



Navigating The Recycling System

This worksheet was developed by ASTRX - Applying Systems Thinking to Recycling, a partnership between The Sustainable Packaging Coalition® and The Recycling Partnership®. This tool can be used to start a discussion about how to make packaging more effective at navigating the recycling system and identify any areas where there is room for improvement. The tool does not provide a simple yes/no answer to questions of recyclability. Because this analysis is subjective, others may come up with different results than you.

Instructions

Fill out the following form for a single material type, for example, old corrugated cardboard or colored No. 1 PET bottles and containers. Use multiple forms to examine multiple materials.

Consider each question and how your chosen material type handles that particular stage of the recycling system. If you identify that the material successfully navigates that step of the system, mark the square green. If you identify that the material would potentially have problems at that stage, or that you don't know the answer, mark the square yellow. If there are definite concerns with the material at that stage of the process, mark the square red.

If you have questions about how your material performs in relation to any of the squares, feel free to reach out to ASTRX by contacting Dylan de Thomas or Trina Matta at info@astrx.org.

Interpreting Your Results

If you have **all or mostly** green squares with **three or fewer** yellow squares, your material can successfully navigate the recycling system.

If you have **four or more** yellow squares and the **remaining squares** are green, your package can likely make it through the recycling system but may benefit from an intervention somewhere within the recycling system.

If you have **four or more** yellow squares or **any** red squares, there may be some issues that need to be addressed before your material will successfully navigate the recycling system.

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Date:

Packaging Material:

Collection System:

Elements	Will Successfully Navigate?	Notes
End Markets (car parts, caps, totes, pallets, etc.)		
Supply/Demand – Is there demand to use the recycled material in products?		
Design - Are brand companies creating a “Demand Pull” by using the recycled materials?		
Specifications – Do the product specifications allow for the use of recycled content in it?		
Contamination – Are there contaminants in the material that hinder the end application?		
Profitability – Does it have a positive profitability analysis?		
Reprocessing		
Supply/Demand – Is there demand for the reprocessed material?		
Design - Are there design flaws that prevent reprocessing and recoverability?		
Specifications - Can material be combined or is it compatible with other currently recycled material?		
Contamination - Does the material cause harm or contamination to other materials?		
Infrastructure - Is an investment required to reprocess the material? Are there markets in different geographic areas?		
Profitability - Does it have a positive profitability analysis?		



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Sortation		
Supply/Demand – Do reprocessors want to buy the material? Are there markets? Are they positive?		
Design - Are there design flaws that impact sortation? Does its form enable it to be properly and consistently sorted (size, flatness, 3D, labeling, etc.)?		
Specifications - Do new bale specifications need to be developed? Are the bale specifications reflective of requirements?		
Contamination - Can the products damage the recovery of the recovery of other materials? Are there contaminants (moisture, food, etc.) that impact sortation?		
Infrastructure - Is an investment required to sort the material? Are there MRFs available that can sort and market the material?		
Education - Do MRFs know that it is possible to sort the material? Are pick line workers trained to identify the material?		
Profitability - Is there adequate volume to justify recovery, particularly if it must be marketed independently? Does it have a positive profitability analysis? Are there markets? Are they positive?		
Collection		
Design - Is there a defined common suite of materials?		
Contamination - Does this material hurt the recyclability of other materials?		
Infrastructure - Is an investment required to collect the material? Are there collection carts or bins? Vehicles?		
Education - Do local governments know all the materials that their MRF will accept?		
Profitability - Is there adequate volume being recovered to support recycling?		
Consumer Engagement		
Design - Does it have a How2Recycle label to describe recyclability and any actions consumers need to take to recycle it, such as removing components or returning to drop-off locations?		
Specifications - Is access to recycling collection automatic or do residents ask for/pay for the service?		
Contamination - Do consumers know how to prepare their materials for recycling (no food residue)?		
Education - Do consumers know the material is accepted? Do they know how to recycle it (via curbside, or community or store take-back)?		
Comments-		