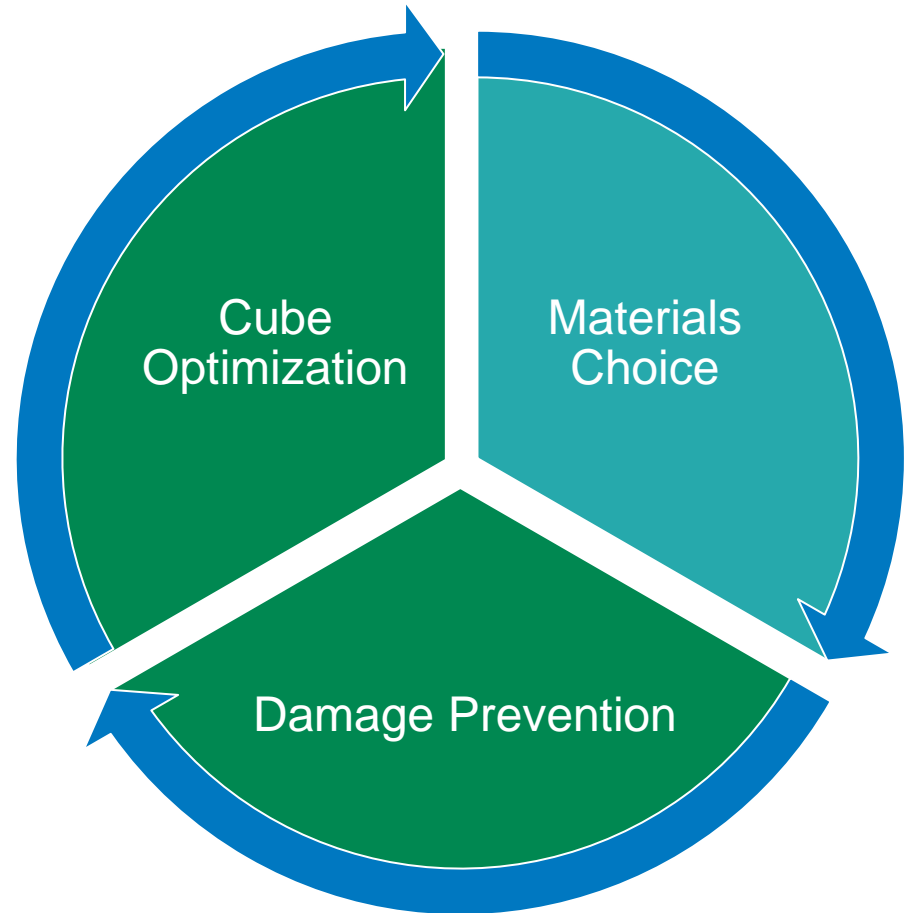


Source: Innventia AB Model, Global Packaging Project, 6/10



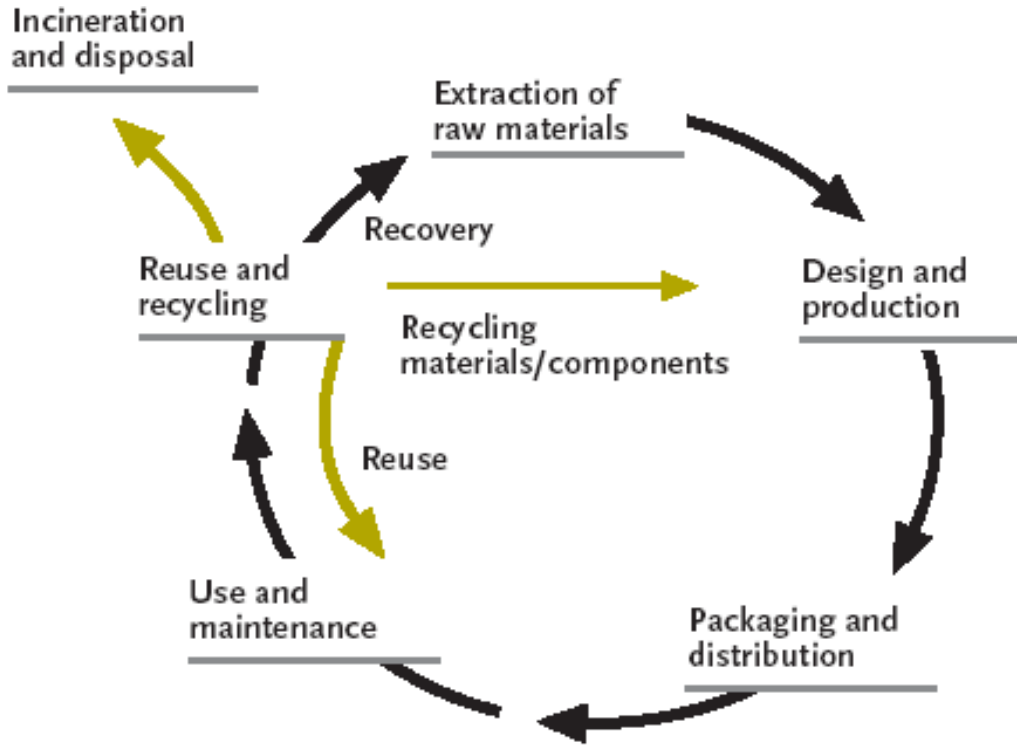
Consider the environmental impact of producing your packaging material, as well as the end-of-life scenarios.

Don't choose a material simply because it has one desirable characteristic. Consider the entire lifecycle.





Consider the entire life cycle when choosing materials and designing your package



Also consider the impact on energy and water at each stage

Source: University of Toronto



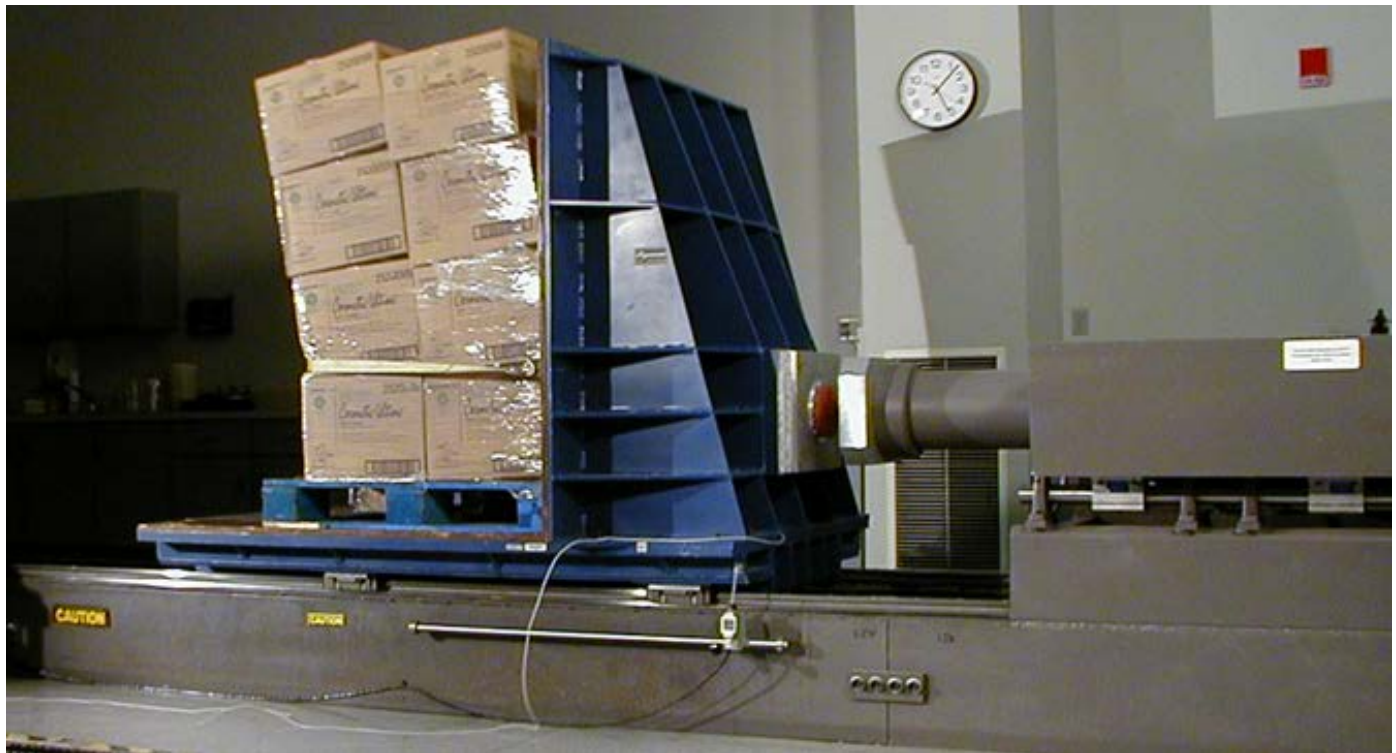
How does ISTA help you develop sustainable packaging?

1. Testing Protocols for Damage Prevention
<http://www.ista.org/pages/procedures/ista-protocols.php>
2. Discount Access to Trayak's leading COMPASS LCA application endorsed by the Sustainable Packaging Coalition
<http://trayak.com/welcome/solutions/compass/>
3. Responsible Packaging by Design
<http://www.ista.org/pages/procedures/designprotocol.php>
4. The Sustainability Solutions Division
<http://www.ista.org/pages/about/ista-divisions.php#sustainability>



Testing Considerations

ISTA's testing protocols are **the best way** to ensure product protection in your shipping environment.





ISTA Members Receive COMPASS® Discount

ISTA members receive the same 10% discount as Sustainable Packaging Coalition members to a single COMPASS® license. COMPASS® (Comparative Packaging Assessment) is an online life cycle assessment (LCA) application for packaging designers and engineers to assess the human and environmental impacts of their package designs by facilitating more informed material decisions.

For a free trial or to learn more about COMPASS®, visit trayak.com/compass or contact prashant.jagtap@trayak.com





Responsible Packaging by Design (RPbD)

ISTA's **Responsible Packaging By Design (RPbD)** is a voluntary, prescriptive global process standard for the design, testing and qualification of responsible packaging.

- Written by representatives from ISTA, AMERIPEN, INCPEN, Rochester Institute of Technology, Package Knowledge Group, UPS, and others.
- Vetted by industry, NGOs, and governmental experts.

RPbD is a practical, hands-on way to optimize sustainability considerations in packaging design. It promotes lifecycle thinking, taking a holistic approach to assessing the impact of packaging throughout the supply chain in order to avoid unintended consequences.

Visit ISTA's RPbD web page at

<http://www.ista.org/pages/procedures/designprotocol.php>



Responsible Packaging by Design – Objectives

- Detailed guidance and framework.
- Basis for comparing two or more different package designs.
- Incorporate lifecycle thinking.
- Consider the best use of land, water, air, energy, biodiversity, and natural resources.
- Support reducing product damage.
- Packages which meet industry, consumer, and regulatory expectations.



Responsible Packaging by Design – A Prescribed Step-By-Step Approach

Step 1

Establish
Project Scope

Step 2

Define
Boundaries &
Metrics

Step 3

Assess Impact
of Existing
Design

Step 4

Determine
Impact of
Proposed
Design

Step 5

Select the
Best Action for
the New
Design

Step 6

Prototype and
Validate the
New Design

Step 7

Assessment,
Recommendation
& Documentation
Design

Step 8

Implementation



ISTA's Sustainability Solutions Division

The Sustainability Solutions Division enhances the ISTA value proposition for current and prospective members by promoting sustainability expertise in the discussion of transportation packaging. To that end, we:

- Educate regarding the value of the packaging system in promoting sustainability and how to evaluate it
- Develop deliverables for testing sustainability claims and enabling member companies to achieve verification or packaging validation
- Collaborate with other sustainability organizations for mutual benefit



Other Organizations to Investigate

These are membership organizations worth considering. Each of them also provides some resources free of charge.

- Sustainable Packaging Coalition (SPC)
 - SPC has a worldwide membership.
www.sustainablepackaging.org
- INCPEN
 - The Industry Council for Research on Packaging and the Environment. Emphasis on the United Kingdom, but resources are broadly applicable. www.incpen.org
- AMERIPEN
 - The American Institute for Packaging and the Environment. Focus on North America, but useful resources for all regions.
www.ameripen.org



Summing it Up

Always remember that...

- Packaging is a system

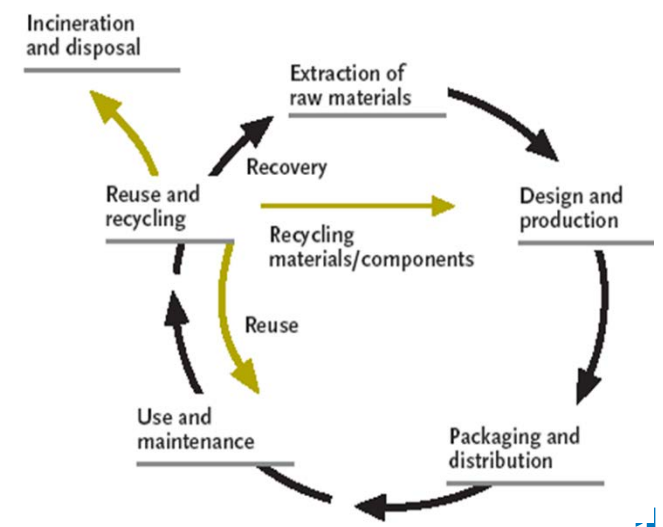
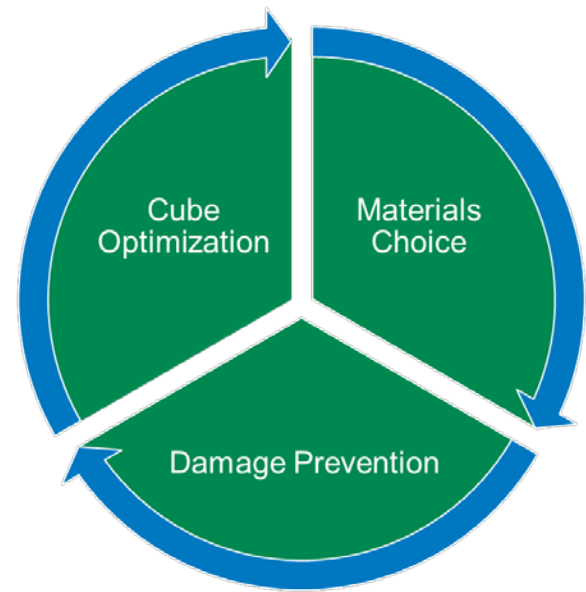
And

- Sustainable packaging is defined by how the system variables work together

And

- Sustainability looks at the entire lifecycle

You can make a difference by incorporating these principles into your design decisions!





Acknowledgements

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For more information about ISTA, visit www.ista.org