Keurig B70 ECO Brewer

Brewing coffee in less impactful ways without the user noticing the difference.

Original: 67.22
B70 ECO: 13.3
Factor of Improvement: 4x

Strategies:

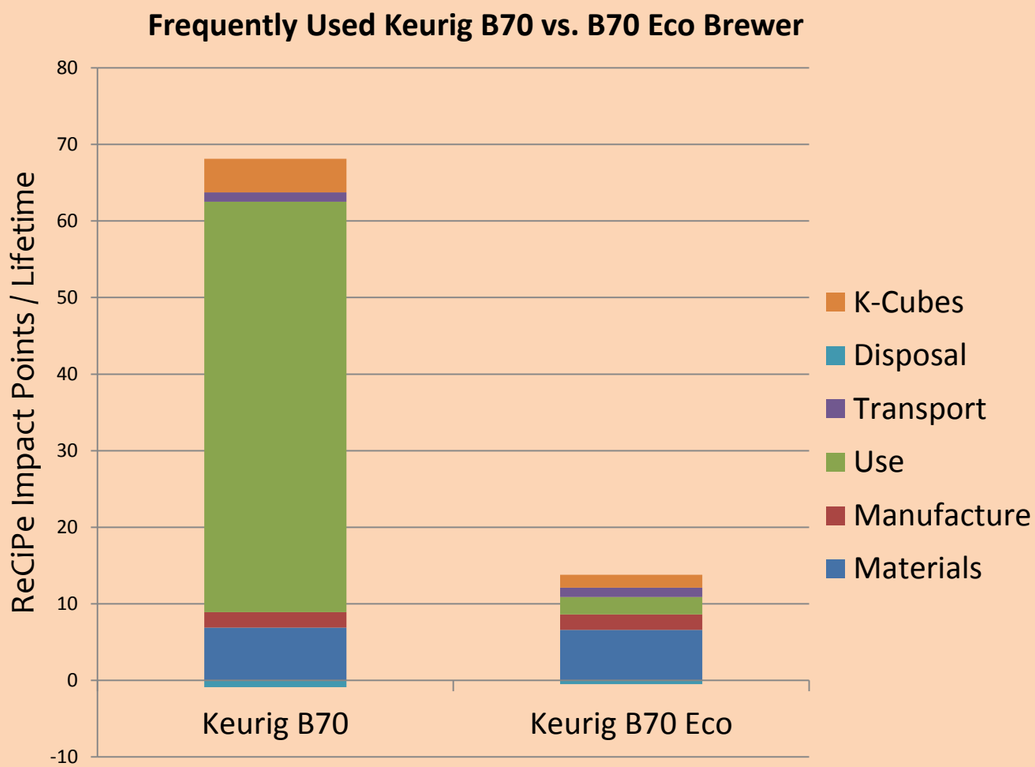
- Lightweight: Shape optimize
- Fit product system to need: Size to fit, remove barriers to desirable behavior
- Prevent Leakage: Decrease effort

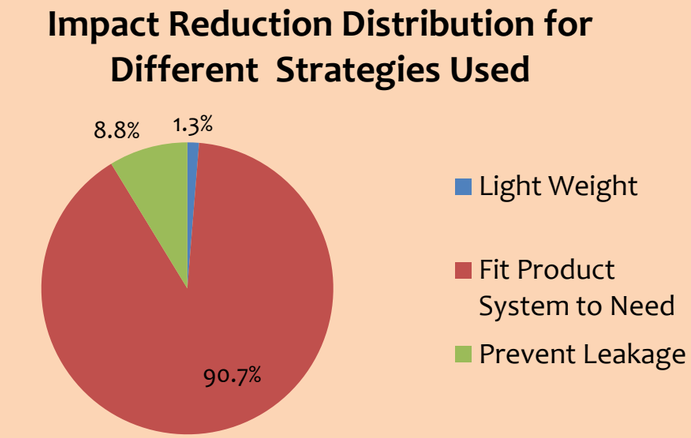
Impacts Addressed:

- The machine is only on when in use
- Water is only heated at point of delivery.
- Vampire power eliminated
- Interface is simplified, reducing electronics

Assumptions:

- 1460 brews per lifetime
- Drinking Temperature = 60°C,
  Brewing Temperature = 93°C,
  Room Temperature 20°C
- Diluted concentrated coffee will have taste comparable to standard brews





- Heating only 60% the water per cup quarters the energy per brew
- By having the machine automatically turn itself off it saves 0.4 kWh per day

Evidence:

- Popular kitchen appliances are “black boxes”
- High end machines are purchased by frequent users or used in small office environments[1]

Concerns:

- Users will associate lack of screen interface with inferior quality
- Coffee will have inferior taste

Limitations:

- Lack of knowledge of coffee brewing and its effect on taste

Sources:

1. Conversations with Ian Tinkler, VP of Engineering, Keurig

Ben Smith
Boris Taratutin
Alison Shin
Hanne Bergers