

## Hitting 'Em Where They Aren't

The Situation: During WWII, Number of aircraft were shot down while engaging in bombing missions over Germany. Many of the Planes that made it back safely to base were riddled with bullet and projectile holes. The damaged areas were similar to each plane.

The Instructions given to solve the perceived problem: *"Reinforce these damaged areas with thicker armor plating"*

### Present State

Many bullets/projectiles penetrating aircraft.

### Desired State

Fewer bullet holes.

Discussion: This is not a match because there are planes that are surviving that still have bullet holes. There is not a one-to-one mapping of all the needs of the present state being addressed and resolved in the desired state.

### Present State

Many bullets/projectiles penetrating aircrafts.

### Desired State

Fewer bullet holes.

Discussion: These states are matched, but the distinction between the present state and the desired state is not clear enough. It may takes only a single bullet hitting a critical area to down a plane

### Present State

Many bullets/projectiles penetrating aircrafts in critical and noncritical areas.

### Desired State

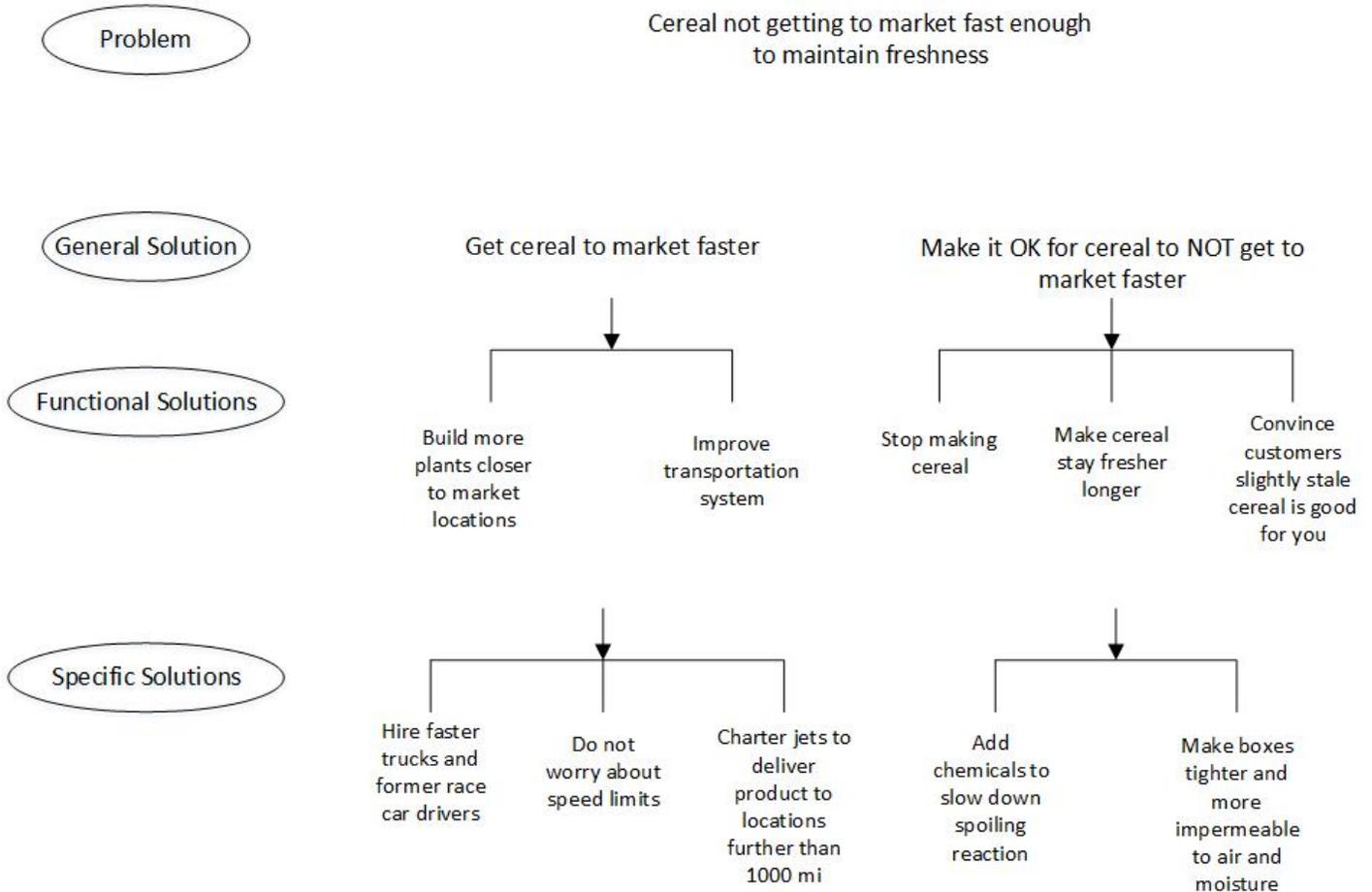
Fewer bullet/projectiles penetrating critical areas.

Discussion: These two statements now match and the distinction between them is sharp, opening up a variety of solution avenues such as reinforcing critical areas, moving critical components (e.g., steering mechanism to more protected locations, providing reductant critical components, etc.

Note: The original instructions given to solve the perceived problem would have failed. Reinforcing the areas where returning planes had been shot would have been futile. Clearly these were noncritical areas, otherwise these planes would have been casualties as well.

## To Market, To Market

**The Situation:** Toasty O's was one of the hottest selling cereals when it first came out on the market. However, after several months, sales dropped. The consumer survey department was able to identify that customer dissatisfaction was expressed in terms of sales taste. The instructions given to solve the perceived problem: "Streamline the production process to get cereal on the store shelves faster. Thus ensuring a fresher product." However, there wasn't much slack time that could be removed from the process to accomplish the goal. Of the steps required to the product on the shelves (production, packaging, storage, and shipping), production was on the fastest. Thus, plans for building plants closer to major market faster. The addition of new plants and trucks was going to require a major capital investment to solve the problem.



The **real problem** was that the cereal was not staying fresh long enough, not that it wasn't getting to market fast enough. Keeping the cereal fresher longer was achieved by improved packaging and the use of additives to slow the rate of staling.