What if a shipping box could be ...

How can a box not be a box ...

BOX Dream Catalogue

Bringing innovation into packaging solutions

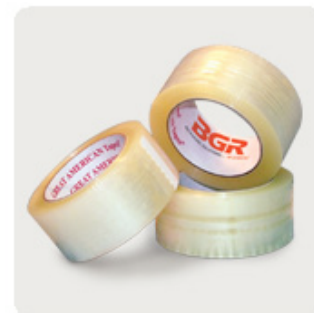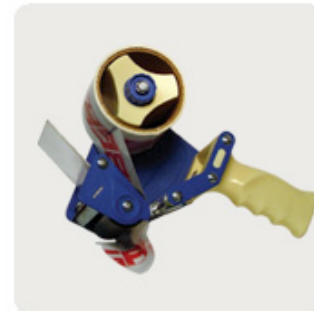Chetan Bhatia . Jessica Donnelly . Teresa Litzer . Rian Masanoff. Sepideh Shahi . Jingru Wang

BGR

Table of Content

Introduction

Founded in 1972 in a suburban garage, BGR, Inc. (BGR) has grown into a company that does more than $65 million a year in sales. Their capabilities include equipment (small and large machinery) sales and maintenance, packaging supplies (boxes, tape, etc.), custom tape cutting and printing, label printing, contract packaging, and more. Their vast number of services, capabilities, and know-how position them to work with clients, not just for clients.
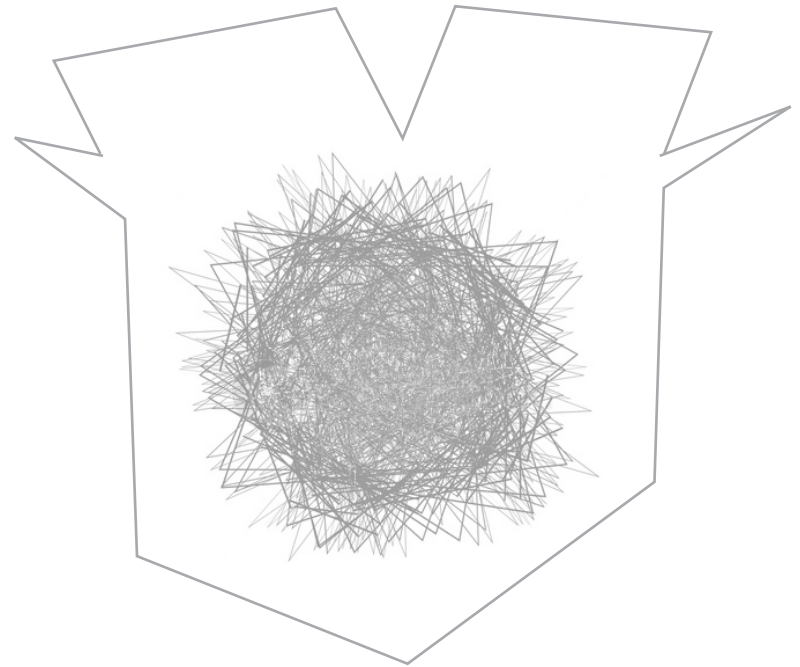
Within the packaging industry today, few companies are differentiated. The innovations in this book are just some of the differentiating factors BGR can add to their portfolio to further define their place in the market.

Boxwiser

Using the 5 tools of innovation, the idea was to make a simple product, box, more usable, more reliable, more intuitive, more intelligent and (more) wiser. Boxwiser!

The idea was not the old school way of thinking 'outside the box' solutions to an existing problem. The solution was not the end of the process but the starting. The benefit or the problem the solution answered was the end product. Function follows form. It is like thinking about the "box"- inside the box!
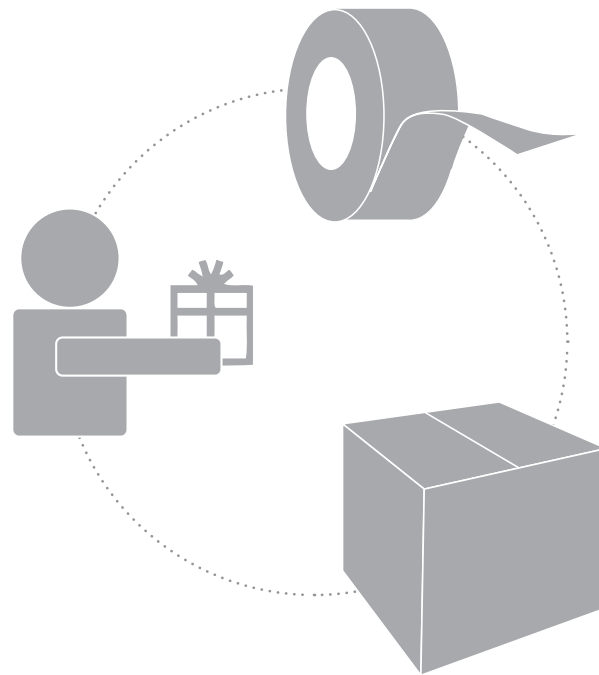
Products

BGR is a diverse operation that offers packaging products, service, solutions, and equipment. In order to innovate across their landscape, three areas of focus were chosen.

The first area is the box. Boxes are a staple in packaging and shipping and the goal was to stretch the thinking around what a box can do and what the box can look like or be made of.

The second area is adhesive or closing/opening mechanisms.

The third area is service. Being that the world of packaging can be monotonous, the vision was to stretch the limits and create new, different, and exciting opportunities for this industry.

AirBox

Description:
The Reusable Air Box is a lightweight and protective packaging solution for fragile shipments. The outside air pocket reduces the weight of the packaging while still offering a protection and storage. The interior pocket has a foam protective tubing that forms to the variety of size of objects placed inside the tubing.
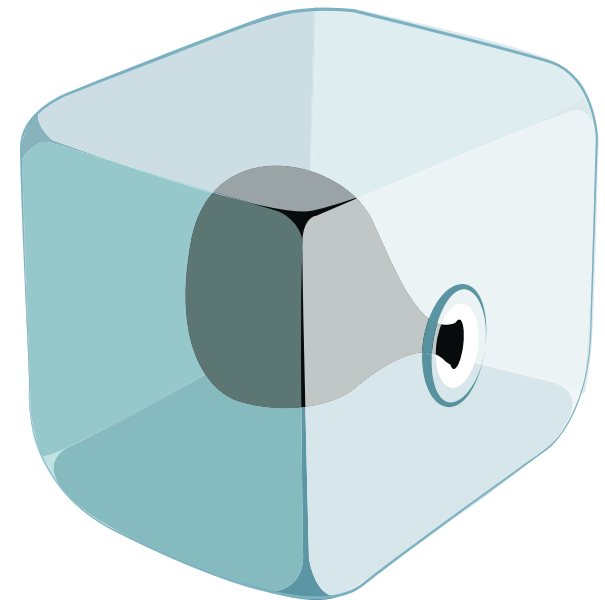
Benefits:
The Reusable Air Box allows for short term packaging of fragile shipments and storage without adding weight or need for a variety of shapes. Could design smaller types that worked as fillers for large boxes to hold things like bottles.
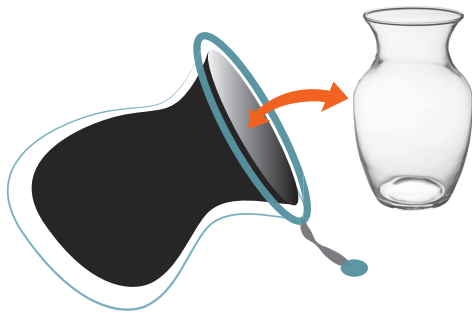
Challenges:
Would need to make sure they do not pop or loose air easily
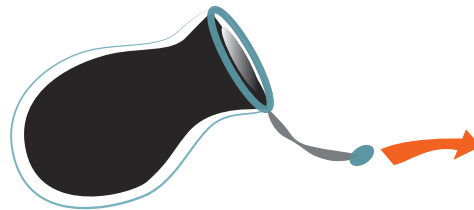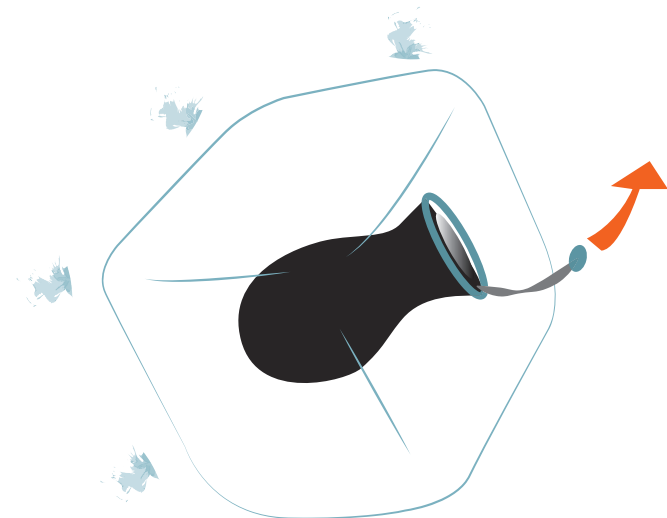A mechanism to remove the product easily.

SIT Tool: Subtraction

1. **Placing the item in the foam bag**

2. **Vacuuming the the foam bag**

3. **Inflating the Airbox**

Snap Wrap

Description:

Snap Wrap is a flat piece of perforated cardboard that can be bent in different directions. Flat sheets come with printed folding template and instruction for particular products.

Benefits:

Stackable, lightweight and inexpensive for both supplier and clients
Cardboard gets the shape of the product inside and does not need extra fillings or protective foams
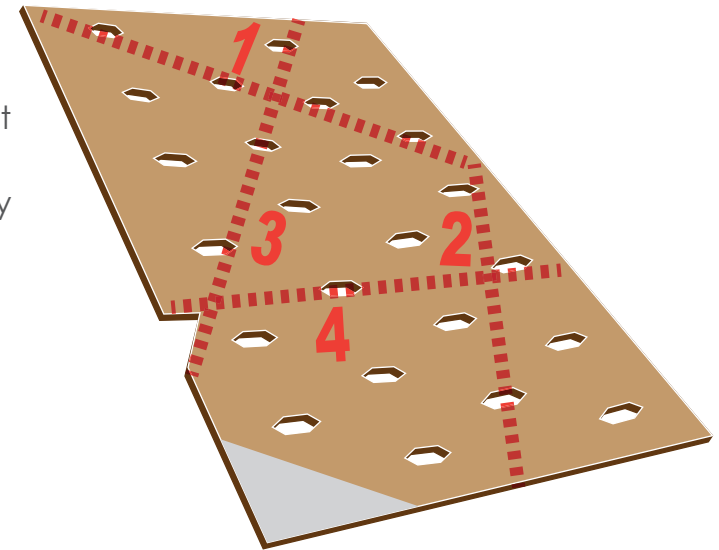Perforation lets the box aerate, which is beneficial particularly for produce and fresh food Items
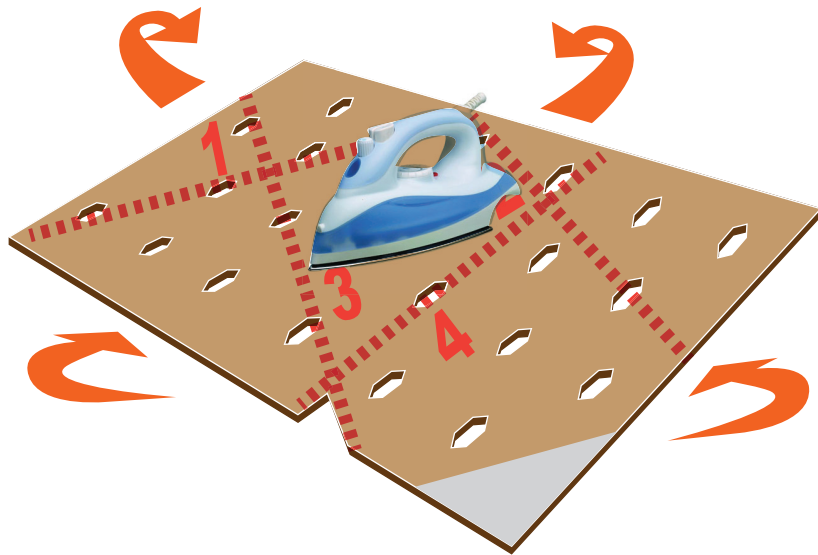Inside is visible without opening the box

Challenges:

Patterns of folding should be calculated and designed for each type of product individually
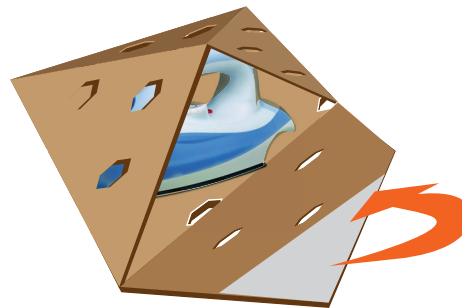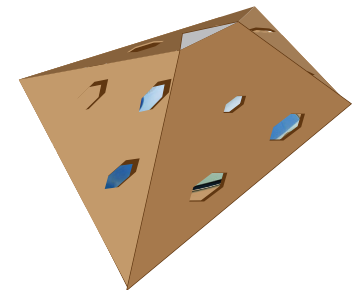
SIT Tool: Subtraction

1. **Placing the item**

2. **Folding the cardboard according to template**

3. **Folding the sticky part & closing the box**

Self-expanding Box

Description:
Decreased pressure at higher elevation will cause the bag to further inflate. This could be applied to the void filling bags of air used in packaging. This means that when you use them to package fragile items in a box they will expand as the plane climbs and provide additional protection against turbulence while serving the same purpose on the ground.

Benefits:
Additional lightweight protection of the package contents from turbulence and rough handling.
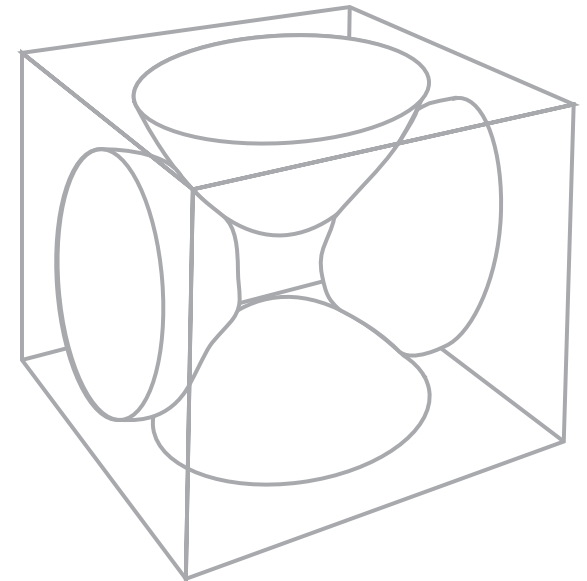Orientation of the box won't matter.
Lightweight and more environmentally friendly than using additional foam/Styrofoam or other packaging materials.

Challenges:
Bag may burst with too much pressure.

SIT Tool: Attribute Dependency

1. Placing the item in the box

2. The box will be automatically inflated in low pressure
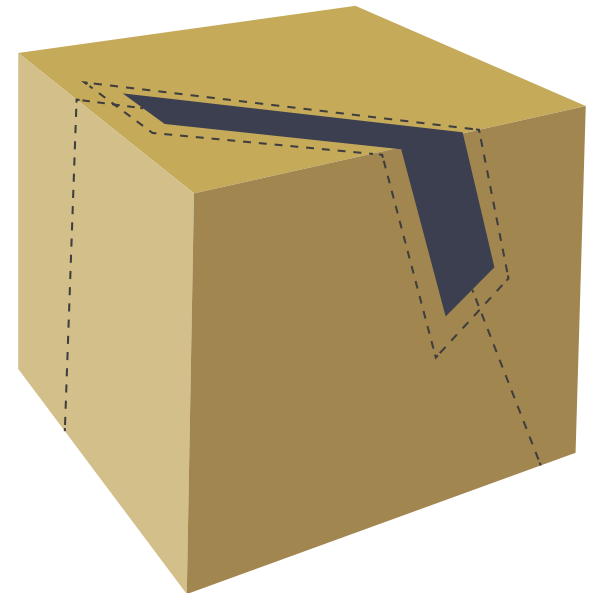
Tear Tape

Description:
A tape, which when pulled, also tears the box along a perforated marking.

Benefits:
It allows a user not to open the entire box, but just as much that it shows what is inside or to put something more in it.
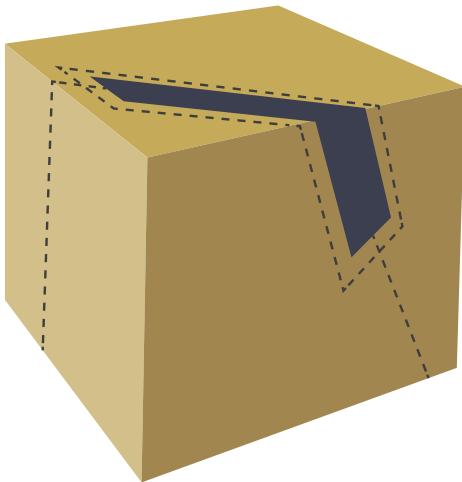It can also be used for products, which need to be open fast or in a specific direction or position.

Challenges:
The cost of such a tape as compared to the value it provides to a low involvement low cost product like a box.
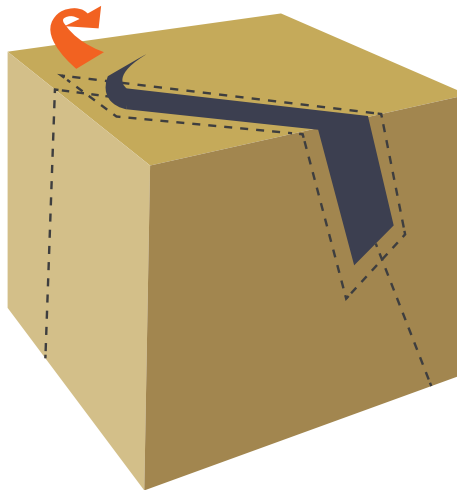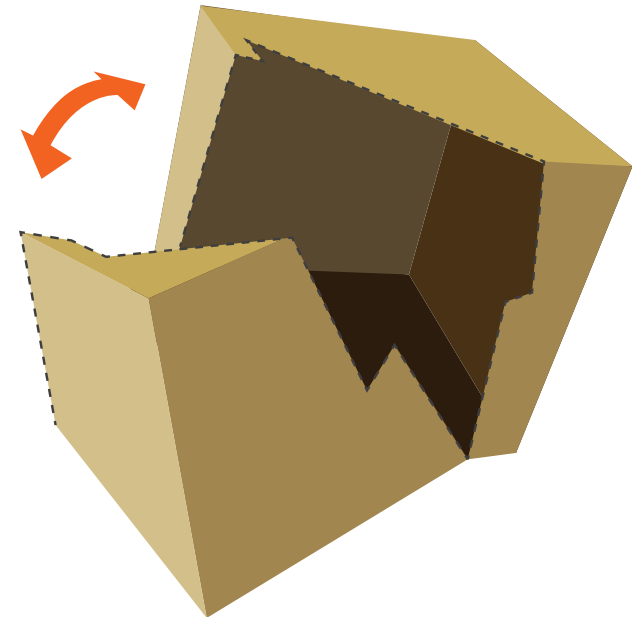

SIT Tool: Multiplication + Task Unification

1. **Find the Tear Tape**

2. **Pull the tape**

3. **Your box will crack open in a second**

Know Tape

Description:
Tape that changes color with time. Innovations in pigment technology can allow colored tape to change color with time. By creating a visual signal among the array of brown boxes, Know Tape-equipped boxes can signal whether they are on the same time table as the packages they are with.

Benefits:
Produce clients can easily identify packages that have been in transit too long or been stored for too long
Warehouse supervisors can ensure that packages are being handled efficiently.
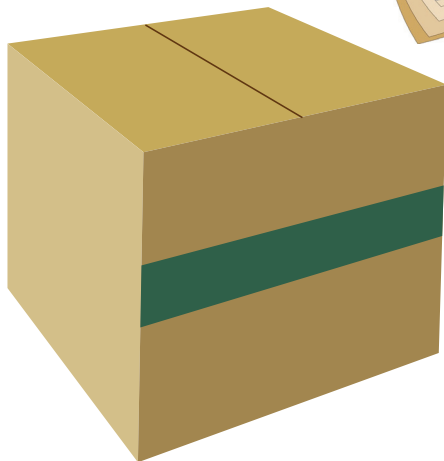No extra weight and application steps

Challenges:
Increase cost of Know Tape must provide a sufficiently superior consumer delight to be worth the additional cost.
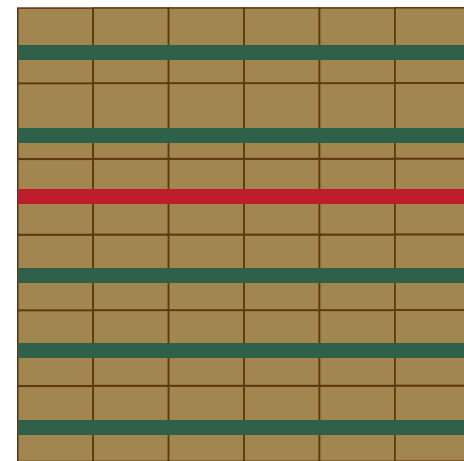
SIT Tool: Attribute Dependency

1. Equipping boxes with Know Tape

2. After a certain period of time tape turns red

3. Red Tape boxes immediately identified in inventories

PACKAGING MEDIC

Description:
The Packaging Medic is a premier-tier service that respond to urgent packaging needs of current clients and enables them to keep small inventories of packaging equipment without the risk of completely running out. The Packaging Medic also consist of a fleet that has specialized mobile packing solutions, such as mobile label printer or mobile box maker.

Benefits:
Saving time and packaging materials, even in emergency situations
Direct contact between client and BGR's emergency line.
The mobile machine can be rent out for client's special needs.

Challenges:
Purchasing and maintenance costs of Packing Medic trucks to prepare for instant service

SIT Tool: Subtraction and Division

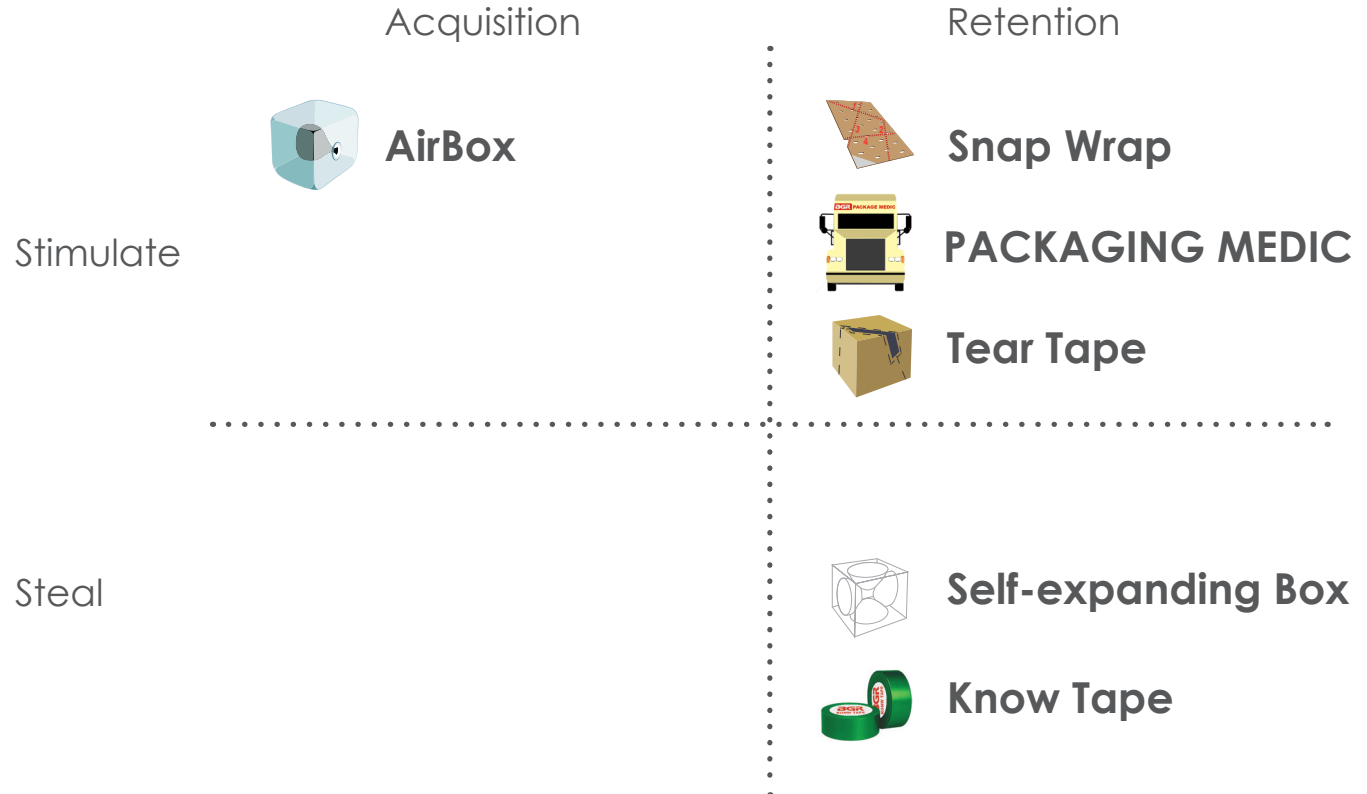Retail Film Shrink Tunnels

Case Packing Systems

Packing Station

Case Sealer

Big Picture Model

Thank you.