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Tackling Household Food Waste with Behavioural Science

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World Resources Institute

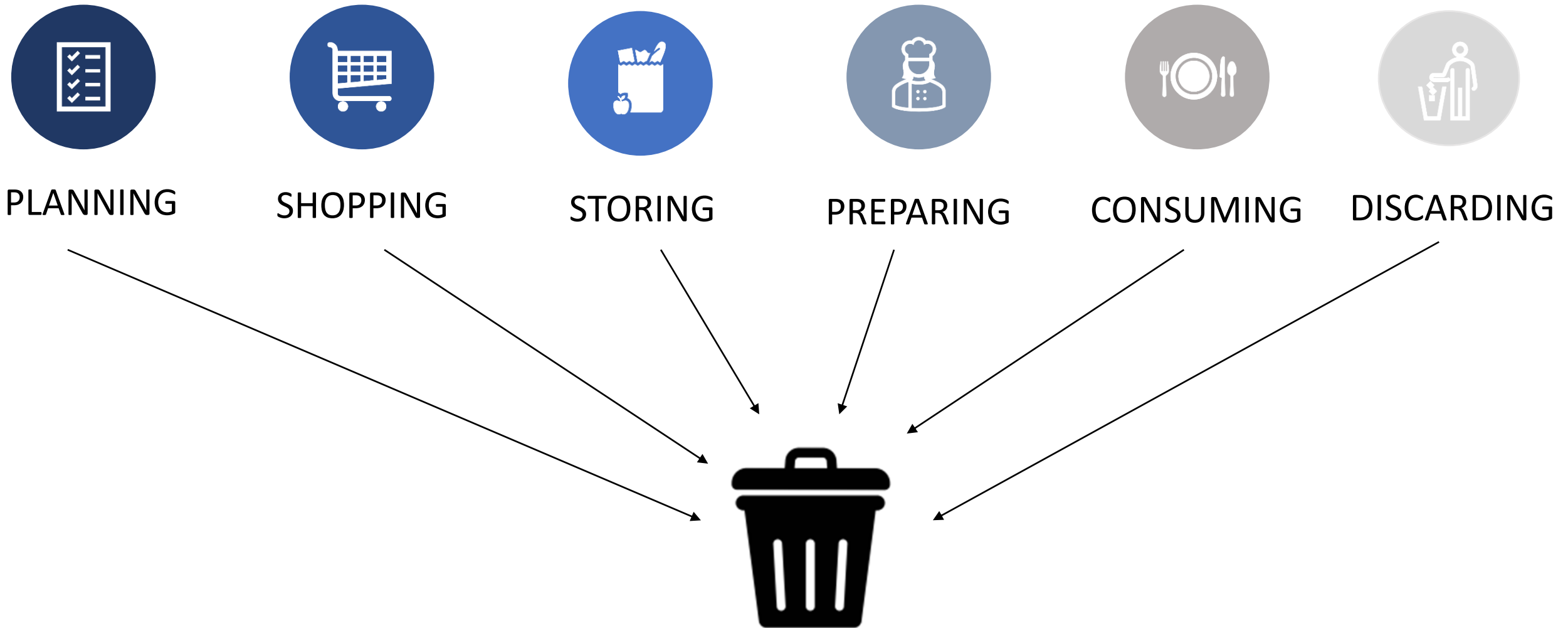
JUNE 5TH 2024

Photo Credit: Conscious Design u/Unsplash

Household Food Waste is a Huge and Growing Problem



Tackling Household Food Waste is Complicated



And Widely Misunderstood

VERSCHWENDUNG VON LEBENSMITTELN

DESPERDICIO DE ALIMENTOS

ÉLELMISZER – PAZARLÁST

ХРАНИТЕЛНИТЕ ОТПАДЪЦИ

VOEDSELVERSPILLING

GASPILLAGE ALIMENTAIRE

MAISTO ATLIEKAS

POTRAVINOVÉHO ODPADU

IL-ÆELA TAL-IKEL

LIVSMEDELSAVFALL

TOIDUJÄÄTMETE

MADSPILD

RUOKAHÄVIKKIÄ

OTPAD OD HRANE

PĀRTIKAS ATKRITUMI

ODPADNE HRANE

ΤΗ ΣΠΑΤΑΛΗ ΤΡΟΦΙΜΩΝ

RISIPA DE ALIMENTE

DESPERDÍCIO ALIMENTAR

PLYTVANIE POTRAVINAMI

MARNOTRAWIENIE ŻYWNOŚCI

**70% of
'Food Waste'
is Still
Edible!**

And Inherently Unappealing



Low Priority

Invisible
Consequence-free
Easy



Private

Hidden
Unobserved
Unregulated



Frugal

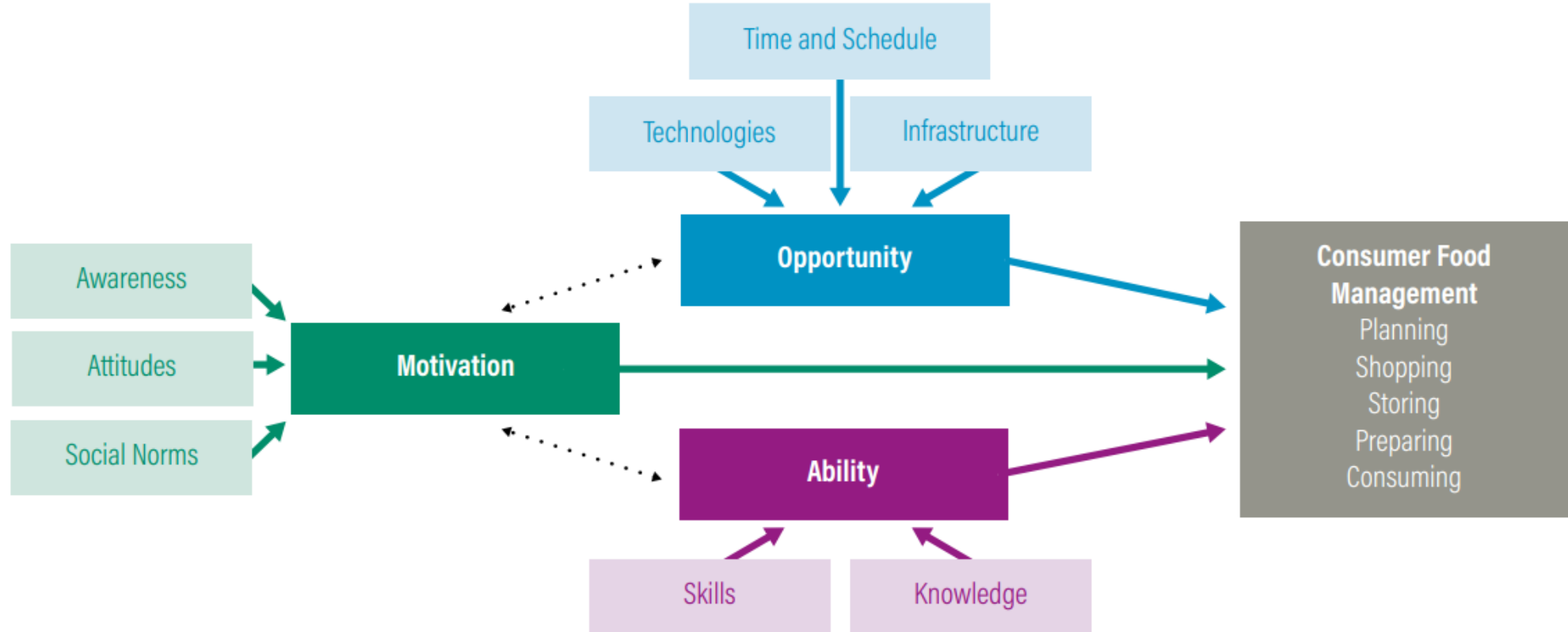
Ungenerous
Unfortunate
Mean



Un-aspirational

Ugly
Uninspiring
Unattractive

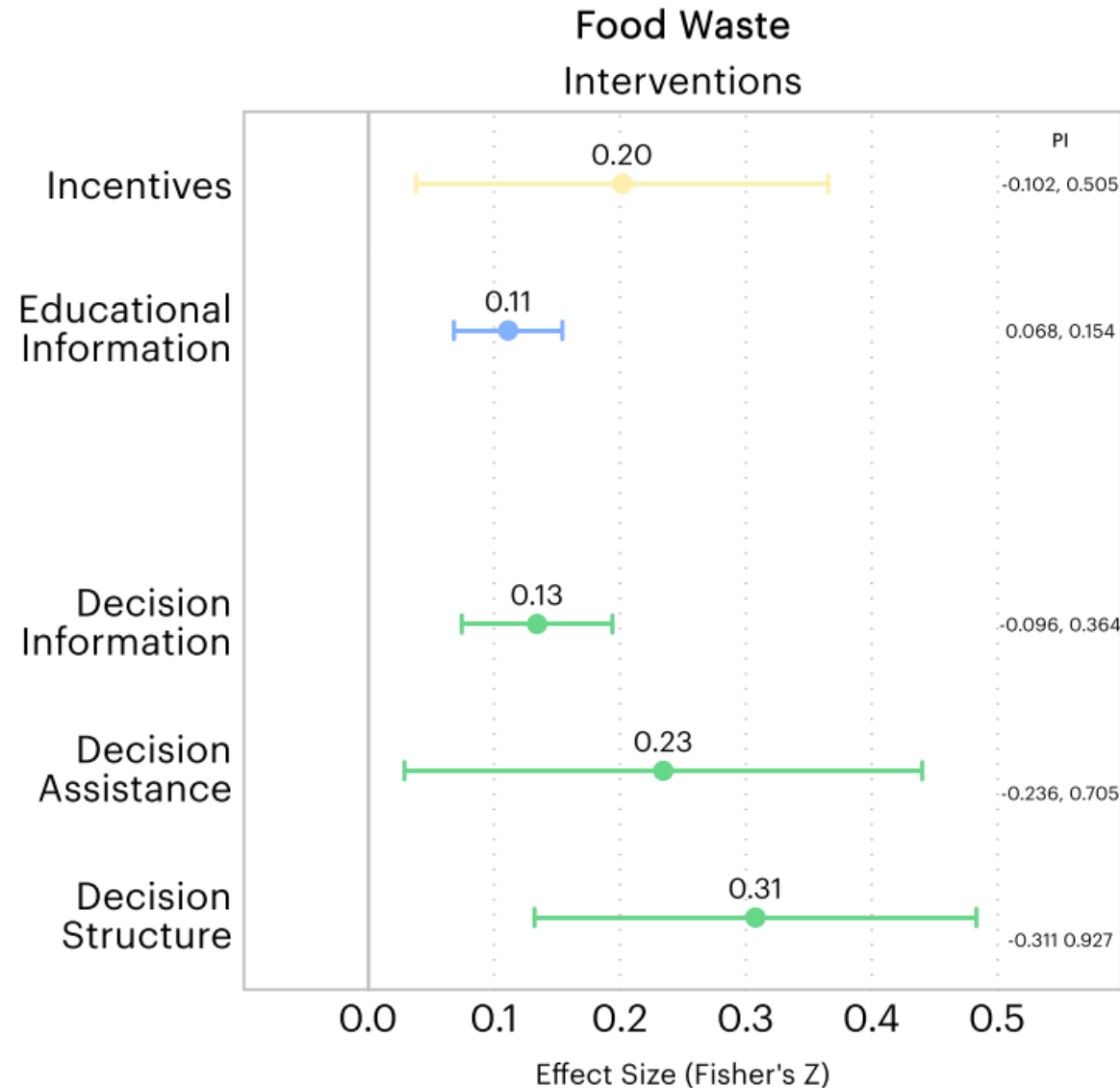
So, How Do We Address This Kind of Problem?



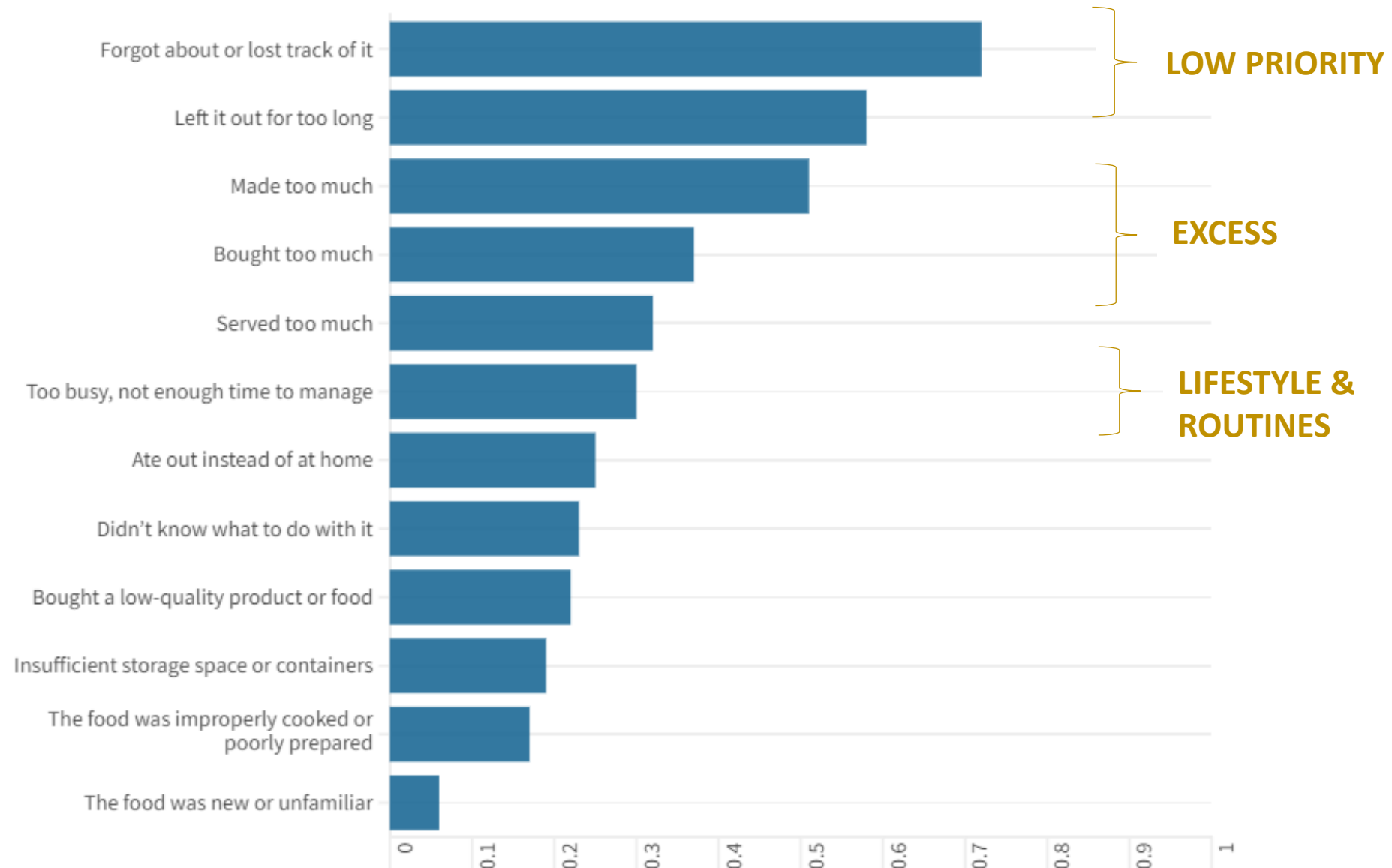
Efforts Have Often Focused on ‘Motivation’



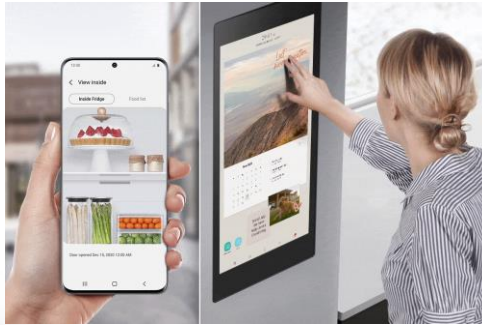
But, We Really Need to Focus on Opportunity and Ability



To Address the Leading Causes of Food Waste



Make Low Priority Behaviours Visible and Convenient



Forgot or Lost Track of Food at Home

Left Food Out too Long (to Use as Leftovers)

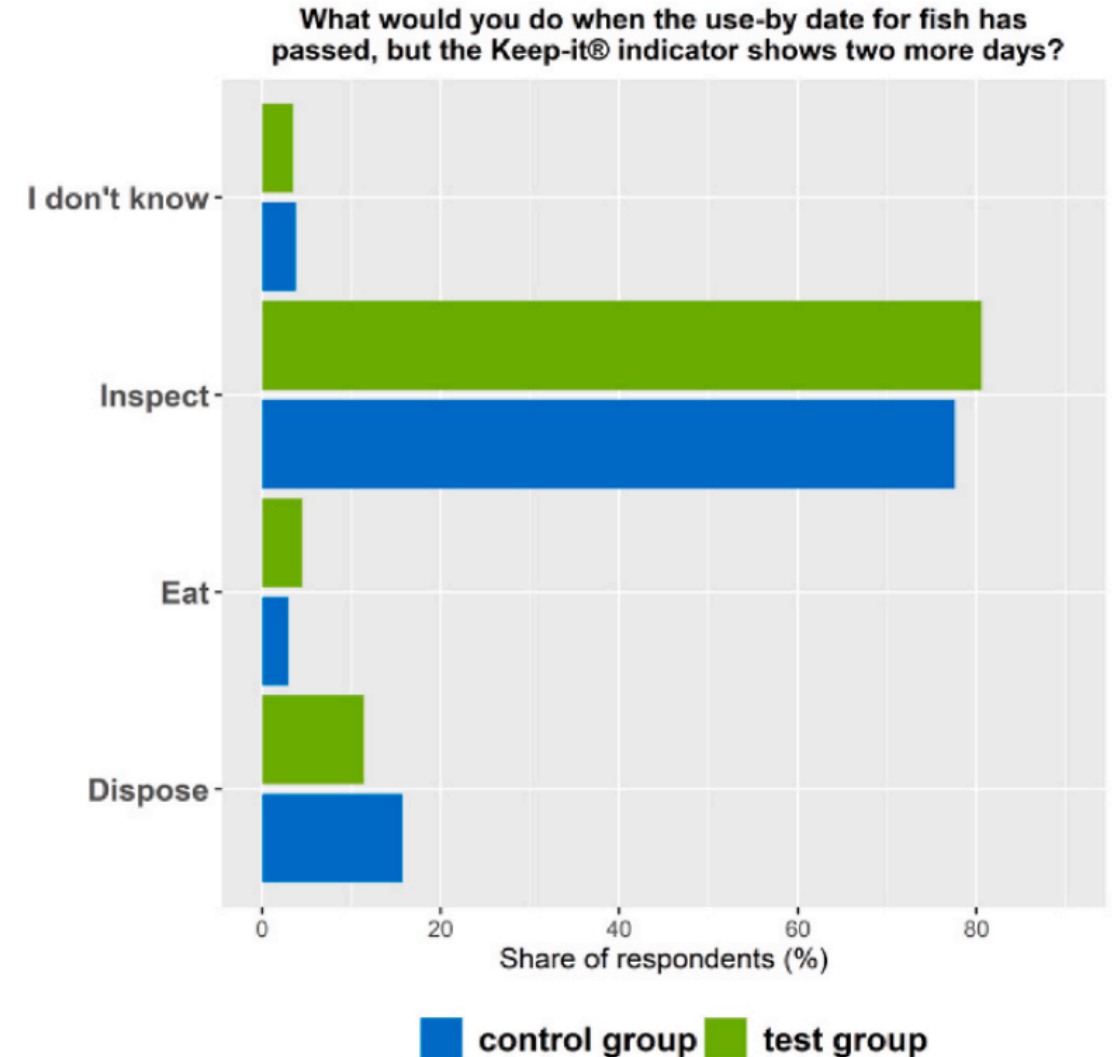


Pantry checklist

- Carbohydrates**
 - Basics**
 - ☐ brown rice
 - ☐ jasmine or basmati rice
 - ☐ pasta
 - Additional**
 - ☐ arborio rice
 - ☐ quick-cook rice pouches
 - ☐ polenta
 - ☐ rice paper
 - ☐ tortillas
 - ☐ taco shells
- Pulses**
 - Basics**
 - ☐ dried red lentils
 - ☐ chick peas
 - ☐ canned or dried red kidney beans
 - Additional**
 - ☐ black beans
 - ☐ white beans
 - ☐ three bean mix
- Herbs & Spices**
 - Basics**
 - ☐ pepper (black and white)
 - ☐ iodised salt
 - ☐ chili flakes
 - ☐ curry powder
 - Additional**
 - ☐ paprika
 - ☐ basil
 - ☐ oregano
 - ☐ turmeric
 - ☐ cinnamon
 - ☐ 5 spice
- Oils**
 - Basics**
 - ☐ canola oil
 - ☐ rice bran oil
 - ☐ extra virgin olive oil
 - Additional**
 - ☐ sesame oil
 - ☐ peanut oil
 - ☐ avocado oil
- Sauce & Vinegar**
 - Basics**
 - ☐ pepper (black and white)
 - Additional**
 - ☐ ginger
- Nuts, Seeds & Dried**
 - Basics**
 - ☐ saltanas
 - ☐ almonds
 - ☐ sunflower seeds
- Baking Needs**
 - Basics**
 - ☐ white flour
 - ☐ wholemeal flour
 - ☐ cornflour
 - ☐ white sugar
 - ☐ brown sugar
 - ☐ baking powder
 - ☐ vanilla essence
 - Additional**
 - ☐ wheat bran
 - ☐ caster sugar
 - ☐ icing sugar
 - ☐ cooking chocolate
 - ☐ rolled oats
 - ☐ yeast
- Fresh Food**
 - Basics**
 - ☐ brown onions
 - ☐ white onions
 - ☐ potatoes
 - ☐ garlic
 - Additional**
 - ☐ root ginger
 - ☐ shallots
- Spreads**
 - Basics**
 - ☐ vegemite
 - ☐ honey
 - ☐ peanut butter
 - Additional**
 - ☐ marmalade
 - ☐ nut butter
- Miscellaneous**
 - Basics**
 - ☐ canned tomatoes
 - Additional**
 - ☐ breadcrumbs



Behavioural Solutions: The Evidence



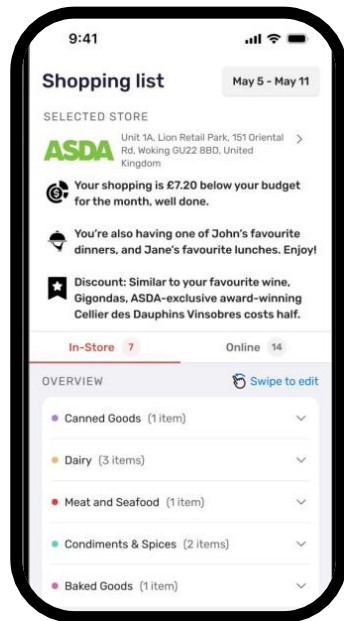
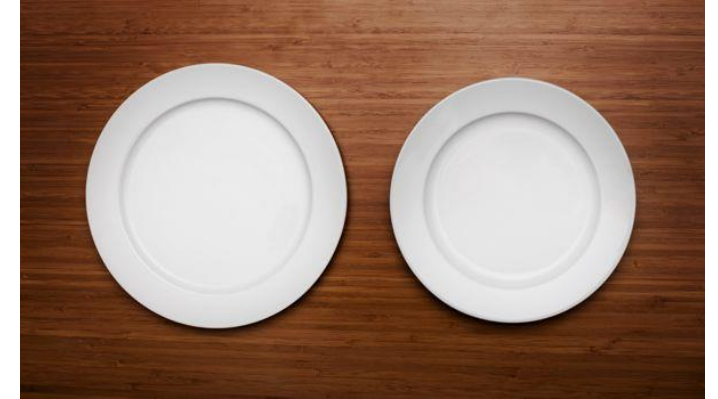
Address Excess by Changing Incentives and Defaults



Made Too Much

Bought Too Much

Served Too Much



Behavioural Solutions: The Evidence



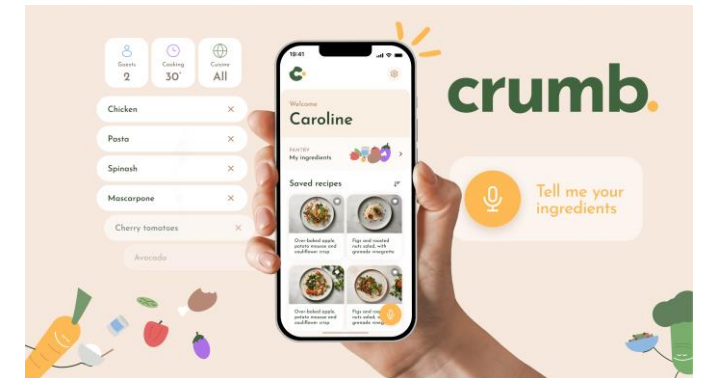
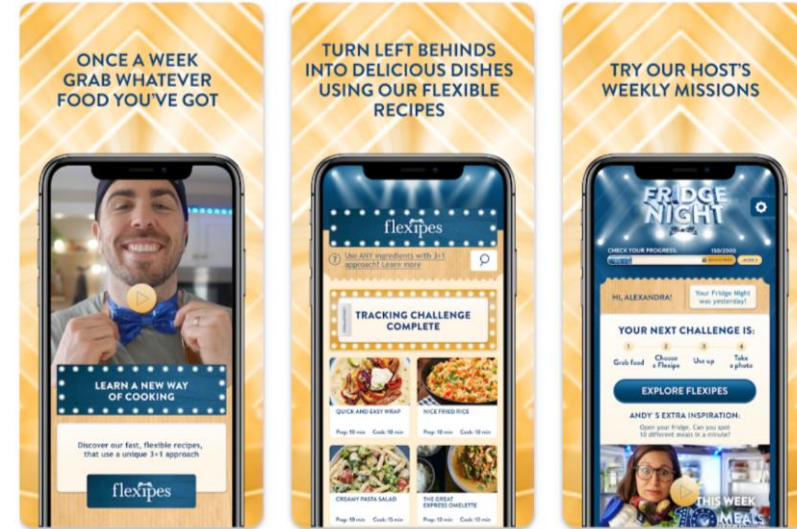
↓ 20%

Anticipate or Respond to Busy Lifestyles

Too Busy

Not Enough Time

Ate Out



REDUCING FOOD WASTE BY EXTENDING FRUITS AND VEGETABLES LIFE CYCLE.

EVERYDAY 40% OF FRUITS AND VEGETABLES GO TO WASTE FOR COSMETIC REASONS BASED ON THE PRECONCEIVED THOUGHT THAT KEYS IS WRONG.

makro

makro representatives wanted to help change this narrative, redesigning a media used for decades (the simple, solid, low-tech Fruit Sticker).

A sticker that teaches people to extend their fruits and vegetables life span by the color of their life cycle and gives them recipes for each stage from under ripe to over ripe.

Now they can be responsibly stored up to a banana, a tomato or an apple, rather than a bin.

RESEARCH RESULTS FOR 2023

6 MORE DAYS OF FRUITS AND VEGETABLES LIFE SPAN

70 TONS OF FOOD WASTE REDUCED



Behavioural Solutions: The Evidence

Consider the following two shopping routines for purchasing your groceries next week:

		Shopping Routine A	Shopping Routine B
Number of Shopping Trips		3 trips	5 trips
Likelihood of an Extra Shopping Trip		Not Very Likely (25% chance)	Very Likely (75% chance)
Amount of Food Eaten and Uneaten		70% of food eaten 30% of food uneaten	80% of food eaten 20% of food uneaten
Dollars Spent (The type and amount of food you buy stays the same)		\$ 100	\$ 100

Which of the two shopping routines would you prefer?



Average amount you would have to pay someone to increase their shopping frequency by +1 trip per week



Average waste reduction required to increase shopping frequency by +1 trip per week

State-of-Play on Behavioural Solutions to Reduce Household Food Waste

- A mixed bag!
- Many solutions exist, but far more good quality evaluations are required

We need more:

- Consistent and objective methods to measure food waste
- Research in household settings
- Trials of novel 'Opportunity' and 'Ability' solutions
- Replications of trials across contexts



All Actors Have a Role To Play



PLANNING



SHOPPING



STORING



PREPARING



CONSUMING



DISCARDING

Citizens						
Retailers						
Manufacturers						
Municipalities						
Media						

Reframing 'Waste' is a Common Starting Point

Uneaten Food

Extra Food

Surplus Food

Regenerated Meals

Legacy Meals

Excess food

Spare Food

Repurposed Meals

Unused Food

Saved Food

Upcycled Food

Rescued food



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Thank You!

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