



Navigating the Recycling System

This worksheet was developed by ASTRX - Applying Systems Thinking to Recycling, a partnership between The Recycling Partnership® and The Sustainable Packaging Coalition®. 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. Given that Navigating covers five elements of a complex recycling system, it's recommended that industry experts are consulted for answers, particularly in some categories.

The tool does not provide a simple yes/no answer to questions of recyclability because this analysis is subjective, and outcomes can be determined by one's depth of industry knowledge.

Instructions

Fill out the following form for a single packaging material, for example, old corrugated cardboard or colored No. 1 PET bottles and containers. Use multiple forms to examine multiple materials or to consider different types of collection systems. For example, your answers will vary depending on whether you're considering a curbside or drop-off recycling program.

Consider each question and how your chosen packaging material 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. Use the notes section to explain your responses or to indicate where you need more information to answer the question.

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 will 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.

Navigating the Recycling System Worksheet

Date:

Packaging Material:

Collection System:

Elements	Will Successfully Navigate?	Notes
End Markets		
Supply/Demand – Is this material being consistently used in the manufacturing of new products?		
Design - Are brand companies creating market demand by purchasing products containing this recycled material?		
Specifications – Are there products with specifications allowing for the use of recycled content?		
Contamination – Are there contaminants in the material that remain after reprocessing 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?		

Sortation		
Supply/Demand – Do reprocessors want to buy the material?		
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? Do existing bale specifications allow for inclusion of the material?		
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?		
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?		

Collection		
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?		

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?		
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 Drop-off)?		
Comments:		