From waste bin to *business case*

A Theory of Change for reducing food waste in hospitality — from a 200-room hotel's overflowing bins to a boardroom conversation about procurement, profit and behaviour.

> *Food waste is being managed as a waste management issue — rather than as a procurement, operational and profitability issue.*

THE REFRAME AT THE HEART OF THIS CASE STUDY

01 The problem

A 200-room hotel runs a restaurant, breakfast buffet, bar, functions and room service. Food costs keep climbing, but the business has almost no visibility into how much of what it buys ends up in the bin.

- How much food is actually being wasted
- Where in the operation the waste occurs
- What types of food are most commonly wasted
- Why it's being wasted
- The purchase value of wasted food
- Whether portion size or menu design is a contributor
- Whether procurement practice is a contributor
- How staff behaviour influences the result
- The true cost once purchasing, prep and disposal are combined

02 Stakeholders

Food waste can't be "owned" by the sustainability manager alone. Mapping who touches it — and how — shows the strategic thinking before a single intervention is proposed.

KITCHEN & OPERATIONS

Executive chef
Menu, ordering, production

Kitchen team
Preparation & production behaviours

F&B manager
Service, portions, buffet management

Housekeeping / ops
Separation & waste systems

GUEST & DEMAND SIDE

Events team
Forecasting & function numbers

Guests
Platewaste & consumption

Suppliers
Pack sizes, deliveries, seasonality

Food rescue organisations
Redistribution

STRATEGIC & EXTERNAL

General manager
Leadership, targets, resources

Finance
Food cost & financial measurement

Procurement
Suppliers, quantities, specifications

Sustainability lead
Measurement, strategy, certification

Waste contractor
Collection & reporting

Certification bodies
Requirements & verification

03 Baseline

Don't tell the business what to change yet. A representative manual food-waste audit separates the bin into six categories — then connects the kilos to covers, occupancy, menu and invoices.

CATEGORY 01 **Spoilage**	CATEGORY 02 **Preparation loss**	CATEGORY 03 **Overproduction**
CATEGORY 04 **Buffet waste**	CATEGORY 05 **Plate waste**	CATEGORY 06 **Unavoidable**

Weight alone isn't the story.

Cross it with operational data to get metrics a GM actually reacts to:

kg food waste **/ guest night** kg food waste **/ cover** $ food purchased **/ cover**

est. $ wasted **/ cover** waste **as % of food purchased**

04 Root cause

The most important section. Take one observation — large quantities of pastries discarded after breakfast — and resist the urge to jump straight to "reduce pastries."

WHY? Breakfast presentation requires the basket to look full.

WHY? Staff replenish the basket to a visual standard, not to remaining guest numbers.

WHY? There's no agreed replenishment protocol.

WHY? Waste hasn't historically been measured, so no one has had reason to write one.

THE INTERVENTION THIS ACTUALLY POINTS TO

Smaller display baskets, with staged replenishment through the final 45 minutes of breakfast — an operational and behavioural fix, not a "waste" fix.

Five pillars, deliberately ordered so the biggest lever sits at the top. Recycling and recovery — the default first instinct — sit near the bottom on purpose.

Prevent	Forecasting · procurement · menu engineering · inventory management
Reduce	Portion size · production planning · buffet management · prep practice
Redistribute	Safe reuse · staff meals where appropriate · food rescue & donation
Recover	Organics collection · composting / FOGO · other appropriate recovery
Measure	Runs underneath all four — audits, continuous measurement, KPIs, certification evidence, reporting

The question isn't "how do we recycle our food waste?"

It's "how do we avoid creating it in the first place?"

06 Execution

This is where the case study proves implementation, not just recommendations.

FINDING	INTERVENTION	OWNER	MEASURE
Breakfast over production	Staged buffet replenishment	F&B Manager	kg buffet waste
High bread waste	Smaller baskets, refill on demand	Restaurant Manager	kg / 100 covers
Vegetable spoilage	Purchasing frequency review	Chef / Procurement	$ spoilage
Large plate waste	Review portion size	Chef	plate waste / cover
Event leftovers	Improve guest-number forecasting	Events	kg / event
Poor separation	Redesign bin stations	Operations	contamination %
Staff unaware of costs	Weekly waste dashboard	Chef	$ waste / week

07 Behavioural change

Telling chefs to "reduce waste" doesn't work if the ordering system keeps over-buying for them. This is where COM-B (Capability, Opportunity, Motivation) earns its place.

	Capability *Do I know what I'm supposed to do?*	Opportunity *Does the system make it easy to do it?*	Motivation *Do I understand why it matters?*
Make it visible		A weekly dashboard:	"Last week we discarded $1,240 of food."
Make it easy		Correctly positioned, clearly designed waste stations — not a 20-metre walk to the organics bin.	
Give feedback		Show teams their own performance, rather than data that disappears into a report.	
Create ownership		Kitchen and F&B teams set their own reduction actions.	
Make cost tangible		Not "37kg wasted" — "yesterday's waste was ~$280 of purchased food."	

08 Theory of change

Problem, through inputs and activities, to outputs, behaviour, business results and — ultimately — a different kind of everyday decision-making.

PROBLEM

Food is being purchased but not consumed

INPUTS

Leadership · staff · procurement & waste data · menus · technology · suppliers · waste contractors · expert support

ACTIVITIES

Waste audit · procurement & menu analysis · staff engagement · root cause analysis · operational redesign · training · monitoring

OUTPUTS

Baseline established · hotspots identified · procedures changed · staff trained · KPIs introduced · procurement & menu adjusted

BEHAVIOURAL OUTCOMES

Staff measure waste · chefs adjust production quantities · procurement responds to real demand · managers review waste data routinely

BUSINESS OUTCOMES

↓ purchasing costs · ↓ food waste · ↓ disposal costs · ↑ food utilisation · ↑ operational efficiency · ↑ certification performance

LONG-TERM IMPACT

A hospitality operation in which preventing food waste becomes part of everyday commercial decision making — rather than a stand alone sustainability initiative.

THE LOOP, NOT A LINE — a hotel doesn't "solve" food waste with one audit. Measure → understand → act → engage → measure again → adapt. The first audit sets the baseline; the second tells you whether the intervention worked.

Not "how did we sort and weigh the bins"
But how an organisation created change.

PROBLEM → INTERVENTION → BEHAVIOUR → OUTCOME → IMPACT

IMPACT DRAGONFLY — CASE STUDY FRAMEWORK